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Bridging the gap: The collaborative impact of enterprise education and small businesses on student skills development

Stuart Durkin, School of Social Science, University of Aberdeen, Scotland

Joy Perkins, Learning & Teaching Academy, Heriot-Watt University, Scotland

ABSTRACT

In recent years, various reports have examined how businesses are responding to technological advancements and demographic shifts in the workplace. This case study explores the responsive pedagogical and practical approaches to enhancing students' preparedness for this dynamic job market through a 30-credit module, 'Employer-led Interdisciplinary Project'. This module is offered to penultimate year undergraduate students in the School of Social Science at the University of Aberdeen. Students studying the module are from non-vocational degrees such as Politics and International Relations, Sociology, and Anthropology. In this case study analysis, the 10-year development of this flagship module is explored, reflecting on its pedagogies, collaborative partnerships, projects, and strong emphasis on enterprise education. A central tenet of the 12-week module is the experiential learning opportunity offered via a group project provided by a small and medium-sized enterprise (SME), start-up business, or third-sector charity. These external project providers play a key role in beneficially impacting students' self-development and growth, while supporting students' competency building.

In this case study, the benefits of university-small business partnerships in supporting students' skills development are illustrated through an exemplar alliance with Interface. This organisation is funded by the Scottish Funding Council to facilitate business access to academic expertise. In this module, Interface plays a pivotal role in sourcing a diverse range of real-world projects from small businesses, enabling students to understand current practices in a wide range of employment sectors and organisational sizes. For individuals aiming to enhance or initiate externally-sourced project-based learning within their own context, a range of key learning points are offered, alongside the challenges and benefits of partnership working with external organisations. The case study content is likely to be of particular interest to educational developers, degree programme directors, module leaders, and employers alike.

Keywords: enterprise education, project-based learning, university-small business partnerships, employability skills, competencies

Introduction

In 2022, a new 30-credit module, 'Employer-led Interdisciplinary Project' was developed and launched in the School of Social Science at the University of Aberdeen. The module was designed to support undergraduate students in social science subjects such as Politics and International Relations, Anthropology, and Sociology to develop their career-readiness, by offering project-based learning via a small and medium-sized enterprise (SME), start-up business, or third-sector charity. This module was originally devised in 2015 as a 15-credit module, 'Working Together: Employability for Arts and Social Sciences'. However, during the annual module review and monitoring process, it became increasingly apparent that

the student workload required to meet the intended module learning outcomes was better aligned with a 30-credit module version. This case study examines the 10-year development of this flagship module, reflecting on its pedagogies, collaborative partnerships, projects, and strong emphasis on enterprise, while also exploring its alignment with the interdisciplinary strand of the University of Aberdeen's Strategic Plan 2040 (University of Aberdeen, n.d.), specifically: "Design new modules and programmes which encourage interdisciplinary learning, and ensure that all our students can experience innovative, challenge-led education involving external stakeholders".

The 12-week, elective module is delivered through a collaboration between the School of Social Science, the external project host, and Interface (Appendix 1). The latter organisation connects businesses to Scottish Higher Education institutions: all three have a vested interest in this collaborative partnering. A maximum of 40 students can undertake the module each year. Based on informal conversations with students, staff-student liaison committee evaluations, and written reflections within end-of-module summative reports, there are a variety of reasons cited by students for selecting this module. These reasons include the real-world module relevance and the opportunity to engage with employers, the desire to gain practical experience, as some students have not been able to secure an internship due to strong competition for summer internships, and the module delivery format, which avoids traditional lectures and essay-based assessments.

Some students are unable to participate in the project-based learning module due to clashes with module timetabling. While some adjustments have been successfully negotiated with the central timetabling team, it has not always been feasible mainly due to curricular constraints and scheduling challenges. Since its launch the module consistently has attracted 20-30 students each academic year.

Typically, undergraduate students studying this module hail from a diverse range of non-vocational degree programmes such as Politics, Economics and Philosophy and the students are in their penultimate year of study. Since the module's initial inception, a consistent feature has been to support students to undertake their externally-hosted project via a series of weekly on-campus workshops. Workshop topics include Belbin's Team Roles, Creative Thinking & Problem Solving, and Using Social Media in Research. These sessions are important to facilitate students' interdisciplinary learning and skills development, as well as exposing them to real-world trends and expectations. Milligan et al. (2020) emphasise the importance of future-proofing students' skills to support a smooth transition to the workplace.

Enabling students to assess and recognise their skills is a key feature in this module. In an ever-changing global employment landscape, it is increasingly important to help ensure students are equipped with a strong skillset to succeed academically and professionally (QAA, 2019; World Economic Forum, 2025). In this module, a range of formative assessments have been purposely designed to facilitate students' skills development, and include a group project summary, a 10-minute group video progress recording, and an introductory Padlet™ activity. In addition, students are required to complete a group contract provided by the Module Co-ordinator, to signal their commitment to each other, their project, and their learning (Burke, 2011). All assessments are devised to scaffold student learning, include authenticity, and build understanding, skills, and confidence for students prior to the final summative assessments and grades (Lynam & Cachia, 2018; Perkins & Durkin, 2025; Sokhanvar et al., 2021).

The findings offered in this case study present both authors' analysis and reflections on their educational practice over the duration of the module, while also drawing upon the experiences of external project hosts and internal module workshop facilitators for verification. Express permission from the external project

providers and workshop tutors to include their quotations has been granted for the purposes of this case study. In preparing this case study, the authors have sought to reflect on their educational experiences and learning related to pedagogy, partnerships, and projects in this enterprise module.

The case study content is likely to be of particular interest to educational developers, degree programme directors, module leaders, and employers, as it explores the shift to more equitable skills development experiences within the academic curriculum that are accessible to all students (Jackson et al., 2023). This is illustrated via a workshop tutor's insightful comment:

> Self-efficacy and confidence are apparent in some students immediately, as they realise, they have the skills to construct and present a business case and provide credible options to a business client. This is an important confidence booster for them. For others the journey is longer and may require them to do more reflection on where their strengths are. In both examples, the student is given an opportunity to try something, which may inform their choice of future career.

Sourcing, monitoring, and evaluating student projects

For students who typically study a non-vocational degree programme such as Politics and International Relations, Anthropology, or Sociology, it can be difficult to grasp where they 'fit' in the workplace. By providing an externally-hosted project in this module, students can start to understand how their personal blend of skills and attributes apply in the workplace. Many of the projects are with small businesses and start-up organisations. The benefits of students being offered the opportunity to work with an external project host in a new environment are numerous, as illustrated through this module tutor's remark:

> The students gain insights into what makes a business work, revenue streams, customer segments, competitors etc. Classroom versions of these are not nearly so impactful in their potential learning outcomes. On a pragmatic level, these insights also enable the students to prepare for future interviews in a more meaningful way, as they understand what makes a business work.

In 2015, when the module was originally launched at the University, projects were sourced from existing established contacts in small businesses and organisations. As student interest in undertaking the module expanded, these projects were sourced through working in partnership with Interface. This organisation facilitates collaboration between Scotland's academic and business communities, to offer small business or charity projects that can support student project-based learning (Appendix 1). Prior to the onset of the COVID 19 pandemic, projects were only sourced in Aberdeen and Aberdeenshire. During the pandemic, however, virtual project opportunities were introduced and have been maintained, as they offer distinct advantages such as enabling projects to be sourced from diverse geographical locations and enabling broader small business engagement and greater project diversity. Irrespective of the project type, it is the real-world nature of the experience that has a positive influence on student engagement and motivation. This has been noted in other academic discipline areas (Marley et al., 2022).

Examples of projects that have been sourced for this module by Interface are illustrated in Table 1 below.

Table 1 Examples of projects sourced by Interface for the module 'Employer-led Interdisciplinary Project'.

Organisation	Geographical Location	Project Area
TrackGenesis Ltd	Aberdeen	Augmented reality in education and industrial training
Rosie's Social Enterprises	Aberdeen	Community and belonging project
Lerwick Engineering and Fabrication Ltd	Shetland	Developing a social media strategy

Project briefs from the past 10 years have been analysed and categorised into the following broad themes:

- Education research, in which students have curated Science, Technology, Engineering & Mathematics (STEM) displays and resources, Scottish heritage projects, and archive work within museum collections.
- Social media tasks, where students have researched popular online social networks to increase target business markets/customers and develop social media strategies.
- Interdisciplinary assignments that combine several academic subjects, in which students integrate knowledge, skills, and perspectives to address a challenge or issue.
- Start-up businesses working with entrepreneur(s), where students develop business plans, conduct market research, and carry out feasibility studies.
- Social enterprise ventures, in which students tackle business and environmental issues that are not-for-profit.

These externally-sourced, real-world projects serve as the central element in this module, acting as the main channel through which the intended module learning outcomes are contextualised and assessed.

Ensuring these projects are identified early is, therefore, essential, as this enables the module teaching team to confirm projects meet curriculum standards and the module learning outcomes. Early planning also enables time to build relationships and clarify project expectations with the external project hosts. Over the course of the module, the teaching team has devised a practical four-stage model for sourcing, allocating, monitoring, and evaluating projects:

Project sourcing

Most projects for the module are sourced through our collaborative partnership with Interface. These projects come from a range of contexts across Scotland, including the Highlands and Islands with contributions from SMEs, micro-businesses, charities, and start-up businesses. This approach fosters a diverse portfolio of project-based learning opportunities, which provides an extremely enriching student experience through opportunities in various employment sectors and communities. The teaching team is very open minded about the type of project accepted, as our aim is to select projects that motivate and inspire students, while also providing opportunities for students to apply their skills and knowledge in different settings (Nägele & Stalder, 2017).

To capture project information, a project proposal template is used to document: the project title, the organisation contact details, group size preference (typically 3 or 4 students), the project outline, intended project outcomes/outputs, any confidentiality issues, and how the project enables students to meet some or all the module learning outcomes (Jackson et al., 2016). A previous study conducted by Winchester-Seeto (2024) described the use of project proposal templates to help organisations structure the nature and scope of project work to ensure quality. Throughout the past 10 years of the module, a repository of projects has been maintained, as it is also common for organisations to approach the team directly to offer a follow-up project in subsequent years.

Project allocation

Matching students to sourced projects occurs during the first two-hour teaching session. The first hour of this session provides an overview of the module aims, workshop topics, assessments, expectations, and the real-world group projects offered by external partners. The availability of projects is covered in-depth during the second hour by the Module Co-ordinator. Students browse short descriptions of the projects and then note their preferences, so they are matched naturally based on their interest. In the early years of delivering this module, student matching to projects occurred through ranking their interest and noting their motivation for each project topic. Allowing students to select their project often helps groups to connect with peers with whom they feel comfortable, and a topic in which they are more invested, as opposed to the teaching team allocation of a project to students, which can decrease motivation and ownership (Burke, 2011). During the second teaching session, the project hosts then meet their student group. Normally, this occurs online as projects are geographically dispersed across Scotland. Preparing students for learning in this new environment and emphasising the requirements and expectations is an important aspect to support student wellbeing and integration (Billett, 2011).

To effectively manage the overall number of group projects, the Module Co-ordinator takes into account student module registration numbers, typically ensuring 3-4 students per project and one further project to ensure sufficiency. This approach has generally allowed all projects to proceed as planned with some groups consisting of only three students. In cases where certain project topics receive little or no student interest, the Module Co-ordinator schedules a follow-up discussion with that external host organisation to explore possible reasons, drawing on any student feedback to inform the conversation. Project hosts are also encouraged to consider submitting a project proposal in a subsequent academic year. For oversubscribed projects, the Module Co-ordinator allows student interest to develop and waits until a group of up to four students naturally forms. This is a useful strategy for educators considering the introduction of this type of provision.

Monitoring projects

Ongoing support for the external host organisations and students is offered throughout the project period. This commences with a short meeting between the Module Co-ordinator and the external organisation approximately 6-8 weeks before the module is launched, to discuss the latter's project, the module structure, and their role. Clarity around the external host's role, responsibilities, and expectations is crucial to help ensure a quality project experience and to avoid any misunderstandings (Fleming et al., 2023). To support effective engagement, a tailored digital guide (Project Guidance for Organisations) is shared with the external host. This Guide is designed to support hosting organisations in enhancing the student learning

experience in a variety of project settings. Drawing upon the work of Nixon et al. (2006), it was recognised from the module's inception that clear language and consistent terminology are essential to ensure a shared understanding of the academic module, and the project's purpose from both the University's and external hosts' perspectives.

This Guide provides an overview of the module structure and outlines the benefits of project-based learning from the perspectives of staff, students, and host organisations. It includes details on module aims, learning outcomes, assessment methods, and strategies for supporting students engaged in virtual projects. Additionally, it outlines the enterprise-focused workshop topics and guidance on arranging meetings with students. To assist with project planning and delivery, the Guide also includes a project planning grid, to help external project hosts to discuss, plan, and manage their project with their allocated group. Further pedagogical touchpoints are embedded in the module to reinforce module understanding, and engagement (Tualaulelei et al., 2022). Key examples include the initial project briefing meeting in Week 2 of the module, where success criteria, timelines, and project aims are explored, and in the final week module showcase, where each student group delivers a 10-minute group video summative assessment presentation of their completed project to peers, the teaching team, and the external host organisations.

Pedagogical touchpoints designed to support students throughout their project learning journey include several key interactions. The first occurs during the initial project orientation sessions at the start of the module, which establish expectations, clarify project aims, and build early engagement. An additional opportunity for structured project feedback is provided in Week 4 through an early formative assessment, aimed at building student confidence and helping shape the direction of the project. This formative task, the Group Progress Summary, (500 words, one A4 page) adopts a structured Progress, Plans, and Problem approach to help students reflect on and share the status of their group project, as follows:

1) **Progress:** Outline of project achievements, including completed tasks, key research findings, and milestones reached.
2) **Plans:** Outline of intended next project steps.
3) **Problems:** Identify any potential challenges, issues, unanswered questions, and any adjustments to the scope of the project.

This formative assessment affords an opportunity for each project group to receive constructive feedback from the teaching team (Rushton, 2005). Further personalised guidance is also available from the Module Co-ordinator, peers, and employers to students on their draft group 10-minute video version in advance of the summative assessment project video showcase. In addition, tailored guidance and support are embedded in the enterprise workshops, where students are encouraged to reflect on progress, discuss challenges, and plan next steps. These sessions are facilitated by a range of experienced tutors who support students to develop their skillset and navigate their projects in their professional context.

Collectively, these pedagogical touchpoints are intentional and structured interactions that guide students and external host organisations through their project journey. Over the 10-year module delivery period, it has become increasingly apparent that regular communication at these points enriches the overall learning and teaching experience for all stakeholders.

Challenges associated with project monitoring have included 'project creep', and limited experience among some external project hosts in providing timely, constructive feedback to students. These challenges have

required on occasions targeted follow-up by the Module Co-ordinator to help ensure parity across the student project groups. Additionally, as the 12 week module is scheduled in the second semester, the timing of the spring vacation period often disrupts the continuity of the project tasks, module activities and student engagement. This is difficult to overcome as the vacation period is a fixed position in the academic calendar. To manage expectations about project momentum, all project hosts are briefed at the outset, during the project proposal stage, and in the written guidance for external project hosts. This is a pertinent learning point for educators who are considering the development of similar provision, as this approach helped to mitigate against some of the initial challenges encountered with stakeholder communication and time management in different project settings. It is also helpful if the external project hosts understand that students are supported to engage respectfully with their chosen organisation. Including a professionalism statement has been an important element in signalling standards, responsibility and expectations for students during the project period. This statement was introduced several years after the module was launched, to make it explicit what is required of students and external project hosts are aware of these expectations. This is an important learning point for educators interested in preparing students for the transition to a more work-focused learning environment.

Evaluating projects

At the end of the 12-week project period, each organisation is sent an experience survey by Interface, to explore their views regarding the collaboration, the perceived value of the student input, and the impact on their small business or charity. In tandem, the Module Co-ordinator also follows up with a short survey covering feedback on the project proposal process, the project guidance provided to organisations, the project schedule and student meetings, and the project value and legacy for the host organisation.

Students are also invited to provide feedback on the project-based learning module through the University's post-module evaluation questionnaire. This approach provides valuable insights into the effectiveness of the module's design, delivery, and assessment on student learning. This dual approach is founded on the recognition that different stakeholders have different perspectives and needs (Rowe et al., 2018).

Over the past decade, feedback gathered through these evaluations has informed enhancements in module content, project practices, and the assessment methods. For example, to help address the evolving generative artificial intelligence (GenAI) landscape, a new workshop session 'Artificial Intelligence and Employability' features in the enterprise module. As GenAI becomes increasingly embedded in workplace tools and practices, it is imperative for students to understand the varying levels of GenAI adoption and how this tool can be applied ethically and effectively. Through integrating these issues into project-based learning, it also enables students to develop their digital skills and ethical awareness (Dean et al., 2025).

Purposeful pedagogies

A range of formative and summative assessments are embedded in the module, to support student learning and engagement. The formatives include:

1) Introductory 'meet n' greet' Padlet exercise
2) Written group progress summary (one side of A4)
3) Group video progress presentation (10 minutes)

These formative tasks are designed to build students' confidence and capabilities in project-based learning, particularly for those unfamiliar with group projects and collaborative work. Over the 10-years of the module, students have consistently responded positively to this assessment approach, noting its value in structuring the module into clear phases where they receive peer feedback, project host feedback, or lecturer feedback. Receiving feedback from these sources is a distinctive module feature, which supports students' academic self-efficacy and skills development. To ensure the effectiveness of this model, students are briefed at key points throughout the module to enhance their assessment literacy (Nicol & Macfarlane-Dick, 2006). This process also fosters dialogue and discussion, supporting students in developing a clear understanding of assessment requirements (Carless, 2007).

Summative assessments are a central component of the project-based learning module, and offer students the opportunity to reflect upon their own strengths and areas for development through a range of assignment tasks, namely:

1) Individual professional letter (20%)
2) Group video project presentation (30%)
3) Individual reflective report, 3,000 words (50%)

These authentic, work-related assessments are a consistent feature of the module's assessment strategy. They are purposefully aligned with the module learning outcomes and designed to support students in developing their self-awareness of their project-based learning experiences and skills development (Biggs, 1996; Rowe & Zegwaard, 2017). This approach is designed to encourage students to become more proactive, independent, and critical learners, equipping them to articulate their skills, qualities, and capabilities to future employers or postgraduate recruiters (Miller & Konstantinou, 2022; Sokhanvar et al., 2021).

For example, the individual, 3,000 word summative reflective report requires students to reflect critically on specific experiences within their project, as well as their personal and professional development arising from the process of completing a group project. This includes consideration of skills acquisition, collaborative practices and evolving career aspirations. To support this process, students receive a detailed assessment brief, where they are guided by a series of structured reflective prompts.

These reflective assessment tasks provide the module teaching team with valuable insights into student learning and development by revealing their thought processes, as well as their personal and professional development throughout their project. These reflections enable the Module Co-ordinator to understand individual student and group progress better, as well as challenges encountered and student skills development over the 12-week group project period. The evidence gathered through these assessments can also inform ongoing enhancements to module content, design, and assessment practices.

A core principle in this module is to assess students on the learning process rather than the product(s) delivered through the project. All assessments encourage the students to reflect on their learning, challenges faced, skills and professional development. This approach ensures fairness in assessment judgements, as project outcomes may be influenced by other external factors beyond the students' control. Focusing on the student learning process also allows the teaching team to more accurately assess student development and employability enhancement.

In this module, the use of a professional letter as a summative assessment has offered significant learning for the module teaching team. Despite evolving recruitment practices, effective cover letter construction

remains a relevant and in-demand skill. As such, the authors encourage educators interested in instigating or developing this type of module provision, to give careful consideration when devising assessments, so that they help bridge academic learning and real-world application.

The professional letter assessment requires students to reflect on their learning throughout the module, consider how the module has influenced their career-readiness, and articulate the competencies they have developed during the project period in a letter addressed to the School Director of Education

The professional letter assessment requires students to address the following elements:

- A brief introduction to their selected project within the module.
- Any transformative learning experiences from the project that have contributed to the development of their knowledge, skills, and abilities.
- Reflection on how the module is shaping their career aspirations and raising awareness of job opportunities in the SME sector.
- Insights into how their module learning is supporting the development of their future unique selling point ('USP') for prospective employers.
- Any advice, reflections, and guidance for future students interested in undertaking the module.

During the final on-campus workshop session, students are invited to engage in a reflective class conversation on their learning, skills development, and the module assessments they have undertaken. In this session, students consistently report that they find the professional letter assessment extremely valuable, as it offers an unusual opportunity to practise the art of letter writing in the academic curriculum. Students comment particularly on the chance to reflect meaningfully on their learning and articulate competencies they have developed to boost their employability. These competencies include intellectual skills such as critical thinking, social skills through undertaking project tasks, as well as the ability to research and problem solve.

These assessments, in tandem with the group projects, draw on distinctive pedagogical approaches that support the development of students' competencies, as illustrated in Table 2.

Table 2 Purposeful Pedagogies in the Module 'Employer-led Interdisciplinary Project'

Pedagogy	Key Features	Benefits for Student Learning & Skills Development
Collaborative learning	Implemented externally-hosted group projects to foster collaboration and shared responsibility, to solve challenges and deliver project outputs.	Develops students' active listening, negotiation, teamwork, creativity, and problem-solving skills (Terenzini et al., 2013).
Project-based learning	Engaged student groups with a sustained real-world project period to drive interdisciplinary learning.	Fosters student autonomy and linking of theory to solve real-world projects to enhance problem-solving abilities (Perkins & Durkin, 2025).
Experiential learning	Enabled learning and personal development through authentic project experiences and reflective assessments, often in different learning spaces.	Encourages student curiosity, engagement, and wellbeing (Elsden et al., 2023).

Problem-based learning	Incorporated open-ended real-world challenges to drive student learning through research and enquiry.	Builds students' self-directed learning and reflective, critical thinking, and research skills (Yew & Goh, 2016).
Peer learning	Purposely designed reflective formative assessments for providing student-to-student learning.	Prepares students for collaborative working and evaluative judgement processes in professional settings (Cowan, 2010).

University-small business partnerships

Throughout the 10-year development of the project-based learning module, various collaborations and partnerships have supported the creation of an impactful student learning experience. Key benefits of these alliances include:

1) **Sharing effective practice:** To gain initial traction and support from colleagues, external engagement with small businesses and charities was used to generate University interest during the module approval process. As the module has evolved, academic and employer members of the University's Institutional Employer Board have been regularly updated on its development, ensuring its delivery remains relevant and responsive to the needs of all stakeholders.

2) **Providing real-world challenges:** Students benefit from partnership-led learning opportunities through short projects offered by SMEs, start-up businesses, or third sector charities. These partnerships are geographically spread across Scotland and have resulted in an impressive number of student project opportunities beyond Aberdeen and Aberdeenshire.

3) **Enabling student mentoring opportunities:** Project host organisations offer informal mentorship to student groups, to enhance motivation, facilitate professional networking, and deliver authentic, experience-based feedback.

The benefits of university-small business partnerships to enable student skills development are further explored in the Interface case study example (Appendix 1).

Key learning

For individuals aiming to enhance or initiate externally sourced project-based learning within their own context, the following approaches are recommended:

1) **Demystify the academic curriculum:** For many SMEs, micro-businesses, or charities, particularly those without prior experience of working with universities, the academic learning environment can appear quite daunting. Providing accessible clear and concise written guidance that explains module structures (e.g. learning outcomes, assessment expectations, time commitment, and timelines) can assist with project host understanding and engagement.

2) **Share effective practice:** Build structured opportunities for project hosts to engage with and learn from the project-based learning practices of other organisations. For example, in this module a final week showcase event is held, where all host organisations are invited to attend the student group presentations, which are also summatively assessed by the module teaching team. Hosting such events through the University reinforces the value of these partnerships in enhancing student

learning. Delivering the event online further ensures accessibility regardless of geographical location.

3) **Ensure regular communications with project hosts:** Given project hosts volunteer their time to support student learning, it is important to provide regular, timely, and concise communications. Providing clear timelines, key dates, and expectations for their involvement in advance of the module offers reassurance. In this module, the teaching team sends key information in a tailored written guide to the project hosts before the module begins, along with early email reminders during the module to help ensure their preparedness.

4) **Raise the profile of social enterprises:** Aim to widen student appreciation of social enterprises by actively seeking and prioritising additional projects. In this module, it is becoming increasingly apparent that student awareness of social enterprises is limited, so more intentional integration and collaboration is needed to support student understanding. This gap is illustrated through the following external project host remark:

The students I worked with had little experience of social enterprise. Through the project, I guess they were able to see the work that goes on in third sector organisations and contribute directly.

Reflection point

These reflective prompt questions give readers the opportunity to review and consider project-based learning in their own teaching context:

1) What are the potential benefits and challenges of incorporating externally supplied student project briefs by businesses or charities in tertiary education?
2) In what ways do you support students to reflect on their skills development during project-based learning?
3) What opportunities are there in your module(s) for students to engage with creative thinking?
4) How can you support external project hosts to provide developmental and constructive feedback to a student project group?
5) To what extent do your current assessments in project-based learning enable student reflection on real-world skills development?

Conclusion

Since the launch of this enterprise education module 10 years ago, it has positively impacted the learning and personal development of hundreds of social science undergraduate students at the University of Aberdeen. In 2022, this was recognised through student nominations for the University of Aberdeen Principal's Excellence Award, and the receipt of the Outstanding Interdisciplinary Module Team award, reflecting the module's value and relevance on student learning.

Over this period, student feedback through both formal and informal channels has also been consistently positive, with students indicating they feel more confident, engaged in their career development learning, and have a greater awareness of their workplace competencies.

Going forward, the planned next steps for this module include:

- Strengthening employer collaborations to ensure module design, delivery, and project practices remain aligned with the evolving needs of small businesses and institutional requirements.
- Heightening student focus on employment skills by integrating frameworks that support the student transition from education to employment (Skills-for-Skills, n.d.).
- Monitoring long-term outcomes by tracking this module's impact on student career development and progression.

However, there is also wider work to be done to expand this type of provision to inspire students in other discipline contexts. In so doing, we will be able to better prepare students to connect academic and workplace learning to the enterprise skills needed in professional contexts beyond university.

Biographies

Stuart Durkin is Director of Education based in the School of Social Science at the University of Aberdeen. He teaches Politics and International Relations and has research interests in student experiences of group work and learning in groups, student perspectives on authentic and alternative assessments, and graduate employability enhancement.

https://www.linkedin.com/in/dr-stuart-a-durkin-sfhea-52683b242

Joy Perkins is an Associate Professor (Curriculum Innovation and Work-Integrated Learning) at Heriot-Watt University, Edinburgh. She works in partnership with academics to advance employability across Heriot-Watt's global campuses and was previously based at the University of Aberdeen. Her research interests and recent publications focus on the role of employer engagement in curriculum development.

http://www.linkedin.com/in/joy-perkins-a786641b

Acknowledgement

References

Association of Graduate Careers Advisory Services. (2023, November). *The future of work*. (Issue 169). Phoenix AGCAS Journal. https://www.agcas.org.uk/write/MediaUploads/Phoenix/PhoenixIssue169November2023.pdf

Biggs, J. B. (1996). Enhancing teaching through constructive alignment. *Higher Education*, *32*(3), 347-64. https://doi.org/10.1007/BF00138871

Billett, S. (2011). *Curriculum and pedagogical basis for effectively integrating practice-based experiences.* Final Report Sydney: Australian Learning and Teaching Council.
https://www.vu.edu.au/sites/default/files/CCLT/pdfs/billett-wil-report.pdf

Burke, A. (2011). Group work: how to use groups effectively. *The Journal of Effective Teaching*, *11*(2), 87-95.

Carless, D. (2007). Learning-oriented assessment: conceptual bases and practical implications. *Innovations in Education and Teaching International*, *44*(1), 57–66. https://doi.org/10.1080/14703290601081332

Cowan, J. (2010). Developing the ability for making evaluative judgements. *Teaching in Higher Education*, *15*(3), 323–334. https://doi.org/10.1080/13562510903560036

Dean, B. A., Tai, J., Walton, J., Nicola-Richmond, K., & Cormier, D. (2025). *Generative artificial intelligence in work integrated learning: resources for university staff, students, and industry partners*. Centre for Research in Assessment and Digital Learning, Deakin University, Melbourne, Australia.
https://blogs.deakin.edu.au/cradle/wp-content/uploads/sites/188/2025/03/Generative-Artificial-Intelligence-in-Work-Integrated-Learning-Resources.pdf

Elsden, E., Kador, T., Sercombe, H., Piper, K., Barkan, M., Webster, E., & Smyth Zahra, F. (2023). Experiential learning spaces and student wellbeing: a mixed-methods study of students at three research intensive UK universities. *International Review of Psychiatry*, *35*(7–8), 591–604. https://doi.org/10.1080/09540261.2023.2268720

Fleming, J., Ferns, S. J., & Zegwaard, K.E. (2023). Benefits of work-integrated learning for host organizations. In K. Zegwaard & J. Pretti (Eds.), *The Routledge International Handbook for Work-Integrated Learning* (3rd ed.) pp.113–130. Routledge. https://doi.org/10.4324/9781003156420-9

Institute of Student Employers. (2025). *From early career to emerging talent*.
https://ise.org.uk/knowledge/resources/386/from_early_career_to_emerging_talent/download

Jackson, D., Dean, B. A., & Eady, M. (2023). Equity and inclusion in work-integrated learning: participation and outcomes for diverse student groups. *Educational Review*, *77*(2), 329–350.
https://doi.org/10.1080/00131911.2023.2182764

Jackson, D., Rowbottom, D., Ferns, S., & McLaren, D. (2016). Employer understanding of work-integrated learning and the challenges of engaging in work placement opportunities. *Studies in Continuing Education*, *39*(1), 35–51. https://doi.org/10.1080/0158037X.2016.1228624

Lynam, S., & Cachia, M. (2017). Students' perceptions of the role of assessments at higher education. *Assessment & Evaluation in Higher Education*, *43*(2), 223–234. https://doi.org/10.1080/02602938.2017.1329928

Marley, A. S., Siani, A., & Sims, S. (2022). Real-life research projects improve student engagement and provide reliable data for academics. *Ecology and Evolution*, *12*(12). https://onlinelibrary.wiley.com/doi/10.1002/ece3.9593

Miller, E., & Konstantinou, I. (2022). Using reflective, authentic assessments to embed employability skills in higher education. *Journal of Work-Applied* Management, *14*(1), 4-17. https://doi.org/10.1108/JWAM-02-2021-0014

Milligan, S., Luo, R., Hassim, E., & Johnston, J. (2020). *Future-proofing students*. University of Melbourne. https://education.unimelb.edu.au/__data/assets/pdf_file/0005/3397469/MGSE_Future-Proofing-Students_Web_Updated-9-7-20.pdf

Nägele, C., & Stalder, B. (2017). Competence and the need for transferable skills. In M. Mulder (Ed.), *Competence-based Vocational and Professional Education, Technical and Vocational Education and Training: Issues, Concerns and Prospects 23* (pp.739-753). Springer. https://doi.org/10.1007/978-3-319-41713-4

Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education*, *31*(2), 199–218.
https://doi.org/10.1080/03075070600572090

Nixon, I., Smith, K., Stafford, R., & Camm, S. (2006). *Work-based learning: illuminating the higher education landscape*. Higher Education Academy.
https://www.advance-he.ac.uk/knowledge-hub/work-based-learning-illuminating-higher-education-landscape

Perkins, J., & Durkin, S. (2025). Developing student employability through formative assessment and virtual project learning in the social science curriculum. In S. Elkington, & A. Irons (Eds.), *Formative Assessment and Feedback in Post-Digital Learning Environments: Disciplinary Case Studies in Higher Education* (1st ed), pp. 42-49. Routledge. https://doi.org/10.4324/9781003360254-5

QAA (Scotland) (2019). *Focus On: Graduate Skills 2018-19*. https://ww.qaa.ac.uk/scotland/focus-on/graduate-skills

Rowe, A.D., Nay, C., Lloyd, K., Myton, N., & Kraushaar, N. (2018). Telling your story of work integrated learning: a holistic approach to program evaluation. *Asia-Pacific Journal of Cooperative Education*, *19*(3), 273-285.
https://www.ijwil.org/files/IJWIL_19_3_273_285.pdf

Rowe, A. D., & Zegwaard, K. E. (2017). Developing graduate employability skills and attributes: curriculum enhancement through work-integrated learning. *Asia-Pacific Journal of Cooperative Education*, *18*(2), 87-99.
https://www.ijwil.org/files/APJCE_18_2_87_99.pdf

Rushton, A. (2005). Formative assessment: a key to deep learning? *Medical Teacher*, *27*(6), 509–513.
https://doi.org/10.1080/01421590500129159

Skills-for-Skills: The Framework (n.d.) https://www.skillsforskills.org/framework

Sokhanvar, Z., Salehi, K., & Sokhanvar, F. (2021). Advantages of authentic assessment for improving the learning experience and employability skills of higher education students: a systematic literature review. *Studies in Educational Evaluation*, *70* Article 101030. https://doi.org/10.1016/j.stueduc.2021.101030

Terenzini, P.T., Cabrera, A.F., Colbeck, C.L., Parente, J.M., & Bjorklund, S.A. (2013). Collaborative learning vs. lecture/discussion: students' reported learning gains. *Journal of Engineering Education*, *90*(1), 123–130.
https://doi.org/10.1002/j.2168-9830.2001.tb00579.x.

Tualaulelei, E., Burke, K., Fanshawe, M., & Cameron, C. (2022). Mapping pedagogical touchpoints: exploring online student engagement and course design. *Active Learning in Higher Education*, *23*(3), 189-203.
https://doi.org/10.1177/1469787421990847

University of Aberdeen. (n.d.). *Aberdeen 2040 Strategic Plan*. https://www.abdn.ac.uk/2040/

Winchester-Seeto, T. M., Ferns, S. J., Lucas, P., Piggott, L., & Rowe, A. (2024). Intensive work-integrated learning (WIL): the benefits and challenges of condensed and compressed WIL experiences. *Journal of University Teaching & Learning Practice*, *21*(2), Article 6. https://doi.org/10.53761/1.21.2.06

World Economic Forum (2025). *The future of jobs report 2025*.
https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf

Yew, E. H. J., & Goh, K. (2016). Problem-based learning: an overview of its process and impact on learning. *Health Professions Education*, *2*(2) Article 3. https://doi.org/10.1016/j.hpe.2016.01.004

Appendix 1: Case study

Interface: Strengthening Student Enterprise Skills Through University Project Partnerships

Overview

Interface, funded by the Scottish Funding Council (SFC), plays a pivotal role in linking Scotland's 19 universities with businesses to drive innovation and support economic growth. Operating across a diverse range of employment sectors and organisational sizes, Interface facilitates business access to academic expertise and facilities within Scotland's higher education and research institutes. In addition to fostering research and commercial partnerships, Interface has made a significant contribution to enhancing student employability and enterprise skills at the University of Aberdeen. This has been achieved by Interface sourcing a diverse range of real-world projects for the 30-credit module, 'Employer-led Interdisciplinary Project'. These opportunities have been made possible through Interface's extensive business networks and the expertise of its Business Engagement Executives.

Partnership working

Over the past nine years, Interface has provided a bridge between academia and the workplace, creating opportunities for students to engage in consultancy-style projects. These engagements have supported the development of key enterprise competencies, including creative thinking, teamwork, communication, adaptability, digital literacy, and resilience.

Through Interface, University of Aberdeen students benefit from:

- Access to real-world business projects across sectors, including energy, tourism, food and drink, marketing, charities, and information technology.
- Opportunities to apply academic knowledge and skills to address practical business challenges, issues, or projects through working in interdisciplinary student groups.
- Exposure to entrepreneurial thinking and innovation-led approaches that have inspired new ventures, internships, or career pathways.
- Extended mentorship and networking opportunities with business founders, entrepreneurs, and employees.

Through Interface, SMEs, micro-businesses, charities, and start-up organisations benefit from:

- Access to new perspectives and ideas from students.
- Additional resources to progress existing or proposed projects.
- Enhanced links between their organisation and the University, which has often led to further engagement opportunities such as guest lectures or employer board membership at the University.

Impact

Students who undertake the module often report increased confidence, enhanced CVs, and a deeper understanding of how their academic skills can be applied to the workplace. As a recent project host insightfully states:

By tackling real-world tasks, students build confidence in their abilities as they witness their contributions making an impact. Engaging with industry professionals provides validation of their work, reinforcing their belief in their skills.

Projects sourced through Interface are typically not business critical, but instead often focus on areas of business improvement that have previously been deprioritised due to resource constraints. This approach supports the delivery of practical and actionable outcomes for the host organisation, while also helping to mitigate risk.

One such example involves a micro-business that benefited from a tailored social media and podcast strategy, which helped expand its reach. These fresh perspectives and practical ideas were offered by the student project group to their project host and addressed challenges that had previously hindered progress for the business owner.

Conclusions

By aligning academic talent with real-world business challenges, the module not only fosters innovation but also helps stimulate students to develop an enterprise mindset that is characterised by creative thinking, adaptability and problem-solving. While not an intended learning outcome for this project-based learning module, it emerges through the project learning experience as part of this mutually beneficial partnership model.

Further information: https://interface-online.org.uk/