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Employer collaboration in developing graduate employability: a pilot study in Ireland

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Employer collaboration in developing graduate employability: a pilot study in Ireland

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Abstract

Purpose – The purpose of this paper is to evaluate the impact on student work readiness outcomes of collaboration with employers in developing and delivering tailored graduate employability workshops in socio-emotional skills for work (SES4Work).

Design/methodology/approach – Framed by the CareerEDGE model of graduate employability, the authors piloted a five-session module for near graduates in five disciplines. The research included an online employer survey (n = 128), employer interviews (n = 21) and tailored workshops for near graduates, culminating in a mock competency-based interview. Using a pre/post-test design, participants (n = 24) also completed the CareerEDGE Employability Development Profile (EDP) and the Trait Emotional Intelligence questionnaire (TEIque).

Findings – After completing the module, there was a statistically significant improvement in participant scores on the CareerEDGE EDP +12.3%, $p < 0.001$, effect size (Cohen's d) 0.89, large, and the TEIque +6.4%, $p = 0.009$, effect size (Cohen's d) 0.61, moderate. Furthermore, 70% (n = 17) of participants were "hired" based on their mock interviews, with 12% (n = 4) offered employer connections after graduation.

Originality/value – This is the first academic research in Ireland to develop and evaluate an enterprise-collaborative, discipline-specific module for enhancing graduate employability. Findings suggest that employer collaboration can enhance the efficacy of employability interventions and therefore merits further research.

Keywords Emotional intelligence, Soft skills, CareerEDGE, Employability, Career development

Paper type Research paper

Introduction

Research continues to highlight the importance of soft skills or socio-emotional skills (SES), for occupational success, as well as graduate skill gaps identified by employers (Succi and Canovi, 2020). Deloitte Access Economics forecasts that soft skill-intensive occupations will account for two-thirds of all jobs by 2030, up from half of all jobs in 2000.

In Ireland, surveys of employers confirm the existence of this skills gap and the need to address it (Jameson *et al.*, 2016). The Irish Business and Employers Confederation (IBEC) has called for employability skills to be embedded in the fabric of the education system across all disciplines to build resilience in rapidly changing labour markets and to support graduates navigating through career phases (IBEC, 2021b). Despite this, research into how such skills can be developed is relatively sparse in Ireland.

Approaches to developing such skills range from programmes embedded in the core curriculum (Harvey *et al.*, 2015) and complementary co-curricular interventions (Dacre-Pool,

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2017) to a wide range of extra-curricular activities, such as work-integrated learning or paid work, volunteering or sports (Jackson and Bridgstock, 2020). At Technological University Dublin (TU Dublin), the *Transform*-EDU project seeks to develop and pilot an innovative approach, integrating elements of structured programmes with co- and extra-curricular events to support students to develop 21st century graduate profiles.

As part of *Transform*-Edu, the Research Centre for Psychology, Education and Emotional Intelligence (PEEI) piloted workshops in SES for graduate employability in collaboration with employers that were delivered as five discipline-specific iterations of a work readiness module. We explored the impact of this close collaboration with employers on student outcomes in five different disciplines at TU Dublin, partially replicating and extending previous doctoral research with engineering students in 2015–2016 (Jameson *et al.*, 2019). In particular, the research aimed to ascertain the impact of employer involvement in workshop delivery on student outcomes in terms of success at interview and improved scores on measures of emotional intelligence (EI) and graduate employability.

The key research questions (RQs) were as follows:

RQ1. How likely are Irish employers to hire TU Dublin final year undergraduate students based on the level of social and emotional skills they demonstrate at mock interviews?

RQ2. Does the provision of employability workshops to these near graduates lead, on average, to increased scores on the following validated instruments? (a) CareerEdge Employability Development Profile (EDP) (Dacre-Pool *et al.*, 2014), and (b) Trait Emotional Intelligence Questionnaire (TEIQue) (Petrides, 2014).

RQ3. How does employer engagement in the delivery of work readiness workshops impact students and employers?

Theoretical framework

To answer these questions, we took a pragmatic, mixed methods approach. It combined positivist quantitative tools, using online surveys and validated psychological measures, alongside qualitative tools, such as semi-structured interviews and focus groups to gain deeper insights, using reflexive thematic analysis within a social constructivist paradigm (Braun and Clarke, 2006).

Adoption of the CareerEDGE model as framework

As a framework for this study, we adopted the CareerEDGE model, first proposed by Dacre-Pool and Sewell (2007) that explicitly introduced EI as a discrete category, separate from generic skills, such as problem-solving and critical thinking. In this model, employability is defined as "Having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful" (2007, p. 280). It is a complete model of employability, including students' **Career** development learning, **E**xperience, **D**egree, **G**eneric skills and **E**motional intelligence (CareerEDGE). This sustainable employability model proposes a multi-layered path to enhanced self-perceived employability that has been linked to long-term career satisfaction (Dacre-Pool and Qualter, 2013).

Based on this model, Dacre Pool designed teaching interventions focussed on EI (Mayer and Salovey, 1997) that increased EI in a group of undergraduates from various disciplines and improved their employability as a result of increased self-efficacy (Dacre-Pool and Qualter, 2012, 2013). Subsequently, the CareerEDGE EDP was validated as a developmental tool for students and a measurement tool for use in the design, implementation and evaluation of employability interventions (Dacre-Pool *et al.*, 2014).

The CareerEDGE model has generated further research into the development of employability skills, such as using "brand me" presentations to enhance self-confidence, the measurable manifestation of self-esteem and self-efficacy (Tymon *et al.*, 2020). It has also been used to re-imagine career development services at universities, such as University College Dublin in Ireland in 2015 (Foster, 2016). Small *et al.* (2018) have described it as the most comprehensive model of graduate employability, while suggesting that interpersonal qualities could be added to the model. This observation has provided the rationale for including the Trait Emotional Intelligence questionnaire (TEIque) model of EI in our study, as it explicitly focusses on sociability.

Emotional intelligence

For this study in SES in the workplace, the TEIQue, a self-report instrument (Petrides, 2014), was employed in a pre/post research design to assess final year students' levels of EI. Trait EI (or trait emotional self-efficacy) concerns our perceptions of our emotional abilities, that is, how good we believe we are at understanding, regulating and expressing emotions in order to adapt to our environment and maintain well-being (Petrides *et al.*, 2016).

Experiential learning

The socio-emotional skills for work (SES4Work) module was designed to maximise tailored experiential learning, since previous research demonstrated that tailored EI coaching was more effective than generic coaching in improving graduate employability (Jameson *et al.*, 2019). The experiential learning cycle is a four-step learning process: experience – reflect – think – act, in which the initial experience provides the impetus to deeper learning (Kolb, 2014). To enable this, interactive workshops were developed, with hands-on experiences that would lead, it was hoped, to reflection, personal insights and deep level learning (Laevers, 2015).

Authentic assessment

Authentic assessment has emerged as a particular characteristic of employability in many disciplines (Rees, 2019), as industry increasingly seeks work-ready graduates. While authenticity exists on a continuum (Harvey and Dodd, 2021), this module incorporated several key principles. Realism came through close collaboration with employers in designing and delivering workshops and conducting mock online interviews that were as close as possible to current human resource practice in each discipline. The final assessment was an authentic, key learning experience for students, who completed mock competency-based interviews with employers in their field and received direct feedback on strengths and areas to improve. Whether or not a student was "hired" also supplied a direct measure of the module's effectiveness.

Research design

This applied educational research pilot was conducted in 2021 in four phases, as illustrated in Figure 1. The focus was on improving graduate employability across a range of disciplines by collaborating with relevant employers to determine the key social and emotional skills they most prized (Phase 1), by developing interactive workshops (Phase 2), by co-delivering workshops with employers (Phase 3) and evaluation (Phase 4).

Two main tools were used in a pre/post research design to assess levels of self-perceived employability and EI before and after the intervention workshops: the CareerEDGE EDP and the TEIque. The EDP is a diagnostic self-report questionnaire (28 items on a seven-point Likert scale) that maps onto the CareerEDGE model. Having rated their abilities, students are

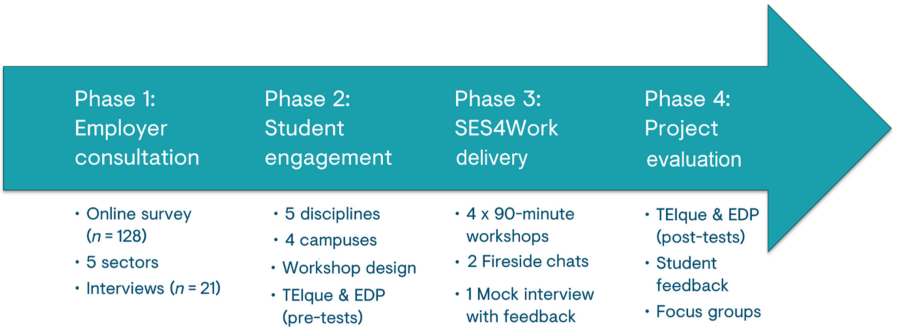

Figure 1.
Socio-emotional skills for work: research design

asked to reflect on their scores, giving examples of their strengths (areas where they recorded a 6 or 7) and considering actions to take where they recorded a 4 or less. The TEIQue (Petrides, 2014) is a self-report questionnaire consisting of 153 items (rated on a seven-point Likert scale) and 13 facets, organised under four factors: well-being, self-control, emotionality and sociability. In addition, the number of students "hired" by employers in mock interviews post-intervention also supplied a direct measure of the module's effectiveness.

Ethical considerations

This study was approved by the Ethics Committee of TU Dublin in accordance with its policies and procedures. To facilitate informed consent to participate or withdraw at any stage, all participants were given a complete and accurate information sheet, with an opportunity to ask questions in-person or by email, before signing an e-consent form. Confidentiality was guaranteed regarding any information disclosed, and all data have been anonymised for use in publications.

Study limitations

Since this research was conducted with a self-selecting sample of employers and a small self-selecting sample of final year students, it may reflect primarily the views of those who were more confident about coming forward to participate. The results from pre/post-testing on self-report measures can only be seen as indicative and caution should be exercised in applying the findings to Irish employers and graduates in general. It is also important to note that this study was conducted in the midst of the global COVID-19 pandemic and at a time when a national lockdown was in place in Ireland. This hampered efforts to recruit participants and may also have impacted the manner in which students and employers engaged with the study. Therefore, further confirmatory research is recommended and comparison of results from this study with a study conducted post-COVID19 would be most interesting.

Phase 1: Employer consultation

Employers were consulted via an online survey ($n = 128$) and follow-up interviews ($n = 21$) regarding the specific SES required in five employment sectors, namely, 1. engineering, 2. professional services, 3. health, social care and education; 4. IT and digital media and 5. manufacturing and pharmaceuticals. The largest group of employer respondents described their roles as directors, heads or managers ($n = 87$); many were currently involved in human resources, talent acquisition or recruitment ($n = 37$).

Online survey of employers. The online survey aimed to determine the SES most prized by employers in different sectors and their ratings of graduate SES, replicating a previous survey conducted in 2015 (Jameson *et al.*, 2019). In addition, employers were asked about the impact of COVID-19 restrictions on new graduates' recruitment and training, as well as the possible impact on work practices long-term. Employers were also asked to participate further in the delivery of SES workshops in the upcoming semester.

Microsoft Forms© was used to create a 10-min 24-question online survey that included Likert-scale questions and free-text questions. Responses came from businesses connected to the careers' centre at TU Dublin contacted directly by email ($n = 50$, 39%) as well as social media links on Twitter and LinkedIn, including a week-long advertising campaign ($n = 78$, 61%). There were 128 valid responses in total: engineering ($n = 30$, 23.4%), health, social care and education ($n = 17$, 13.3%), IT and digital media ($n = 20$, 15.6%), manufacturing and pharmaceuticals ($n = 17$, 13.4%) and professional services ($n = 44$, 34.4%).

The key questions centred on identifying any soft skills gap by the sector. Employers were given a list of ten social and emotional competencies drawn from the emotional competence framework proposed by Goleman (1998), with abbreviated definitions of each competency. These were as follows: (1) emotional self-awareness (recognising own emotions and impact), (2) emotional self-control (holding disruptive emotions in check), (3) initiative (ready to act on opportunities), (4) motivation (being goal oriented), (5) adaptability (flexible and open to change), (6) positive outlook (resilient and persistent despite setbacks), (7) empathy (understanding others' feelings and perspectives), (8) communication (listening openly and sending clear messages), (9) conflict management (negotiating and resolving disagreements) and (10) teamwork (working with others towards shared goals).

Survey results. Employers were first asked to rate the importance of each socio-emotional skill to their workplace, on a five-point scale from 0 = "not important at all" to 4 = "very important". Confirming previous research (Jameson *et al.*, 2016), 93% of employers ($n = 119$) deemed all ten competencies either "very important" or "important", with communication rated most important overall. However, there were differences by the sector. For example, teamwork ($m = 3.7$) and motivation ($m = 3.7$) were rated most important for professional services, while adaptability ($m = 3.6$), empathy ($m = 3.6$) and emotional self-control ($m = 3.6$) were most important for those working in human health, social care and education.

When rating the typical level of competence demonstrated by new graduates, on a five-point scale from 0 = "poor" to 4 = "excellent" (see Figure 2), highest ratings were found for "teamwork", "motivation" and "adaptability", while communication skills were rated lower, as also found by previous research. Figure 2 presents a breakdown of the mean ratings of the importance of SES by the sector overlaid with mean ratings of graduate SES by the sector. While not directly comparable, the difference between the importance and competence ratings nonetheless highlighted some specific skill gaps to be addressed in the workshops.

For example, communication was rated the most important SES for work overall, with a mean rating of 3.81, whilst graduate competence in communication was only rated 2.56, as can be seen in the composite graphic in Figure 2. This suggested that communication should be a key area of focus when developing the workshops.

Free-text responses indicated that companies intend to keep COVID-19 innovations: for example, first interviews were most likely to be conducted online. Furthermore, survey respondents were willing to engage further: to be consulted ($n = 43$, 36%), to give a talk ($n = 19$, 15%) or to conduct mock competency-based interviews ($n = 22$, 17%).

Online interviews with employers. In total, 21 employers completed a 20–40-min consultation interview online. Employers were asked to illustrate SES in their workplaces with typical scenarios and to give more detailed descriptions of their recruitment and interview procedures as well as any suggestions for effective work readiness workshops.

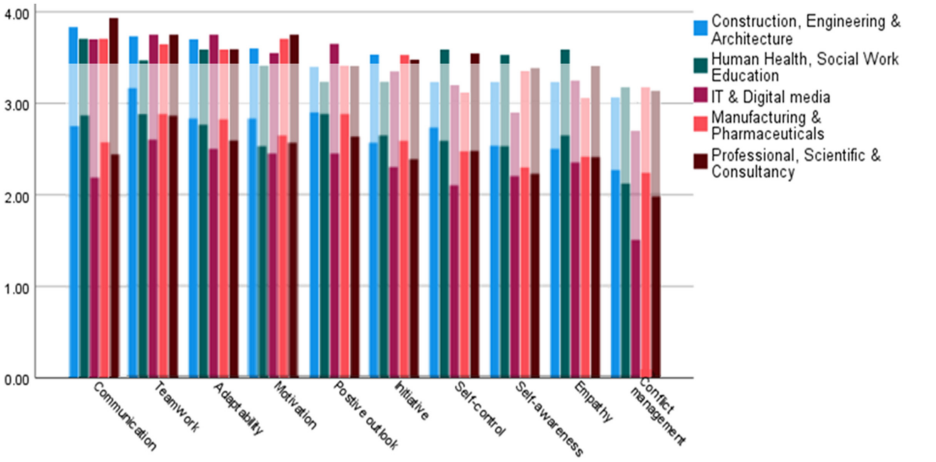

Figure 2.
Mean ratings by sector: the importance of SES overlaid with graduate competence in SES

All data gathered during these interviews were analysed using NVivo12Plus® to support reflexive thematic analysis. Patterns were identified through close, iterative listening, reading and observation of response patterns, guided by project-specific questions.

Employer insights into graduate socio-emotional skills needing improvement. Employer interviews gave a more nuanced picture by discipline of the soft skills gaps identified in the survey, such as communication. Although graduate SES were only rated adequate in the survey, employer views on graduates' potential were much more positive in interviews.

Engineering employers (n = 5) found graduate engineers reasonably proficient in teamwork, being self-driven in managing their own project work, while contributing to the team. However, communication skills were generally considered less well-developed, particularly in interactions with external clients.

For IT employers (n = 5), "Communication across the board is extremely important and teamwork because the technology teams work in Agile, so they have to interact and engage" (Employer20). In Agile, daily brief stand-up meetings in small interdisciplinary teams are the norm, with concerted team efforts to meet short-term, fortnightly targets. New IT graduates could find this style of communication and teamwork challenging.

Pharmaceutical and manufacturing employers (n = 5) understood teamwork quite differently: "The ability for graduates to fit seamlessly into our tiered meeting/team structure, where collaboration is paramount, cannot be overstated. As a rule, our company will seek to hire for motivation, adaptability, initiative, and EI traits which will allow graduates thrive in a team environment" (Employer22).

Communication and teamwork were also rated most important by employers in professional services (n = 4), coupled with empathy for clients' perspectives, being able "to explain complex matters in layperson's terms, and actually being able to talk to the person in their language . . . " (Employer10).

However, in the caring and educational professions (n = 3), communication takes on a very different meaning. "Your world of communication is very deep, actually . . . Like if you're talking to somebody who's acutely psychotic . . . you must be present" (Employer5). In such people-centred disciplines, adaptability is a necessity to manage fluid, unpredictable interactions.

Phase 2: student engagement

These findings informed the development of workshops aimed at increasing student self-efficacy and understanding of SES in their discipline. An interactive approach was used to

attract final year students to the pilot module that was extra-curricular and formally unaccredited, although recognition was offered in a supplementary transcript.

Design of the pilot module SES4Work. Four 90-min workshops were designed, two of which included direct input by an employer, culminating with an employer-led 30-min mock competency-based interview with direct feedback for the student. The topics covered were as follows: 1) effective teamwork, 2) empathy and oral communication, 3) focussed *curriculum vitae* (CVs) and cover letters and 4) preparation for interview. Based on the employer consultation process, different SES were emphasised, with scenarios provided by employers adapted for use in role plays and examples.

Participant recruitment. Two iterations of the module were offered at the start of the academic semester with a further three iterations offered later in the semester. Students were recruited at lectures in-person and invited to register for the workshops online, using Microsoft Forms© to complete pretesting on the TEIque and the CareerEDGE EDP.

Student recruitment started with direct engagement on the first two campuses two weeks prior to the start of workshops, but recruitment efforts were hampered by COVID-19 related timetabling issues. As a result, the original plan to include a control group (to be offered a module in writing skills for work) was replaced with plans to recruit up to 12 students for each delivery of the work readiness module alone. The first round of recruitment resulted in 20 students registering for the workshops, with eight completing the full programme.

In the second round of recruitment, lecturers were contacted three weeks before workshops commenced to schedule the most suitable time for sessions and gain their assistance in promoting the module. As a result, recruitment was somewhat more successful: 31 registrations and 16 module completions, even though the pharmaceutical group ($n = 8$) had to be cancelled due to renewed COVID-19 restrictions.

Students registered for the workshops online, using Microsoft Forms© to complete pretesting on the TEIque and the CareerEDGE EDP. The intervention module was delivered over five weeks in groups ranging from 3 to 12 students in a mix of formats: in-person (two groups), hybrid (two groups) and online (one group). Small group sizes meant that students could interact freely, allowing coachable moments to arise that facilitators could address. To complete the programme, students had to attend four out of five sessions, including the final interview with an employer: 24 students completed the module.

Phase 3: SES4Work delivery

The SES4Work module was eminently practical: each workshop was interactive including, activities to stimulate personal reflection. For example, in the session on effective teamwork, small groups of students engaged in either building a balloon tower (in-person) or escaping from a virtual escape room (online) before reflecting on how well they had worked as a team.

While reflecting on their experience of teamwork or communication – in college, in part-time work, in sports or volunteering – students also learned to communicate their SES in the form of situation, task, action and result (STAR) stories, with peer feedback used to sharpen and clarify them. This is the standard format for answers in competency-based interviews.

Students also used brief focussed times of brainstorming in writing about their purpose, personality, values and vision in preparation for the common, oft-dreaded interview question: "Tell me about yourself?" This exercise also fed directly into their CV preparation and cover letters.

Two of the workshops incorporated informal "fireside chats", suggested by one employer to encourage students to ask any question they wanted in a relaxed environment. Employers focussed mainly on what they looked for in terms of SES at work, offering real career learning development to students. In addition, employers shared sample competency-based interview

questions and a standard scoring sheet for a video interview that we used in the mock interview session at the end.

For the mock interview, students were given advertisements for current or recent roles in the companies of participating employer interviewers. Participants chose their preferred role and submitted their CV and covering letter prior to the interview. In this mock scenario, it was assumed that the student had the required qualifications to be called for interview. The interviews were conducted online, being the most likely form for a first interview identified in the employer survey. Along with an employer, a researcher acted as another member of the "interview panel" that focussed on competency-based questions typically asked in an HR interview. At the end of a 15-min interview, students left the "room" for five minutes while the interviewers agreed the ratings and feedback to be given. Students returned for the last ten min to receive this feedback that was also emailed to them afterwards. In addition, the employer informed the research team whether the student would be "hired" based on the interview. Participating students were not told of this outcome.

Phase 4: project evaluation

To assess the impact of the workshops, employers who conducted interviews gave direct feedback regarding "hiring". They were also invited, along with those who gave fireside chats, to attend a focus group or complete a feedback form: four employers responded. Students completed post-testing on the TEIque and CareerEDGE EDP, and they also completed a 12-question evaluation of the module, with a mixture of Likert scales and free-text questions.

Employer assessment of employability. To address the first RQ on the likelihood of students getting hired based on social and emotional skills demonstrated at interviews, employers conducted mock competency-based interviews, at the end of which they informed the research team whether the student was "hired". In all, 24 students undertook the 30-min mock competency-based interview with feedback provided in the final session of the module. Outcomes showed that 70% ($n = 17$) of students were successful at interview. In addition, employers invited four of the "hired" students to connect on completion of their degrees, suggesting incipient networking opportunities arising from participation in the module.

All engineering ($n = 5$) and social care candidates ($n = 3$) were deemed eligible to be hired, while 57% ($n = 4$) of IT and 66% ($n = 4$) of early childhood education students were also hired. Only one of the three business students was hired; the other two candidates were Erasmus students and non-native speakers of English whose linguistic skills proved insufficient to be deemed eligible for employment.

While the numbers are admittedly small, the 70% ($n = 17/24$) success rate was a significant increase on the results from the previous study (Jameson *et al.*, 2019). In that study, only 58% ($n = 18/31$) of the experimental group who received tailored EI coaching were hired. It is possible that the difference is due to increased employer participation in developing and delivering the tailored workshops. Of course, this must be seen in the context of low completion rates; many students who registered did not even attend the first class, and less than half completed the module ($n = 24/51$, 47%). Nonetheless, it suggests the additional value that increased employer engagement can bring to employability skills development for near graduates.

Employer feedback. In all, 16 employers participated in the delivery of workshops, either in "fireside chats" or by interviewing "job applicants" in their profession. Employer feedback suggested the most significant benefit to collaboration in final year programmes from their perspective was the development of more work-ready graduates and access to potential employees. Employers felt that the interview feedback process was their most useful contribution to participants: "It's more trying to get them prepared for those emotional

intelligence questions . . . how they react around scenarios. It would be good if we could spend a bit more time on those for them . . . " Employer11. If anything, employers wanted more engagement fireside chats were less enjoyable than the interviews mainly because employers were not sure that students were truly engaging, behind their masks or video screens. One main suggestion was to send pre-reading or a link ahead of the class visit, so that the quieter students could also prepare some questions to ask.

The greatest benefit from employers' perspective was getting to present their company to near graduates in the hope of gaining access to the "cream of the crop" (Employer 24). The Irish labour market is increasingly competitive, with skill shortages in engineering and IT (IBEC, 2021a) that may explain why four students from IT and engineering were invited to connect with companies post-graduation. For employers, engaging with students could also serve as a reality check, to assess the standard of emerging graduates or become more aware of new trends in recruitment, such as the competency-based interview.

Employers were also interested in developing graduates' SES for work, particularly as this might make induction easier: "When they do turn up . . . I'm not going to waste my time as much" Employer11. The aspect of collaboration they enjoyed most was engaging directly with students. "Meeting the guys . . . and interacting with them for me was the best bit, because they're almost pre-Chrysalis, they're just about to come out . . . " Employer12.

The programme was perceived as increasing graduate employability: it was obvious to interviewers which students had applied the learning from the workshops. Having a programme like this at TU Dublin would lead employers to have slightly higher expectations of graduates; it was felt, with employers wanting to see evidence of the programme's impact in how graduates engaged in the recruitment process.

Students' increased scores on TEIque and CareerEDGE EDP

The second RQ aimed to generate quantitative measures of the pilot module's impact, i.e. increased scores on the TEIque and the CareerEDGE EDP. Using a pre/post-test design, all participants completed the tests in the two-week period before the workshops started and then completed them again within a week of finishing the module during end of semester assignments and examinations. Unfortunately, two candidates completed post-testing a month later and therefore had to be excluded, leaving a sample of 22 pre/post-tests. This small number means that our analysis can offer no more than indicative results.

TEIque results revealed significant improvement in scores for total EI, self-esteem, motivation, social awareness, emotion management, optimism, well-being and sociability factors. Dependent t tests were conducted for each of these, and statistically significant results are presented in Table 1. Effect sizes (Cohen's d) were also calculated (See Table 1). It is particularly telling that improvement was seen in these EI domains, since the focus of the workshops was on improving self-perception of employability through increased self-esteem, self-efficacy and self-confidence.

The mean total EI pre-score was 4.88, and the mean total EI post-score was 5.19, an increase of 6.4%. According to Petrides *et al.* (2016), the mean improvement in effective EI training, as reflected in TEIQue or EQ-i scores, is about 12% in self-reports, suggesting that the EI training aspect of the module could well be enhanced.

In addition, mean scores increased significantly on the CareerEDGE EDP: pre-test scores (mean: 148.45, standard deviation (SD): 17.04 and standard error of the mean (SE): 3.63) rose to post-test scores of (mean: 164.45, SD: 19.52 and SE: 4.16). A dependent t test further revealed that the increase in scores was statistically significant, $t = -4.183$, $p < 0.001$ (two tailed) and 95% CI [−23.95, −8.04]. Cohen's d was 0.89, large. This evidence suggests that the module may be capable of significantly improving participants' self-perception of employability.

Overall, there was an increase of 12.3% in scores on the CareerEDGE EDP. Furthermore, in the reflection section, all students identified areas for improvement in the pretest with scores of four or below, but in the post-test seven participants (31.8%) reported no longer having any scores below four. Student commentary also showed increased confidence in their transferable SES, such as communication, as well as awareness of increased self-efficacy in relation to career development.

The literature theorises that developing self-confidence, self-esteem and self-efficacy enhances self-perceptions of employability long term, as indicated in the CareerEdge model. This is vital when today's graduates will encounter futures with potentially many different career experiences, including full-time and part-time paid employment, unpaid, self-employment and unemployment, and sabbatical and care-giving periods (De Vos *et al.*, 2021).

Student feedback. Positive student evaluations of the module echoed the quantitative results; 92% strongly agreed that the workshops were beneficial. Furthermore, 96% agreed that they were more confident talking about themselves, preparing CVs and cover letters, with all agreeing that participation had helped to improve their communication.

To assess how beneficial the components of the module were, students were asked to rate them on a five-point scale, where 1 = not at all beneficial and 5 = very beneficial. The interview with feedback was most highly rated at 4.75, followed by employer talks at 4.63, with activities and weekly handouts both rated 4.46.

It is noteworthy that employer input was most highly rated, and this was confirmed by the textual commentary. The most impactful experience was undoubtedly the interview process, mentioned by 16 participants. Many spoke of newfound insights and confidence. "I have learned that I have more skills than I thought I did. The workshops taught me that all of my experience is relevant . . . " Student 17.

With regard to improving the workshops, the main issue raised was timing in the semester for final year students: "Have it earlier in the semester as possible so it doesn't clash as much with the timetable" Student 22. However, those who attended the earlier workshops also complained: "There's no good time for a final year engineering student but if I had to pick maybe hold a session or two during the October reading week?" Student 6.

Other suggested changes included omitting homework, or making the workshops longer to allow time to complete assignments. Those who had attended online workshops only thought in-person workshops would be better, while other participants wanted even more interaction in the workshops. However, final comments were all appreciative, including this: "These workshops should go into all Universities to build student profiles for better careers." Student 18.

Table 1.
Statistically significant results for total EI, five facets and two factors of the TEIque

Scale	95% CID Lower	95% CID Upper	*t*	Sig. (2 tailed)	Effect size (Cohen's d)
Total EI	−0.52	−0.08	−2.86	0.009	0.61 (moderate)
Self-esteem	−0.98	−0.12	−2.68	0.014	0.57 (moderate)
Motivation	−0.86	−0.09	−2.59	0.017	0.55 (moderate)
Social awareness	−0.82	−0.23	−3.7	0.001	0.79 (moderate)
Emotion management	−0.63	−0.18	−3.7	0.001	0.79 (moderate)
Optimism	−0.69	−0.09	−2.73	0.013	0.58 (moderate).
Well-being	−0.67	−0.10	−2.8	0.01	0.6 (moderate)
Sociability	−0.61	−0.16	−3.55	0.002	0.76 (moderate)

Discussion

This research offers evidence that employer collaboration in designing and delivering a graduate employability module can make it a more effective intervention and enhance the employability potential of near graduates, as seen in the following:

(1) the increased percentage of student "hires" in mock competency-based professional interviews compared to previous research, and

(2) improved post-scores on the CareerEDGE EDP and the TEIque showing improved work readiness skills.

A success rate of 70% in professional mock interviews for near graduates compares favourably with an average graduate employment rate of 54.3% in professional roles within nine months of graduation between 2017 and 2020, according to the national Graduate Outcomes Survey (Higher Education Authority, 2022). Notwithstanding the limitations to this study with respect to sample size and the negative impact of the COVID19 pandemic, qualitative feedback confirmed the effectiveness of the module in terms of improved self-perceptions of employability for students and improved employer perception of employability of TU Dublin graduates who completed the module.

For universities embracing the challenge of embedding employability, this module offers the potential to support targeted employability interventions in a simple way. Lecturers could connect with their own employer network and avail of the template for delivery of this five-session module within their discipline. Employers can engage with near graduates in a way that is much more cost and time effective than providing work placements, for example, yet could allow them meet potential employees in a friendly, supportive environment and connect with fresh, untapped talent in a competitive labour market (McCracken *et al.*, 2016; Anderson and IBEC, 2021). Near graduates gain not just from direct feedback from employers in their field, but also from networking opportunities that develop social and cultural capital enabling graduates to harness significant social relations and increase the likelihood of employability (Tomlinson and Anderson, 2020). Embedding employability using a variety of pedagogy across the curriculum remains a key (IBEC, 2018; Advance HE, 2019); nonetheless, tailored modules such as SES4Work can provide a vital support, facilitating students to reflect and learn to articulate their employability skills in enterprise-friendly language, alongside employers willing to develop these skills and possibly eager to offer them the first step in employment.

Further research is required to verify and extend the findings of this pilot study. We recommend the following:

(1) Once finalised, the module should be formally accredited to enhance its credibility amongst students and employers.

(2) As per the feedback gleaned from student participants in this study, increasing the length of workshops beyond 90 min and offering more than four workshops is recommended. It is hoped that this would lead to even further benefit to students and employers and further increase the percentage of student hires arising from the module.

(3) The module should be embedded in the professional development programmes of several final year courses to conduct a full randomised controlled trial with sufficient numbers.

(4) The potential for co-delivery by lecturers and employers in each discipline could be explored alongside training in the delivery of the module.

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