ASSESSING

IMPACT

Exploring the assessment of careers education
interventions in Higher Education: a UTAS pilot

SUMMARY

Following the introduction of a suite of career education programs at the University of Tasmania (UTAS) in 2015, this project aimed to develop an evaluative model that could assess the effectiveness of different careers education interventions on the overall graduate employability of participants. The project developed a suite of evaluative tools that were designed to be adaptable to different contexts, thereby aiming for general applicability across the higher education sector. The project spanned a 20-month period and included three phases (review, development and targeted exploration), which became the evaluative model developed by the project team. Outcomes of a pilot of the tools developed are presented in this report, as well as a discussion around the implications of the findings on the programs evaluated and how these findings led to a review of the whole-of-careers service for UTAS.

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Introduction

A clear change in graduate employment outcomes over the past 30 years, coupled with a renewed focus on employability rankings as a key factor in why students choose a university (Bridgestock, 2016; Kinash, nd) has required a paradigm shift in the way employability is approached by higher education institutions (Foundation for Young Australians, 2018). With a distinct sector wide focus on graduate employment outcomes, universities are increasingly being assessed through statistical representations that link employment outcomes of graduates to overall graduate success (Department of Jobs and Small Business, 2018). However, these statistics define success by those graduates that gained full-time employment within four months of graduation in an industry directly relating back to their discipline or degree (Department of Education and Training, 2017). While these metrics provide measurable assessments of the immediate impact of a degree on specific industries, they do not assess the employability of graduates more broadly.

There are several factors that influence graduate employability, including internal factors (individual perceptions and capacity), institutional factors (availability and support for work experience and career development) and a range of external realities (market trends and the cultural readiness of the workforce). There is strong evidence to suggest that skills gained from a combination of a higher education degree, along with associated work experience play a critical role in determining a graduate's overall employability (Rothwell & Arnold, 2007; Rothwell, Herbert & Rothwell, 2008), but the type of work experience and support required to enhance this learning remains an under researched area.

Previous studies conducted by Gokuladas (2011) showed that students who had extra training in professional skills beyond their degree requirements increased the number of job offers they received as graduates. In addition, graduate awareness of the current social and economic market has also been linked to better graduate outcomes (Oliver, 2015). Such awareness can contribute to a graduate being more flexible and savvy when approaching the job market; being open to a broader range of employment options and having the transferable skills required in an evolved workforce.

From a university perspective, the decrease of jobs and increase of graduate numbers has put pressure on how to demonstrate the employability of graduates (Andrewartha & Harvey, 2017). On top of this, there is an unequal distribution in accessibility, equity and effectiveness of work experiences and career preparation programs (Harvey, Burnheim & Brett, 2016). Due to

reduced graduate movement into degree-specific industries, many universities have developed intervention/employability programs that aim to improve the identification and demonstration of transferable skills to enhance graduate employability at the end of a degree (Foundation for Young Australians, 2018). These programs are designed to develop graduate's skills beyond the traditional generic skills developed in discipline-based degree programs and offer the opportunity to develop skills that employers from across a range of industries are looking for (Gokuladas, 2011). These interventions include internships, work experiences, mentoring, volunteering, personal development programs and global exchange (Clark et al, 2015). Such interventions focus on the development and application of skills like communication, critical and lateral thinking, creative problem-solving, digital literary, influence, cross-cultural competency, initiative, entrepreneurship and leadership.

While previous studies have indicated the value of complimentary career education interventions on increasing graduate employability (Bridgstock, 2009, Kalfa & Taksa, 2015, Jackson, 2016), the measurable impact, and most effective format of these interventions remain under researched. Many intervention evaluations focus on the perceptions of participants in individual experiences as opposed to understanding a whole of degree experience and the impact of complimentary opportunities on the development of career awareness, confidence or professional outcomes. In a climate of increased pressure and decreased resourcing to support graduate employability, understanding the impact of career education interventions is becoming increasingly important.

Project context

Graduate career development and employability is supported at the University of Tasmania through an integrated service approach. This approach relies on complimentary and collaborative opportunities offered in the disciplinary Colleges and by the central organisational unit known as the Student Leadership, Career Development and Employment (SLCDE) team. The SLCDE team offers a range of services from individualised, 'just-in-time' supports through to whole of student life-cycle programs designed to complement the range of degree programs offered across the Colleges. These centralized supports and opportunities offer extension learning for curriculum-based, work integrated learning experiences and supplemental education opportunities to specific cohorts of students including international students, distance students and students living with disability. The range of services available

includes individual counselling, mentoring, internships, industry experiences, volunteering opportunities and leadership development.

Following a review of services in 2015 the SLCDE team at the University of Tasmania introduced a range of new and renewed programs and services to meet the identified needs of the current student cohort and the Tasmanian business community. This renewal included the introduction of an international student work preparation program, I-PREP, and the redesign of the Vice-Chancellor's Leadership Award. These two new programs were both introduced as pilots in 2016 and were implemented alongside the long-standing Career Mentor Program that had been facilitated by the SLCDE team for seven years prior. Each of these three programs offer students a different lens through which to consider their developing employability and career goals (See Box 1.).

Each of these programs provide a unique, career-orientated opportunity that aims to contribute to improving overall graduate employability by providing support for students to identify, develop and articulate their transferable skill sets. While these programs are conceptually complementary, they were each developed in isolation, and as such evaluations of each program were designed and conducted with specific focus on only the individual program being evaluated. In 2017, the SLCDE team was provided a grant by Graduate Careers Australia to identify an adaptive, evaluative model that could applied across the different programs to assess the effectiveness of the different approaches to building graduate employability and to explore how such an adaptive model might inform the overall evaluation of a holistic Careers Service.

The I-PREP program is a supplemental careers education program designed to support international students to develop understanding, familiarity and confidence to engage in the job market following graduation. Evidence suggests international or non-English speaking background students are less likely to be employed than domestic or English-speaking students after graduation in Australia (Li et al, 2016). This is not seen to be due to degree area or level of education, as international students participate and complete postgraduate study at the same rate as domestic students (Mestan & Harvey, 2014). It is suggested that these lower rates of graduate employment might be because of employer discrimination due to ethnicity and a lack of understanding by migrants of the Australian job application process.

I-PREP was developed in response to the rapidly growing intake of international students and the downward trend in survey data noting dissatisfaction from international students and graduates with regard to support to engage authentically in work experiences in Australia. The program focuses on developing awareness of the expectations of employers in different cultural contexts and the development and application of transferable, job-ready skills. The program has three components: (1) an education workshop focusing on expectations of employers, adjusting to work place culture, communication in the workplace and how to prepare a job application in Australia; (2) a full recruitment process with feedback at each stage; and (3) a workplace opportunity or industry experience which may be a networking event, industry site visit or internship.

The Vice Chancellor's Leadership Program (VCLP) consists of a tiered leadership and recognition program that promotes the development of self-awareness, reflection and a range of leadership theories and their application in society and the workforce. In addition to a scaffolded leadership development curriculum, the program also has a self-paced recognition scheme that engages students in the practice of reflecting on, evidencing and articulating their developing leadership and employability skills through more than curricular experience. Student participation in career service programs and other extra-curricular activities has been linked with improved employability both during study and as a graduate (Kinash et al, 2015). The most common types of extra-curricular activities undertaken by students include volunteering, society participation and accessing of career services provided by universities (Kinash et al, 2015, Perna, 2013).

Each tier of the VCLP has opportunities for students to receive iterative and summative feedback. This is facilitated through mock job application processes including the submission of a resume, responses to selection criteria and an interview process. The program assesses development of self-awareness through goal setting activities are reported on following a range of experiences chosen by students throughout their degree.

The Career Mentor Program (CMP) matches student with alumni based on shared interests and career goals. Career mentoring programs have been shown to promote career planning, time management skills and are an effective means of professional networking (Bean, Lucas & Hyers, 2014). The CMP is designed to foster and encourage active networking with like-minded people in similar fields and to provide students the opportunity to develop their interpersonal and networking skills whilst gaining insight and advice into career journeys and options in their chosen fields. The program is self-guided after a match has been made for the student early in the academic year. Students and mentors are provided with support materials and three networking events to help facilitate the connection, however the program is designed to promote initiative and self-management by requiring the student to instigate and follow through with the meetings and contact between them and their mentor.

Box 1. Flagship SLCDE programs.

Project approach and outcomes

The project progressed over three phases across a 20-month period from Jan 2017 – July 2018. *Phase one* included the development of an adapted program reflection tool and evaluation matrix, which guided the review and renewal of the three SLCDE programs on offer. *Phase two* included the development and trial of a suite of evaluation tools aimed to provide a comparative baseline and longitudinal impact data set across the SLCDE programs. *Phase three* involved an in-depth case study of a unique group of 'frequent flyers' identified through the project as students who accessed more than one service or program provided by SLCDE. This in-depth exploration allowed the project team to examine the impact of a multi-faceted engagement with careers services on student and graduate employability. The project approach and accompanying tools were then developed into an evaluative framework that will be rolled out across all SLCDE programs throughout 2019.

Phase one

The project commenced with a reflective review and evaluation mapping activity across the three flagship programs (I-PREP, VCLP and CMP) of the SLCDE team. This was guided by a set of resources adapted by the project team from their previously published Developing and Supporting Student Leadership (DaSSL) Framework (Skalicky et al, 2018). The adapted reflection tool and evaluation matrix refocused a review of program design and evaluation around employability – the new lens providing the Developing and Supporting Student Employability (DaSSE) tools (See Appendices 1 and 2).

Following the development of these resources, the project coordinators from each of the three SLCDE programs engaged their teams in collaborative discussions around the DaSSE reflection tool and then came back together in a full SLCDE team meeting to discuss their findings. These discussions assisted them to collaboratively fill out the DaSSE evaluation matrix, which provided a picture of the types of evaluations being conducted across the space. A sample of the evaluation mapping done by the project team can be seen in Figure 1.

Program	Evaluation Objectives To assess the extent to which the program provided an:	Current Evaluation Processes	Future Evaluation Processes
I-PREP	- Enhanced understanding of Australian workplace culture - Enhanced communication skills in the workplace - Enhanced interpersonal skills and confidence to engage in professional networking - Ability to prepare a full job application and effectively engage in the interview process - Enhanced ability to evidence and articulate skills, strengths and experiences in a professional manner	Post workshop survey (testing perceptions of value of workshop on enhancing understanding) Internal recruitment process Mid-internship review (student interview) Final internship review (student interview and survey) Supervisor reference letter	Pre and Post surveys (assessing increase in awareness and confidence to apply skills in themes of workshop; assessing increase in experience and success in job applications, work experience and networking) Employer review of job application Mid-internship review (supervisor interview) Final internship review (supervisor and survey)
VCLP	- Ability to identify and articulate how personal values, strengths, skills, and experiences inform and are developed by personal leadership goals through a process of critical self-reflection - Ability to formulate creative solutions to real life problems when working in diverse teams - Construction of personal philosophy on leadership	End of unit perceptions on learning and usefulness of program design Reflective journaling Assessment of resume, selection criteria and leadership goals articulation End of unit focus group Exit interview Supervisor reports and feedback	Pre and post survey assessing change in understanding of personal goals and confidence to obtain goals once set Post-graduation follow-up interview to ascertain success in achieving goals Survey / Interview with employers of VCLP awardees to assess outcomes, career readiness and contribution
CMP	- Improved confidence and familiarity of expectations of employers - Enhanced interpersonal and professional networking skills - Capacity to develop and participate in mutually beneficial professional relationships - Enhanced confidence in career direction and knowledge of a range of professional opportunities	Reflective questions on experience of mentoring and perceived value of experience on goal setting (Students and mentors)	Pre and post survey assessing increase in confidence and skills to network and career plan Exit interview with student and mentor Post-graduation follow-up interview

Figure 1. Evaluation mapping of I-PREP, VCLP and CMP using DaSSE tools.

The evaluation mapping activity, coupled with responses from the reflection tool, provided the opportunity for program coordinators to explore the alignment of each program's intended purpose and learning outcomes with the evaluation objectives and methods to assess success in the program. This enabled the project team to identify any gaps in either the way the intended purpose of a program was being articulated or the evaluation questions or methods being used to assess whether that purpose (or intended learning / outcomes) were being met.

Several design shifts to individual programs occurred as a result of this mapping activity. For example, an initial exploration of the intended outcomes of the Career Mentor Program revealed an intention to develop leadership skills in student participants, however the mapping activity revealed there was no aspect of program delivery or evaluation specifically addressing this outcome. This led to a focused consideration of whether leadership was in fact being developed through the program, or if this was just an incidental development in some cases. Comparing this to the more robust and intentional development and assessment of leadership in the Vice-Chancellor's Leadership Program it was decided to remove this intended outcome from the CMP and instead focus the program on the development of interpersonal and professional networking skills. In the end, this focus aligned better with evaluations from mentors who felt they were able to contribute more authentically to supporting students with an understanding of career direction and capacity to seek and thrive in networking opportunities.

The mapping activity revealed that a substantial amount of qualitative, post program data was being collected across the programs, however a gap analysis also provided a clearer picture of a lack of data being collected prior to engagement in career education interventions. This led to discussions about how the SLCDE team was assessing learning change for student participants in each program which the team felt was critical to validate impact. The potential for pre- and post-surveys was then explored. The team noted that a range of pre- and post-employability assessments are already available across the sector (Swingler et al, 2017), however, these tools were deemed to be quite extensive and require answering a range of questions that did not specifically target interventions. While the project team could see the value in a whole of institution engagement with such comprehensive tools, the purpose of this project was to formulate a tool that would allow for a more targeted focus on the assessment of specific career interventions to better understand impact and achievement of intended learning and employability outcomes.

Considering the already extensive individual evaluations being conducted in each of the UTAS programs, the project team felt that a concise and targeted pre- and post-survey tool would suffice for establishing a baseline and comparative picture of student learning and outcomes from career interventions offered across the team. The pre- and post-surveys were considered one piece of the evaluative picture, and a way to contribute to the larger evaluative picture being built through the interviews, focus groups and reflective journaling of the individual programs. The surveys were viewed as something that could be applied individually across all three programs and then compared. These tools were developed in Phase two of the project.

The mapping activity also revealed the potential to increase the involvement of additional stakeholders in establishing a clearer and more validated picture of program impact on student learning. The VCLP inclusion of supervisor reference letters and a feedback survey from employers shared with students in the program was seen to validate (or in some cases invalidate) the perceptions of students about their learning, experience or outcomes. This was a highly valued part of the program for both assessors and students as they received external feedback aimed directly at the learning outcomes of the program. Following the mapping activity, the VCLP team built in a final question to the exit interview asking students to reflect on the feedback they had received throughout the program and how they will continue to use feedback moving forward in their career. Student awareness of the usefulness of feedback and their demonstrated capacity to respond to feedback were then built in as a key element of assessment and evaluation of success in the VCLP. Following the project team's collaborative discussion of the mapping activity, this learning from the VCLP led to surveys being developed for participating I-PREP supervisors to provide complimentary feedback to student interns in the program. These surveys ask the supervisors to rank the development of employability skills they have observed of the intern on placement and provide opportunities for the supervisor to comment on learning and workplace development as well as providing feedback on the program. These surveys are being rolled out in the 2018 Semester 2 internship placements for I-PREP interns.

Phase two

Following the data mapping activity, the project team began development on the shared evaluation tools identified to guide a comparative baseline data set across programs. To do this, the team first conducted a thematic analysis of the combined intended learning outcomes of each of the programs, which led to the identification of three key themes. Across the

programs, it was clear that the SLCDE career interventions were all aimed at enhancing student awareness, confidence and experience in career related topics and opportunities (See Figure 2).

Program	Awareness	Confidence	Experience
I-PREP	- What employers are looking for - Australian workplace norms - Job application process	- To approach employers - To integrate into a workplace - To apply for a job	- Networking - Internships - Job Applications / Interviews
VCLP	- Leadership theories - Personal leadership philosophy - Personal goals, values, skills and the links between	- To identify and develop skills - To set and achieve goals - To communicate and live leadership philosophy	- Teamwork - Volunteering - Problem-solving - Self-driven experiences
CMP	- Range of professional opportunities - Value of mentoring - Career direction and options	- To build a professional network - To communicate with professionals - To build a working relationship	- Mentor relationship

Figure 2. Themes connecting purpose of SLCDE programs.

The project team then used these themes to develop adaptable pre- and post-surveys that would enable program coordinators to assess learning change and the impact of the program on outcomes that related directly back to the intended purpose of each individual program (Appendix 3). Providing adaptability for the survey to asses each program's learning outcomes was intended to provide both an individual picture of each program's impact and a whole-of-service view of how the programs worked collectively to increase student awareness, confidence, experience and employment outcomes. Recognizing the need to assess this in a longer-term manner, an exit interview schedule was also developed to be delivered to program participants at the time of graduation and potentially in years following graduation (Appendix 4).

The project team then delivered the pre- and post-surveys and interview schedule to a cohort of students in the current years' programs and past students of previous years to assess the usefulness of the tools and the appropriateness of the questions. Throughout Phase two the survey was delivered, reviewed and renewed three times and the resultant survey in Appendix 3 is the final set of questions now being used by the SLCDE team. Factors that guided the re-

shaping of the questions included changing from a five-point Likert scale to a four-point grading to force a choice and limit central tendency and acquiescence bias (Allen & Seaman, 2007) and expanding the range of potential outcomes to include the range of professional connections a student or graduate might make to advance their own employability. An example of the perceived increase in the awareness and confidence of participants in how to engage in job search, application and networking can be seen in Figure 3.
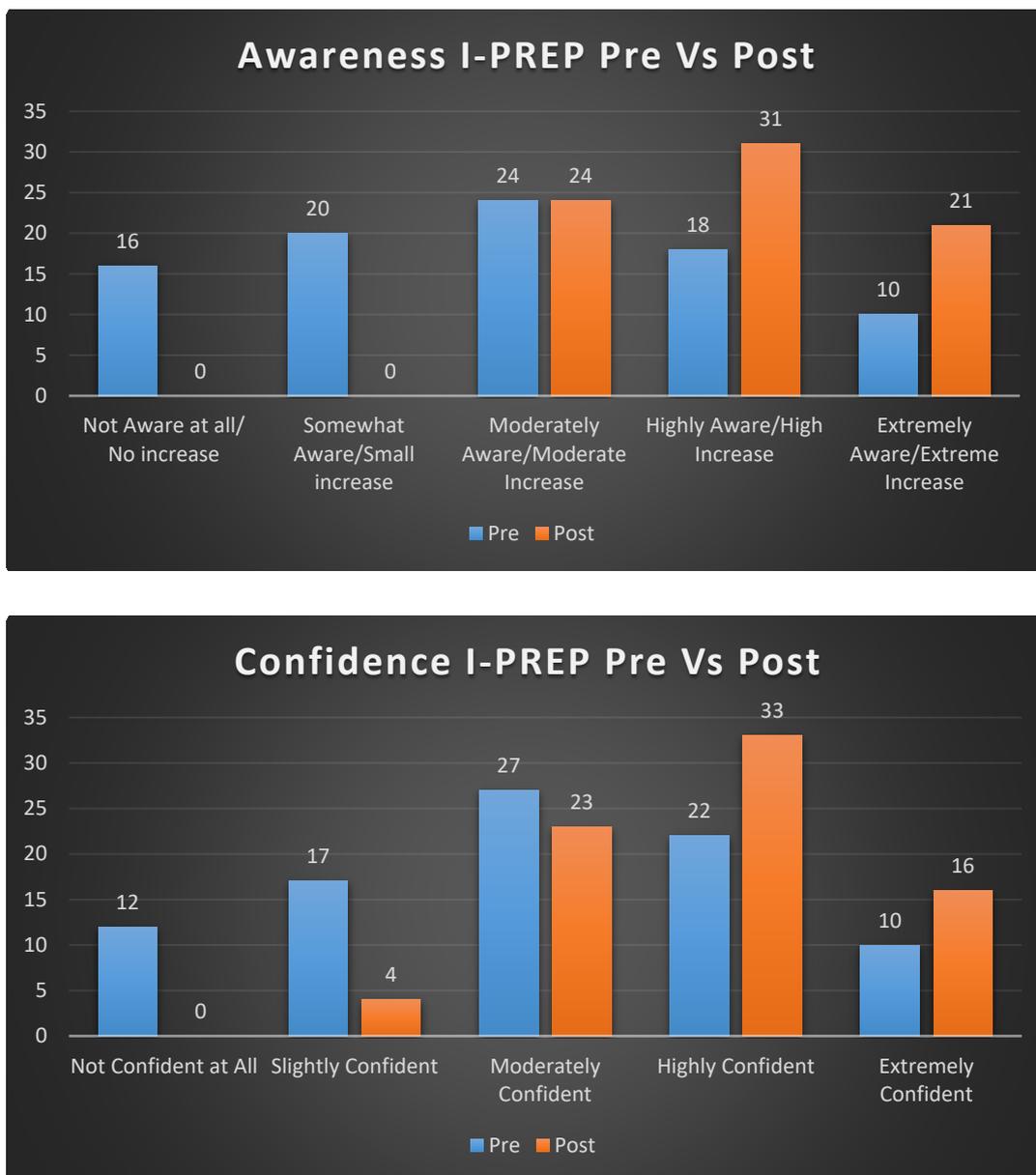

Figure 3. Participant perceptions in own awareness and confidence before and after I-PREP workshop.

A series of interviews with students from across the three programs was also conducted to assess the appropriateness of the interview schedule. Participants were randomly selected from a database of career program participants to avoid selection bias. Participants were selected from students who had participated in at least one of the SLCDE programs within the previous two years. All students invited to participate were briefed about the purpose of the study with an ethics approved information package provided, and all provided consent before any surveys or interviews were completed. All participants were asked to complete a survey in person or via Google Forms about their experiences and their perceived employability skills, which were then discussed at the time of interview. Interviews were conducted either in person or via skype or phone to accommodate those graduates no longer living in Tasmania or studying on our northern campuses. In a few instances, participants were allowed to provide their responses in written form. Following a round of 32 interviews, the project team analysed the data and discussed the interview questions and their ability to reveal more longitudinal impact of individual programs and whole of service outcomes. Preliminary findings from these interviews are discussed in Phase three below and Appendix 4 provides the final set of interview questions now being used by the SLCDE team.

The development of the final set of evaluation tools was the last intended development of the project team for this work, with the next aim to be to trial the full evaluative model in an annual cycle of evaluation and review of programs. However, an unexpected outcome from Phase two of the program led to a proposal to extend the study and add a third Phase that enabled a focused case study, or deep dive, into a unique element revealed in the project.

Phase three

During participant selection in the Phase two trial of the evaluation tools it was identified that several students had completed more than one program on offer by SLCDE. These 'frequent flyers' presented the project team with a unique cohort to explore the impact of a more whole of service approach to careers education through the provision of multiple interventions. These in-depth interviews also provided an opportunity to compare the outcomes of each program from the perspective of individual students engaged in multiple experiences.

Interviews were conducted with students identified to have participated in some combination of two or more of the flagship SLCDE programs. This was then compared to Phase two data collected from students and graduates who had completed only one of the three programs on offer. In addition to an assessment of the extent to which each program raised a student's

awareness, increased their confidence and led to additional work experiences or employment outcomes, the interviews for Phase 3 also explored participant perceptions of the difference between the programs and the potential value of engaging in more than one program. Interviewees were also asked to identify and comment on the employability skills they developed across each program they participated in.

When analyzing the data from interviews in Phase 3, it was found that students who participated in all 3 programs reported the highest positive perceptions in relation to the impact of the programs on their employability, with respondents reporting 92.85% agreement they had met all learning outcomes of the programs and 97.22% agreement they had gained relevant employability skills (Figure 4). This was only slightly higher than the 92.37% positive agreement from I-PREP only participants that they had met all the intended learning outcomes from the program. Responses from 'frequent flyers' of all three programs were slightly under the 97.77% positive agreement from I-PREP only participants in relation to reporting that they had gained relevant employability skills. These findings clearly indicate the value of I-PREP as a program that is well aligned and delivering on its intended purpose. The program can also be verified to be increasing the (self-reported) employability of students in the program. While self-perception is not causally linked to employment outcomes on graduation, this enhanced recognition of career awareness and confidence can provide the impetus for more flexible and resilient approaches to career development following graduation (Forsythe, 2017).

Learning Outcomes	NEGATIVE	POSITIVE
I-PREP	7.63%	92.37%
CMP	63.1%	36.9%
VCLP	13.51%	86.49%
CMP/I-PREP	4.76%	80.95%
CMP/VCLP	5.71%	80%
I-PREP/VCLP	0%	85.71%
IPREP/CMP/VCLP	0%	92.85%
Employability Skills		
I-PREP	2.23%	97.77%
CMP	54.18%	45.82%
VCLP	23.16%	76.84%
CMP/I-PREP	7.40%	85.18%
CMP/VCLP	15.55%	70%
I-PREP/VCLP	0%	77.77%
IPREP/CMP/VCLP	0%	97.22%

Figure 4. Negative and positive percentage rating of perceived achievement of learning outcomes and employability skills.

Analysis of responses related to the development of (self-reported) employability skills and successful employment outcomes (number of successful job applications following program participation) was found to be highest from participants combining I-PREP and the VCLP (Figure 5). Interviewees were asked to report on their achievement (yes/no) against a list of 18 learning outcomes identified across the programs including some specific employability skills (Appendix 5). From those responses, participants who participated in a combination of I-PREP and the VCLP reported obtaining 90.74% of these 18 outcomes from a combined participation in the two programs. This is compared to the 77.77% reported from I-PREP only participants and the 63.88% from VCLP only participants, highlighting the value of combining these two programs to maximize the development of awareness and confidence in job related understandings and skills. Interestingly, participants in the CMP reported a much lower percentage of learning outcome and skill development in both single program and combined program participation. The project team speculated this is due to the work-placement experience component available in both I-PREP and the VCLP, as the CMP does not provide

a direct work experience to specifically develop work skills. This aligns with the breadth of research highlighting the value of work experience on employability and direct employment outcomes for graduates (Gokuladas, 2011; Rothwell & Arnold, 2007; Rothwell & Herbert, 2008).

	OUTCOMES AND SKILLS Reported Out of 18		SUCCESS INDICATORS	
	NO	YES	NO	YES
I-PREP	22.23%	77.77%	30%	70%
CMP	68.06%	31.94%	54.17%	45.83%
VCLP	36.12%	63.88%	52.78%	47.22%
CMP/I-PREP	37.03%	62.96%	33.33%	66.66%
CMP/VCLP	55.55%	44.44%	56.66%	43.33%
I-PREP/VCLP	9.25%	90.74%	11.11%	88.88%
IPREP/CMP/VCLP	38.88%	61.11%	33.33%	66.66%

Figure 5. Percentage of self-reported learning, skills and job outcomes gained by program participation.

The outcomes from the Phase three case study allowed for whole-of service considerations that were not as visible from the Phase two investigations alone. The value of the CMP was more clearly brought under scrutiny in Phase three when shown to have what could be interpreted as a negative impact on students who chose to participate in the program in conjunction with either VCLP or I-PREP. Both the number of skills and job application successes reported were less in instances were CMP participation was combined with I-PREP or the VCLP, as opposed to when those programs were undertaken on their own. This could be due to the quality or type of information shared by mentors, which is out of the control of SLCDE coordinators, or it could be that the external perspective offered by mentors challenged the perspectives or learning presented in the other two programs thereby creating a disruption to the perceived certainty or confidence of self-reported employability evident in the other programs. Follow-up investigations are warranted to explore this further.

The Phase three data also provides an argument for the consideration of allocating additional SLCDE resourcing to programs like I-PREP and the VCLP as compared to programs like CMP. This consideration is valid when assessing the impact of the CMP on its current learning outcomes and with an aim for it to contribute to metrics around self-reported skills and job

application success. However, the value of the CMP can be re-explored if the purpose of the program is reconsidered and not aimed at employment outcomes per se. This is in fact currently being considered by the SLCDE team following this research project as the CMP is being re-scoped, with the redesign being led by the DaSSE tool and the outcomes from this work. In particular, the team is considering a refocus of the program to promote professional skills and communication skills with awareness, confidence and experience outcomes tied to networking and professional connections more so than to employment and employability.

The Evaluation Model

Following Phase three the following adaptive evaluation model was confirmed as the design the project team felt most comfortable delivering as a key outcome of this pilot project and is the model the team will follow for evaluation of SLCDE programs throughout 2019. The model follows the phases undertaken by the project team over the life of the project and incorporates the third phase, which the team feels is critical to enabling a richer exploration of key and unique features identified in a contextualized evaluation.

The aim of the model is to provide a guide and framework for career program providers to step through a process of reflection, intentional and comparative evaluation and a deeper exploration of the impact of their program or service. The model is adaptable in that it provides a framework through which the purpose and intended outcomes of individual programs are plugged in to provide the context and evaluative direction of how the model is used. The model is also adaptable in that it allows graduate employability to be defined and measured in a way that is most relevant to the specific program context. Figure 6 provides a visual interpretation of the evaluative model. The resources for Phases two and three are provided as examples only and may present as only relevant to the UTAS context.
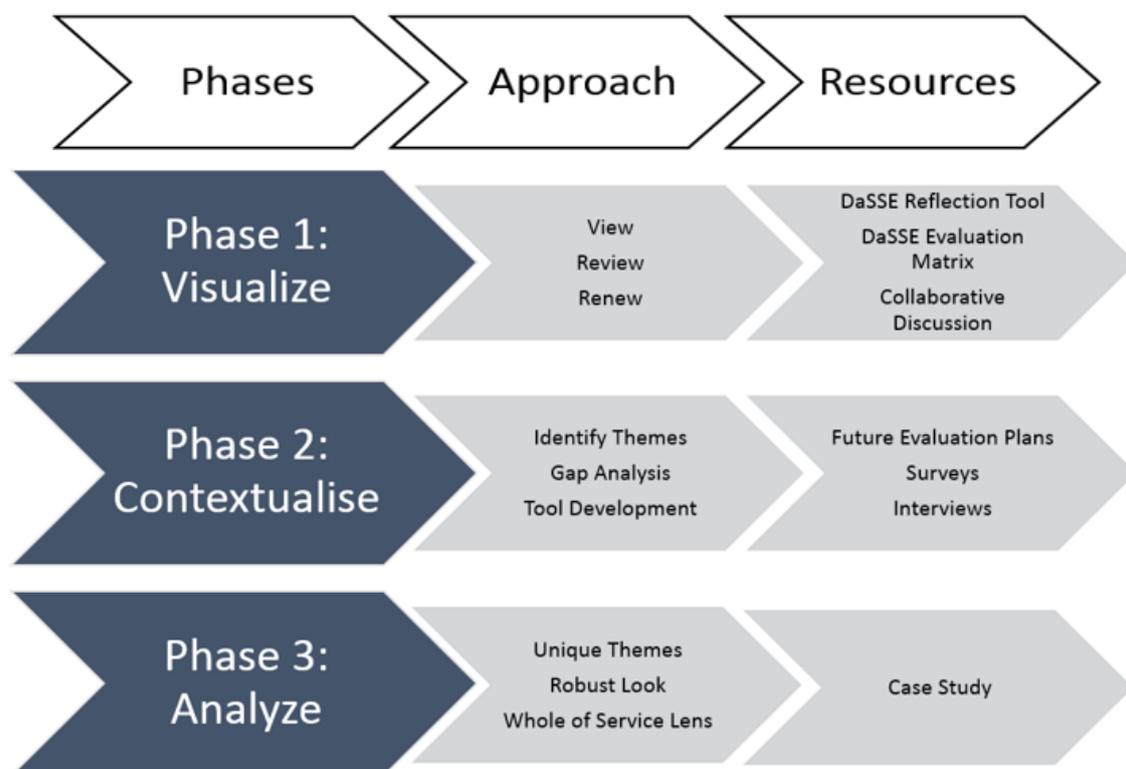
Figure 6. Visual representation of evaluation model.

Phase one – Reflection and mapping

This phase involves taking a critical and reflective lens when exploring the program or service under evaluation. Evaluation objectives are shaped by the stated purpose or objectives of a program or service and the evaluation matrix is considered to ensure the objectives and methods align with, and deliver, responses that sufficiently assess the success of achieving the project objectives.

Program coordinators undertaking Phase one might consider utilizing the DaSSE reflective tool, which can guide reflection around the five elements of good program design and guide consideration of the alignment between the stated purpose and objectives of a program with the implementation and evaluation undertaken. The evaluation matrix can then be used to guide a mapping of the various forms of evaluation currently being used and consider what might be added to the evaluation of the program or service to provide a more comprehensive and aligned picture of success. As discussed above, these reflection and mapping activities guided the UTAS project team to consider both a renewal of objectives of some programs and the introduction of additional evaluation measures to all programs.

Phase two – Identify and contextualise resources

This phase involves developing evaluative resources identified as relevant to the context of the program or service being explored. This identification should come out of the reflection and mapping activity of Phase one and relate to the specific objectives of the program or services being evaluated. These themes will likely be different for each program or institutional context. The UTAS example highlights how a thematic analysis identified a shared focus across all programs on increasing awareness, confidence and opportunities for participating students, which then guided the development of the resources around these themes.

Contextualization should guide the choice and development of evaluation resources or tools in this phase. Different evaluation maps will reveal different gaps. The UTAS example in this project highlighted the need for pre- and post- surveys and follow-up interviews. The resources provided in this project highlight how these tools were developed to be adaptable to different programs and to ensure evaluation was built on the identified and intended objectives of each program.

Phase three – a deeper exploration

This phase is intended to guide a deeper exploration of any unique element identified in the evaluation process. This may include an outcome from the evaluation itself, or even an unintended element recognized as part of the reflection or evaluation process. This deeper exploration of a key or unique element allows for program coordinators to go beyond the intentional evaluation to further explore and perhaps validate the evaluation findings from Phases one and two. In the UTAS example, this deeper exploration into 'frequent flyers' enabled a whole-of-service comparison of programs from the perspective of their connection as opposed to their isolation. This then led to considerations of where to focus resourcing for the service and how programs could be communicated to students as complimentary or focused on different aspects of career development.

Future directions

The full data set collected from surveys and interviews continue to be analyzed by the project team and will be submitted for publication in the Journal of Teaching and Learning for Graduate Employability by the end of 2018. Having completed the pilot project and developed the evaluative model and accompanying resources, the SLCDE will now use this model to evaluate the I-PREP, VCLP and CMP programs throughout the 2019 academic year. This will provide the team with a full cycle of evaluation for each of the programs and allow for follow-

up with graduates of the programs from three years post completion. The team also plans to use the 'frequent flyer' data to inform how program objectives and effectiveness are communicated to incoming students, with clear 'mapping' examples of how students can engage in the programs to enhance their awareness, confidence and capacity for graduate outcomes.

Additional research is warranted from this project into the longitudinal impact of these interventions on building graduate employability. In particular, the team is interested in exploring how 'stacking' programs can provide a comprehensive career education program for students in higher education and potentially guide the future development of the introduction of interventions in a whole-of-service approach. The project team also hopes to extend the evaluative model developed in this project to the range of other stakeholders in each of the programs, namely employers, supervisors, mentors and degree coordinators. This will be explored throughout 2019.

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Appendix 1. Adapted DaSSE reflection tool.

The below is an adaptation of the original DaSSL Framework Practitioner Reflection Tool (Skalicky et al, 2018) which replaces leadership with employability as a key component of reflection for program design and evaluation.

How to use the Tool

The reflection questions are intended to serve as prompts for your thinking around 5 inter-related domains, which we call **Purpose, People, Positioning, Practice and Progress**. Each of the five Ps are broken down into three sub-domains, for which there is one overarching question for you to consider, followed by two or three auxiliary questions. You don't have to answer every question in each section, only those that seem relevant and/or appropriate to you and your context. However, we recommend that you at least consider the first question in each of the sub-themes. We also encourage you to consider any other questions that come to mind under these themes as you work through the tool. Your individual contexts will inevitably prompt thinking that will add value to the reflective work undertaken when using this tool.

Each 'P' includes an evaluation question for you to consider. Taking the time to think about how you would answer these will make responding to the questions in the 'Progress' section easier.

DOMAIN 1: PURPOSE

This section encourages you to think about why your program exists. It invites you to consider your program's 'mission' at multiple levels and in terms of its key drivers, intended outcomes, and philosophical underpinnings. It can be used as a guide to help you to review the foundational purpose of an existing program and how this aligns with the other themes in this resource. It could also be used as a planning tool, ideally with your key stakeholders, to develop a new program in response to a specific challenge identified by those stakeholders.

In either case, you can use it to ensure there is constructive alignment among the different levels of purpose. This 'P' helps you to consider how your program's aims, short and long-term goals and objectives line up with each other, as well as with the strategic imperatives of your institution.

In considering the purpose of your program, it is important to reflect not only on how it responds to student needs, but also to identified challenges in industry, your institution and within the higher education sector.

Ask yourself and/or your colleagues…

PURPOSE	
Key drivers	**Why does our program exist?** *What overarching issues are present that dictate the programs' conception, and how does this program aim to alleviate these issues?* *How does the program improve outcomes for students and current and future workforces?* *Does it align with the institutions goals and policies pertaining to employability?*
Intended outcomes	**What are we hoping to achieve with our program?** *Is the program designed to address the issues present?* *Are the designed outcomes relevant to current issues?* *What employability skills are we intending to develop?* *Does the program seek to address particular outcomes for equity / priority groups?* *Are there other outcomes that the institution wants to achieve from this initiative?*
Philosophical underpinnings	**What does student employability mean to us within our program or initiative?** *How do we define student employability, and its relevance to our program?* *How does the program empower students to understand and build confidence in their own employability?* *Does this conception align with industry and institutional goals?* *How does the program support a multi-faceted approach to successful student employability?*
Evaluation	**How do we measure success in relation to the purpose of our program?**

DOMAIN 2: PEOPLE

This theme centres on the people who are central to your programs - the students, staff and external stakeholders who are involved as participants, beneficiaries, coordinators, facilitators, funders and 'champions' of the programs.

Understanding their roles and responsibilities, as well as the accountabilities and benefits to the people involved is key to evaluating and planning for the success of your program. This section may help you to unpack the involvement of the range of stakeholders in your program and identify the different ways that they participate (or could participate), and the impact they have on your program's success.

In considering the people who are involved in your program, we encourage you to think about how their contributions and participation are recognised, acknowledged and rewarded.

Ask yourself and/or your colleagues…

PEOPLE	
Stakeholders	**How do we engage with our internal and external stakeholders?** *What roles do our stakeholders play in the program? How much input do they have to the purpose, delivery and evaluation of the program?* *How do we present ourselves as a viable connection to stakeholders?* *How do we maintain that connection?* *How do we coordinate different connections with different stakeholders?*
Recruitment & support	**How do we select and support our students?** *How do we market the program to students? Does this marketing strategy reach our target market?* *How do we ensure inclusivity and diversity in our recruitment processes and training programs?* *What skills and/or experiences do we look out for?* *What support and training or professional development is provided for them?* *What programs are in place to promote support?*
Reward & recognition	**How are students recognised and rewarded in our program?** *What opportunities are offered to students who complete our program?* *In what ways does the institution formally recognise and reward our student?* *What opportunities exist for reward and recognition external to the institution?* *In what ways are the development of employability skills recognised by the institution and or external partners?*
Evaluation	**How do we assure that our program is engaging the 'right' people to achieve our program's goals?**

DOMAIN 3: POSITIONING

Positioning is about the location of your program within the institutional structure. It is about where it 'sits' organisationally and the implications of this. It also takes account of the situational, historical and cultural context in which your program exists. Even if you feel you are unable or not equipped to answer all the questions in this section, it may be worth trying, as your responses could be used as a starting point for reflecting on positioning with those in your organisation who are responsible for strategic decision-making in this area.

This section is also about looking at how your program is perceived across your institution, by your stakeholders, beneficiaries and accountable persons. In considering the positioning of your program, we encourage you to reflect not only on its location and relationship to curriculum, but also on the strategic alliances and connections that exist and the impact of these on resourcing and sustainability.

Ask yourself and/or your colleagues…

POSITIONING	
Institutional location	***Where does our program sit in the organisational structure of the institution?*** *Does the program exist across the institution? Or is it restricted a sub-section of the institution?* Is it centrally-based or faculty-based? Is it embedded in academic curriculum, or is it co-curricular or extra-curricular? *Does the program align well with similar programs across the institution, or is it pressing on boundaries of other programs?*
Strategic alliances	**Who are our current and potential champions and how are they positioned across the institution?** What would help us to position our program more strategically? Are the learning outcomes formally recognised by the institution? *How does the program engage authentically with equity/priority groups?*
Resourcing & sustainability	**What are the funding arrangements for our program?** Is the program a high priority for funding? How can this be improved? What is the impact of the current funding arrangement on the structure, function, resourcing and sustainability of the program? What strategic connections could we leverage to build sustainability? What evidence is there to support the programs' efficacy?
Evaluation	**How does the current positioning of our program impact on our ability to achieve success?**

DOMAIN 4: PRACTICE

'Practice' is a term that means different things to different people. There is no one universally agreed definition of 'practice' and the meaning of the term is debated even among scholars of professional practice. It can refer to the concrete aspects, the 'nuts and bolts', of program delivery, as well as to the more elusive dimensions of practice that are hard to capture. We use the term in this tool to encompass a broad range of activities that are involved in operationalising a program, from planning through to implementation.[1] This asks you to consider what happens in your program, in terms of planning processes, design principles, delivery modes and core activities and student experience.

Ask yourself and/or your colleagues…

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[1] In this broad sense, practice also includes assessment and evaluation activities. However, we address these aspects under the Theme 5, 'Progress', because we believe that in terms of evidencing impacts, the domains of outcomes assessment and program evaluation are sufficiently important to merit their own section of the framework.

PRACTICE	
Planning and design	***How does our program design align with our stated purpose and philosophy?*** Who is involved in planning and design decisions? Are these people the most qualified/logical choice for program design? How do we ensure quality student engagement in the planning and design stage? *What are the roles of the other team members in the design, delivery and peer review of our program?* *Is the program validated externally?* How do we plan for and design student employability opportunities within our program?
Implementation	***How are student supported to develop their employability through our program?*** What activities are core to or characteristic of the program? How do these activities contribute to developing student employability? *How do we build awareness, confidence and application opportunities for students to better understand and develop their employability in the program?* *How do we build a culture of inclusivity in our programs?* What constraints and/or risks do we encounter in implementing this program? How do we mitigate these?
Student experience	***How do we assist students to recognise and evidence their developing employability?*** What opportunities do we provide for students to identify, evidence and articulate examples of their developing employability? How do students record their developing employability? What opportunities for student reflection on experience are built in to the program? How does the program take account of the experiences that students bring?
Evaluation	***What steps do we take to ensure continuous improvement in the design and delivery of our program?***

DOMAIN 5: PROGRESS

We use the term 'Progress' to reflect our focus on continuous improvement and moving the agenda for student employability forward. Within this broad theme we suggest that you consider not only the progress you have made in the time your program has been in operation, but also the potential of your program to be further developed. This section encourages you to review your assessment and evaluation procedures and mechanisms, to think about how you gauge quality and effectiveness, as well as how you document the impacts of your program. If you are just starting out with a new program, you might like to think about progress in terms what you would like the program to achieve, and how you might know if/when you have achieved your goals.

Ask yourself and/or your colleagues…

PROGRESS	
Program outcomes	***What evidence do we have of the effectiveness of our program?*** How do we define effectiveness or success in this program? How does this connect with institutional strategic objectives? How do we assess the impacts of the program on the intended beneficiaries, especially equity/priority groups? *How do we evaluate our program for consistent revision and improvement?* How do we communicate the outcomes of our program to inform decision-making and to persuade stakeholders? *How do we communicate the programs' efficacy to the institution?* What has been the most significant change as a result of the program?
Student outcomes	***What employability skills are developed by the students who participate in our program?*** *Are the skills developed relevant to the programs intended outcomes?* How are these assessed? How do they contribute to industry and institutional strategic goals? What follow-up do we do with students and/or employers to ascertain the impact on their future pathways?
Future opportunities	***What potential does the program have for expansion or further capacity-building?*** What are the possibilities for sustainable scaling-up? What would this take? If the possibilities were limitless, what changes or improvements would we make to the program? What would be needed to make these changes happen?
Evaluation	***How do we evaluate the extent to which our program has delivered on our stated objectives?*** *How do we go about evaluation of the programs' effectiveness?* Do we have access to all the relevant information to demonstrate effectiveness and quality? *How can we improve the programs' function based on previous evaluation?*

Appendix 2. Adapted DaSSE Evaluation Matrix

[Insert Name of Program] Evaluation Matrix			
STAKEHOLDERS	**EVALUATION OBJECTIVES**	**CURRENT EVALUATION PROCESSES**	**FUTURE EVALUATION PROCESSES**
Current participants	*Intended Learning Outcomes and projected skills developed for participants in the program (Specified and unspecified)* *Expected Increases in Awareness, Confidence, Employment Outcomes (Quantitative and qualitative)* *Positive Perception Rating/Ranking of value/delivery/impact of program (in line with intended outcomes)*	*Evaluation tools:* *Consider whether questions are framed around learning outcomes* *Evaluation methods:* *Consider application of both qualitative and quantitative methods* *Consider timeframes of evaluation and extend of iterative and summative evaluations* *Metrics used:* *Consider measures of change in Awareness/Confidence/Outcomes relevant to program* *Consider definition(s) of success (as identified by participants and in comparison to intended purpose/learning outcomes of the program).*	*Following an assessment of whether your current practices deliver knowledge of the extent to which evaluation objectives are being met, perhaps other evaluation processes are required.*
Program graduates		*Same as above.*	*Same as above.*

	Intended Learning Outcomes and projected skills developed for participants in the program (Specified and unspecified)		
	Intended Increases in Awareness, Confidence, Employment Outcomes		
	Positive Perception Rating/Ranking of value/delivery/impact of program (in line with intended outcomes)		
Experience providers (e.g. mentors, supervisors, hosts, placement providers)	*Intended Learning Outcomes* *Number and breadth of opportunities offered* *Positive Perception Rating/Ranking of value/delivery/impact of program (in line with intended outcomes)* *Continued or extended engagement*	*Same as above.*	*Same as above.*
Professional learning providers (e.g. workshop staff, teaching staff, external professional bodies)	*Number and breadth of learning elements offered* *Positive Perception Rating/Ranking of value/delivery/impact of program*	*Same as above.*	*Same as above.*

	Continued or extended engagement		
Institution	Intended organisational learning outcomes Participation numbers, breadth and diversity (quantitative) Links to strategic priorities and vision Intended graduate outcomes	*Same as above.*	*Same as above.*
Graduate destination providers *(e.g. employers)*	Intended learning outcomes Number and breadth of employment opportunities realised Positive Perception Rating/Ranking of value/delivery/impact of program Continued or extended engagement	*Same as above.*	*Same as above.*

Appendix 3. Pre/Post survey structure and example

Section 1: Awareness

Purpose:

This section focuses on questions regarding a participant's perceptions of the extent to which they are aware of a particular topic or information that is linked to the learning outcomes or purpose of the program, service or intervention. Specific learning outcomes of a program are woven into the questions.

Types of questions:

To what extent are you aware of what is expected of you…

To what extent are you aware of appropriate styles of…

To what extent are you aware of effective strategies for…

To what extent are you aware of skills…

Example (from I-PREP):

To what extent are you aware of what is expected of an employee in the Australian workplace?

To what extent are you aware of appropriate communication styles in the workplace?

To what extent are you aware of effective strategies to approach employers to inquire about a job?

To what extent are you aware of what is required in the job application process?

Grading Scale:

Highly aware

Moderately aware

Somewhat aware

Not aware

Section 2: Confidence

Purpose:

This section focuses on questions regarding a participant's perceptions of the extent to which they are confident they possess certain skills or can enact certain actions related to progressing their employability and employment outcomes. Specific learning outcomes of a program are woven into the questions.

Types of questions:

I'm confident to approach…

I'm confident that I can deliver on…

I'm confident I can meet the expectations of…

I'm confident that I use the appropriate styles of/approaches to…

I'm confident that I can apply for…

Example (from I-PREP):

I'm confident that I can deliver on what an employer expects of an employee in the Australian Workplace.

I'm confident that I can use appropriate styles of communication in the workplace.

I'm confident to approach employers to inquire about a job.

I'm confident to apply for a job.

Grading Scale:

Highly confident

Moderately confident

Somewhat confident

Not confident

Section 3: Outcomes

Purpose:

This section attempts to ascertain the amount and quality of employment outcomes and self-reported employability successes a participant reports following a program. Some of this data might be quantitative and some might be more qualitative. Specific learning outcomes of a program, contextualised definitions of success and employability and/or institutional aims/priorities are woven into the questions.

Types of questions:

Number of resumes I have submitted.

Number of jobs I have applied for.

Number of work experiences I have had in the past 12 months / 24 months / five years.

Number of professional connections I have.

Scale:

0 1-5 6-10 11-20 21+

Types of questions (open-ended):

List of my employability skills.

List of my personal attributes.

Please discuss whether and to what extent the [insert program] has contributed to your employability.

Please discuss whether and to what extent the [insert program] has contributed to your success.

Appendix 4. Interview schedule

Section 1: Career goals

Q1) Could you please outline what your primary career goals are?

Q2a) Have these changed, or been shaped in any way, by your participation in the program?

Q2b) How did your participation in the program contribute to you either identifying or achieving these career goals?

Q2c) How did your participation in the program impact your confidence to plan for, enact or achieve these career goals?

Section 2: Program motivations and experiences

Q3) Why did you choose to participate in the program?

Q4) What do you feel you gained from participating in this program?

Q5) What do you believe are the key advantages of each program?

Q6) What do you believe are the disadvantages or frustrations of doing these program, if any?

Q7a) Could you please discuss what you would identify as the major experiences you had in the program and how these have contributed to your learning?

Q7b) Could you please discuss what you would identify as the major experiences you had in the program and how these have contributed to your professional growth?

Q7c) Could you please discuss what you would identify as the major experiences you had in the program and how these have contributed to your employability?

Q8) Could you please discuss any career/employment/leadership experiences you have had since your participation in the program?

Q9) If you had any further career/employment/leadership experiences since the program, could you please comment on the extent to which you think your participation in the program increased:

- Your awareness of these experiences
- Your confidence to undertake these experiences
- Your success / or lack of success in these experiences?

Section 3: Awareness and confidence in employability

Q10) Could you please discuss whether and to what extent you feel the program you undertook has impacted or changed your awareness of topics related to your employability?

Q11) Could you please discuss whether and to what extent you feel the program you undertook has impacted or changed your confidence in your own employability?

Q12) Could you please comment on the extent to which your participation in the program has made you feel more, less or to no changing extent employable?

Q13) Do you have anything else you wish to add about your experience in the program that you think may be of use to program coordinators?

Appendix 5. Learning outcomes and skills list

1. Workplace Awareness
2. Resume Building
3. Interview Skills
4. Self-Reflection
5. Communication
6. Networking
7. Teamwork
8. Time Management
9. Flexibility
10. Leadership
11. Reasoning
12. Confidence
13. Goal Setting
14. Mentoring experience
15. Internship experience
16. Volunteering experience
17. Work Experience
18. Skills Workshops