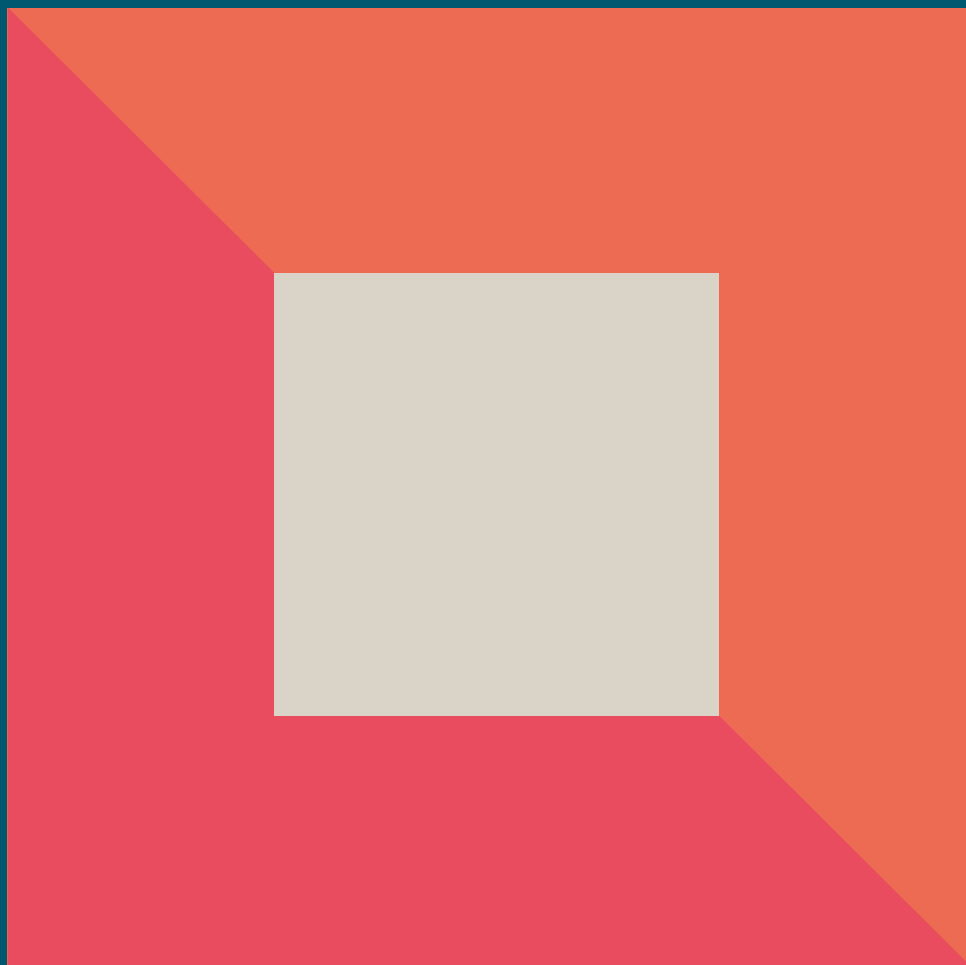# 3 Es for Wicked Problems: Employability, Enterprise, and Entrepreneurship: Solving Wicked Problems

Edited by Stuart Norton and Andy Penaluna

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Employability, Enterprise, and Entrepreneurship: Solving Wicked Problems: Context and Scene Setting

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This collection of case studies represents the culmination of a series of discussions in uncertain times – in an unprecedented environment. Regardless of specialism or discipline, we have all had to deal with unexpected contexts such as remote learning, remote assessment and remote feedback to our students. What we previously took for granted can no longer be relied upon, and what we previously valued in student outcomes is once again being questioned.

April 2021 hosted the annual Advance HE Employabilty Symposium. This year the event focused upon 'Employability, Enterprise, and Entrepreneurship: Solving Wicked Problems.' The symposium captured some first insights, and to build on these, we have brought together a range of cutting-edge examples of how sustainable and innovative pedagogies can be delivered in higher education (HE), at school, faculty/college and/or institutional levels.

As with any wicked problem, context is key. As the pandemic dictated our day to day norms, time to think and reflect often played second fiddle. This is not where we planned to be, it is where we have found ourselves. The same can be said for our students, whose world is changing beyond recognition. So, in order to find solutions we need to understand where we are, what innovations are taking place and what it could mean for the sector.

Solving wicked problems isn't easy; there aren't simple answers or a one-size-fits-all solution. However, engaging with wicked problems is a powerful way of identifying and addressing a range of challenges. The symposium purposefully took a broad-based view of wicked problems, allowing colleagues to define and include a range of issues, either at a macro level or through a specific lens. We are fortunate enough to have gathered some excellent insights to share with the sector, ones that will enable us to think ahead and hopefully provide the basis of new questions as well as potential next steps.

The context: Graduate employability in the Pandemic

During the pandemic we know that more than half of graduates lost jobs or internships due to the global health crisis. Quite quickly it meant that as graduates reached the end of their course there were very limited opportunities for them to move into work. The decisions that employers were making to scale back graduate recruitment programmes by 12% – the largest contraction since 2008-09 – intensifies this problem in a way that will particularly impact new entrants to the labour market. While some of these issues will be short term in nature, there may also be longer-term implications. If the economic impact of the crisis is substantial, some of the problems faced by both last year's and this year's graduates may endure and impact on those students graduating next year and beyond. Indeed, something that is felt and recognised by students in a recent NSS survey (2020) that highlighted over two thirds (71%) of

students were concerned about the impact of the pandemic on their employability. However, it is important to take stock and recognise the value of a degree during an economic crisis: graduates are more likely overall to be more resilient in terms of employment as evidenced by recent ONS data (2021). However, there does appear to be an immediate impact as they enter the labour market at this time, with recent graduates (graduating within the last five years) having the highest level of unemployment for three years; pointing to the need to support students prior to entering the labour market.

Enhancing employability and enhancing opportunity

It's important to consider the 'value add' that HE brings to the success of graduates, whether that be in the work place, further study or through their personal future choices. Perusing any of the numerous 'skills' lists of the future (eg World Economic Forum top skills of the future) we can identify the 'graduateness' that comes from the necessary mix of skills, attribute and behaviours such as flexibility, creativity, complex problem solving, ideation, and adaptability. This not only helps make graduates resilient in the face of downturns, but also ensures they are well-equipped to adapt to the technological changes in the work market. And this goes across all subject areas. Further, the skills developed are extremely valuable both to the UK economy and to individuals, opening the potential for a wide variety of career options.

This is particularly important when we look at graduate destinations and the amount of graduates that are successful outside of their subject discipline. Therefore, what can be put in place to further enhance employability and ensure this is recognised by all stakeholders? How can we ensure that we reduce 'skills gaps' – real or otherwise – to further the positive trajectory of our students? How can we develop enterprise and entrepreneurship beyond the walls or the confines of certain discipline subjects creating connectivity across the curriculum, ensuring that these aspects are drawn out and defined in learning outcomes, through assessment, through multifaceted ways of recording and reflecting on these skills, and engaging stakeholders in multiple contexts to provide that 'future proofing' that is necessary, and arguably, our responsibility?

The pandemic has thrust enterprising behaviours and entrepreneurial activity, as well as intrapreneurship, to the fore. The timely addition of the Advance HE Framework for Enterprise and Entrepreneurship Education (2019) was a sector initiative developed in partnership with Enterprise Educators UK (EEUK), the Institute of Enterprise and Entrepreneurs (IOEE), the Institute for Small Business and Entrepreneurship (ISBE), Small Firms Enterprise Development Initiative (SFEDI) and the Quality Assurance Agency for Higher Education (QAA) as a resource to help institutions provide the right activities and experiences so that students can identify what is involved in being enterprising and entrepreneurial, helping them to navigate their future careers. Designed to inform and support educators who deliver the curriculum or extracurricular activities to students, the framework focuses on the ways in which enterprise and entrepreneurship education can add value to the learner's journey, whether they are interested in starting their own venture or being enterprising when working for someone else in the private, public or voluntary and community sector. It is work such as this,

creating a focus and aligning to the UKPSF, that ensures adopters' approach is research-informed and evidence-based, providing a reference point for reviewing and enhancing policy and practice, covering priority areas that impact on the quality of teaching and learning excellence, and ensuring that we can focus on a better 'normal' as we move out of this pandemic and support students across a range of approaches.

The future: what's next and why?

As we enter 2022 there are rays of light appearing. For example, Charlie Ball (of JISC's Labour Market Intelligence) suggests that whist the Omicron variant of Covid-19 is putting a dent in it, the skilled labour market is recovering. Not least because many professionals have decided to retire. He further suggests that hybrid working is here to stay, so adaptability and being able to work within flexible working scenarios will increasingly become an employer demand.

This insight aligns with many of our contributor's views on what may be coming next, and this in turn may help us to navigate what to many will be a new evaluative environment – where new questions arise. For example, if we only test to the known answers, how do we know if our students have the capability to challenge norms and see alternative perspectives? How can we ensure that they demonstrate the flexibility and adaptability required if we only offer long-term projects or assignments where nothing changes?

We also see a potential for a huge shift in assessment strategies. With significant criticism of examinations in terms of what they offer stemming back to at least 2012, when Cambridge Assessment's 'Achieve' reported that there needs to be a greater understanding of the ecosystem in which education sits so as to ensure that examinations do not define the curriculum, we must ask what have we learned, and what can we bring to bear to ensure fairness and compatibility? Last year, school teachers were asked to assess students based on a prediction of the grade that would have been awarded if exams had gone ahead. As HE specialists we may not be aware that teacher assessment bias is being reviewed by Ofqual in schools, because they perceive that pandemic driven quality assurance mechanisms are under developed compared to the relative certainty of examinations. How could that play out in our universities where these pupils will soon be making an application? To give a specific example, when performance is evaluated though observation and process, how can educator bias be mitigated against, especially when their primary experience is related to knowledge enhancement as opposed to capability evaluation?

Plus of course, what of the eco-system? How well do we as educators link our learning to external perceptions of value? Do we find partners of convenience or do we actively seek out informed expertise – people who can provide appropriate insights at appropriate levels of learning? This aspect is often overlooked, and trust building is required to ensure both openness and appropriateness. Keeping in touch with external partners in a meaningful way means co-creation is required, so how could that look moving forward? What might networking look like in an increasingly connected world?

As technology rapidly expands and changes the workplace, resulting in different demands and different expectations, can the HE sector visualise needs in a timely enough fashion? Will they need to be better informed of cutting-edge technologies and shifts in associated knowledge and competencies? Moreover, consider that in a world where knowledge is easily accessible and artificial intelligence aligns to any work or thinking that can be standardised, knowledge harvesting and talent harvesting may look quite different, with different goals associated in terms of evaluating performance. Klaus Schwab, the founder and Chief Executive of the World Economic Forum, reminds us in his book that the transplant of a 3D liver is not too far away, and that nanomaterials are under development that promise strength that is 200 times stronger than steel, yet is a million times thinner than human hair.

The oft quoted fact that we need to educate for jobs that don't exist yet requires us to become active visionaries who help our students to think ahead and act with confidence. Dealing with wicked problems is one way to ensure that both learning and unlearning occurs, but this comes with a list of dilemmas that Horst Rittel and Melvin Webber saw from outset when they developed the term. Summarised in brief, these include:

+ there is no definitive formulation of a wicked problem – constraining the problem space can be counter-productive

+ wicked problems have no stopping rules – they are the result of what can be done with the resources and knowledge that are available in a given time span

+ solutions to wicked problems cannot be assessed as right or wrong, or true or false – they are perceptions of what is good or bad

+ in essence, every new problem is essentially unique – one can never be certain that the perceived similarities and commonalities with problems already dealt with will result in success

+ every wicked problem can be seen to be the symptom of another problem – so seeking out the problem that caused the problem can be insightful.

Concluding thoughts

Contrary to some perceptions, as this collection illustrates, not all innovations have been reactive but more the result of insights, associated foresight and visioning skills, seeing perceived challenges as considerable opportunities. The reader will find fabulous examples of agility and innovative approaches to enhancing employability at this time that have enabled students to continue to learn. The Advance HE employability case study series of 2020, 2021, and this collection puts the spotlight on a range of excellent work already taking place within and across the sector, from socially distanced placements to delivering authentic assessment within a pandemic.

There remains a need for the sector to redefine and align success via umbrella terms of employability, enterprise and entrepreneurship, not value laden or over focused definitions. By framing the issues, and not prescribing a single model of application, we can all learn to adapt and develop through thoughtful consideration of what suits our context and why. The ultimate aim is to support our members and the sector so that we can enable students to become better citizens, people, leaders, thinkers, catalysts, educators, influencers, and advocates; recognising the importance of civil and civic duty alongside economic development and return, and ensuring that graduates that can adapt to whatever the future holds, whether that be at an individual or at a societal level.

Whilst we have presented the cases under the broad banners of Interdisciplinarity, Subject or Discipline Focused and Virtual Solution Finding, we could have easily presented them under different headings and recategorised them, as there is so much overlap. What binds them is their propensity for helping to sector to find solutions in a world of wicked problems.

Interdisciplinarity

To be or not to be enterprising? Employability, enterprise, and entrepreneurship solving 'wicked' problems

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Background

To be or not to be enterprising? Is enterprise education (EE) for all or just the few (Jones et al, 2012)? These are questions that have been asked across higher education in recent years. The importance of employability, enterprise and entrepreneurship has been recognised (QAA, 2018; Norton, 2019) but the integration of enterprise across the curriculum has varied. Enterprise skills are often included in discrete modules or sessions with their value and relevance overlooked or misunderstood by staff and students alike (Kozlinska et al, 2019).

What is enterprise education?

The Quality Assurance Agency (2018, 7) defines enterprise education as combining "…creativity, originality, initiative, idea generation, design thinking, adaptability and reflexivity with problem identification, problem solving, innovation, expression, communication and practical action".

Enterprise education has been interpreted in many ways (Hytti and O'Gorman, 2004) but the general aims are to develop the attributes, behaviours and competencies that will increase the employability of students, to prepare them for the workplace and the challenges they may face, and to provide the tools needed to adapt their academic knowledge into the practical skills they will need in the changing workplace.

Project approach

This has been a three-phased project that has taken place over three years, starting in one discipline group, moving into the creation of materials that could be used across disciplines, and finally to the creation and implementation of an institution-wide interdisciplinary module designed to solve 'wicked' problems. The importance of the interdisciplinary problem-solving nature of the final stage of this project is key to prepare students for the societal and global changes they will meet in the workplace. The ability to work in interdisciplinary teams and problem solve across disciplines, in a socially responsible and ethical manner, will be essential (Adya et al, 2015).

This project referred to the QAA publication Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers (QAA, 2018) and the Framework for Enterprise and Entrepreneurship Education (Norton, 2019). The sessions were based on the behaviours, attributes and competencies and the cultural capitals that are important to develop in students to increase their employability skills and have a social, cultural, and economic impact upon their lives.

Phases 1 and 2 were supported by internal institutional learning and teaching project funding and Phase 2 was also further funded from the Enterprise Education and Research Project Fund from Enterprise Educators UK (EEUK). Ethical approval, project planning and the process for recruitment of the student interns was undertaken in the academic year prior to the research. The research and analysis of results was conducted throughout the academic year.

Phase 1

Two courses were identified as having poor employability metrics and were highlighted as being an area where students would benefit from the inclusion of enterprise skills.

Co-creation of the curriculum with students (Lubicz-Nawrocka, 2018; Lubicz-Nawrocka and Bovill, (n.d.)) was integral to this project and two student interns were recruited to work with the project team. Surveys were developed and were distributed at the start and end of the project, to establish the level of understanding and knowledge of EE and to ascertain if this improved/increased by the end of the project.

Figure 1. Process of Phase 1 of the research
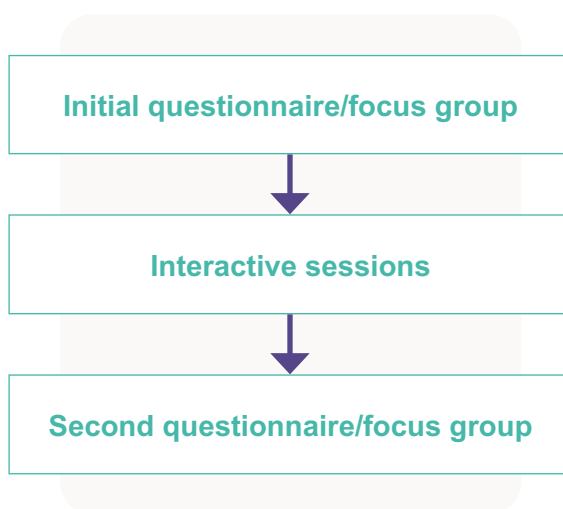
The first survey, which asked questions about students' knowledge and understanding of EE and how relevant they thought this was to their studies and their future, was distributed in an initial introductory workshop session.

Figure 2. The key enterprise education skills included
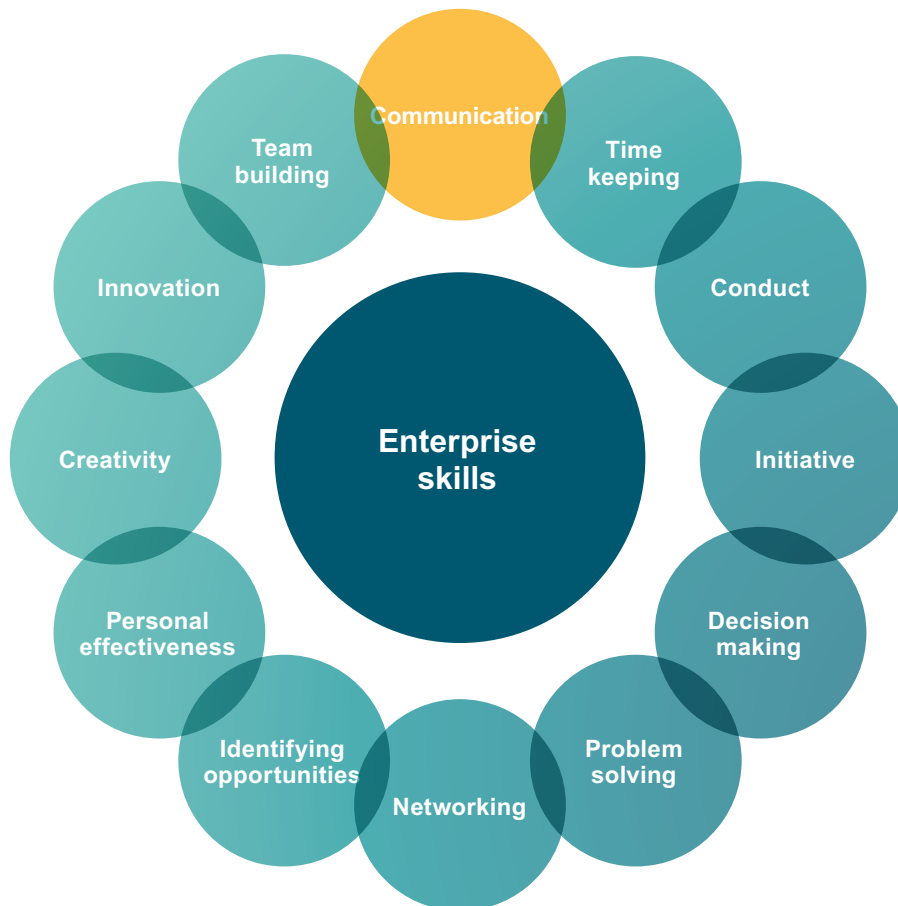
The second survey was distributed at the end of a second interactive workshop to ascertain if understanding had changed.

Focus groups, with students from the chosen courses, were also held at the start and end of the project, facilitated by a project team member and the student interns. These groups were included to provide more depth to the data obtained from the surveys. They were also used to identify what methods students would be most receptive to in relation to the sessions being designed for stage 2.

Two workshops were included in this phase. In the first, students were introduced to the concepts of EE and engaged in discussion about the skills needed by 'successful' people. Students were encouraged to apply this to their chosen careers and consider which of these skills they already had, where they had developed them and how they could develop them further.

As a result of feedback from the focus group, the second workshop included an interactive classroom-based session where student groups were presented with timed problem-solving exercises, which included multiple factors for consideration, and required them to work with their team using the skills below.

Figure 3. Key skills for group task in Phase 1

They were also asked to prepare an individual one-minute elevator pitch where they had to think about their course and their life experiences and the skills that they have and then give a presentation of less than one minute where they should pitch themselves to a potential employer. We had some interesting and informed discussion about how to present effectively and what to include, and the participants realised that they had developed more skills and attributes during their studies than they had realised or previously articulated.

Phase 2

The second phase of this project also involved co-creation with students and was designed to make enterprise education accessible for all students and staff.

Four student interns from across the university were recruited to work with the project team to design material that could be provided to any staff member across the institution who was interested in including enterprise into their module/course. All materials would be easily adaptable for any subject area.

It also created materials that students could use to check their skills, abilities and competencies and identify areas where they needed to improve.

These materials could then be integrated within core modules, the new interdisciplinary Ruskin modules, tutorials, and personal and professional development sessions and were created with reference to the Framework for Enterprise and Entrepreneurship Education (Norton, 2019) and Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers (QAA, 2018).

The sessions created included the following, which are all available through the ETC toolkit.

+ communication icebreaker

+ creativity and evaluation using questioning

+ elevator pitch

+ engaging alumni for real-world learning

+ the use of debate

+ the use of empathy in communication

+ team development through skill analysis

+ opportunity recognition

+ quick smart presentation

+ how can you create value from freely available resources? Introductory video for enterprise education to be used at the start of each session.

Phase 3

This final phase has resulted in the creation of an interdisciplinary 'Ruskin' module which is offered across the institution to level 5 students for the 2021-22 academic year. These modules are designed to be transformative and include real-life contemporary problems that will be faced by professionals in the workplace (de Greef et al, 2017, 10).

Students work together to tackle complex 'wicked' problems and challenges in an innovative and creative way, developing their skills, knowledge and competencies, and learning from others, which will provide an advantage to them in the future (Wilson, 2010). The United Nations Sustainable Development Goals (UNSDG, 2021) and the Anglia Ruskin Graduate Capitals (Middleton, 2019) are integrated to prepare students for the change they will encounter throughout their careers where the demands for new thinking and change are ever present.

The materials prepared in Phase 2 have informed the creation of a Ruskin module called 'To be or not to be enterprising?' that started in September 2021. In this module students work in interdisciplinary teams to address a real-life contemporary problem and also reflect on the attributes, behaviours and competencies that they needed to do so, and how they will develop those that they lack.

Outcome of the project

There were approximately 100-120 students on the courses chosen to take part in Phase 1 of this research. The module involved was a 'personal development' module and attendance was low, but the surveys were completed by approximately 50% of these students. Analysis of the surveys showed that at the start of the project, understanding of enterprise education was less than 20% but increased to greater than 60% after the two workshops in stage 2. Qualitative analysis of these surveys identified that students really enjoyed the interactive sessions. Free text comments and feedback from the focus groups indicated that students found them relevant and realistic, thought it was important that sessions related to their course, and that the skills included would improve their employability.

The inclusion of student interns in the creation of the material in Phase 2 was incredibly valuable. The project team benefited from the experience of the interns and their interaction with other students to create materials that were engaging, realistic, relevant, and would enhance student's employability. There have been some challenges in relation to where to locate the resources created during this phase. The initial intent was to locate the teaching materials in a central location where all staff could access them and adapt as appropriate to their course. The project team are currently working with the university to identify the most appropriate location to ensure maximum impact. This is likely to be through a central learning and teaching resource site on the virtual learning environment and should be completed before the end of this academic year. All materials have also been shared on the EEUK website in the enterprise and entrepreneurship education toolkit.

The final phase of this project and the Ruskin module created is currently being delivered for the first time. There are currently approximately 90 students completing this module and analysis of module evaluation survey scores and free text comments will be undertaken at the end of the module.

This research has increased the profile of enterprise education across the university and the project team are working to integrate the skills, behaviours and competencies into all Ruskin modules.

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Interdisciplinary design for ambiguity: work in a wicked world

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Stage one: background

The future, and the future world of work, are volatile, uncertain and characterised by rapid change. The world may change, the nature of meaningful activity may change, and people may change. If our role in higher education (HE) is to prepare students for the/their futures, to build skills that sustain them, it is a future of change and uncertainty for which students should be prepared.

Change and uncertainty cannot be taught, only experienced. However, modules rarely scaffold change and uncertainty explicitly; the journey for students tends to be within the relative disciplinary comfort of learning the 'already known'. Employability skills from a single discipline may not be enough to deal with the complexity of the 'wicked' problems of our contemporary world. Students need opportunities to experience the discomfort of change and uncertainty in order to develop and rehearse a mindset of self-efficacy, self-regulation and social skills (Hazenberg, Seddon and Denny, 2014) so that they may recognise and exploit opportunities to innovate and make difference in their communities.

The term 'social enterprise' in the United Kingdom covers a wide range of different ventures, each united by key characteristics such as social purpose (British Council, 2015). The current Covid-19 crisis has demonstrated that social entrepreneurs and community leaders can play a critical role in responding to the needs of societies and marginalised groups (Bonnici, 2020). This can be explained partly because the social enterprise mindset embraces uncertainty and ambiguity, collaboration and flexibility to adapt to specific contexts and galvanise the talents and resources of communities. The question is how can higher education institutions (HEIs) adapt and adopt some of those principles of active learning and dealing with uncertainty while keeping the academic quality of curricula, courses and learning and teaching practices?

Context: designing modules for a socially enterprising mindset

Anglia Ruskin University's Education Strategy articulates the importance of an active curriculum and employability, and it is through this lens that the design and implementation of Ruskin modules was approved. These compulsory, interdisciplinary modules bring together students from different courses around wicked challenges. To make explicit the exploration of 'what is not known', each Ruskin module is titled with a question. Designed to provoke curiosity, the nature of a question invites students to recognise their existing knowledge, express their opinion and approach the module as a co-creator of their learning experience; students question perceptions, think flexibly and identify opportunities for innovation.

The Ruskin modules adapt elements of Advance HE's Framework for Enterprise and Entrepreneurship Education (Norton, 2019): for instance, participants develop awareness of the complexity of the questions and challenges; they develop a mindset to see opportunities for career

development and social innovation and, due to the nature of the wicked questions of the module, uncertainty and ambiguity are integral to the learning experience. Further, the Ruskin modules focus on the growing of graduate capitals (Tomlinson, 2017) and the process of transforming ideas into practical actions. Most importantly, the interdisciplinary character of Ruskin modules is core to both the design and implementation of the module – bringing together not only methodological and epistemological aspects from different disciplines, but also the interaction among students.

Stage two: approach

Staff and students from across the university were involved in the design of individual Ruskin modules through the exploration of the central tenets of interdisciplinarity, employability and entrepreneurship and sustainability through several strategies, including workshops and the development of studio-based collaborations. In this case study we highlight the importance of combining the traditional model of workshops with a less structured approach of what we called the 'Ruskin Modules Open Studios'. We recognised the uncertain nature of the curriculum design process, hence, we created spaces for procedural aspects, but also for the sparking of imaginative solutions, empathic conversations, and the development of creative talents with the staff.

The Ruskin Modules Open Studios mirrored an art studio virtually, where mess, abundance of materials, space and playful prompts helped participants to break with traditional ways of thinking. Participants entered the studio visually, virtually and imaginatively. They were supported by the atmosphere/space created by the facilitator, following the principles of playfulness, safe space and mindfulness while attending to specific needs of designing the modules. The fortnightly sessions in the Open Studios encompassed two parts: in the first part, there was a divergent aspect of play and creative-based activities, and then a convergent aspect of discussion and application. For example, one of the activities was to use office supplies or objects at hand to represent the difference between multidisciplinarity, interdisciplinarity and transdisciplinarity.

The Ruskin Modules Open Studio is one example of the wider strategy of curriculum and course design adopted. Considering the innovative nature of this experience and the need to break with the focus on procedures and forms, we decided to integrate playfulness and creativity in our approach. We drew on the growing field of using art-based methods in leadership development (Acevedo, 2011; Taylor and Ladkin, 2009) as well as the possibilities of playfulness in education (Whitton and Moseley, 2019). The project adopted elements of the narrative of the heroic journey (Campbell, 2014), where module leaders are 'trailblazers' who identify opportunities, take risks and adapt to the complexity of the innovation process.

Timeframe

From the publication of the concept of Ruskin modules within Anglia Ruskin University's Education Strategy, and following consultation of students and staff, the institutional model was agreed in 2019. Calls for expressions of interest in Ruskin modules supported the collaboration of staff and students in

a Trailblazer Day and series of three 'Next Steps' workshops leading to curriculum approval events. Participation in the Trailblazer Day was restricted due to venue capacity; 73 participants comprised representatives from four faculties (46 academics, two professional colleagues), 17 representatives from five professional services, three students from the students' union and four facilitators.

Once the curricula were approved, the implementation of Ruskin modules was supported by 12 'Bringing Interdisciplinarity to Life' workshops, 15 Ruskin Modules Open Studios (October 2020 – Jun 2021), and seven 'Contextualising the Sustainable Development Goals' workshops, all of which were adapted for online facilitation due to Covid-19 (in total 105 people – students and staff – engaged in 67 hours of workshops). We decided to focus on interdisciplinarity because this is the distinctive characteristic of the Ruskin Modules, and the numbers in the mentioned figures evidence that it is important to develop and share an understanding of interdisciplinarity both in the design and the course experience. In addition to these workshops, supplementary sessions focused on practicalities such as facilitation online, co-creation, peer assessment and many other innovative approaches to engagement through technologies offered by the team of Anglia Learning and Teaching. Ruskin modules went live in September 2021.

Stage three: outcomes

More than 150 ideas for Ruskin modules have been proposed by the Anglia Ruskin University community, with 50 Ruskin modules developed and the curriculum of 36 Ruskin modules approved. Supported by a central team comprising an institutional lead, academic developer, and project manager, 24 Trailblazers rolled out 19 Ruskin modules for 2,327 students in September 2021.

The process of development has itself embraced the tenets of enterprise, and therefore within this the design process needs to embody/embrace:

+ creativity and innovation: integrating innovation in curriculum design, creating a safe space to realise creativity and imagination and celebrate an open space for innovative, non-traditional approaches in learning and teaching. For example, Open Studios, and using elements of design thinking for curriculum development)

+ reflection and action: in addition to workshops, the design of this experience relies on creating spaces for both reflection and action. For example, regular Tuesday T-Times at 3pm (Trailblazer meetings) offer a voluntary, agenda-free space that has proven to be a place for community building, exchange of ideas, peer learning and emotional support

+ transferability: designing for innovation is exciting, recognise that the process itself embodies the aims for which you are designing (Brown, Baxter and Coonan, 2021). The design processes need to incorporate creativity and innovation (such as safe, regular spaces for exploration and collaboration), these activities still need to be scaffolded within a clear project plan (planning and delivery).

One of the earlier outcomes of this project is the realisation of the enterprise mindset of academics involved in innovative projects. Calls for expressions of interest resulted in 'innovators' (Rogers, 2003) eager to initiate change in the curriculum. These colleagues are our 'trailblazers'; we hope to encourage more students and colleagues to take forward their ideas. Engaging in the design and development of a Ruskin module embraced new ways of learning and teaching, innovation and experimentation within the boundaries of academic quality assurance.

From our experience, innovative projects need to consider enterprise education as a whole: not only for students, but also to develop an enterprise mindset among academics. This support can take many forms, including the opportunity for academics to develop their own enterprise mindset, where risk, innovation, critical thinking, flexibility and adaptability are supported and celebrated. Support such as that created in the Ruskin Modules Open Studios, where there is a degree of freedom and playfulness for curriculum design, can be excellent vehicles for innovative education. Finally, the holistic support, narrative and compassionate leadership of the project, together with the passion of our trailblazers is the secret for our success.

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Piloting a multidisciplinary humanities and social sciences entrepreneurial module: process and findings

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Background

A range of research attests to the positive impact of entrepreneurial education on students' entrepreneurial self-efficacy and intent (Dalrymple et al, 2021). Oxford Brookes University is committed to providing entrepreneurial education as a priority within its institutional strategy 2035 (2020). In-curricula entrepreneurial education opportunities are currently embedded across many programmes, and an extensive programme of extra-curricular entrepreneurial education opportunities is available to all students via the institutional centre for enterprise support. However, students in the Faculty of Humanities and Social Sciences have proven less likely to engage with extra-curricular entrepreneurial provision in comparison to some other areas of the university. This is the case even when such opportunities are explicitly targeted towards these students (eg talks by entrepreneurs who are graduates of, and who have developed enterprises overtly relevant to, these disciplines). This disparity in engagement across discipline areas is in line with research by Bell (2019), which reports on patterns of variation in how far entrepreneurial education appeals to students of different programmes.

There are several possible factors influencing this pattern of disengagement. These may include perceived relevance (ie to one's identity and goals), self-perceived entrepreneurial self-efficacy, and self-perceived subject-related social norms (see, for example, Liñán, 2004). One potential means by which to engage more students in the Faculty of Humanities and Social Sciences with entrepreneurial education is therefore through a dedicated, faculty-wide, in-curricular module. Situating an entrepreneurial education opportunity within the faculty curricula, as a credit-bearing option, explicitly positions entrepreneurial education as relevant to the degree learning and professional futures of students of these disciplines. This chapter describes the piloting of such a module, designed with close reference to the EU Entrepreneurship Competence Framework (EntreComp) (Bacigalupo et al, 2016), and also drawing upon the Advance HE Framework for Enterprise and Entrepreneurship Education (Norton, 2019) and QAA Enterprise and Entrepreneurship Guidance (2018). The module was piloted with a small group of second year students (n=12) from four different degree programmes (English literature, politics, sociology and criminology). The aims of the pilot module were to:

+ support students in developing selected entrepreneurial competences, through designing and planning an entrepreneurial venture

+ test how far such a module, in framing entrepreneurial education as relevant to the identities and potential professional futures of students studying humanities and social sciences degrees, succeeds in engaging students and persuading these students of this relevance

+ function as a test case, to investigate whether the design of the module is effective with regards to students' engagement with and understanding of enterprise and entrepreneurship; and also to explore how far multi-disciplinary provision of this nature is feasible.

The chapter outlines the module's design and rationale, and key findings.

Approach

The module was taught through a series of 10 workshops, covering an accessible introduction to some basic business models and rudimentary financial considerations, and tools and concepts directly and practically related to specific competences within the EntreComp framework (Bacigalupo et al, 2016). Table 1 presents the sequence of topics and the correlating framework competences.

Table 1. Workshop topics and targeted competences

Workshop topic	EntreComp framework competences
An introduction to entrepreneurship, intrapreneurship and enterprise	Spotting opportunities; ethical and sustainable thinking
Idea generation	Spotting opportunities, creativity; vision; valuing ideas; ethical and sustainable thinking; taking the initiative
An introduction to the business model canvas and the lean canvas	Financial and economic literacy; planning and management; mobilising resources
Developing skills in teamwork and collaboration	Working with others, self-awareness and self-efficacy; mobilising others
Project management tools (inc. Gantt charts, risk analysis, and stakeholder management)	Planning and management; coping with ambiguity, uncertainty and risk
Further developing understanding of the business model canvas and the lean canvas	Financial and economic literacy; planning and management; mobilising resources
An introduction to market analysis and minimum viable product testing	Valuing ideas; creativity; working with others; learning through experience
An introduction to communication strategies (inc. branding and slogans)	Creativity; planning and management; mobilising others
Communicating entrepreneurial project designs	Creativity; mobilising others
Self-reflective learning	Self-awareness and self-efficacy; planning and management; learning through experience

The first workshop on entrepreneurship, intrapreneurship and enterprise eased the students into these areas via the EU Entrepreneurship Competence Framework (Bacigalupo et al, 2016). This session elicited and challenged students' preconceptions about entrepreneurship and enterprise and introduced them to things like social enterprise and green enterprise. This introductory session also involved students evaluating their own current proficiency levels in the framework's 15 competence areas. This framework then served as a foundation for each workshop.

Each week, a mini-lecture preceded each workshop, introducing key concepts, principles and tools. The workshops were dedicated to practical groupwork using those tools and concepts, and the workshops were followed by structured post-seminar 'homework', which involved activities drawing on a range of predominantly online open-access resources, including YouTube videos, podcasts and websites. These resources offered a diverse range of voices and examples of the broad applicability of entrepreneurial competences. The students also engaged with four video interviews the author had conducted with young entrepreneurs who were recent graduates of humanities degrees. From the second workshop onwards, students began to develop their own entrepreneurial project idea (which the students could choose to work on individually or collaboratively in pairs or threes), to which they applied their learning.

As mentioned, the workshops each keyed into a segment of the EU Entrepreneurship Competences Framework (2016) and the assessments, following principles of constructive alignment (Biggs, 2014), were wholly focused on demonstration of development of these competences, via two pieces of work. The first assessment was a presentation of their entrepreneurial project proposal which included: a completed business model canvas or lean canvas; two of i) a Gantt chart covering the pre-launch and launch phase, ii) one of the three taught forms of risk analysis, and iii) a stakeholder analysis and management plan; and elements of their communications strategy. The second assessment was a critical self-evaluation in which they explicitly reflected on their development of self-selected entrepreneurial competences and the new knowledge they had accrued about the sector or industry to which their project related, and in which they also outlined a professional development plan.

Outcomes

In reviewing the piloting of this module, the main findings are as follows.

The students' engagement with and contributions to workshops, along with their entrepreneurial project proposal presentations, demonstrated that the module effectively supported their development of entrepreneurial understanding and competences, and successfully engaged them with entrepreneurial education. This suggests that the module design and structured learning activities were appropriately pitched and paced. The level of creativity and critical thinking manifest in the entrepreneurial project designs demonstrated that second year students were able to rise to the challenge of this module and accommodate its unfamiliar content and focus.

The self-reflective assignment illustrated that students were able to articulate the relevance of entrepreneurial competences to their ongoing professional development and widely varied future career intentions.

The students' different disciplinary backgrounds created no obstacles for the design and delivery of content: no discipline-specific tailoring was required, beyond provision of examples relevant to and across disciplines. The students did not have varied expectations regarding levels of tutor support, kinds of learning materials etc, based on different prior degree experiences. Students from different disciplines collaborated well in the weekly workshops; demonstrated interest in each others' projects; and welcomed, expressed gratitude for and benefited from peer insights from different fields of knowledge and experience.

Notably, the students valued the opportunity to be creative, even in non-assessed elements. This was evidenced in, for example, the number of students who worked extensively on original logo designs, introduced within the workshop on communication strategies, which was optional and ungraded.

Overall, the success of this pilot module suggests that a faculty-wide module of this nature can be an effective tool in increasing both entrepreneurial education provision and students' engagement with that provision, in these subject areas, and potentially in other subject areas in which engagement with entrepreneurial education is limited.

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Developing an approach to embed employability in a large diverse faculty

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Stage one: background

The UK's higher education (HE) sector has long recognised the changing landscape within which it operates and the increased importance placed on developing students' employability beyond their university experience (QAA, 2012). In addition, UK higher education institutions (HEI) have become increasingly more accountable to employability or employment outcomes (Department for Education, 2017) and, linked to the Teaching Excellence Framework (TEF), this has gained a new momentum and focus. As a result, employability has become intrinsically embedded into HE policy and institutional strategies. For example, at Liverpool John Moores University (LJMU) it is present in the Institutional Strategy (2017-2022), the Teaching and Learning Strategy 2017-2022 and the Student Employability, Enterprise and Employment Strategy 2019-2023, as well as curriculum design and the delivery of teaching and learning. In addition, it has become evident that during open days and applicant days both students and their significant others are asking direct questions that relate to increasing the student's employability and how this is supported at both institutional and programme level.

However, employability is not an easily understood concept and there has been and continues to be much debate in relation to both its meaning, its effective implementation and how the HE sector should engage staff and students in recognising its significance. It is important therefore to think about the various definitions of employability. Employability as understood by Hogan et al (2014) should be seen as a dynamic and continuous process that allows individuals to not only obtain but, importantly, to maintain a job. This contrasts with employability from an employer's perspective, which may be more concerned with preparedness or work readiness. Employability is much more than getting a job but is about preparing graduates to enter the workplace and be successful within their chosen professional path. Indeed, as defined by Yorke et al (2004,7) employability is described as "...a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy". HE institutions and curriculums must begin to embed employability in much more creative and purposeful ways. The current strategy at LJMU has tried to embed this in its ethos of "a whole university approach to careers, employability and enterprise that ensures all of our students – regardless of background, degree discipline and personal aspirations – experience a transformative change in their employability skills and mindset, self-awareness, assuredness, agency and career trajectory".

LJMU's Faculty of Arts, Professional and Social Studies (APSS) is a large faculty, the size of some small institutions (7000+ students). It has a diverse array of subject areas and employs a large range of teaching methods. Due to this, plus the faculty being physically situated over several locations, we have encountered clear difficulties around communication and the sharing of best practice, specifically around student employability. Staff/subject teams often work in isolation, with little support or access to new ideas and existing resources that may exist elsewhere in APSS and indeed the broader university. The Covid-19 pandemic also created issues related to work-based learning, with alternative experiences needing to be found for our students who would normally go on physical placements as part of their degree. The wicked problem, then, is how does such a diverse faculty respond to the above challenges in a coherent way that makes sense to staff and students and ultimately impacts on the graduate outcomes of students?

Stage two: approach

It was acknowledged during 2020-21 that there needed to be a different and multi-faceted approach across the faculty to ensure that the principles within the institutional strategies became realised in the design, structure and engagement of staff and students. The approach is led by the Associate Dean Education (strategic), an academic member of staff (with a background in enterprise and entrepreneurship education) and an employability-focused member of professional staff. Below is a summary of the different approaches taken.

To kick start the approach, an Employability Working Group (EWG) was set up that brought together all those from across the faculty with an interest/role in employability and staff with a central role in developing employability. The aim was simply to make cross-faculty connections, provide an opportunity to discuss relevant topics, be able to have a practical and relevant impact on employability-related activities in the faculty and act as a place to ask questions that challenge the expertise of others, and to bring and share best practice. It is intended that the EWG will meet twice a semester, with extraordinary meetings as necessary. Aligned to this, and as a direct result of the response to the lockdown and the swift transition to online delivery, a Task and Finish Group was set up with membership from the EWG. This group had a clear set of objectives and over a period of six weeks supported staff collaboratively to develop alternative assessments that aligned to learning outcomes and to think innovatively about work-based learning opportunities.

In addition, and as part of an Advance HE collaborative project 'Embedding Enterprise in the Arts, Humanities and Social Sciences' we are developing and adapting the Advance HE Enterprise and Entrepreneurship in Higher Education Framework (Norton, 2019) to create an Enterprise Education Framework that goes beyond more commercial or simply employability outputs, to think more broadly about enterprise, employability and skill development, and include values-driven elements that are more inclusive of the subjects areas that sit within the faculty. Alongside this we are using the EntreComp framework as a model that allows staff to map their curriculum. The aim is to develop an evidence base that allows for the creation of a faculty-wide module that shares students and their subject knowledge and skills. To do this we are working with the students (approximately 78) and staff

on the history programme to gather information around students' perceptions of enterprise skills and their development of them through their course.

In order to bring this together between May and August 2021, an operational plan was developed with clear targets and lines of responsibility that aligned with the ambition of LJMU and with the ethos contained within the strategies mentioned earlier. As a faculty the intention is, over a five-year period (2021-2026), to focus on:

+ faculty/school wide ownership, responsibility and interventions

+ a supportive and collaborative space for staff to engage and develop

+ a commitment to embed or consolidate career, enterprise, entrepreneurship and employability within the core teaching and in curriculum development

+ a fluid approach that is responsive to data and success

+ provide authentic opportunities to our students that recognise the diversity of the student body and experience

+ develop opportunities that are inclusive and accessible to all students

+ enhancement of external relations with employers and alumni.

Stage three: outcomes

The above continues as a work in progress and the outcomes related to this are ongoing.

The faculty EWG is moving forward and gaining momentum with the establishment of terms of reference, an agreed membership list and several successful and practically driven meetings that have had a direct impact for example on programme validations/revalidations (October/November 2021-22) with these ongoing throughout the academic year. The EWG was specifically useful during the pandemic, allowing for practical and forward-thinking discussions around the needed transition from physical placements linked to our curriculum to alternative work-based learning opportunities. The above has resulted in the EWG having a formal structure within the faculty.

A central shared repository of best practice, which any interested faculty staff member can access for anything employability related, containing useful documentation, case studies and examples of current and past practice has been agreed as an essential element in embedding employability into the faculty and the central careers team have agreed to support the development of this (from January 2022).

We are still moving forward with our faculty EEE Action Plan, with a renewed and closer relationship with our careers team to ensure that our EEE Action Plan aligns with their priorities. This may include new yearly programme employability action plans, templates for programmes going through validation, consolidation of meeting and communication structures (making sure to include the student voice),

development of advisory groups, developing training for staff around employability and externally linked metrics, school/subject based employability champions and an audit of current practice across our programmes.

Lastly, we have successfully begun to engage with our history students in the first phase of a three-part survey. To date, 45 students have submitted responses. A second survey will be sent to students at the end of November 2021. The results of these surveys will help us to work better with our history staff to ensure that relevant Enterprise skills are embedded within our history programme and for them to be able to articulate this as part of programme periodic reviews.

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Entrepreneurially equipped and employable: a co-curricular approach to developing graduate attributes fit for tackling the wicked problems faced by our society

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Background

At the University of Exeter we have undergraduates from a diverse range of backgrounds. Levelling the playing field so all are equipped to negotiate a complex and uncertain job market and, once in a graduate role, work with stakeholders to solve the wicked problems we face, is of paramount importance.

To enable graduates to develop the competencies needed to thrive, we have a portfolio of opportunities. This includes a mix of mandatory and extra-curricular content, using the pedagogical foundations of experiential learning, research-led interdisciplinary working, student-led problem-based learning and is underpinned by our Education Strategy (University of Exeter, 2019).

In May 2019, Exeter declared an environment and climate emergency, outlining the need for transformational and cultural change, with ambitious targets and a detailed 'carbon and environmental roadmap'. Knowledge and action through education and research are key.

Our environment and climate emergency policy aims for us to "be recognised as an Environment and Sustainability Leader across the HE sector, nationally and internationally by 2025". In 2019, Exeter signed the sustainable development goals (SDGs) accord. In 2021 the Times HE Impact Rankings placed us 63rd in the world for overall SDG impact and first in the Russell Group.

The programmes we focus on here are 'Create Your Future', 'Challenges Online' and 'Green Consultants' (Figure 1). All encompass the university's values of ambition, challenge, collaboration, community, impact and rigour.

Through these programmes, students develop their employability and by using the European Entrepreneurship Competence Framework (EntreComp), which sees entrepreneurship as a bridge between the worlds of education and work, see how they can develop an entrepreneurial mindset and act upon opportunities and ideas to transform them into value *for others* too (Bacigalupo et al, 2016). Several members of the team are trained as Entrecomp Teacher Pioneers so that we can maximise the value of this framework and support students to consciously develop these competencies.

Our programmes are designed using Education for Sustainable Development Principles; equipping students with the *knowledge and understanding, skills and attributes* needed to work and live in a way that safeguards environmental, social and economic wellbeing, both in the present and for future generations (HEA and QAA, 2014). We use the UN SDGs as anchors to show how particular

problems relate to wider issues and to articulate the complexities and inter-connectedness of wicked problems across social, cultural, economic and environmental spheres. There is a substantial overlap between Entrecomp and the SDGs. We are trying to make students aware of these external frameworks and drivers so they can consciously reflect on their experiences, consider their own impact and make informed decisions about their career choices.

We have taken this overarching strategic approach with the aim of creating lasting change and impact by influencing the values and behaviours of our graduates. Our programmes support employability development by recognising the importance of the 21st-century skills required to solve 21st-century problems and the changing labour market requirements as identified by Bakhshi, Downing, Osborne and Schneider (2017) and LaPrade, Mertens, Moore and Wright (2019).

Approach

All first-year undergraduates (around 7,500) are introduced to our portfolio through 'Create Your Future'. This is a Covid-iteration of our award-winning eXfactor programme, first introduced in 2011, with online live teaching and independent guided study. Mandatory for first years from all disciplines, it explores the future of work, graduate skills and self-development. Students develop self-awareness, coping with uncertainty and risk, motivation and perseverance, planning and management, learning through experience and spotting opportunities. Students are introduced to concepts such as a VUCA (volatile, uncertain, complex and ambiguous) environment and we support students to reflect on how they feel about this.

> "I became more self-aware after completing the programme. I recognised where my values and interests lie after completing some of the activities, and the areas I really think I want to pursue."

Grand Challenges has run since 2012 with undergraduates focusing on the most challenging problems humanity faces. Grand Challenges has been described as 'social learning' (Ryan and Tilbury, 2014) and an opportunity for less structured learning (Houghton and Anderson, 2017). Challenges Online was developed in response to the Covid-19 global lockdown. Students work in small interdisciplinary groups tackling wicked 21st-century problems such as fake news, mental health and climate change. This exposes them to different ways of thinking and working. Our student-centred approach enables them to develop their employability in a safe environment with playful experimentation. Students take risks and learn from co-creation, set their own goals and take responsibility for delivering high-quality original outputs, including games, books, blogs, social media campaigns and educational toolkits. They are motivated to make a difference and apply their knowledge, passion and creativity.

In 2019-20, Challenges Online exceeded the energy and outputs of Grand Challenges, broadening its reach and reducing its environmental impact. Three hundred and sixty two undergraduates from 41 nations across 16 time zones participated. Feedback showed that 98% said that Challenges Online had improved their employability and 77% said that it had improved their confidence in demonstrating their skills to employers.

"The opportunity to do whatever you wanted to tackle the challenge at hand was exciting, and allowed my group to tailor our project in such a way as to play to all our strengths."

Green Consultants is another award-winning programme, designed to provide students from all disciplines with skills and experiences required to work in the highly competitive environmental and sustainability sector. It covers three main elements: training, delivering an on-campus project relevant to the climate emergency and an internship with a relevant organisation, enabling students to gain real-world experience. It is supported by an industry advisory group. Through this group, we connect with practitioners, who are often alumni of the programme. The industry advisory group is consulted via periodic review, and advises on application of theory through practice. This makes the programme vibrant, engaging and fit for purpose.

Our approaches promote interdisciplinary problem-solving, systems thinking and understanding of how social, environmental, cultural and economic issues are inter-related. Students benefit from learning about concepts that transcend discipline boundaries, transferring their new knowledge and skills into their study during subsequent years.

Outcomes

The co-curricular nature of these opportunities is integral in enabling them to be truly interdisciplinary and unlock deeper employability-related outcomes. Students broaden their horizons about the careers they can pursue and rethink their choices in terms of career path, realising the value of applying their unique skill set and motivation to a new, unexpected field. This approach exposes students to different ways of working, breaking down barriers that come as a by-product of disciplinary excellence. Students develop collaboration, communication and presentation skills and improve their employability. They reflect on their confidence, level of experience and the intrinsic values that drive their motivation. These are designed as formative experiences where students are encouraged to take risks and not be subject to the usual constraints of assessment. The process of learning is more important than the output. Through high engagement and positive feedback we find that students have powerful motivation to do something of use for others and the planet. Virtual versions of all programmes have been trialled and proven successful, less costly and more carbon-neutral – we are mindful not to lose the vivacity of learning by being online.

"We are future scientists, researchers, politicians, engineers, writers, CEOs and our opinions on these topics will largely influence the future world" [student participant].

Our projects are scalable and applicable to new contexts through their unique student-centred learning approach focusing on global issues through the prism of SDGs. University of South Florida (USF) has adapted Challenges Online to be part of its Global Citizenship Project. Like Exeter, USF is encouraging participation from its partner universities (UniNorte, Colombia, Penn State).

There is more work to be done to ensure that we are reaching all the students who need our support most, and we continue to develop the entire careers and employability curriculum to ensure it remains fit for purpose, innovative, relevant and exciting and addresses our own wicked problems.

Future projects include decolonising the careers curriculum and researching the experiences of Black students in recruitment processes. We have an uncomfortable dichotomy of a 20 percentage point awarding gap, yet this group appears to do better than white peers in term of graduate outcomes and salary; but reports issues in navigating the process.

We want social justice to be more explicit within all our provision so that Exeter graduates have this at the forefront of their minds, and don't just choose to work for employers who share their values and motivations, but also have the tools to challenge situations they do not feel are acceptable.

We know what is important to Gen Z students, what is important to employers and what is required to thrive in the world of work. We know what our students need to develop to contribute to society to tackle the wicked problems of our times. Using the SDGs and the Entrecomp framework, with its focus on creating value for others, are powerful guiding forces in navigating this. Feedback from students demonstrates that they find our delivery engaging, impactful and relevant.

Programme	Year	No. students targeted (no. completed)	No. of sessions	Discipline	Year group
eXfactor	**2010-11**	1017 (450)	13	Target (low GO)	1
	2011-12	1895 (912)	30	Target (low GO)	1
	2012-13	3816 (1929)	101	all	1
	2013-14	4952 (3500)	111	all	1
	2014-15	5136 (3902)	117	all	1
	2015-16	5329 (3318)	118	all	1
	2016-17	5635 (3470)	118	all	1
	2017-18	5594 (3208)	118	all	1
	2018-19	5954 (2736)	117	all	1
Delivery impacted by Pandemic	**2019-20**	5496 (1740)	125	all	1
Create Your Future (online version – higher number of students and facilitators per session due online possibilities)	**2020-21**	6348 (4285 attended all live workshops, 3218 completed everything)	63	all	1

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Revaluing enterprise education in the 21st century: unifying learning and teaching, research and knowledge exchange to thrive and succeed in a changing world

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Introduction

In a period of significant change and disruption in UK higher education (HE), this paper invites a re-evaluation of the role of enterprise education in enabling higher education institutions (HEIs) to build resilience. This will enable HEIs to thrive and succeed in a changing world. Recognising research, teaching and, increasingly, knowledge exchange as core activities for most HEIs – all of which are metricised – the paper asks how these strands of activity might be more effectively woven together. Through two examples, the paper highlights enterprise and entrepreneurial capability as a solution and explores the value of positioning enterprise at the heart of university activities.

Background and context

Recent changes in HE include increasing the numbers and diversity of students entering universities; increasing interest from employers in having a greater influence on the learning and development of the graduates; universities' role expanding into contributing to the economy through industrial and research participation as well as education; and increased government scrutiny through the metricisation of teaching, learning and research-related activities of universities through Research Excellence Framework (REF), Teaching Excellence Framework (TEF), and Knowledge Exchange Framework (KEF).

Alongside these changes, we have seen increased interest in enterprise education (Hytti and O'Gorman, 2004), where enterprise is considered a set of capabilities that enables individuals to spot opportunities, generate ideas and do something about them. HEIs have been keenly developing these capabilities in students (Pittaway and Hannon, 2008). We have also seen the formation of the membership organisation Enterprise Educators UK in 2007 and the THE Entrepreneurial University of the Year Award being established in 2008. Despite all these efforts, enterprise and entrepreneurship have not become mainstream in HE activities. Enterprise educators still report difficulty in gaining traction and effecting cultural change.

What is notable about the enterprise initiatives that have been developed is their focus on teaching and learning. In fact, enterprise capability is explicitly required for research and knowledge exchange as well. Table 1 highlights this across the three areas, for two of Barluenga et al's (2013) five enterprise capabilities.

Approach

As Table 1 demonstrates, enterprise is a commonality across universities' core areas of activity. We argue that enterprise needs to be situated at the heart of these activities, as depicted in Figure 1, rather than as a peripheral pedagogical approach delivered by a subset of enterprising academics. This approach offers increased value across our activities: research, teaching/learning and knowledge exchange. This enables HEIs activities to become symbiotic, supporting and feeding each other, rather than feeling like competing priorities. Good results on the REF/TEF/KEF metrics will follow, with teaching, research and knowledge exchange that closely align and interact with each other.

Table 1. Enterprise across core activities

Example capability[1]	Research Vitae Researcher Development Framework (Vitae, 2011)	Teaching/Learning AQQ UK Quality Code for Higher Education (QAA, 2018)	Knowledge Exchange KEF: decisions for the first iteration (UKRI, 2020)
Authentic problem solving	+ Cognitive abilities (A2): + Analysing + Synthesising + Critical thinking + Evaluating + Problem solving	+ Devise and sustain arguments, and/or solve problems' + 'Be able to apply their knowledge and understanding' + 'Frame appropriate questions … identify solutions to a problem'	+ Working with businesses, the public and third sector + Local growth and regeneration + Public and community engagement + Skills, enterprise and entrepreneurship
Innovation and creativity	+ Inquiring mind + Intellectual insight + Innovation + Argument construction + Intellectual risk	+ 'Use ideas and techniques … at the forefront of the discipline'	+ Innovate UK KTP and grant income + Graduate startup rate + Local growth and regeneration + IP and commercialisation + Business, public and community engagement

1 From Five Capabilities Model – 1. Authentic Problem Solving; 2. Innovation & Creativity; 3. Risk, Uncertainty & Value; 4. Taking Action; 5. Collaboration & Networking (based on Barluenga et al, 2013).

Figure 1. Enterprise at the heart of universities' activities
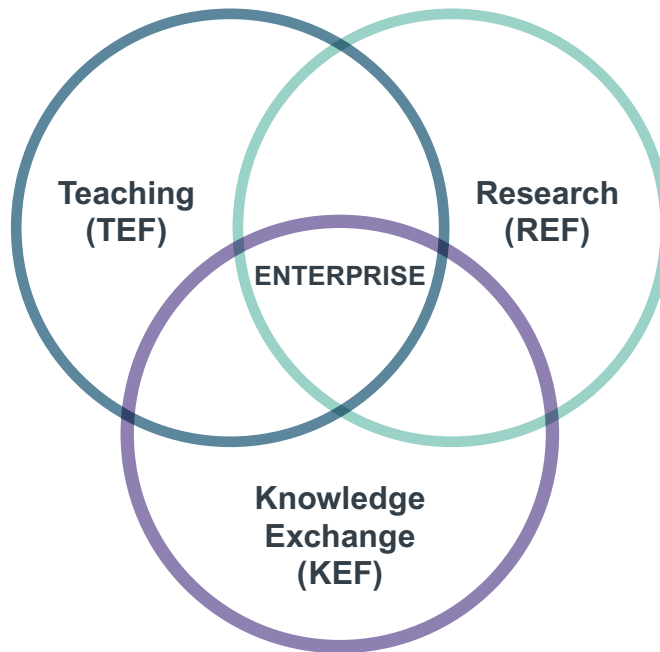
Outcome

We offer two qualitative examples from different universities to demonstrate the value of centrally positioning enterprise within institutions.

Case study 1: Sheffield Engineering Leadership Academy

Each year, Sheffield Engineering Leadership Academy (SELA) develops 40 selected, high-potential engineering undergraduate students from a pool of around 1,200, to become leaders who create positive impact in research and industry. Since its inauguration in 2014, SELA has developed 234 students through a two-year programme, in close collaboration with industry. SELA challenges students to complete real-world projects to deliver real value, while testing and building their skills.

One example of a project was the adoption of Industry 4.0 technologies for the modernisation of SME manufacturing. Students developed low-budget entry points to digital technologies, while gaining leadership and enterprise skills, and a sense of their agency. Throughout the process, students worked with manufacturing companies and were able effectively to mediate the knowledge gradient, drawing on expertise from academics, understanding industry problems and shaping solutions, facilitating access to academic expertise for the industry partners, and so enabling effective knowledge exchange. As a result, new research projects were established and funded, led by academic staff, but involving students.

Students greatly valued the experience (Habbershaw, Sharp and Wood, 2019):

> "Focus shifts from grades to output value."

> "Connects learning to applications – so we can practise and recognise value."

Similarly, our industry partners recognise the value in working with students on real projects:

> "The students came from multiple disciplines … [they] bring new skillsets and help us innovate, using new ways of thinking. … The business has changed. We look at things in a new way. We're looking at how we can actually introduce some of the changes."

Case study 2: 'Professional and Leadership Skills' for engineers at Liverpool John Moores University

A postgraduate-level 20-credit module 'Professional and Leadership Skills' was designed as a core semester-long module for all four MSc programmes (average intake 50 in total) in the School of Engineering at LJMU. Since its rollout in 2015, approximately 250 students have benefited from the module, which develops personal and social competencies including adaptability, creativity and innovation etc, using an emotional competence (EQ) framework. A range of learning, teaching and assessment methodologies, including student-led group discussions and panel sessions, inverted classroom activity, creativity, games-based team activities, self-reflection, and peer evaluation were employed in the delivery and assessment of the module. Some high-level successful outcomes from the students' perspective, as a result of this specific module have been: increased employment/ research career, industrial placement and knowledge exchange through group design projects etc.

There are several positive outcomes. First, students' performance and employability increased compared to cohorts who did not take the module:

> "… While other engineering modules cover information I'll need in an engineering career, the leadership module will help with all other skills such as teamworking and outside of my career too."

> "Thank you so much for all your support and wishes... Your footprints on my career can never be forgotten. Thanks for everything what you have done to improve all our future opportunities and potential."

> "I'm always thankful and grateful to you for providing such a great platform and guiding us through it. … I even got some opportunities to apply our professional leadership skills in my workplace and workflow."

Second, industry saw value in hosting student placements:

"They [students] have demonstrated extraordinary ability to integrate within the teams, generate creative ideas as potential solutions for industrial challenges, and evaluate them."

"... also industrious and have great drive."

This led to increased industry collaboration, resulting in research and KTP projects

Conclusion

In this paper, we have considered the context of enterprise education in HEIs' strategies and goals, and especially how this might aid in the 21st-century world of unprecedented change. We explored the background and context for enterprise and entrepreneurship education for solving the 'wicked' problem of preparing students and HEIs for uncertain futures (Jackson, 2008). By proposing an approach where enterprise is at the heart of all HEI activities, we demonstrate that, by unifying learning and teaching, research and knowledge exchange, HEIs could thrive and succeed in a changing world. Using two case studies on two different types of programmes from two different universities, we show that placing enterprise at the centre of our education activities helps to achieve our goals on all fronts (student achievements, programme, institutional, industry, etc). Our call to action for HEIs and their staff – at all levels – is to reconsider how enterprise can help to shape resilience in changing times, not just institutionally but for staff and students working and learning within them and for the communities and economies of which they are a part.

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The Scottish Innovative Student Award (SISA): preparing students to tackle wicked problems

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Background

To help prepare students for the digital revolution and the evolution of Industry 4.0 (Marr, 2018), and to equip individuals with an enterprising skills-set; the universities across Scotland have been working in partnership with the Scottish Institute for Enterprise (SIE) to accredit creativity, communication and collaboration skills within modules and degree programmes. The three-tier Scottish Innovative Student Award (SISA) recognises students' high-level skills development within existing academic modules, as well as providing an opportunity for students to confront problems in new ways, through participating in a national one-day enterprise workshop and entrepreneurial-based learning activities (Henry, Hill and Leitch, 2005). The national workshops are delivered by SIE and four of Scotland's Innovation Centres: Digital Health and Care Institute, CENSIS, the Datalab, and the Construction Scotland Innovation Centre.

The initial inspiration for the Award originated from the Scottish Innovation Centres, as they were keen to engage further with university students to explore their business ideas. However, it was soon realised that SIE was the real enabler for the Innovation Centres to reach students in a multidisciplinary manner across Scotland's universities. This realisation then paved the way, over a period of 18 months, for several mini-SISA pilots in various Glasgow universities led by SIE. The final creation and launch of SISA pan-Scotland then occurred in the academic year 2017-18.

The pan-Scotland, SISA Award framework presented in Figure 1 provides an opportunity for students to:

+ recognise and evidence the innovation skills developed within their existing academic modules **(Level-1, Future Thinker)**

+ build on these skills in multidisciplinary teams and apply them, to 'wicked problems' and challenges, such as the UN Sustainable Development Goals (United Nations, nd), in a one-day, national online or in-person workshop **(Level-2, Innovation Catalyst)**

+ demonstrate intent to ideate through an online, entrepreneurial-based assessment **(Level-3, Innovation Champion).**

Figure 1. The three-tier SISA Award
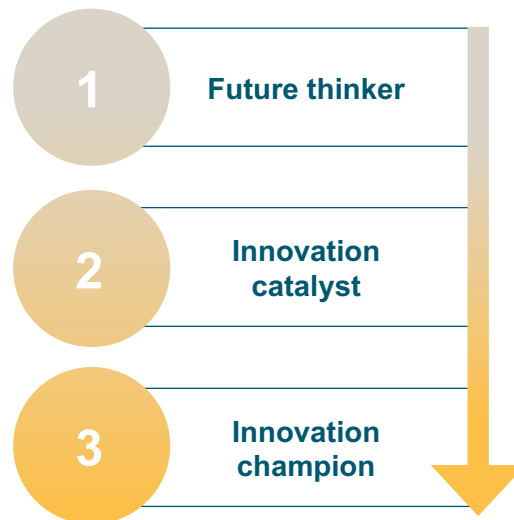
This innovative award structure affords a more holistic approach to enterprise and entrepreneurship learning in curricular and co-curricular contexts for both undergraduate and taught postgraduate students. The awards programme also aligns with contemporary practice and the assessment framework provided in the Quality Assurance Agency 2018 guidance on Enterprise and Entrepreneurship Education (QAA, 2018), and the Entrepreneurship Competence Framework (Bacigalupo et al, 2016). Of particular note is the module accreditation process for Level-1 SISA, which has helped to build a more observable platform for academic staff participating and engaging with enterprise education. This has enabled dialogue around enterprise and entrepreneurial competencies (Figure 2), across a wide range of academic subject areas.

Our case study provides an overview of the SIE three-tier SISA framework, which was launched in 2018. It illustrates, through the experiences of two universities (University of Aberdeen and Robert Gordon University), how the framework has provided a more coherent and cohesive approach across Scottish universities to help synergise enterprise education and tackle a range of 'wicked problems'. In both universities, the impact on student achievement, and the importance of collaborative working across the Scottish higher education sector to champion creativity, interdisciplinary approaches to innovation and entrepreneurship, are covered.

Figure 2. Skills and competencies developed at each level of the award

SISA certified Level 1
sie

Innovation competencies

+ Self-awareness and self-efficacy
+ Adaptable and flexible, seeing different perspectives
+ Creative problem solving
+ Opportunity recognition
+ Collaboration
+ Communication

SISA certified Level 2
sie

Innovation competencies

+ Manages ambiguity and uncertainty
+ Draws on the views of others to co-design work
+ Works in multidisciplinary teams
+ Takes ownership of ideas
+ Influencing and negotiation
+ Innovative thinking and intuitive decision making
+ Engages with the pace of change to identify emerging customer needs and expectations
+ Civic and social responsibility

SISA certified Level 3
sie

Innovation competencies

+ Combines analysis with synthesis and intuitive decision-making, based on expertise and evaluation of factors
+ Provides evidence on how idea can be advanced accounting for change
+ Capable of critical refelction and evaluation of solutions

Approach

SISA is designed to empower students to stop the past becoming the present and to enable them to imagine a brand-new future that shapes the present. The format encourages them to develop their B to A thinking by looking up and out from their current situation and building their own personal landing strip into the future to explore and engage the five stages of future thinking – future shapers (Hulzebos, 2019). It is this exploration and the insights they take from it that will provide the context for their present-day actions. These actions can be developing new future-facing innovations that tackle wicked problems in a new way. However, these insights can also help them develop and plan for their professional development in a way that prepares them for the changing world of work (The World Bank, 2019). They can imagine other possibilities for their skills and experience once freed from the past and their present-day experiences.

Typically, when we think about the future, we activate the hippocampus in our brain that has us recalling our past and present experiences. Neuroscience calls this A to B (past to future) thinking and it can impact on our capacity for innovation. When asked to solve a problem we have a bias to frame our thinking and actions around existing innovations and current trends we have experienced in one way or another. This can limit our imagination to inspire new insights into how we can solve wicked problems better.

However, what happens when we think from the future to inform the present-day actions that could solve wicked problems in new and sustainable ways? Can we activate the part of our hippocampus that frees up our imagination to inspire new insights and opportunities? How can we reverse engineer our students' A to B thinking to B to A (back casting) thinking?
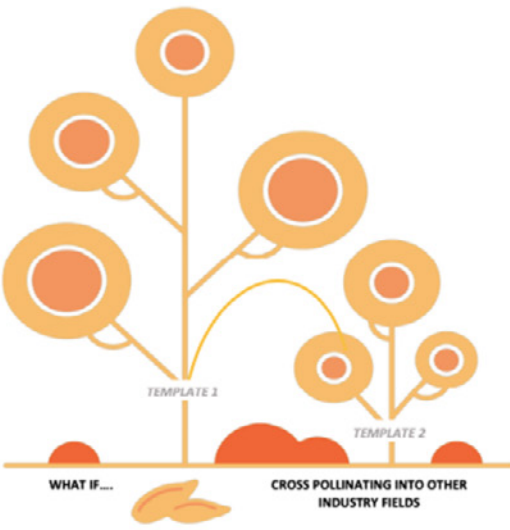
To help students with their 'back casting thinking' and to start tackling wicked problems, bespoke SIE worksheets have been designed (Figure 3).

Figure 3. An example SIE student worksheet – building a future world

Outcomes

The University of Aberdeen's 2040 Strategy (University of Aberdeen, nd) sets out the institutional commitment and ambitions regarding interdisciplinary education and research. Similarly, the Robert Gordon strategy (RGU, nd) highlights innovation and entrepreneurship as key competencies for developing in students' minds. Both universities aim to cultivate students' enterprising mindsets, to help develop creative solutions to complex challenges in areas, such as energy, health, artificial intelligence and creative industries. Engaging with SISA has enabled both universities to strengthen progress in developing their students' innovative and entrepreneurial capabilities to address these strategic goals. Specifically, the SISA Award has enabled enterprise education to become a more explicit and visible component of the undergraduate and taught postgraduate curricula, especially within non-business disciplines. Interestingly, the module accreditation process for Level-1 SISA has enabled exchange of ideas around enterprise and entrepreneurial skills, across a wide range of academic disciplines, namely: business, biology, psychology, engineering, education, chemistry, environmental partnership management, applied health sciences, creative industries, and politics. Notwithstanding this, the Robert Gordon in-house accreditation process for level-1 and creation of a personal development programme within the Gray's School of Art has also increased student SISA engagement.

> "The SISA Award…develops students' capacity to become innovators, to think outside the box, turning ideas into reality. I would encourage Programme Directors to engage with the Award, it really adds to the student experience."
>
> *Professor Tavis Potts, School of Geosciences, University of Aberdeen*

> "The SISA award… allows students to develop key skills, such as problem solving, teamwork, time management, communication and networking. RGU staff have continued to work collaboratively with students and staff… providing guidance, mentorship and improving students' employability."
>
> *Student President (Communication and Democracy), Robert Gordon University Union*

Student engagement has been strong across this three-tier award, as illustrated in the award data (Table 1).

Table 1. Student SISA engagement data

Award Level	All Scottish Institutions (2019-20)	University of Aberdeen (2019-20)	Robert Gordon University (2019-20)	All 19 Scottish Institutions (2020-21)	University of Aberdeen (2020-21)	Robert Gordon University (2020-21)
SISA: Level 1 Future Thinker	1027	162	379	1028	227	455
SISA: Level 2 Innovation Catalyst	214	30	57	266	71	82
SISA: Level 3 Innovation Champion	65	11	18	107	29	30

Note: Total number of students at RGU in 2019-20 and 2020-21 was 14,818 and 15,579 respectively and at the University of Aberdeen for this time period, circa 15,000.

Comments and feedback from students undertaking the Award has been overwhelmingly positive as illustrated by these quotes in Table 2:

Table 2. Evaluation feedback from SISA student recipients

Respondent A	"…pushes you to critically think about the needs of our society and how to engage creatively and devise solutions for a more sustainable and efficient future."
Respondent B	"Through the activities, I improved my ability to identify problems, develop solutions, and add value to my community by thinking outside the box either individually or as part of a team. These learnings have proved invaluable in my PhD research."
Respondent C	''Achieving SISA helped me understand the great importance of thinking outside the box. I was a part of a diverse team and completing SISA allowed me to look at issues from other disciplines. There is a strong emphasis on multidisciplinary collaboration. It was very inspiring to see and learn about different types of problem-solving."

Our next steps are to investigate the impact and reach of the SISA awards programme via a longitudinal student survey. Ensuring all students are able to achieve their potential is an underpinning ethos of Scottish degrees. Therefore, our planned research will also investigate the SISA design and delivery, to ensure the awards programme is both inclusive and accessible to all students from any socio-economic background, culture, and academic discipline.

In this case study, the three-tier SISA Award has been showcased to raise the profile and significance of enterprise and entrepreneurship education, and the transferability of the SISA model to other institutional settings across the UK. More specifically, it is hoped that the case study will stimulate debate and discussion around the strategic importance of the student skills and attributes needed for Industry 4.0 and the value of ingenious and inclusive learning for all students.

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Subject or disciplinary focus

SOARing to success: enabling social work students to develop resilience and sustainable employability

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Background

Personal resilience is a key component in general wellbeing, happiness, physical and mental health. These attributes all interlink and are vital for effective learning, life and work. They are aspects of life experience that have increasingly become issues of concern in the UK, exacerbated by multiple anxieties due to the Covid-19 pandemic.

Specific services developed by the NHS, community organisations and HEIs deal with symptoms when they arise, reflecting a general approach to resilience as "the ability to recover quickly from stress and adversity". Here, our concept is that emotional resilience is a complex, multi-faceted and evolving construct that can be examined and developed in educational settings as a protective personal resource beneficial for all, but especially for surviving and thriving in the demanding helping professions (Grant and Kinman, 2014).

This study addresses the 'wicked problem' social work educators and students face in training for entry to an emotionally demanding profession. Social workers experience higher levels of work-related stress, sickness and burnout in comparison with other occupational groups (Ravalier and Boichat, 2018; Unison, 2019). Planning and providing care for vulnerable individuals or groups in diverse settings requires them to adapt to and manage complex situations such as clients being intellectually or physically disabled, homeless, marginalised or disadvantaged. The work involves ethical dilemmas, uncertain outcomes and making difficult legal decisions. Hostile reactions from service users are particularly distressing for social workers.

Information from Social Work England (SWE)

A discussion with Ionna Roberts (SWE Regional Engagement Lead for the Eastern Region, Yorkshire and the Humber) and integration of SWE's commissioned research (Cragg Ross Dawson, 2020) revealed that:

+ 85% of current social workers report job-related stress due to a high workload and a focus on targets rather than user issues. These systemic issues are beyond their control and make it difficult for them to 'do good' and 'make a difference' – a common desire expressed by many social workers

+ only 24% of current and former social workers think that their work is respected by society. Low morale and low resilience due to hostile media attention for failings results in a general feeling that social work is undervalued and under-resourced (in comparison with other helping professions)

+ 89% feel that being a social worker is great and are proud to make a positive impact, but only 26% would recommend it to a friend or family member

+ 39% plan to leave within the next five years, especially those working in children's services

+ the most common reasons for leaving are ill health, high workload and poor work/life balance

+ the government is substantially increasing funding and jobs but there are many vacancies that go unfilled, with particular recruitment and retention problems in London

How might the SOAR model help?

SOARing to Success (Kumar, 2008; 2022 in press) and SOAR for Employability (Kumar, 2015) have been used extensively as the SOAR model. SOAR is essentially an integrated theoretical and practical framework that enables all students to identify and critically appreciate how their inner world of **Self** interacts with the outer world of **Opportunity**; and how this dynamic generates **Aspirations** and achieves **Results**. The pedagogy motivates students to develop transferable skills, knowledge, attributes and experiences with a more personal sense of direction and destination. It has consistently been evaluated positively in diverse contexts, but our explicit focus on resilience here is a novel application.

Approach

This qualitative study focuses on the BSc and MSc Social Work programmes at the University of Hertfordshire on which 220 students are currently enrolled. We synthesise key findings from the literature and review recent experiences, evaluations and feedback from the staff team, students, alumni and carer trainers. In doing so, we recognise that resilience depends on a recursive interplay between personal characteristics and working conditions. The latter are beyond our control, so our main aim is to trial pragmatic tools to enhance students' self-regulatory capabilities.

This aim converged on three action steps:

1 Identify and create shared understanding of the behavioural competencies that underlie resilience as a complex construct.

2 Obtain feedback from students and alumni to identify deficits within the Skills for Practice modules.

3 Audit SOAR approaches in relation to our aim, embedding and evaluating its tools as needed.

Perspectives from educators

The student composition at Hertfordshire is diverse in terms of age, cultural and ethnic background. Using the same teaching methods does not meet everyone's learning needs. For example, international students typically struggle with critical self-reflection. Within the 2018-20 cohort, the attrition rate was 15%. Dropout rates are due to difficulties in coping with assignments and placements, a lack of professional maturity and lack of understanding regarding the complexity of the social work role. Moreover, practicing skills on virtual platforms has presented challenges throughout the pandemic.

Carers' contributions

Success in working with clients essentially depends on an ability to understand their circumstances, communicate with empathy, generate trust and meaningful relationships to empower, thrive and survive. The carers in the Hertfordshire Carer Trainer Unit facilitate co-production and incorporate carers as 'experts by experience' for specific skills development. Students consistently feed back that they developed greater insight, improved their confidence and learnt from carers' experiences how they could become more resilient in the workplace.

Evaluations with students

During summer 2021, 24 interviews were undertaken via telephone calls and focus groups with MSc and BSc students on placement and alumni who had completed their training and were using their skills in full-time, complex and fast-paced work environments. To evaluate resilience and employability, the interviews focused on the extent to which they felt the curriculum had prepared them for employment.

All respondents were positive about their learning, most felt well prepared, while others said their confidence had nosedived since entering practice:

> "The pace and pressure of the front line is far worse than I imagined; the preparation process could be longer to help us develop better coping mechanisms."

> "My final placement was hard; I didn't think I could make it and considered whether social work was the profession for me."

All interviewees identified more could be done to develop resilience as they felt overwhelmed by the pressure and timeframes. However, they were unable to articulate what could be improved.

Outcomes

While the learning outcomes of social work courses must meet qualifying education and training standards, learning methods for achieving them are not prescribed so educators have autonomy in designing an innovative curriculum. Professional standards primarily have the interests of the public in mind: students must understand service users' needs and meet their expectations with professionalism. SOAR offers a complementary inside-out pedagogy: enabling students to understand and value themselves authentically and build their unique identity through the metacognitive capacity to reflect in, on and for action.

In May 2021 SOAR was introduced to two educators who deliver the Skills modules. Our audit of the SOAR process revealed a high level of congruence with the development of attributes commonly possessed by resilient people, as identified in the literature (Grant and Kinman, 2020). SOAR, with its positive investment in Self, typically enhances self-esteem, personal agency, self-efficacy, optimism and motivation through its 'appreciative inquiry' approach and supported methods of development. Formative self-assessments are linked with peer-assessment, constructive feedback and summative tutor-awarded grades – all using shared understanding of criteria.

Reflective, active, interactive and collaborative methods support skilful practices as *behavioural competencies*, enabling students to critically appreciate their strengths and development needs expressed as current, potential and effective behaviours in transferable skillsets such as:

+ working effectively with others, inclusive practice, valuing diversity in groupwork, relationship-building, and dealing with conflict. Intrapersonal and interpersonal skills are developed in tandem with emotional and social competencies

+ decision-making and problem-solving in complex situations

+ action-planning, managing oneself through time and under pressure, persevering despite obstacles

+ learning and improving in HE, tackling assessments with information literacy

+ adapting or being adaptive in context, seeing challenge as opportunity

+ maintaining work-life balance and resilience, wellbeing, physical and mental health, as everyday lifestyle habits.

SOAR dynamics empower students to balance the current focus on external referencing with internal referencing to focus on their own needs. Self can then draw upon experiences with others and with Opportunity for mindful, meaningful personal growth, using sources of support appropriately. The propensity to use supervision and organisational support is essential for resilience during placement, pre-registration and continuing professional development.

Limitations of this case study

The *Skills* modules offer fertile ground for seeding and embedding SOAR but this project has suffered delays in its intended timescale due to staff bereavement. Going forward, scheduled dates are:

18 November 2021: staff development session

1 February 2022 onwards: implementation of selected SOAR tools for MSc students prior to their placements and with BSc students on their skills module.

At regular intervals, evaluations will measure the extent to which students develop the underlying competencies for resilience and then apply them in practice. We hope our findings will be useful for application in other helping professions, interprofessional education and multi-agency working. It is useful to remember that pedagogic innovations need not be stifled just because professional standards must be met.

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Solving problems through entrepreneurial activity – how acquiring enterprise skills and knowledge continued through the Covid-19 pandemic

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Background

When we make decisions, we are solving problems. Most of the time we solve simple, well-defined problems with quick decisions with little exposure to risk, such as, what should I wear today? But as decisions get more complex, the consequences become more significant, so we take longer. For example, a young person considering what degree to study encounters significant uncertainty. Will the subject be the right choice? Will they like the university and its location? Deliberation may take many months, with the success of the choice unclear for many more months. But for some, disappointing exam grades means they must quickly solve the same problem again in the stressful and uncertain process of clearing.

This example may be a real decision-making baptism of fire, but it's also an important, formative experience. Solving problems and making good decisions while dealing with uncertainty are essential skills in the modern workplace (Sewell and Pool, 2010). This is especially true for self-employment and entrepreneurship where there is no corporate structure to absorb uncertainty or limit the impact of poor decisions. But the entrepreneurial experience also includes the thrill and deep sense of fulfilment gained by successfully navigating challenges like product development, acceptance by customers (generating income) and ultimately achieving a profit.

Therefore, the task of enterprise and entrepreneurship (EE) education is to not only equip students with relevant skills, but also impart a deep understanding of the realities. The EE educator must strike a careful balance between inspiring students with entrepreneurial ambitions while also exposing the challenges to be overcome and the implications of the risks. There are many different pedagogical approaches to this difficult challenge, as examined by Bell (2021) and Hyams-Ssekasi and Caldwell (2018), but what works well in practice?

The focus of this case study is an elective third-year undergraduate module accessible to students across all business degrees, aimed at teaching students how to start and run a new business. This should have been an ideal starting point for the author as an experienced and award-winning entrepreneur starting his first year as an EE educator, but the prescribed module content and delivery were very much at odds with his entrepreneurial experience. The 'traditional' teaching and assessment of theories from core texts and case studies failed to convey anything but the most rudimentary elements of a real business startup. The result was unmotivated students acquiring limited entrepreneurial skills and achieving modest grades.

Surely there must be a better way to educate potential entrepreneurs? Inspiration was drawn from a small pop-up activity in the original delivery which was isolated and not assessed but was the only time students began speaking and acting in an enthusiastic, business-like way. It is no surprise that this entrepreneurial experience inspired business students, but how could this be scaled up to equip them with more appropriate startup knowledge and skills?

Approach

Given the opportunity to run the module again, the author knew big changes were required and was encouraged to use his entrepreneurial experience by his line manager. Knowing how engaging and enlightening the most modest entrepreneurial activity can be (Hjorth and Johannisson, 2007) the pop-up concept was placed at the heart of the module. The intention was to give students a real taste of starting and running a small business by running two pop-up shops or events, one in each semester. To embed learning from experience, assessments were designed for students to write about and reflect on their startup experiences, so linking the doing and thinking (Gibbs, 1998). This format has now been used for four years up to the time of writing, including throughout the Covid-19 pandemic.

To add realism to the task (Perkins, 2009) £300 was secured to invest a £50 'seed fund' into each of the six teams, and this really struck a chord. The idea of the business school not just teaching students, but literally investing in them, created tremendous buy-in. As in real life, all seed funds were to be paid back, but unlike real life, all profits must be paid to a charity chosen by each team. Choosing a charity was designed to avoid any possible visa conflicts for international students running a business but became a wonderful conduit for team building as students discussed personal connections to charities, so creating an early bond between unfamiliar teammates.

Each two-hour weekly workshop started with a lecture on startup issues relevant to the task, such as idea generation, business planning and bookkeeping. Teams were then given time to develop their ideas and coordinate actions while the author circulated between teams in the manner of a small business coach providing feedback and encouragement on their ideas and progress. Where necessary, new materials were developed for the following week on topics students were struggling with, such as decision-making or pricing.

When deciding what pop-up activity to choose, students often showed naivety by underestimating the complexity of some ideas and not valuing the simplicity and clear potential of others. Each decision had consequences that could impact the success of their event and mean the difference between making a profit or loss. Such consequences weighed heavily on some, who were so concerned about making wrong decisions that they took far too long to make simple choices. They were encouraged to take a pragmatic approach focused on taking action and learning quickly from mistakes. Despite recognising some choices were poor it was important not to intervene as learning from mistakes is a vital part of the entrepreneurial experience.

The use of experiential learning in EE education is not new, with extensive education theory extending from Kolb (1984) and Gibbs (1988) and many others. Since implementing this format the author has become aware of similar examples, such as Mason and Arshed (2013), and written on the topic himself (Simmons, 2021). Practical approaches are also supported in two excellent EE educator guides – QAA (2018) and EntreComp from Bacigalupo et al (2016). But the module in this case study was designed from the perspective of an entrepreneur who had no knowledge of education pedagogy.

Outcomes

For four years every team has completed the task, repaid the £50 seed fund and donated more than £1,800 profit to charity. An initial uplift in academic attainment has been maintained, with average grades increasing from 54 prior to the changes to the low to mid 60s afterwards. All bar one team achieved a profit, but profits levels reduced from the start of the Covid-19 pandemic.

Table 1. Basic module and cohort data over five years

Academic year	Number of students	Number of teams	Ave grade attained	Total profit earned	Ave profit per team
2016-17 (Previous Delivery)	8	-	54	-	-
2017-18	34	6	62	£905	£151
2018-19	14	3	63	£424	£142
2019-20 (Covid start)	14	3	61	£109	£36
2020-21 (Covid continued)	10	3	65	£386	£129

But the biggest impact was expressed by students through 500-word reflections on their learning experience in the two pop-up enterprises. They were free to express their feelings (positive or negative) while also answering the question: "To what extent do you think your pop-up experience has prepared you for the process of starting and running your own business?" Reflections were analysed using thematic analysis (Mason and Arshed, 2013), where the data (text) was analysed and patterns (themes) emerged and then compared over time, revealing some striking similarities and stark contrasts between cohorts.

Chart 1: Students reporting start-up readiness, stress and impact of Covid (%)
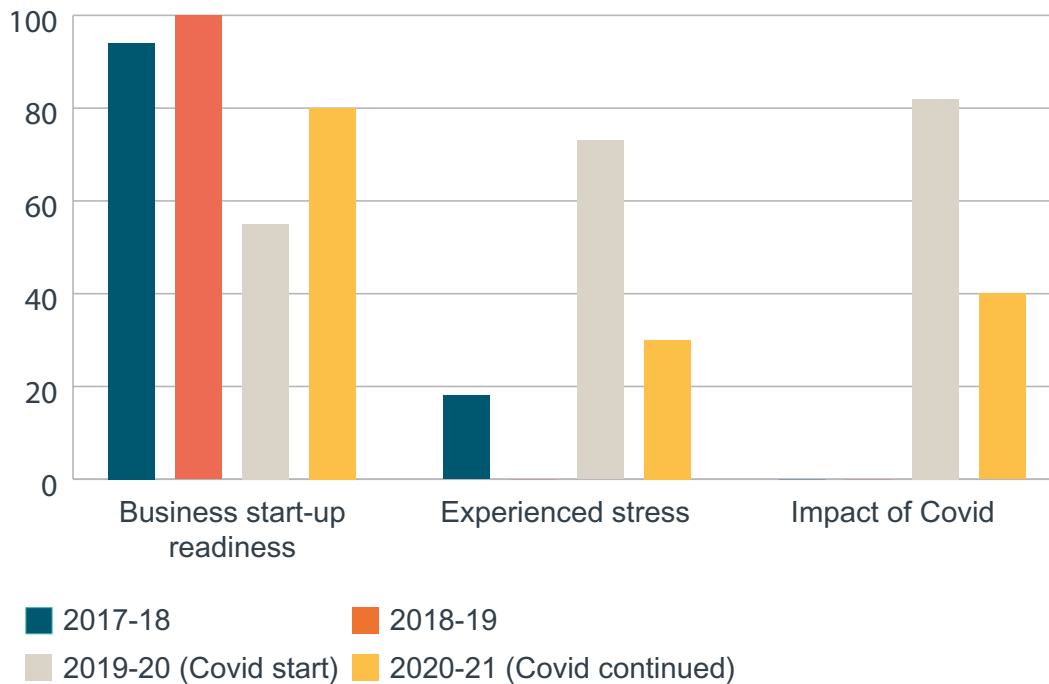
In the first two years, almost all students reported increased readiness to start a business, but this level was reduced during the pandemic. Chart 1 shows decreased business readiness aligning with the impact of Covid and students reporting feelings of stress. In fact, 10% of students were put off starting a business altogether after their pop-up plans were wrecked, eg being left with stock they had purchased, but could no longer sell. But, start-up readiness returned strongly in the second year of Covid as students were able to plan online activities from the outset, rather than being forced to react at the last minute.

By contrast, chart 2 shows that acquiring enterprise skills, knowledge and experience from the pop-ups has remained consistently high and largely unaffected by the pandemic. Many students commented on how this 'real life' learning embedded knowledge and skills more deeply than 'traditional' didactic teaching. For example, the consequences of poor decisions resulting in financial loss featured in many reflections.

Chart 2: Students learning from the experience, and gaining enterprise skills, knowledge and experience (%)

Legend:
- 2017-18
- 2018-19
- 2019-20 (Covid start)
- 2020-21 (Covid continued)

Categories: Gained enterprise skills, Gained enterpise knowledge, Gained enterpise Experience, Learning from mistakes/experience
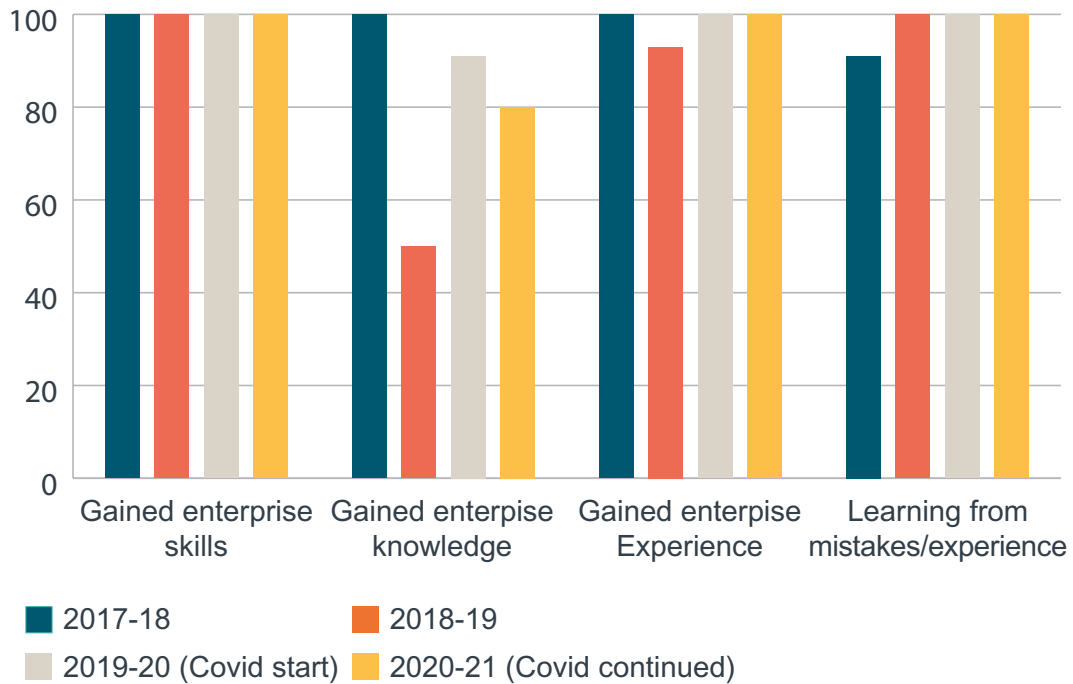
Without prompting, students consistently reported experiencing and developing a range of enterprise skills. Chart 3 shows problem solving was most frequently mentioned, including 100% of students impacted by the pandemic. It is striking how consistently these skills were experienced, illustrating how universal they are to enterprise (Rae, 2007) and how effectively this experiential learning pedagogy brought them to the fore.

Chart 3: Students reporting a range of enterprise skills experienced (%)
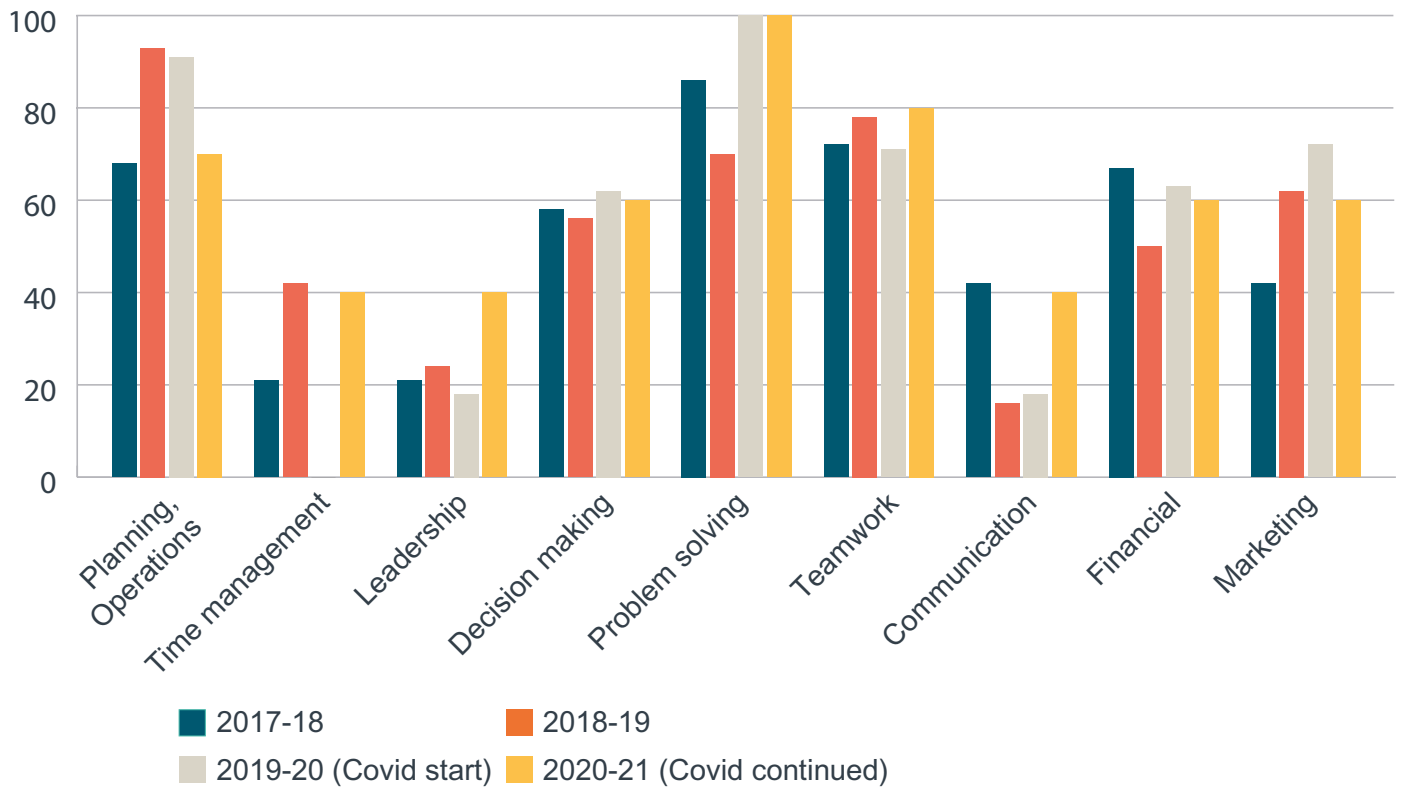
More than half of students also reported significant personal development, often citing increased confidence and belief in their abilities. Many also commented on how much they personally valued the pop-up experience, while a smaller number also said how much they enjoyed the module. But for students impacted by the pandemic it was not an enjoyable experience, despite being valued and reporting significant personal development.

Chart 4: Student personal development, module value and enjoyment (%)

Legend:
- 2017-18
- 2018-19
- 2019-20 (Covid start)
- 2020-21 (Covid continued)
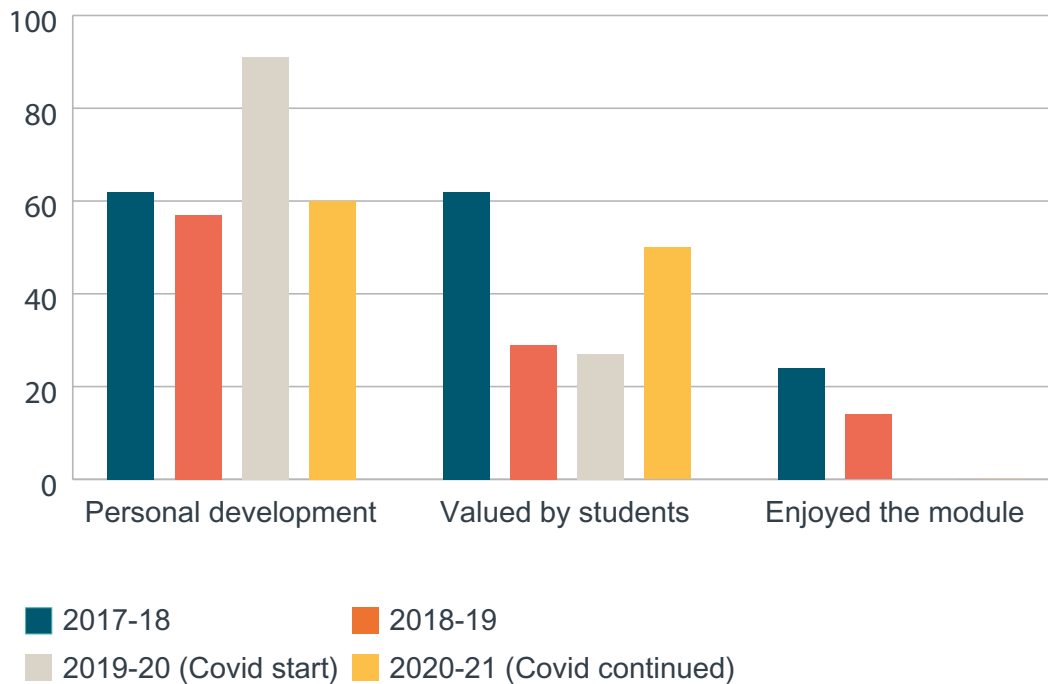
Lessons for employability, enterprise, and entrepreneurship pedagogy

Many students are very keen to acquire practical business skills and enter university for that reason. For many, this experiential learning exercise seemed to release them from the shackles of theory and into the 'real world' of business where decisions have consequences and success can be savoured. The enterprise skills they developed are also valuable employability skills across a wide range of sectors, which suggests this approach has a wide application throughout the enterprise and employability agenda.

It could seem to an academically orientated EE educator that their role in experiential learning is somehow diminished because there is less time for theoretical concepts, but the opposite is true. By letting the (guided) activity do the teaching, results may far exceed what can be achieved with traditional methods.

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Increasing the employability of psychology undergraduate students: a specific skills-set curriculum

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Stage one: background

It is increasingly important to enhance the employability skills of our students so that they are ready for life after graduation. Enhancing employability can be defined as empowering students to develop a set of skills and attributes to make graduates more likely to gain employment and be successful in their post-education future (Yorke, 2006). The Industrial Revolution 4.0 means that the current landscape of jobs, as well as the skills required for these jobs, is continually changing (Schwab, 2016), and data shows that graduates are not equipped with the right tools. Graduate employability is increasingly a key concern for higher education (HE) providers. Universities should prepare students for the world of graduate work, a venture that has become increasingly difficult as a result of "the widespread labour market uncertainty and massification of the higher education system" (Bridgstock, 2020, 1; Tomlinson, 2012) and "dynamic developments in an increasingly digital, diversified and distributed labour market" (Dalrymple et al, 2021, 30). This is particularly important for our psychology undergraduate students as our Destinations of Leavers from Higher Education (DLHE) data and the Graduate Outcomes Survey (2021) data show that our students do not go into traditional psychology careers (eg clinical psychologist, educational psychologist, health psychologist). Instead, they go into a variety of graduate jobs ranging from marketing, human resources and project management to social work, education and health-related professions. Therefore, we need to make sure we provide students with the right toolkit to prepare them for these jobs alongside the psychology curriculum. We must keep up to date with what the sector requires from us as educators and from the students as graduates. The challenge is to understand who our students are as they come in and what skills they bring in with them; what skills they take with them as they graduate; and who gets the graduate jobs – what differentiates between those who get the graduate jobs and those who do not.

In 2019-20, we started to set up the Psychology Graduate Stream in the undergraduate psychology programme. The aim is to provide students with a grounding in employability skills and prepare them for graduate life as well as encouraging an ethos of lifelong learning. Additionally, the goal is to enhance students' understanding of the diverse range of career options available to them as psychology graduates – students need to be on the frontline, looking ahead and understanding available opportunities, and therefore preparing themselves for the future. We have a cohort of almost 800 students. There are thousands of psychology students graduating each year in the UK, and we want to make sure that our students stand out from the crowd – not only within Brunel University London, but also at programme level and across the sector.

Stage two: approach

Tackling the problem started as a data-driven task. In 2018-19, we looked at the DLHE data, which shows how many of our graduates continue in education, are in graduate employment or are a mixture of both six months after graduating. We also considered the Longitudinal Educational Outcomes (LEO) data, which tells us about employment outcomes and earnings of higher education graduates, and Planning and Admissions data, which provides us with an understanding of who is enrolled in our programme.

Data showed that our students are mainly widening participation students, including students from disadvantaged backgrounds, lower-income households, other under-represented groups such as Black, Asian and minority ethnic, students with diverse ethnic and cultural backgrounds, carers, and students with additional needs. Our students come from a variety of different entry levels (A-levels; Business and Technology Education Council (BTEC); Foundation Degree (approximately 6% of FHEQ Level 4 cohort); and a few through direct FHEQ Level 5 entry); commute (around 64% live within five miles of campus and around 36% live more than five miles away); and are employed (part-time and full-time).

When transitioning to university, students need to adapt to a different mindset and attitude, become more proactive and show initiative, manage their own time, balance responsibilities and set their own priorities, become independent learners in a professional environment, and use critical thinking and apply knowledge. Our role is to support their transition and skills development in order for them to succeed in their studies.

The DLHE data (2018) showed that our graduates enter areas that are not traditionally seen as 'psychology-related' jobs: management; health professions; education; legal, social and welfare; science research-related professions; business, human resources and finance professions; marketing, advertising, public relations and sales; arts, design and media. So how can we, as educators, prepare our students for these types of jobs?

Our solution involves supporting students managing their transition into higher education; provide them with the necessary skills to succeed in their programme; develop and enhance students' academic and transferable skills, so that they can apply them in a variety of settings; and increase the awareness of career options for psychology graduates so that students have a better understanding of what the job market looks like. We are looking ahead, we are thinking about Industrial Revolution 4.0 and the shift to digital working, and we are aware of the changes that are taking place in the job market. Our main goal was to combine this to enhance the employability of our psychology graduates. To implement this, in the latter part of 2018-19, we started the process of designing and implementing new blocks – Academic Skills for Psychology and Employability in Psychology – the stepping stones of the Psychology Graduate Stream, which we set up in 2019-20. This process involved consulting with academic staff and students to gain a clear and broad perspective on the needs of our undergraduate students (+/- 800), which complemented the data we had already analysed.

The Psychology Graduate Stream is tailored per FHEQ level: in Level 4, students (+/-250) have two modules, one covering Academic Skills and another covering Employability in Psychology; in Level 5, they (+/-280) have one module covering Advanced Academic Skills and are given the opportunity to take part in a 30-hour work experience; and in Level 6, students (+/-230) have dedicated academic skills support in the form of weekly dissertation workshops and are given the opportunity to take part in a 30-hour volunteering experience. The Academic Skills for Psychology module is aligned with the needs and requirements at each FHEQ Level; tailored to our students; mapped to the assessments allowing for fluidity between the levels. The academic skills are transferable, professional and employability-ready; they are not just tools to progress through a degree, but tools that our students can use in their graduate professional life.

The work experience and the volunteering experience are starting in 2021-22 and are different from a placement/internship. Successful completion of employment-enhancing activities will lead to students receiving the Graduate Stream in Psychology Award, which will be added to their Higher Education Achievement Report (HEAR) transcript. The award is being implemented in 2021-22 and consists of three categories depending on what they have successfully completed: (i) Bronze; (ii) Silver; and (iii) Gold. The aim of both the work experience and the volunteering experience is to enable students to develop skills relevant to professional practice and to gain an understanding of how to apply the skills in an employment/professional context. By the end of these experiences, students should be able to reflect critically on issues encountered in employment/professional settings and apply problem-solving skills to overcome them. Students will develop a range of skills, including self-directed learning, time-management skills, working independently, working in teams, adapting to a workplace setting, and effective communication skills. By successful completion of the 30-hour experience, students will be able to: (i) understand and articulate their employment-relevant attributes, skills, attitudes and preferences; (ii) identify their need for further training, skill development or new competencies to facilitate their successful career, and their ability to create a strategy to achieve these; (iii) develop self-awareness (eg identifying personal preferences and attributes; employability; self-motivation); (iv) improve and enhance interpersonal and transferable skills (eg team work; effective communication; self-presentation; IT and digital literacy skills). This award also includes other employability-enhancing activities (mentor meetings; CV and cover letter check; completing other employability skills training and workshops provided by the Division of Psychology) and guest speakers who are mainly Brunel alumni talking about their graduate journey.

Stage three: outcomes

Students attending the guest speakers' talks were asked to complete a short survey about the usefulness of the talk, the relevance of the talk to their future graduate career, and how engaging the talk was. Results for 2020-21 showed that around three quarters of the participants found the talks 'useful' or 'very useful' (75.3%; n=146); around half found the talks 'relevant' or 'very relevant' (47.1%; n=90) to their future graduate career; and 65.5% (n=125) found them engaging. In 2019-20 we had two guest speakers; in 2020-21 we had six guest speakers; and for 2021-22 we have 23 guest speakers confirmed with another four to be confirmed.

The Employability in Psychology module covers several topics, such as careers options for psychology graduates; benefits of placement work and volunteering opportunities; identifying skills, strengths and areas for improvement; determining one's purpose and goals; writing successful CVs and cover letters; preparing for interviews and the 'elevator pitch'; understanding one's values and the organisation's; professionalism awareness; leadership and initiative; and professional online profiles and networking. Since the module started in 2019-20, the number of psychology undergraduate students booking appointments and engaging with the Professional Development Centre (PDC) has grown three-fold, and with the Brunel Volunteers has doubled. For 2021-22, the assessment has changed from a 'mock' employability application (ie CV and cover letter) to a 'mock' interview where students will have a first-hand experience of the recruitment process. The aim is to bring this further and allow students to experience the entire recruitment process – from the CV and cover letter to the short telephone interview, the assessment centre and the panel interview.

The outcomes of the work experience, the volunteering experience and the Graduate Stream in Psychology Award, which are starting in 2021-22, will be ready at the end of the current academic year.

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Successful transitions: engaging creatives with employability

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Background

Higher education (HE) has a responsibility to equip students with the confidence to develop and use skills that enable them to negotiate labour market challenges successfully (Cranmer, 2006). The present political climate, and its relation to graduate mobility and employability, provides an additional responsibility for HE to develop infrastructure that assists the successful transition of undergraduates into employment (Garrouste and Rodrigues, 2014).

This is problematic for creative graduates where the perceived value is questioned. While it is widely acknowledged that creative industries contribute significantly to UK economy, to the tune of £111bn (DCMS, 2020), and have risen at twice the economic rate since 2010 (Carey et al, 2019; Aubrey, 2018), the perceived value of studying a creative degree is less well acknowledged.

Research has explored diverse methods that enhance student engagement and these vary depending on the rationale and measurements used to evidence engagement (Garrett, 2011; Payne, 2019). It is particularly challenging to engage students in employability where the activity sits outside an existing curriculum (Krause, 2005; Gracia, 2009) and where the term employability seems ill-fitting for creatives who often become self-employed.

Within this model, the objective was to engage students with employability events that primarily benefited them intrinsically by raising awareness and encouraging personal development (Barnacle et al, 2017). However, the model also recognises the individuality of students, and that the timetabling and venues of the events can influence engagement (Dean and Jolly, 2012). This paper defines engagement as self-selected participation in events that lead to a deeper learning of employability.

The model was evaluated using three factors: student registration, 'career confidence' and demonstrating 'next steps'. This holistic approach reflects 'table of learning' (Schumann, 2002), explores motivators for engagement (Payne, 2019) and resonates with more recent studies (Bowden, Tickle and Naumann, 2021).

Approach

The employability lead of each department within the Manchester School of Art was tasked with engaging students with employability. As a result of pressing budget and time, two department employability leads from media and design (Gavin Parry and Kirsteen Aubrey) pooled resources.

Over a period of six months we designed a series of events to be delivered over a seven-week period (figure 1) that encouraged voluntary participation with a range of employability networks, masterclasses and alumni talks. These were promoted across both departments (circa 1800 students) via academics, flyers, posters and social media.

Figure 1. Timeline of activity and responsibility

Month	Activity	Responsibility
July	Meet with career team + confirm date of network event. Identify industry partners and 'warm' contacts – approx. 20	Career team + employability leads
August	Initiate contact with longlist of industries Liaise with timetabling – schedule time/space for events	Career team + employability leads Employability leads
September	Early: contact potential partners re masterclass Early: review progress, identify 'firms' to attend (approx 15) Mid: send details of event to confirmed industries	Employability leads Career team + employability leads Career team
October	Identify and contact alumni for talks	Employability leads
November	Clarify confirmed industries (12-15)	
	Career team Promote network event through career hub	Career team/ career hub
December	Design and produce network event promotional material Notify programme teams of forthcoming network, masterclass and alumni talks to promote to students.	Info: career team Design: employability leads Employability leads
January	Early: promote network event: flyers, social media etc. Event: networking event Event: masterclass I	Employability leads + academics Career team + employability leads Employability leads + career team
February	Event: masterclass II Events: alumni talk I, alumni talk II, alumni talk III	Employability leads + career team Employability leads + career team
March	Event: alumni talk IV	Employability leads + career team

The first network event was coordinated in a spacious venue with capacity for 120 people. The expansive room held a quiet grandeur, a deliberate intention to reposition students away from their studio environment. Twelve round tables (one per industry) were positioned around the room, each seating eight students. The round tables were intended to prompt dialogue between student and industry representative, each roundtable 'session' lasting 15 minutes before rotating to another table.

Masterclasses were delivered in the same location albeit with new style of engagement. The presenter remained at the front of the room, and a range of activities were undertaken in small teams of students at the round tables. The masterclass experience prompted students to engage through active listening, collaboration and presentation.

Alumni talks were convened in smaller, familiar studio-based settings where three alumni each presented for 20 minutes. The semi-circular arrangement of the room seated staff and students together, a format that encouraged discussion and reduce perceived barriers between staff, student, and alumni.

Figure 2. Table of delivery, capacity, activity and intended student engagement

Location	Capacity	Timing/ Duration	Activity	Student participation	Student engagement
Large space	c.120	1-1.5 hours	Masterclass	Formal	Collaborative/ team bases/ presenting
Large space	c.120	1.5 hours	Round table	Formal/Infomal	Network/ Question
Studio setting	c.15-40	20 minutes	Presentation	Infomal	Listen/ Question

Outcomes

The network event provided the main feedback, which was a conscious decision so as not to inhibit student engagement at smaller events. The network event exceeded room capacity with 231 registrations, reflecting 13% of the cohort. Of those attending, 66% completed the questionnaire and this served as a meaningful data for this early iteration.

Within the anonymous questionnaire, students identified their department and year group. Attendance of the respondents reflected both departments, with marginally higher numbers from media than design. Participants were predominantly from second and third year, with these groups reflecting 44% and 39% of attendees respectively. First year undergraduates and postgraduates represented 17%.

The questionnaire focused on two themes, 'career confidence' and 'next steps'. The former explored where a student positioned themselves in terms of 'readiness' to consider career options, develop networks, build a CV and apply for placements, with responses of 'ready', 'fairly confident' and 'confident'. The second theme addressed subsequent actions to be undertaken by the student. The 'steps' identified multiple options; arranging a career hub appointment, attending career drop-in service, registering for future employability events, initiating their CV.

Analysis indicated that the confidence of all responders increased following attendance at the networking event. Half of respondents felt 'ready' to discuss career options and begin a CV with academic assistance, while 18% of responders felt 'confident' and 'independent' to design their CV and apply for placement opportunities without further assistance.

Figure 3. Student feedback

> "[It was] so good to be able to get to speak to professionals and get really helpful advice from people who have been in my position."

> "I came out more confident about my practice and future career."

The data hinted that student confidence may not correlate with level of study, and further research is needed to inform this early finding. Analysis highlighted that 41% of respondents left the event feeling 'confident' in their career options and this represented a high number of second year students. This seemed surprising in relation to those respondents due to complete their study shortly.

'Next steps' highlighted that all students felt able to action their employability aspirations having engaged in the event. Multiple answers were available, and 54% planned to begin a CV, with equal numbers preparing to discuss employability with their tutor and attend career support (38%).

Encouraging student engagement was most impactful when disseminated via programme staff (48%), followed by career hub notification (25%), poster/flyer (15%), and a collection of social media and other (12%).

Future developments include pooling resources across departments to maximise resources. Cross-departmental events demonstrate to students the potential of networking outside their programme specialism. Sharing this good practice across the Faculty of Arts and Humanities will identify potential synergy with other departments and foster new collaborations and events.

The data reflected upon the networking event, and future iterations need to incorporate scope that strengthens our understanding of specific factors that create intrinsic benefit to students, such as in confidence, an area that was limited within a generic questionnaire (Barnacle and Dall'Alba, 2017).

Bridging partnerships and coordinating events where industries and student interconnect evidences the importance of cross-disciplinarity (figure 4) and the potential of creative, collaborative practice that supports employability (Oliver and Jorre de St Jorre, 2018). This knowledge is being developed to create an Employability Advisory Forum that informs curriculum development and ensures students remain skilled, informed, networked and employable.

Figure 4. Industry feedback

> "Really valuable to the students to understand all the different avenues open to them. Just because a student is doing 'x' degree it doesn't need to pigeonhole them when it comes to choosing a career."

The model presented was realised through collaboration between employability leads and the career team. The collective effort fosters institutional partnerships, provides crucial visibility of careers across the Art School that strengthens student engagement with employability. The career team subsequently developed weekly support for students within the Art School, organised CV competitions and developed bespoke programme support.

We continue to seek new ways to engage students with employability and have introduced a department approach to the institution's 'My Five Year Plan'. This initiative enables students to plan, action and record their skills throughout their studies, ensuring they are prepared, confident and able to navigate the challenges of employment.

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An integrated approach to employability and global professionalism

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Background

This project combines the concept of employability with global professionalism to meet the individual needs of an increasingly socially and culturally diverse student body. By developing an integrated employability spine that progressively spans the three years of the undergraduate Business Management degree, the aim of the project was to prepare graduates for an intensely competitive global labour market. With the Teaching Excellence and Student Outcomes Framework (Department for Education, 2017) including core metrics on the number of graduates in employment or further study, along with the skill level of the roles, employability continues to be a key strategic aim for universities. However, a gap has been observed, particularly among international students, between the employability skills graduates possess in comparison to those required by employers (British Council, 2015; Tran et al, 2021). It is a challenge to develop tailored employability initiatives that effectively support graduates from all backgrounds in their transition from education into employment (Kalfa and Taska, 2015).

QS (2018) believe all students are subject to similar employability demands regardless of their country of origin and employment. There has also been a move towards developing employability through the concept of graduate identity and an understanding of self in relation to employment rather than solely focusing on the acquisition of skills and abilities (Artess et al, 2017). The Confederation of British Industry (2019) similarly advocate that building character is important for work readiness among young people. Considering these points, and focusing on the individual needs of students, the project was underpinned by Tomlinson's (2017) Graduate Capital Model, with activities being designed to support both home and international students in their accumulation and deployment of five forms of capital. To develop global professionalism, the project also drew on Bennett's (1986) Development Model of Intercultural Sensitivity (DMIS). The DMIS breaks boundaries in terms of employability by describing our interpretation and experience of cultural difference and observing the process of intercultural adaptation as we increase our ability to communicate across cultural differences. The next section will outline the stages of the project and the pilot activities undertaken with students.

Approach

The project was an interdisciplinary collaboration between academic staff with backgrounds in business management, English for academic purposes and intercultural effectiveness training along with support from the Careers and Employability Service. The aim was to provide a contemporary approach to integrating employability into the curriculum to develop globally employable graduates. The first stage of the project was to bring together these different perspectives on employability and establish the learning outcomes for each of the three years. These can be summarised as follows:

+ year one – an understanding of who you are in terms of, for example, mindset, learning styles, multiple intelligences, personal values, and worldview. Learn how to apply reflexive practice to personal growth and receive feedback in a constructive manner

+ year two – an understanding of self in relation to different fields of work and to research potential careers and routes of entry regardless of geographical location. To construct a personal careers portfolio to provide a starting point for continuous professional and personal development

+ year three – an awareness of intercultural effectiveness and employability in a variety of common workplace scenarios including working relationships. To begin constructing a proactive strategy to expand their repertoire of behaviours to function effectively in a diverse workplace.

Having established the learning outcomes, the project team then identified activities across the three years of the degree to achieve these and mapped them onto the five capitals within Tomlinson's (2017) Graduate Capital Model. The activities were also designed to move the student worldview to a wider, more ethnorelative focus, reflecting Bennett's (1986) DMIS. An extract from the cultural capital mapping is shown below to illustrate the approach taken:

Table 1. Activities mapped against Tomlinson's Cultural Capital

Tomlinson's Capital	Activities to develop capital	Year undertaken
Cultural	Demonstrate that they have added value through extra-curricular activities	1, 2 and 3
	Select and apply methods to present themselves in a professional and targeted manner (on paper, online and in person)	1, 2 and 3
	Assess the culture of key organisations in their chosen sector	3
	Demonstrate an awareness and sensitivity to different cultural contexts and an increasingly internationalised labour market	3

The next stage of the project was to trial the activities with five volunteer students from each of the three academic years of the Business Management degree. Business Management was chosen as the students had already undertaken employability interventions and the project team wanted their feedback on this new approach. Workshops were held for six consecutive weeks between January and March with two focusing on activities from each year of the degree. The sessions for year one were titled "Know Yourself" and "Know your Cultural Self", for year two "Know your Employable Self" and "Know your Market and Brand", and for year three "Know your Responses" and "Know your Teamwork Culture".

Through the project, students were able to establish their personal starting point and uncover their own motivation for study and longer-term development to set and pursue their own personal development plan for professional global employability in their chosen field.

Outcomes

Before the first workshop, all participants were asked to complete a questionnaire to self-evaluate their levels of confidence in constructs relating to employability and global professionalism. The questionnaire was then repeated after the six workshops to measure change in these levels. The data is provided below.

Table 2. Student self-evaluation before attending the workshops

	Needs significant development	Needs development	Don't know	Confident	Very confident
Self-management		50%(Y2) 75%(Y3)		33%(Y1) 25%(Y3)	67%(Y1) 50%(Y2) 25%(Y3)
Understand how my actions impact on others	33%(Y1)			67%(Y1) 50%(Y2) 50%(Y3)	50%(Y2) 50%(Y3)
Identify areas for personal development		33%(Y1)	33%(Y1) 50%(Y2)	255(Y1) 50%(Y2) 67%(Y3)	50%(Y3)
Career planning		50%(Y2) 75%(Y3)	33%Y1)	50%(Y2)	67%(Y1) 75%(Y3)
Match my skills to advertised jobs		75%(Y3)	67%(Y1) 50%(Y2) 25%(Y3		33%(Y1) 25%(Y3)
Assess my progress towards my career goals	25%(Y3)	50%(Y3)	33%(Y1) 25%(Y3)	67% (Y1) 100%(Y2)	
Adapting to different working environments			33%(Y1) 50%(Y2) 25%(Y3)	33%(Y1) 50%(Y2) 25%(Y3)	33%(Y1) 50% (Y3)
See the world from different cultural viewpoints	33%(Y1)		67%(Y1)	50%(Y2) 50%(Y3)	50%(Y2) 50%(Y3)
Intercultural communication		33%(Y1)	33%(Y1)	33%1(Y1) 50%(Y2)	50%(Y2) 100%(Y3)

Table 3. Student self-evaluation after attending the workshops

	Needs significant development	Needs development	Don't know	Confident	Very confident
Self-management				100%(Y1) 100%(Y2) 100%(Y3)	
Understand how my actions impact on others				100%(Y1)	100%(Y2) 100%(Y3)
Identify areas for personal development			50%(Y1)	100%(Y3)	50%(Y1) 100%(Y2)
Career planning		100%(Y2)	50%(Y1)	100%(Y3)	50%(Y1)
Match my skills to advertised jobs			100%(Y2)	100%(Y1) 100%(Y3)	
Assess my progress towards my career goals		50%(Y1) 100%(Y2)		100%(Y1) 100%(Y3)	
Adapting to different working environments				100%(Y1) 100%(Y2) 100%(Y3)	
See the world from different cultural viewpoints				100%(Y3)	100%(Y1) 100%(Y2)
Intercultural communication				100%(Y1) 100%(Y2)	100%(Y3)

It is worth noting that those students who had previously scored themselves at the lower end of the scale felt more confident after the input, with fewer skills requiring significant development. In contrast, several students who had previously believed themselves to be very confident in a category reduced their self-evaluation to confident. This reduction in scoring could be linked to the concept of unconscious incompetence (Metcalfe, 2014) in that initially participants were not aware they lacked a skill. The post-workshop results suggest that the students had progressed onto the second stage of Metcalfe's model, conscious incompetence, meaning they realised that this was a skill that required development.

Qualitative student feedback is illustrated in the quotes below:

> "I believe I am employable, but my awareness has changed as a result of the sessions. It has really opened my eyes to the underlying necessity to think globally."
>
> *(Final year student)*

> "I have learnt so much from these sessions. If I had learnt more about working with people from different cultures when I first started university it would have really helped with group work. It can be stressful working in a group but if you understand better how people are different you can then adjust how you work with each other."
>
> *(First year student)*

From the project there were several learning points. Firstly, mapping against Tomlinson's (2017) Graduate Capital model allowed a structured incremental approach to developing skills using a contemporary employability model to reflect current practice. While there are other successful employability models, notably Career EDGE+ (Dacre Pool, 2020) and USEM (Yorke and Knight, 2006), Tomlinson's model adopts a relational approach, recognising an individual's employability is influenced by their capital holdings relative to others.

Secondly, adopting an interdisciplinary approach among teaching staff demonstrated the need to set the concept of employability into a global and intercultural perspective. This was achieved using Bennett's (1986) DMIS. The mapping from this project, along with the material developed for the workshops, has informed the curriculum with a new employability spine across the three years of the Business Management degree. The project outcomes are transferable to a range of subject disciplines as course teams can map their own programmes against Tomlinson's (2017) graduate capitals. Staff within the university are also undertaking intercultural effectiveness training to better understand the diverse needs of students on all aspects of the curriculum, but particularly on employability where a Global Professional Award has been designed.

Another learning point was the constant need to develop and reinforce employability skills with students. Business Management currently delivers an employability module in year 2, as well as developing skills on a continuing basis. The team anticipated that the second and final years may feel that they had already sufficiently developed their skills. However, their responses indicated that adopting a global professional approach had added a new, and essential, dimension to employability. Several did express a wish to work overseas but those planning to work in their home country recognised that they would be working in diverse teams as well as with companies and colleagues overseas. The project therefore enhanced the concept of employability.

Finally, as the project progressed it became clear that, without intercultural training, students are generally unaware of the impact of their own culture on effective team working. They found this aspect of the workshops valuable, not only in terms of employability, but also working more effectively on group assignments while studying. This finding has reinforced our belief that a clear sense of identity is developed through the integration of employability and intercultural training to offer a more contemporary approach to academic and professional development than the traditional skills and attributes-based models.

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Student research projects: bridging academic learning and the wider student experience

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Background

The dissertation is an optional year-long module for final-year undergraduates in the School of Economics at the University of East Anglia (UEA). It allows students to hone their skills and undertake an independent research project of their choosing. Debates within the economics discipline have promoted the need for pluralism in teaching approaches and content, with student-centred discovery-based learning at its heart (Watson et al, 2014). Introduced in 2017, the module was designed to give students more agency in their learning, develop independent study and research skills and strengthen employability within the curriculum. The module exposes students to real-world problems and, coupled with the learning and assessment design, delivers an authentic experience for students that closes the gap between theory and practical application of skills (Herrington and Oliver, 2000). The module is taken by approximately 40 students each year.

The dissertation requires students to conduct a research project that demonstrates how real-world economics can be used to solve a 'wicked problem' for the benefit of society. Using the SOAR model (Kumar, 2015) students are encouraged to consider their personal interests, ambitions and motivations in the selection of their topic and are not restricted by traditional discipline boundaries. The work can be an academic-style piece of research or a work-based project on behalf of an external organisation. Work-based learning can enhance the employability gains associated with project work through the development of entrepreneurial competencies (Gibson and Tavlaridis, 2018), and are highly valued by students, particularly when integrated into the course (Pitan, 2016).

The freedom in topic choice, combined with the emphasis placed on motivations, bridges the gap between academic learning and the student's wider experience. Kumar defines bridging as making "integrative and congruent connections from one topic to another, and from HE to work and life beyond" (2015, 9). By allowing students to incorporate interests, values and learning from outside their course, as well as their career ambitions, the module facilitates the bridging process and helps students to understand the application of their discipline knowledge to a wide range of possible career paths.

Approach

The module design involves a series of skills-based workshops in the autumn, and independent study under supervision in the spring. Students complete an associated portfolio of tasks applied to their own topic to facilitate progress.

There are two parts to the module assessment. At the end of the autumn semester, students present their research project at a student conference. This presentation and associated peer feedback informs how they draft their dissertation. At the end of the academic year, students submit the dissertation alongside the portfolio of tasks.

Module timeline

Week	Workshop topic	Portfolio task
	Autumn semester	
1	Self-reflection	Motivations and goals
2	The research process	Evaluate academic research
	Skills audit	
3	Effective research questions	Submit a research question
4	Writing as a tool for research and a product of research	Key literature summary
5	Literature search	Annotated bibliography
6	Data management	Consider data needs
7	Research ethics	Scenario-based questions
8	Data analysis	Econometric exercise
9	Survey design	Case-based questionnaire evaluation
10	Presenting research	Conference preparation
	Skills audit	
11	**Assessment 1:** Student conference Present research proposal and give peer feedback	
	Spring semester	
1-11	Academic supervision	Four meetings
12	**Assessment 2:** dissertation, portfolio of tasks and learning journal	

Learning journal tracks student progress through self-reflection

Workshops focus on the research process to help students to manage their own expectations of what it is like to do research, where the learning path is non-linear and students face uncertainty in how they will achieve their intended outcomes. Research-based work can help students to develop career adaptability resources in a HE context: *concern* – holding a positive attitude when faced with an uncertainty inherent in research; *control* – through reflective practice built into the research process; curiosity about an issue that the student wants to study in depth; and *confidence* in one's abilities to see the project through and achieve the aims the student set for themselves (see eg Wright and Frigerio, 2015). Student peer support and feedback play a key role in the learning process and is built into weekly tasks and the student conference. A collaborative approach in which students both critically evaluate their peers and receive feedback can help achieve deeper learning and reflection (Moon, 2004, 147).

The application of the SOAR model takes the following form:

Self-awareness

The learning journal develops self-awareness and reflection aids student decision-making, problem solving and progress.

Opportunity awareness

We place a strong emphasis on the importance of intrinsic motivation, ability and personality (what Kumar calls self-MAPs) in identifying a research topic. Workshops early in the course focus on student motivation for taking the module, exploring potential topic areas through the lens of students' wider interests and values.

Aspirations

Students carry out a skills audit to help them set goals for their development to successfully complete their research project. Consideration of career ambitions in motivating their topic choice, and whether they pursue an academic or work-based project, help students to appreciate how their longer-term aspirations may be achieved through the module.

Results

The skills audit is repeated at the end of the semester to recognise their progress and identify how it might help them achieve their career goals. At the end of the year a final learning journal entry requires students to reflect on the entire research process and consider the extent to which they met their intended aims and reflect on their achievements.

Outcomes

Module evaluation (mid- and end of year) has been valuable. Coupled with student journal entries that identify their needs and concerns, we have been able to adapt the module as required within and across years, and as a result have achieved very high satisfaction scores. The work produced by students is of high quality, and the students' reflections on the process give a sense of what they gained from the module:

> *Extract from learning journals reflect the outcomes achieved by students:*
>
> "The writing of my dissertation was my first experience of the research process. I most enjoyed the freedom of being able to select my own topic and research it independently, allowing total freedom to select a topic which interested me. I also felt the iterative process of this module helped me tackle what would otherwise be a daunting process of research. Furthermore, this project gave me ample opportunity to practise and refine my skills in academic writing, conveying points clearly and effectively so that I am better understood."
>
> "In many ways the most difficult part of the process was the freedom; never having had to think of and refine a question, and then go about researching something completely of my own design was a daunting prospect to me. I also felt that the undertaking of this project almost entirely on my own tested my abilities of time management, sometimes finding myself changing time schedules to account for things I had not planned for, or tasks taking longer than expected."

The biggest challenge we face is with student confidence; learning journal entries commonly identify hesitancy in sharing ideas and developing a research topic. The benefits of working in collaboration with external organisations are articulated through student testimonies and highlights the bridging process (extracts below), but some students are daunted by doing a project with employers. A potential solution is to work more with first and second year students to expose them to organisations throughout the degree course and build confidence ahead of the dissertation project in the final year.

Extracts from testimonies of students undertaking work-based learning projects highlight the benefits in terms of career actualisation:

"This was an experience that I would recommend to any future students that take the dissertation module. The meetings we had during the early stages of researching my dissertation provided an excellent opportunity to understand how companies manage projects of this manner. The main benefit of doing a business project over a purely academic one was gaining a greater understanding of how work is done in a professional environment. I believe being involved in these experiences will improve my ability to focus on the most relevant tasks in any future studies or career."

"The decision to complete a work-based project was probably the best one I made during my time at UEA. Working with a third party during this module allowed me to develop skills which are not used in any other types of assessment I completed throughout the three years. As a result of undergoing this project, I feel my ability to apply economic theory to real-world situations has dramatically improved. Completing this project also helped me greatly in securing a job as an economist in the civil service, since they seemed very interested in this experience at the interview."

The success of the module depends on allowing students freedom in choosing a topic and not requiring/expecting students to research a strict discipline-focused field, but rather to focus in an authentic way on the application of knowledge, skills and attributes developed through the degree and wider experience. As such, this approach could be transferred to many other disciplines with applied domains. This case study demonstrates that a student-centred, pluralistic approach can encourage learners to challenge orthodox thinking and bridge the gap between academic learning and their wider student experience.

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London South Bank University Business School: transforming social capital through reimagining 3Es in the curriculum

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Stage one: background

Since 2018, London South Bank University Business School (LSBU) has faced an increasingly 'wicked' problem in preparing students effectively for employability, via productive collaboration with employers around the design and delivery of business school curricula.

UK business schools find themselves in an increasingly metrics-led graduate employment culture, where universities are expected, under new Graduate Outcomes metrics, to deliver around 91% of students into graduate-level work 15 months after graduating, measured across 166 higher education institutions and 2.38 million students (Universities UK, 2021).

New societal and economic factors are therefore putting ever-increasing pressure on business schools to ensure that their students leave as both entrepreneurial and highly employable.

LSBU is proud of its distinctive mission to transform the lives of students from diverse backgrounds. Our students interact entrepreneurially with our vibrant south London civic community, addressing real-world challenges. However, LSBU is also located in an area with high ethnic diversity, economic deprivation, and low participation rates in higher education. Of our 2,400 business students (out of 15,497 at LSBU overall), 64% are Black, Asian and minority ethnic, and the majority are first in their family into higher education.

Civic enterprise and entrepreneurship have always been LSBU core values, including winning Times Entrepreneurial University of the Year. We therefore decided to undertake a complete re-imagining of our curriculum, with the aim of incorporating employability with enterprise and entrepreneurship more effectively into the curriculum, and the objective of encouraging academics and students to co-create an updated and relevant curriculum with employers and professional bodies.

We were inspired by frameworks such as Yorke's exhortation (2006) to embed career development activities into the curriculum, accompanied by co- and extra-curricular activities, and continue to be encouraged by more recent research into the importance of different forms of capital, including social and cultural, to student identity, employability and career prospects (eg Bathmaker, 2021; Tomlinson, 2017; Tomlinson and Jackson, 2021).

Other educational research also indicates that collaboration with employers and professional bodies is important for enhancing graduate employability:

> "HEIs recognise concerns around catering effectively for employability of graduates … Curriculum intervention, links with employers, work-based placements are current initiatives by HEIs … What the university does to develop its employability agenda is connected to how it is perceived."
>
> *(Chadha, D and Toner, J, 2017)*

Most compelling for LSBU's ethos, however, was Fung's holistic Connected Curriculum concept (2017), advocating a throughline connecting students, employers and academics with skills needed for professional work and future social capital.

Stage two: approach

Our Business School Dean, Director of Education, Head of Careers and employability colleagues worked to redesign employability into the business school curriculum, alongside enterprise and entrepreneurship delivery, with:

+ twenty seven professional bodies, including CIMA and CIM

+ academic subject leads

+ students (undergraduate and postgraduate focus groups)

+ employers in areas such as marketing, economics, accounting and entrepreneurship. Employers were invited to co-curricular design evening workshops with academics and students using a 'snowball' methodology of 42 Friends of the Business School and a new 37-strong Business School Curriculum Advisory Group set up to draw on a database of 191 positive employer contacts provided by school teaching and research academics, including academics who had joined the school directly from industry. Both employer groups consisted of a broad mix of large corporates, international banks, government organisations, SMEs and startups to reflect the range of organisations with which LSBU students take up employment.

The initiative ran from December 2018 to February 2020, and involved a series of co-creation workshops, bootcamps and online interactions.

We engaged with employers and professional bodies to create a Curriculum Advisory Group to co-design the enterprise skills, entrepreneurial ethos and employability attributes needed in subject areas such as accounting, marketing and economics.

This generated a far more connected curriculum across foundation, undergraduate and postgraduate levels. It scaffolded applied and entrepreneurial learning, and increased student social capital to solve 'wicked' societal problems in partnership with enterprises and small businesses likely to employ our students, and eager to convey the soft and hard skills and knowledge which they wanted our students to learn.

Our three-pronged approach to curriculum reimagination consisted of curriculum co-design, in-curriculum employer input and the design of dedicated employability core modules.

1. Curriculum co-design

We engaged with employers and professional bodies to co-design enterprise skills, entrepreneurial ethos and employability attributes needed in subject areas such as accounting, marketing and economics. In a series of joint review sessions that brought together and fostered exchange between employers, course teams and alumni, course designs were reviewed, gaps as well as market trends identified, and suggestions for design of new academic frameworks collated and refined in an iterative process.

Employability skills our employer partners want to see in graduates range from digital skills to management and leadership, proactivity and cross-linking ideas, communication and networking, ethical values and social entrepreneurship, as well as active and applied problem-based learning.

3E Skills employers need to see in our graduates	
+ Digital, digital, digital	+ Active and applied problem-based learning
+ Engagement and leadership	+ Work-based, community-related and employer-linked activities
+ Proactivity	
+ Cross-linking ideas	+ Ability to succeed in authentic and applied assessment/experiential learning
+ Communication and networking	
+ Ethical values/UN SDGs	+ Placements, internships, micro/macro credentials
+ Social entrepreneurship and innovation	
+ Internationalisation	

Dalrymple, A and Ellermeier, A (2021)

As a result of employer input, our new academic framework emphasises work-based, community-related and employer-linked activities, including live cases, simulations and consultancy projects. This has led to more authentic and applied assessments across more than 420 out of 501 modules, based on experiential learning. There has also been a marked increase in opportunities for, and take-up of, placements, internships and micro/macro credentials. Combined with our experience of undertaking a TESTA audit and initiative, and in partnership with employers redesigining authentic assessment, we reduced the number of closed book exams in the school by 48%, embedded the concept of meaniningful formative assessment with timely pre-summative tutor feedback, and ensured that no module had more than one to two formative and one to two summative elements to increase depth of learning and student reflective capabilities.
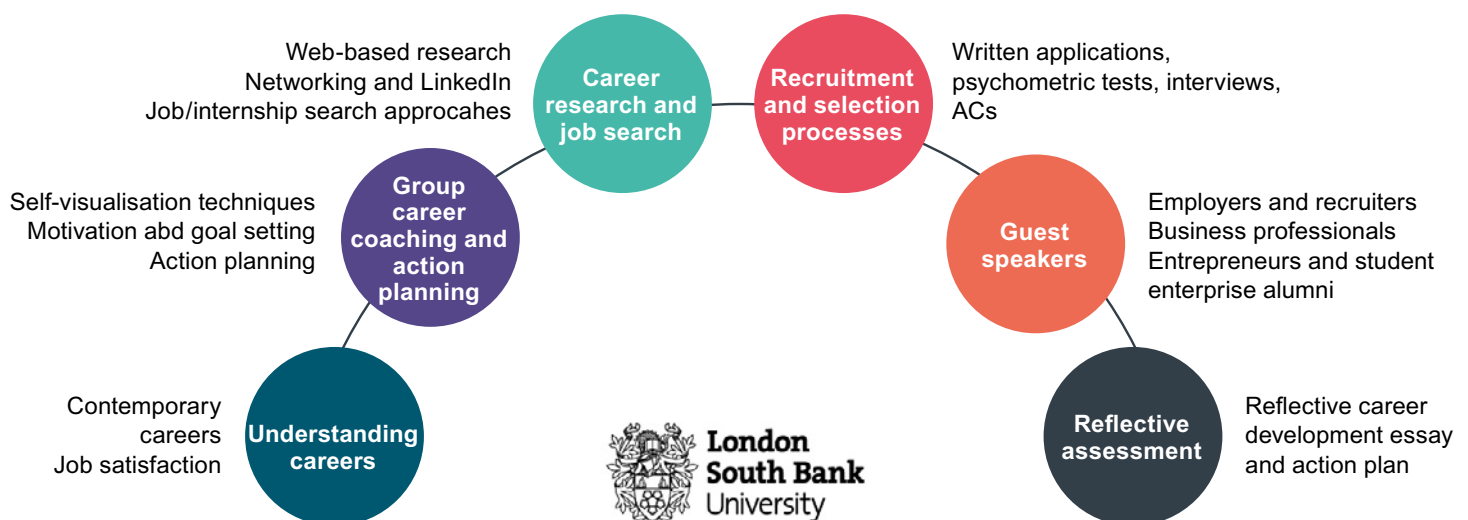
2. In-curriculum employer and practitioner input

We have also undertaken an extensive audit of existing employer and practitioner in-curriculum input, followed by a targeted outreach drive to increase direct employer and practitioner input across all levels and modules, including practitioner guest lectures and talks, live cases and consultancy projects.

3. Dedicated employability core modules

Our dedicated employability modules are now part of core provision at Level 5 across our entire suite of undergraduate courses, ensuring all students receive in-depth career development input in their penultimate year. These modules provide students with insights in career development research, theories and models; practical group career coaching interventions designed to encourage students' engagement with their own career development; hands-on career research, job hunting, networking and job application skills, ensuring students are ready to succeed in competitive recruitment and selection processes; as well as frequent input from practitioners, professional bodies, alumni, employers and recruiters, who ensure course-specific employability skills are emphasised, and provide students with first-hand world of work knowledge and tips for success in the workplace.

The Employability Hour: career development core module at level 5

Web-based research
Networking and LinkedIn
Job/internship search approcahes

Career research and job search

Recruitment and selection processes

Written applications, psychometric tests, interviews, ACs

Self-visualisation techniques
Motivation abd goal setting
Action planning

Group career coaching and action planning

Guest speakers

Employers and recruiters
Business professionals
Entrepreneurs and student enterprise alumni

Contemporary careers
Job satisfaction

Understanding careers

Reflective assessment

Reflective career development essay and action plan

London South Bank University

Dalrymple, A and Ellermeier, A (2021)

This has resulted in significantly increased capacity of LSBU students to simulate real-life 'wicked' work-based adaptability, increase metacognitive skills, and deal with what Fung (2017) articulates as "activities that mirror the messy ways in which learning takes place in the workplace".

Stage three: outcomes

The focus on a 3E-oriented curricular experience co-created with employers and professional bodies now permeates the student lifecycle, and acts as an impactful red thread for in-curriculum and extracurricular learning and activities.

We provide an extensive school-based extracurricular employability and enterprise programme, including weekly career workshops, skills sessions, a Job Hunting Club for final year students, a student-run consultancy, as well as a wide variety of HEAR-badged activities, skills sessions and events, which students can access beyond their graduation.
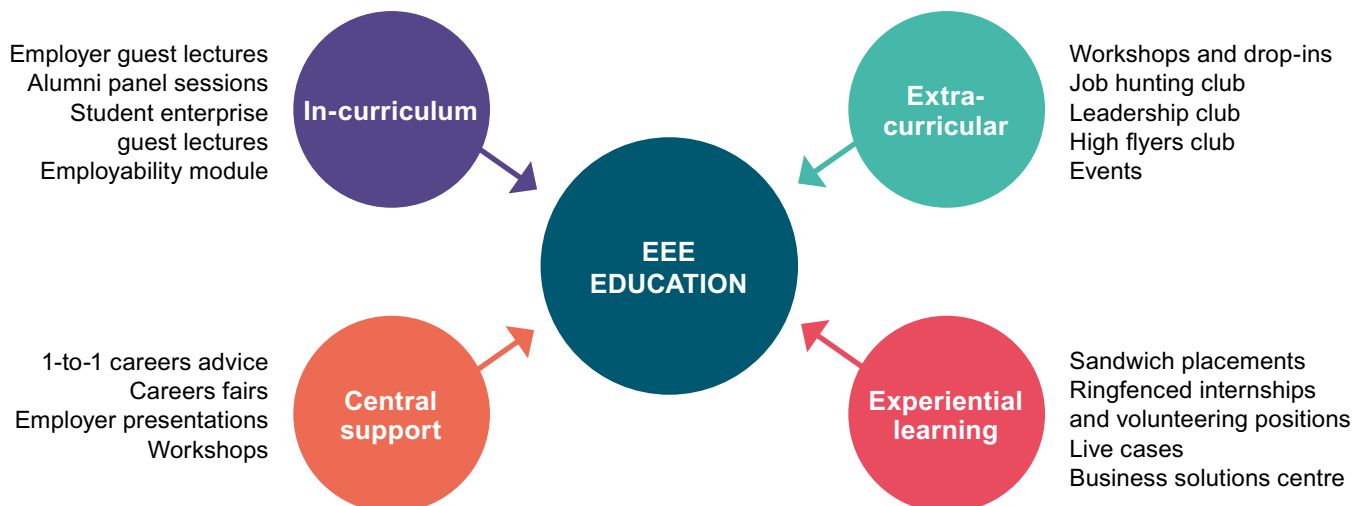
Offer holders at undergraduate level can book appointments for career chats, and postgraduate students are encouraged to complete a pre-sessional careers bootcamp to ensure they are able to hit the ground running around their career planning. This is typically attended by around 60 students each year.

In addition to close collaboration between course teams and the LSBU Business School employability and commercial experience team, the curriculum redesign has led to increased collaboration with central university teams, including the LSBU Careers Hub Team, Student Enterprise and Alumni, closely coordinating, sign-posting and cross-promoting school-based and university-wide offerings.

Key elements of the 3Es redesign in the LSBU business school curriculum now therefore include:

+ more than 60 employer/practitioner guest speaker sessions across all modules taught at LSBU Business School, case studies, simulations, consultancy projects, and advisory boards, assuring applied student entrepreneurial and enterprise orientation

+ new undergraduate employability core modules, reaching all 600+ second year students at the Business School

+ new volunteering module being offered to more than 600 final year undergraduate students

+ accreditation of all courses by relevant key 3E professional bodies such as IOEE

+ focus on employability action planning across the student journey, including annually more than 200 Business School-based employability and enterprise workshops, webinars, "bootcamps" and Job Hunting Club drop-ins

+ employer co-design of authentic and applied assessment, including data analytics, business simulations and consulting assignments.

Comprehensive EEE provision throughout the student journey

Employer guest lectures Alumni panel sessions Student enterprise guest lectures Employability module	**In-curriculum**

EEE EDUCATION

Extra-curricular	Workshops and drop-ins Job hunting club Leadership club High flyers club Events

1-to-1 careers advice Careers fairs Employer presentations Workshops	**Central support**

Experiential learning	Sandwich placements Ringfenced internships and volunteering positions Live cases Business solutions centre

London South Bank University

Dalrymple, A and Ellermeier, A (2021)

Key outcomes include:

+ increased participation in employability and enterprise-focused activities, including 60% increase in industry placements and internships

+ 20% increase in employers contributing to applied learning

+ 48% reduction in closed book exams in favour of employer-informed applied coursework

+ 15% increase in student assessment satisfaction on NSS

+ 18% increase in applications for new courses

+ Black, Asian and minority ethnic awarding gap reduced from 17.9% to a positive gap of -0.67% during 2019-20.

Key messages from the work undertaken are:

+ creating a throughline across entrepreneurship, enterprise and employability skills and attributes creates a dynamic culture of behaviours, equipping students to tackle wicked societal problems in a 'messy' business environment

+ authentic and applied assessment co-created with employers and professional bodies are essential by-products of 3E-oriented curriculum redesign for business schools

The findings of the case study could easily be transferred to other contexts, disciplines and levels, including related employability-focused applied subject areas such as hospitality, tourism, healthcare and the arts.

Combining the holistic Connected Curriculum framework with psycho-social models of social capital development and 3E-based curriculum redesign, using employer and student co-creation of ideas, can be seen from our outcomes to be scalable and transferrable to other business schools, and to related disciplines and to all levels of study.

We aim to develop this work further by investing more capability in measuring the increase in entrepreneurial and employability attributes of our students by subject against labour market and GO outcomes, to ascertain where further interventions in these areas would be most beneficial.

Next steps also include increasing employer curriculum co-creation through new initiatives with enterprises and bodies such as Southwark Chamber of Commerce, to provide increased opportunities for apprenticeships and entrepreneurship startups across the civic community for our students.

We have found co-creation of business school curricula with employers and professional bodies around employability, enterprise and entrepreneurship has significantly increased both the social currency of our graduating students and the satisfaction of employers, as summarised effectively by Healy et al:

> "Designing programmes which meet industry needs can help graduate employability, employers are reassured requirements will be met. As businesses tend to be involved in delivery of programmes, contact between employers and students can lead to opportunities for jobs."
>
> *(Healy, Perkmann, Goddard and Kempton, 2014, 22)*

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Virtual solution finding

Socially distanced work experience in a music degree programme

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Background

There is growing evidence that work-related learning within a degree programme is useful in supporting graduate employability (Artess, Mellors-Bourne and Hooley, 2017; Smith, Ferns and Russell, 2019). The value of developing relationships between students and the creative industries sector is widely recognised and might, for example, be achieved through student placements (Brown, 2005). The BMus programme at the Royal Northern College of Music (RNCM) includes an industry placement for all students as a core part of their credit-bearing degree structure. The problem that we were tackling was how to continue to give students meaningful work-related learning experience, professional development and interaction with industry partners, given the restrictions associated with the Covid-19 pandemic. Such restrictions resulted in our not being able to include any in-person placement activity, and a change in the time and staff resource that our arts industry partners were able to commit to working with students on their placements (as many of our partners were not operating as normal, with many staff furloughed, and facing uncertain futures). The importance of facilitating students working with industry partners became especially pressing during this year as the pandemic, and the resulting changes in the creative industries landscape, made prospects of employability and a freelance career in the arts even more challenging.

Approach

We redesigned the 20-credit Level 6 'Professional Placement' module for all 120 year 3 RNCM students. Following meetings with our industry partners to assess the impact of the pandemic and the lockdown restrictions on their capacity to host a student or be involved with our placement programme (March – May 2020), we redesigned the programme (May – Sept 2020) and advertised the options to students (Sept 2020). This redesign drew on student, alumni and industry feedback on placements provision, and was conducted with reference to the QAA's Enterprise and Entrepreneurship: guidance for UK higher education providers (QAA, 2018) and Entrecomp (Bacigalupo at al, 2016) frameworks. For example, placement, or work-related, activity could be seen as a key method of equipping with students with 'entrepreneurial capability' (QAA, 2018) and providing experience of 'live' projects on which students can reflect, and practice putting key competencies 'into action' (Bacigalupo et al, 2016). We considered RNCM students to be a key partner in this redesign; we surveyed students to ask which areas of the music industry they saw as most relevant to their future careers, and from this data we created five 'strands' of work experience activity: 1) Creative Innovators,[1] 2) Music and Health, 3) RNCM Pedagogy, 4) Community Music and Creative Leadership, 5) RNCM Play: Broadcasting.

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1   This 'strand' was developed as part of the 'StART Entrepreneurship Project' (www.rncm.ac.uk/start-entrepreneurship-project/), a two-year project begun in September 2020 and funded by the Office for Students and Research England, led by the RNCM with partners Royal Central School of Speech and Drama and University of the Arts London. The project aims to equip creative industries students with skills associated with entrepreneurship, and includes work experience training in its remit.

Students signed up to one of these five strand options and received 10 classes of two hours each between January and March 2021. Although delivery of this module moved 'in-house' and online (Zoom), it was important that activity remained practical and external facing. These 10 interactive sessions included a mixture of:

1   Key skills training (eg how to design and pitch an idea)

2   The chance to try out ideas (eg students developing their own projects)

3   Interaction with industry partners, RNCM staff and peers.

Crucially, rather than each student having contact with only one industry partner (as they did previously when on a pre-pandemic placement), this structure allowed for the opportunity to bring in a range of existing industry placement partners and alumni to speak to and work with students. This enabled the student experience to be broader than previously, while also giving them the option to specialise further throughout the course (by focusing on one particular audience/participant/consumer group in the development of their own ideas). Students therefore gained a fuller understanding of the wider context of the professional role they were interested in and become better aware of other potential routes of employment and professional opportunities.

To ensure consistency and parity, each placement strand was designed to include six components: 1) research (directed and independent); 2) training; 3) observation; 4) peer collaboration; 5) creative tasks (and role play); and 6) industry feedback. Assessment was by reflective portfolio, submitted three months after the final teaching session. Additionally, students were encouraged to reflect critically throughout their placement strand, using the app 'LoopMe' (www.loopme.io, widely recognised as a useful tool in entrepreneurship education, see eg Lackéus, 2020), which allowed course leaders to set tasks and prompts for critical reflection throughout the module. Use of this tool also offered course leaders an insight into students' experiences and reflections throughout the course, which could also inform future development of the module.

The redesigned work experience module aimed to give students the opportunity to participate in industry-led training, appraise creative leadership, develop work-related leadership abilities and build a network of creative contacts. Opportunities to collaborate and create were embedded throughout with peer and industry feedback, and ongoing reflection encouraged to support the development of entrepreneurial mindsets.

Outcomes

The findings of this case study have implications for multiple disciplines and institutions in higher education. Employability is an ever-increasing focus for degree programmes, and it is recognised that creative industries students have particular needs. For example, their motivations and expectations may be different from students of other disciplines (Bennett and Bridgstock, 2015; Bloom, 2020), and higher education institutions need to prepare them to enter a 'disintegrated' workplace which may not follow more traditional models of employment (D'Amasio and Bicacro, 2017; Bridgstock, 2013).

We developed and tested a method of enabling students to undertake work-related learning in an online environment, with meaningful engagement with local, national and international industry partners, and with a focus on preparing students to enter an ever-changing and often unpredictable music industry, which has been heavily impacted by the Covid-19 pandemic.

All 120 students who took part in the newly designed socially distanced work experience module were asked to provide feedback on their experience. They valued the opportunity to engage in collaborative activity with fellow students and the breadth of content included in the redesigned module. Findings and key messages include:

1   This structure works extremely well online in terms of bringing in various guest speakers from the UK and internationally and improving participants' digital skills. Also, in terms of giving effective experience of these working environments. For example, one student on the Music and Health strand stated: "we created music for children in healthcare settings aiming to affect them positively in their lives. The feeling that someone is getting help is really nice".

2   The students were able to engage with and enjoy this structure and reported that their placement experience was not diminished, but in some ways enhanced. For example, one student on the Creative Innovators strand stated "Loved this course! I think it was the best course I have ever completed at the RNCM. Was very useful and has given me skills for life".

3   This new model may be further improved if some element of real-world placement experience, or observation, could be incorporated in future years. For example, one student from the Community Music and Creative Leadership strand fed back that:

> "I think that the online sessions were really valuable and helpful and I learnt a lot. Of course things were impacted this year with Covid, but I think in the future if there could be a combination of these more general discussion and learning lectures which were really informative, but then also some real life experience with an existing outreach group, then that would be wonderful."

Looking ahead we need to balance the parity, consistency and reliability needed to fulfil the requirements of an assessed module with flexibility to adapt to the current climate or needs of the students. We have found benefit in having an iterative process supported by consultation with industry partners and student feedback, to create a work-related learning experience that prepares students for an unknown music industry and, more broadly, equips graduates with the entrepreneurial and digital skills, and networks to build and sustain careers.

As the creative industries rebuild, Covid-19-related restrictions ease and students return to in person study, we are now further refining this new model to also include real-world placement experiences and observations. This new work experience model provides students with live industry experience where they can put key skills into action, and also enables them to interact with a wide variety of professional roles and contexts, and a diverse range of industry partners. The model would translate well into other creative arts programmes, but also has relevance outside this sector, to any higher education degree programme where students may benefit from a broad-ranging insight into a variety of aspects of employment and career options.

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Using a virtual community to support learning about the complexities of interprofessional working

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Background

To achieve an integrated health and social care system, the workforce will need to cross traditional sector boundaries and individuals will need to be able to think beyond their own role and profession (Clouder et al, 2017). Interprofessional education (IPE) has been linked to positive outcomes to support an agile workforce, including improved attitudes to other professional groups and the development of knowledge and skills needed to work collaboratively, leading to enhanced employability prospects (Brewer et al, 2014; Reeves et al, 2016). Several high-profile enquiries into failures in health and social care support the need to improve communication and collaboration across health and social care professional groups, with some recommending that to work together, these groups should learn together (see for example, Laming, 2013). IPE involves learners from a minimum of two different professions learning with, from and about each other, to improve collaboration and health and social care provision (CAIPE, 2002). However, the promotion of IPE can be problematic due to university structures, which promote uni-professional approaches, confusion over definitions, and the inward gaze of most professional groups (Donnelly, 2019; Xyrichis et al, 2017; Clark, 2011). Short-term, quick-fix solutions are often adopted although such approaches can promote interprofessional education as an 'add on' rather than integral aspect of curricula, and as such do not address the 'wickidity' of the problem (see Revans, 2011).

Funded by Health Education England (HEE), the aim of our project was to develop and evaluate an integrated undergraduate IPE framework, which could be shared nationally and across health and social care disciplines. We wanted to support the development of the graduate behaviours, attributes and competences required for effective practice in health and social care settings to promote quality of care provision. Our project aimed to promote flexible approaches to learning which were sustainable and inclusive and this was achieved using the virtual online community 'Birley Place'.

Approach

To address some of the issues highlighted above, we developed an approach that combined our university Graduate Outcomes framework with an existing IPE framework (CIE, 2016) to underpin an online programme for all our first-year undergraduate students (nursing, social work, integrated health and social care, physiotherapy and speech and language therapy programmes). Our approach was co-developed with students from several professional backgrounds, service users, and faculty interprofessional champions to develop bespoke resources to inform a blended approach. This co-creation took place through several methods, including online workshops, which enabled those involved to explore and develop authentic and interactive resources. For example, an interprofessional group of

students who were experienced in IPE developed a short film explaining the value and benefits of learning collaboratively. A service user living with a long-term condition gave her perspective on the importance of effective interprofessional communication and how this supported her experience of using services. The amount of time given to the project by the various stakeholders differed, depending on their commitments, but ranged from a short meeting to more extensive engagement (from our faculty staff champions, for example). The rationale for the final approach was based on the need for a flexible approach to learning and one which encouraged the development of competences such as communication, collaboration and the need to recognise the values and beliefs of other professional groups. Students engaged with the programme using our bespoke virtual community Birley Place (Wright et al, 2021), a web-based 'virtual world' specifically designed for health and social care education. Birley Place provided learners with a data-informed socio-economic context within which simulated activities took place, and realistic interactive scenarios focused on universal employability competencies.

Over the first term, students worked together to complete self-directed and group tasks during two-hour sessions for a total of 12 hours. Flexibility was required in the planning of sessions due to the availability of some learners, such as those who undertake clinical placement hours as part of professional body requirements, for example, nursing students. A key component of our approach was to ensure that all professional groups felt included and could contribute to the learning activities on an equal basis. Our approach enabled small interprofessional student groups to rehearse teamwork through the completion of tasks, facilitated by an academic staff member and delivered through the online community. We adopted an action learning teaching methodology whereby academic staff facilitate rather than manage learning and leadership is shared across the interprofessional group (see Revans, 2011). This approach supported students to develop the skills required to work in future employment such as decision-making, critical thinking and interprofessional leadership competences, from an early stage in the curriculum. Early exposure to IPE is important to reduce stereotyping and improve perceptions of other professional groups (Ateah et al, 2011). Students were supported to reflect on their ongoing development using an online journal, which enabled them to explore their skills of collaboration using the framework developed by Driscoll (2007). Reflective practice to support ongoing personal and professional development is an expectation of health and social care students (NMC, 2018; HCPC, 2017; SWE, 2021) so promoting exploration of interprofessional aspects of practice from an early stage is helpful to promote later employability prospects.

Outcomes

A sequential mixed methods evaluation was used to explore student and staff perceptions of the IPE programme. Students were asked to complete quantitative measures, which included the Readiness for Interprofessional Learning Scale (RIPLS), the University of West England Interprofessional Questionnaire (UWEIQ), and the Interdisciplinary Education Perception Scale (IEPS). One hundred and ninety four students completed the measures prior to any IPE activities taking place (n=682). One hundred and twenty eight students completed the measures at post-test, although these showed no significant change pre and post intervention. It was reassuring that our students understood the

value of IPE at the start of the year, and this did not change following the IPE programme. In addition, a questionnaire to evaluate the learning and teaching aspects of the programme was completed by students. Student and staff participants were subsequently invited to take part in semi-structured interviews, to further explore the themes identified by the quantitative analysis. Approval was gained from Manchester Metropolitan Ethics Committee (approval number: 11353)

The evaluation of the IPE programme demonstrated that it had a positive impact in three key areas for students, all of which were linked to employability. First was the provision of robust opportunities for students to rehearse the skills required to work effectively in health and social care teams in a safe environment. Students valued working with peers from other disciplines as it enabled them to understand values, ethics and practices that differed from their own. Second, although there were moments where students encountered challenges related to teamworking, these replicated the reality of working life. For example, some students did not engage fully in the team tasks, leaving others to take on more than their perceived share. However, although this was uncomfortable for some students, it prompted them to reflect on how they would deal with difficult team-related situations involving communication and decision-making skills in the workplace. Both these areas of impact align with existing IPE literature, which shows that it can support knowledge and skills development around communication and collaborative practices (Reeves et al, 2016). Third, students valued both the active learning approach and the flexibility of Birley Place. This approach enabled them to be self-directed in their learning, which promoted self-development. Academic staff adopted a facilitative role during the sessions and leadership was shared across the small student teams. This enabled students to rehearse leadership within their teams, in terms of role modelling, communication and decision-making.

Theme	Example data
Interprofessional team working	...we're all going to be healthcare professionals one day... I'd like to be able to understand what a nurse does and how I can support them and how they can support me. I also understand that their priorities when it comes to a person's health might be slightly different to mine, and I need to work with them and understand and engage and coordinate, to best support patients.
A rehearsal for real life	It's kind of like a test run of how it would be, working in a health and social care setting when you're working with different people from health. I think it's good to figure it out yourself, because then you know how to do it.
Learning approach	[using the virtual community] … I can see the relevance to my degree, because of course, [the placement] will have to have something like that in [the placement] to know what services to put in place with the local population … I enjoyed the website that set up with the different houses, the different characters to begin to understand, I liked that format.
Leadership development	I got more of a sense of how to try and engage with people and check in on people…. The driving force of the group type of thing. I think that's a role that I've not really had to step that much into before, so it was good being able to hone those skills and get used to leading those kinds of conversations.

The analysis of the staff data highlighted that they valued the IPE programme, particularly in how it contributed to developing skills and knowledge linked to professional development for the students. Central to this was how the programme promoted self-directed learning via the interprofessional group work. Staff also recognised how the skills students developed could inform understanding of health and social care teamwork and also enable learning about their own professional identity, as well as that of their peers. The analysis also demonstrated that staff valued Birley Place as a tool to supplement their facilitation, link theory to practice and help students to work toward key learning outcomes.

Theme	Example data
Importance of IPE	I think it enhances the process, as in, you get to safely learn about other people's roles and how they see the world. So, when you then qualify, you've got a better insight and understanding of how people work.
Self-directed learning	And I think they [the students] did enjoy themselves looking into things and looking around the areas and working out the case studies … doing some analysis around that under their own steam at their own pace.
Birley Place as a useful tool	I found Birley Place a good starting point to try and link some of the theory that I was talking about in class to real people...
Programme Integration	It is clear to me how [IPE] transfers across to the work they do in our programme, and it enhances it a lot.

Conclusion

Embedding IPE through integration into the curriculum offers a flexible and sustainable approach that avoids short-term, add-on solutions. The importance of employability skills for future careers is highlighted via the small teamwork, so that students understand this as an advantage of IPE working. In the short term, the knowledge and skills gained can also positively impact placement experiences.

There are opportunities for this IPE programme to be further developed to meet the needs of other professional courses where teamwork, critical thinking and experiential learning are important elements of the subject pedagogy and learning outcomes. In addition, future research will explore how students use reflective practice to review and develop their decision-making processes within the context of the interprofessional environment, to enhance the quality of health and social care.

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International pathways students as members of professional networking organisations

Diane Dale and **Victoria Wilson-Crane**, Kaplan International Pathways

Stage one: background

Developing employability, enterprise and entrepreneurship (the '3 Es') in graduates is valued, regardless of discipline, as the behaviours, attributes and competencies called for will enable graduates to have a positive economic, social and cultural impact.

Within international pathways programmes, we aim to bring together cutting-edge examples of sustainable and innovative pedagogies delivered in higher education (HE), at college and institutional levels.

From September 2019, students on pathways programmes to UK higher education at Kaplan International were encouraged to join professional networks. This was part of our response to the challenge to support students to contextualise knowledge from pathways, belong to a professional group, access additional resources, advice and guidance, and begin to build global professional networks for future careers. Our wicked problem was how to ensure students think beyond their immediate pathways course and appreciate the importance of secure foundations for their career. Students need to understand the achievement of academic goals, alone, is short-sighted. The focus on strategy and planning has been further accentuated by the economic impact of the global pandemic beginning in 2020. Joining a network is just one activity within our Employability Framework, a wider strategic context that gives students transferable skills to serve them well in future careers.

Our response was framed using intercultural learning and liminality. Our students are in a multi-dimensional transitional state, from home countries to the UK, from school to higher education and from college to university. New friendships are built with the potential to be of value as professional connections beyond the learning experience. In brief, the concept of liminality as proposed by Van Gennep (1960) and developed by Victor Turner (1969), applies to our students because they are moving through three phases of development from 'separation, margin or limen and re-aggregation' in a rites-of-passage journey from their school phase, through pathways education, re-joining the university phase. Our students are on the threshold of their future academic and professional lives, in a context where new behaviours can develop; we aim to encourage an early focus on relevant professional links (Heading and Loughlin, 2018).

Giving students a network to engage with supports them in the separation phase, when students are away from home and family and in unfamiliar environments. Connecting with established networks enables students to integrate, feel a new sense of belonging, giving stability through the three liminal stages.

We draw upon the World Economic Forum's views of skills needed by graduates by 2025 and are keen to ensure students develop skills of active learning, social influence and the use of technology to broaden their networks (Whiting, 2020). The approach uses practical advice from King and Scott who recognise we are only as good as the people we surround ourselves with and they advise having conversations with "people who can help you succeed" (2014).

Stage two: approach

We formulated a project plan, introducing students to relevant networks in colleges, facilitated by college staff. Materials on networks were available through our virtual learning environment (VLE) and financial support, where needed for students to join networks, was offered. Former students recorded videos to advise, support and encourage new students and Networking Awards were piloted successfully at one college to reward efforts. It was anticipated at the start of the intervention that approximately six weeks of familarisation would be needed; students would engage with materials on the VLE and tutors would reinforce understanding of the benefits of joining a network in their taught sessions during induction.

A national coordinator developed relationships with a range of appropriate networks; the 12 recommended networks in 2019-20 included Association for Project Management, Institute of Enterprise and Entrepreneurs and Institute of Biomedical Science. This grew to 17 in 2020-21.

Each college has a coordinator: the key contact for students. They liaise with tutors, helping students receive appropriate guidance on recommended networks. In year one, coordinators developed their role. The time commitment to liaise with students and staff varied over year one and year two of the intervention; typically coordinators spend more administrative time on the initial arrival of each cohort of students, to introduce and explain concepts and manage the administration load of registering students with the networks. Tutors used academic subject focus and contact time with students to further promote the relevance and benefit of joining, referencing appropriate materials in formal learning opportunities.

Our expectation for students arriving in September 2019 would be to introduce networking and complete registration by December 2019, the end of the first term. Early signs were encouraging: nearly 15% of students registered with networks. Engagement was further reinforced in the following few months as tutors used materials and case studies in teaching, reminding students to engage.

It was hoped that students would continue to derive support by accessing specialist career guidance and resources, and that this would help them adjust to life during and beyond the transition to university. It was an aspiration that this extended membership and sense of belonging would continue to motivate students during the re-aggregation liminal phase as they moved to university. Normal student life was significantly disrupted during 2020, but the project continued even when students had returned home due to the pandemic.

Stage three: outcomes

By April 2020, almost all pathways students had returned home to study online. The rapid, effective response of staff was to create an online offering with support. This enabled good outcomes to be achieved despite the pandemic.

During year one, one in four students registered with a professional network. KapPACK is our reflective e-portfolio. Evidence submitted by award-winning students indicates networks have been used to find volunteering and paid employment opportunities. One hundred and ninety students received e-certificates of achievement on completion of a Kaplan entrepreneurship module, and registered with the Institute of Enterprise and Entrepreneurs (IoEE). On attending a networking event, a former Nottingham Trent International College student commented:

> "I didn't speak very much but I did learn a lot – I took a lot of notes from the speakers which opened doors for me."

And a former Bournemouth International College student said:

> "This is actually a very helpful and valuable opportunity for all students. I am so happy I joined this association."

In 2020-21, again approximately one quarter of students registered with networks, many joining online from their home countries. Two hundred and fifty students registered with IoEE. Year-on-year increase was marginal, but impressive given many more students in 2020-21 studied remotely.

Concerning international students' communication skills, Pham and Soltani say "the most important strategy is to find opportunities to interact with other people" (2021, 184). Weise notes that this need not always happen in person (2021, 105). This initiative has provided such an opportunity: student feedback has been positive. Students value chances to join networks, with webinars and virtual events being particularly accessible.

To date, this is worthwhile activity, which students appreciate, value and reflect on in KapPACK. The engagement and positive responses from students were achieved during a challenging atypical context; there is significant potential to develop engagement further with students face-to-face.

Assuming a resumption of students largely joining in-person in pathways colleges, the project has five development aims for 2021-22:

1 **Relationship building with networks** will allow further piloting of micro-credentials to aid employability and skill-building, affording opportunities for students to specialise in areas of interest at an early stage.

2 Relationship building will allow **students to engage more profoundly with available resources,** eg competitions or live events. This will aid further skills development and the building of relevant networking contacts. **Further research** will evaluate which networks provide support to students in transition.

3 **Networking Awards will be offered by all colleges;** students will continue to document networking experiences and achievements in KapPACK.

4 Opportunities will emerge to **engage more closely with our many university partners, ensuring connections developed by students with career-relevant networks can continue into university study** and future careers.

5 **Early discussions with the most popular networks** to share findings **and help shape offerings** to meet the needs and interests of new members in this liminal state, who may further engage as professionals.

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Enabling authentic community-facing employability opportunities in a pandemic? Host a music festival!

Lucy Squire, The University of South Wales

Stage one: background

Immersed! is a unique music festival curated by creative industries students at the University of South Wales, working in liaison with the local community in aid of Teenage Cancer Trust and, during the pandemic, the #saveourvenues campaign. It is also core to the learning and assessment of credit-bearing curricula in the Schools of Production, Performance and Design for level 5 and 6 students. Immersed! has been running for three years and involves intensive collaboration with multiple stakeholders, including cross-subject disciplines, music fans, commercial venues, charities, professional bodies, booking agents, artists, communities, policymakers and technicians.

In 2021, the project was faced with a wicked problem aligned with that facing the music industry: can we adapt our successful festival brand to engage a range of stakeholders and audiences with a digital concept during a pandemic and meet the learning requirements of the module? Instilling a sense of 'liveness' and 'social' using technology was the crux of the challenge, along with ensuring students accessed an authentic and inclusive learning experience.

> "The outbreak has wreaked havoc on the live music sector, leading to widespread festival and tour cancellations"

(MusicWeek staff, 2020).

It was crucial to pivot any redesign quickly as the pandemic occurred mid-term; the primary focus was to facilitate a positive student experience and academic progression. In an industry in which experience is essential, embarking on this mission magnified the wellbeing needs of students, staff and, critically, the community. We were acutely aware of digital disadvantage and other inclusion challenges, always present and exacerbated by the pandemic. Our wicked problem presented multiple factors to consider, including lockdown restrictions, digital access, new technologies, learning outcomes, assessment credits, programming diversity, student wellbeing and safety. Our approach to navigating these issues was an extensive consultation period with key stakeholders to ensure the project was accessible and relevant for all parties.

Design thinking provided a structure for the project, a methodology defined as "essentially a human-centred innovation process that emphasises observation, collaboration, fast learning, visualisation of ideas, rapid concept prototyping, and concurrent business analysis, which ultimately influences innovation and business strategy" (Lockwood, 2010, xi, as cited in Chou, 2018, 75-76).

Stage two: approach

During the pandemic the project brief remained unchanged, but the operational approach was adapted to address the wicked problem facing Immersed!

> "Remember, all you can do regarding wicked problems is to embrace needs. Design thinking has powerful tools to ease the job."
>
> *(von Theinen, Meinel and Nicolai, 2014, 101).*

Working with the local industry, 50 students were tasked with every aspect of music programming, performance, promotion and production of a real-life festival in a task that nurtured vocational skills and network building. Embedded in the project were a wide range of personal qualities, behaviours and transferable skills that encompass all six of the University of South Wales's nominated graduate attributes of commercial awareness, communication, digital literacy, project management, leadership, innovation and enterprise.

The approach used was a design thinking methodology whereby students were encouraged to discover the problem through research; define insights from multiple perspectives; and develop ideas and concepts to propose solutions. Collaborative team work is the most critical element for the success of any innovation project and with group work at the heart of Immersed!, students accessed a fast-tracked learning experience. Using Singh's (2019) design thinking framework to explore solutions, a three-pronged scaffold was used to draw together resources to problem solve the following:

1   Inspiration: the cohort conducted field research exploring market trends and taking influence from events across the globe to consider practices that could fit with our demographic. Industry experts were invited to hold workshops with students to help inform and explore the project, including Kaptin Barrett, Head of Music for Boomtown Fayre, the UK's second-largest festival (Stubhub, 2017).

2   Ideation: the teaching team provided a framework for students to consult, brainstorm and synthesise options with a diverse range of individuals and groups to stimulate divergent thinking. They found common themes kept rising to the top as other ideas were discarded; for example, the importance of a representative and diverse programme, or the goal of prioritising quality content for broadcast by seeking to film inside music venues over less professional environments. Empathy is a core component of the design thinking approach as participants empathise with stakeholders to take inspiration from their needs, feelings and motivations to nurture meaningful solutions to actual problems.

3   Implementation: students were supported to apply ideas and generate an action plan, with prototyping used to test and ultimately validate the project. They conducted extensive exploration around how and where best to host the festival and following a testing period settled on three platforms – Facebook, Twitch and YouTube – to facilitate both quality and accessibility for our key stakeholders.

Logistics were the biggest issue. With social distancing in place and venues closed, the team worked hard to find practical and safe solutions to facilitate filming performances for broadcast. Music venues grasped the opportunity to open their doors to support the project and raise awareness of their plight, which in turn precipitated rigorous risk assessing and site management. The promotions team worked tirelessly to inject personality and meaning into the festival's storytelling – not only its programmed content, but the heroes behind the scenes making it happen. There were interviews, music clips, press articles, blogs and features about the music venues, artists, politics and charity campaigns involved, which swelled engagement.

Immersed! takes place over a six-month period which involves weekly lectures, seminars, and self-directed practice from a core teaching team of three tutors and industry specialists across subject disciplines. Students are supported to learn through experience and reflection using tools such as Gibbs' reflective cycle (Gibbs, 1988).

September	October	October/ November	December	January	February
Project brief	Inspiration	Ideation	Implementation	Implementation	Reflection
Outline of task, assessment and learning outcomes	Guest lectures from industry, stakeholders and USW alumnus	Programming, allocation of roles and teams' venue site visit	Marketing, logistics, artist liaison	Promotion, live event, stage management	Event debrief and evaluation

Stage three: outcomes

In 2020, Immersed! featured 27 bands, including Grammy award headliners, raising thousands for Teenage Cancer Trust as attendees donated using the Just Giving platform throughout the live-streamed event. Unrestricted by venue capacities, dates and times, Immersed! 2021 saw a creative community embark on a fast-track journey to expand the festival digitally. The end result was a three-day event with 48 artists streamed across multiple platforms to an audience of 10,000, offering a diverse programme that represented and celebrated the wealth of talent in South Wales, while representing a triumph over adversity during the most challenging of times.

> "Virtual events and clubs have proliferated as a reaction to lockdowns and closures – and offer their own set of opportunities, challenges and new questions. At their best, they can connect communities who can't otherwise be together in person"
>
> *(Ramello et al, 2020, 24).*

Immersed! excelled at creating virtual connections but, ultimately, online access can't replace physical experiences; the future of Immersed! lies firmly within the venues of Cardiff with additional dimensions that build on this year's success, such an Immersed TV, creative galleries and industry workshops.

Key to the success of the festival were industry partnerships and collaborations that equipped early career event managers with the skills, knowledge and networks required to maximise their potential. We allocated stages to music labels to showcase their talent and worked with local businesses to generate content and merchandise to fundraise for the #saveourvenues campaign, which aims to prevent the permanent closure of venues due to Covid-19. A design competition generated a commemorative festival t-shirt raising awareness and proceeds in support of the campaign. Tackling challenges, finding solutions to real-world problems and partnering with industry were at the forefront of the mission. With the live sector in a state of disruption, it was crucial to think creatively and consider sustainability, diversity, and enterprise.

> "Working with students and staff from the University of South Wales on Immersed Festival since 2019 I've seen the project develop and grow, with 2021 being a standout year in terms of creativity and professionalism. The team applied fresh thinking to the rapidly changing marketplace which well align with emerging business opportunities in the sector."
>
> *(Barrett, 2021).*

At a time when government messaging suggested the most viable option for creative industries professionals was retraining, passions for staging the festival ran high and the opportunity to draw the community together was seized. The Immersed! homepage embodied the ethos of the festival, reiterating the mood of the music industry with students declaring "We are Immersed. We are Cardiff. We make events. We are musicians. We are artists. We are performers. We represent. We are diverse. We are a community. We Create. We will not retrain. We are vital. We will be heard" (immersedfestival.co.uk).

Immersed! has provided a tangible blueprint for event startups and digital diversification within and outside education. Outcomes included bookings for artists and invitations for the Immersed! brand to host stages within larger festival projects across the UK, as well as employment offers for the student organisers with Brecon Jazz Festival, National Youth Arts Wales, Screen Alliance Wales and Libertino Records. We have built a valuable network around Immersed!, providing ongoing connections and resources for like-minded stakeholders to feed into next year's festival and offshoot opportunities. Going forward we intend to build on our success by incorporating further cross-discipline collaboration and multimedia creativity and tackling more wicked problems. Immersed! 2022 will continue to engage a range of stakeholders and address important issues, with a climate change and music conference incorporated in the festival. We are committed to upskilling and developing online elements to enhance any physical festival in the future, while exploring monetisation models for digital creative experiences. It's an exciting playing field as we consider how to build back better.

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