Developing Self-Confidence: Students' Perceptions of Post-practicum Project Teamwork

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1 Post-practicum Project Teamwork

Due to the increasing demand for higher education to prepare students for the labour market an emphasis on Work-Integrated Learning (WIL) programs throughout the higher education landscape has occurred (Jackson, 2015; Jackson & Wilton, 2016). Work-integrated learning (WIL) has become widely considered as instrumental for equipping business graduates with the required employability skills they need for a complex future of work. However, as Jackson (2015) points out, the evaluation of WIL programs in enhancing employability skill development remains predominantly outcome focused. There is little attention to the process of what, how and from whom students acquire the essential skills needed for a distinctive and rounded self to meet the labour skills gap. In addition, research conducted into the preferences of students undertaking WIL interventions for post-practicum learning experiences suggests that "… a pattern emerged, which highlighted that students preferred educational process to be facilitated by teachers or experts over student-organised interventions." (Cain, Hai Le, & Billett, 2019, p. 28). We, therefore, position that post-practicum learning for improving teamwork skills is also important but requires further investigation to understand which processes of what, how and from whom students are best to acquire teamwork skill development.

In the higher education landscape, often a work placement is the most common type of Work-Integrated Learning (WIL) activity. However, "… universities are moving beyond this historical approach to WIL to offer other opportunities …" (Universities Australia, 2019a, p. 1). For instance, when projects are purposely designed to offer a curriculum where theory is integrated with practice, via medium to high proximity with industry and/or practitioners, it allows students to mirror

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authentic professional practice for improving employability skills for job-readiness. Industry-linked projects are, therefore, an emerging WIL curriculum offering, reflecting the evolving nature of WIL as ascertained by Kaider and Hains-Wesson's authentic assessment WIL typology (Kaider & Hains-Wesson, 2016), Universities Australia *Work-Integrated Learning Final Report* (2019a) and Universities Australia *Career Ready Graduates Report* (2019b).

However, as it presently stands, the available literature provides little guidance on how to best design or deliver post-practicum teamwork learning via WIL projects or how educators are to be guided to make such professional practice choices, that will provide "more potent and secure important associations between [education] and work" (Cain, Hai Le & Billett, 2019, p. 28). In addition, there is little mention in the literature for providing key professional development rationales for post-practicum teamwork assessment tasks for business students or how-to best link interventions for supporting such learning (Billett, 2018). We therefore completed an online search of the terms "post-practicum learning in business education" and "teamwork for post-practicum learning in education" which resulted in only a handful of instances related to the use of teamwork assessment tasks in business-specific, post-practicum interventions or business education WIL contexts. To obtain a general idea of the emerging discussions related to post-practicum teamwork learning, we also used Google Scholar to track research outputs for the terms "post-practicum learning" and "post-practicum learning and assessments". The discussions related to the two key search phrases used were mainly from 2007. It is not until later (2010) that discussions about post-practicum learning and the influence of assessment tasks arise. One explanation for the lack of information gained from the online searches is that more research has tended to focus on the design of WIL curriculum (pre-experience) and the delivery of curriculum (during-experience) rather than on the "post-practicum" phase of such learnings (post-experience). Where certain studies appraise Work-Integrated Learning arrangements for post-practicum learning (Billett, 2015), it was indicated that to optimise the educational benefits for students it requires the following: (i) preparing students prior to their engagement in practicums; (ii) supporting them during their practicums; and (iii) identifying ways to enrich those experiences once students have completed their practicums.

In this chapter, we focus on identifying ways to enrich post-practicum projects for business students, but also note the importance of preparing students for such experiences. To assist with such an exploration, we chose to use a graded, teamwork assessment task that was linked to three interventions to support and enrich students' post-practicum learning experiences. It is important to note, that the graded, teamwork assessment task's outcome was delivered by students in multi-disciplinary teams, and specifically for industry who actively worked with students on solving industry-related problems. It was a group oral presentation worth 20% at the time of writing this chapter. Despite the many benefits, we discovered that integrating a teamwork assessment task as a post-practicum learning experience along with its interventions was extremely time consuming and resource intensive. Yet, we also discovered that when incorporated well, these types of tasks can build student's self-confidence, which in turn provide educators with learning avenues for preparing

students for professional life and empowering them to develop employability skills. We elaborate on how we achieved this in the following section.

2 Industry and Community Projects

In Australia, Business schools have been criticized for not fully developing graduates' employability skills such as teamwork for job-readiness (Alavi, Wheeler, & Valacich, 1995; Daspit & D'Souza, 2012; Pfeffer & Fong, 2004) or producing "career-ready graduates who can effectively transfer and enact their learning in new environments" (Jackson, Fleming, & Rowe, 2019, p. 2). To assist with such a situation, the Industry and Community Projects were offered cross-faculty and university-wide, coordinated with the assistance of a Central teaching team. Business students were either able to enrol in the projects through a shell unit in their degree faculty or could undertake projects administered through other faculties. Students learnt innovative, evidence-based skills that enabled successful collaboration with people with diverse disciplinary, educational, social backgrounds and with different personal attributes. Students worked in teams collaboratively on authentic, problem-based industry-related projects, which were developed with the University's industry partners and teaching teams. The learning goals were to provide students with an opportunity to link what was being taught in university to practice and to develop self-confidence and resilience, critical thinking and problem-solving skills. In the literature, this is also one of the main areas of feedback students provide when they discuss their preferences for educational purposes for integrating post-practicum interventions (Cain et al., 2019). For example, in Cain's et al. (2019) study, students suggested that linking theory to practice and securing feedback from individual performance from educators, industry and peers was highly beneficial for improving their employability for job-readiness.

For instance, the Industry and Community Projects were able to meet students' preferences for learning because they were driven by industry and community needs. Students were, for example, required as part of the assessment to investigate (as a team) an Australian Corporate Bank's needs for creating and integrating a new App for enhancing employees' cultural competency or they assisted clients at a not-for-profit micro-financing company to complete a business plan and budget for establishing a family-run bakery. During the program, students engaged directly with the industry partner attached to their project, accessing valuable insights that they were provided with, such as company's evaluation statistics, assisting them with the identification of specific problems to be solved. Evidence-based and collaborative approaches to teaching were also used to facilitate students' understanding of working with industry, their diverse needs, different knowledges and biases as well as a focusing on facilitating multi-disciplinary knowledges to solve problems. The projects were designed to be delivered for a full 13-week semester and summer and winter intensives, locally and internationally. At times, students undertook small, negligible-risk research for the projects, such as carefully constructed

surveys or questionnaires to elicit clients' needs. Educators were responsible for assigning students into multi-disciplinary groups of around five students each, overseeing small research tasks, mentoring the student groups, overseeing the industry partnerships with students and for specific agreed-to deliverables, as well as designing and delivering the content and marking the assessments. To assist students with preparing for the post-practicum teamwork assessment task, students took part in three interventions and at set points of the learning experience. The three interventions are now discussed in detail.

3 Interventions

For interventions to be effective, the structure and facilitation of such appraisals must be carefully aligned with the learning outcomes and assessment items. In addition, students have been noted in the literature to suggest that interventions that best allow them to develop coping skills for workplaces as being high on their list for positive experiences (Cain et al., 2019). Students have also suggested that small groups facilitated by educators and professionals are also ideal, when these occur face-to-face and after professional practice learning. Students have also said that there is value for regular interventions during and/or mid-professional practice (Cain et al., 2019). In the case of the three interventions presented here, the purpose was not only to benefit the current student cohort but also to provide helpful feedback to the program team, improve preparation for students' learning and to offer training for students who were new to working in multi-disciplinary teams. The interventions were an experiment to see how they could add value to future deliveries of the program, and for all students. The three interventions were incorporated into the curriculum for a variety of reasons. First, to support students with meeting the learning outcomes, which required student teams to develop and deliver a group oral presentation to industry for feedback (post-experience). Second, the interventions were purposely incorporated into the curriculum pre-, during and post-students completing the post-practicum teamwork assessment task (see Table 1).

Table 1 A description of the three interventions that were linked to the post-practicum teamwork task

Number	Type	When	Graded/Non-Graded	Compulsory or not
1	Ways of thinking with Legitimation Code Theory (LCT);	Pre	Linked to a graded reflective assessment (1500 words) worth 20%	Compulsory
2	Complex problem-solving workshop;	During	Non-graded	Not
3	Career Development Learning workshop.	Post	Non-graded	Not

The first intervention was set-up to allow students to take part in an online learning module to understand the theoretical concept for 'ways of thinking with Legitimation Code Theory (LCT)'. The online module included online resources, such as videos, podcasts, literature readings and reflective learning activities. The LCT is a widely-used educational framework for understanding different kinds of knowledge and knowers when working with others from diverse learning and disciplinary backgrounds. LCT has been designed and developed using extensive research and evaluating practice from an international community of scholars and educators, and across the disciplinary maps, from physics to ballet, dentistry to design, journalism to jazz (Maton, Hood, & Shay, 2015). Once, students completed the online module, they then undertook a workshop facilitated by their educator to help further unpack the theory before progressing with small group discussions on what they had discovered. To finalise the intervention, students submitted an individual reflective statement of 1500 words for a 20% weighting in week 4. Students' reflections were to focus on the LCT by answering a set of questions, which were:

1. Giving reasons, code the ways of thinking about research problems you bring from your educational background.
2. What are the strengths and weaknesses of your code(s) for conducting an industry project in comparison to other codes and why?
3. What problems might arise from working on an industry project with collaborators with different codes to your own? What strategies could you use to avoid those problems?

The LCT assessment provided students with the means for discussing (in a written form) the different ways of thinking about problems, which is influenced by their diverse educational and disciplinary backgrounds. For example, how does different ways of thinking impact interaction and discussion while working on a project; how best to explore different ways of thinking and how it can reveal or conceal ideas and thus, why collaboration is valuable for addressing problems. Or, how to identify and avoid potential issues arising from the collaborative nature of working in multidisciplinary groups and with industry partners who are important stakeholders.

The second intervention that was piloted was conducted via student workshops, which were facilitated by an external consultant who was the founder of *Ponder*. *Ponder*'s website states:

> At Ponder we research, distil, develop, compile, and share practical techniques for complex problem solving. We do this because we agree with the OECD and the World Economic Forum – complex problem solving is the most important skill we need this century. And we help people and organisations to apply these techniques to develop strategies to achieve outcomes for the complex challenges they are grappling with.

The workshops were designed to allow students to undertake a non-graded, complex problem-solving event that was offered multiple times throughout the professional learning experience. The workshops were provided to students after the LCT intervention had been completed. They were facilitated in a way that was based on a tested formula and allowed students to undertake a hands-on seminar experience

for diverse teams to solve problems, strategically choose/decide upon ideas and discard less strategic ideas when working in multi-disciplinary teams. The formulae involved introducing students to *Ponder's* practical guide for solving complex problems and developing strategies for complex challenges that focused on answering 20 set questions around critical thinking and problem-solving. The workshops also encouraged students to actively participate in group discussions.

The third intervention was a non-graded workshop that focused on supporting students with evidencing and articulating the employability skills that they developed from participating in the project. This workshop was instigated by the Business School at the University where this study took place and was not compulsory. The intervention was a 2 h debrief seminar for students that included focusing on processes to advise students about the range of occupational and career options, understanding and developing the capacities for effective transition from being a student to an employee/er, and assisting student employability development for career planning. The seminar was offered to students once they had completed all necessary assessments and the professional practice experience. The seminar was facilitated by an expert in career development learning from the Business School's Career and Employability Office. The seminar provided students with the opportunity to review experiences via reflecting on specific examples about team experiences (positive and negative) and showcased an example of a student's quality LinkedIn profile that was submitted as one of the assessments during the professional practice experience.

The overall framing of the three interventions (refer to Table 1) was important to the post-practicum teamwork assessment task, because it allowed students to reflect deeply, continually self-measure their employability, make mistakes without always being fearful of grading (i.e. via the non-graded interventions) while also receiving educator, peer and professional feedback.

Often, teamwork assessment tasks that have a strong link to industry involvement, engagement and outcomes are difficult tasks to undertake for undergraduate students. Therefore, by purposely designing interventions (such as, what has been presented here) to assist students with such tasks, students' ability to "effectively transfer and enact their learning in new environments" increases, which is a noted phenomenon in the literature (Jackson et al., 2019, p. 2).

4 Aim

The study focused on evaluating a multi-disciplinary, practicum-based WIL learning experience for business students that was linked to three interventions for measuring impact.

5 Context

In 2018, in semester 1, two hundred and fifty-one (N = 251) students took part in the program with ninety (N = 90) being business students. Of the total cohort there were 60% females. The projects involved companies, such as government organisations (111 students), Consulting firms (36 students), Community organisations (31 students) and Corporations (73 students). There were 82% domestic and 18% international students. Students preferred to be allocated to a project (24%) that was linked to the government via organisations that were focusing on innovation in technology, such as disconnecting from the grid. In semester 2, three hundred and fifty-seven (N = 357) took part with one hundred and eighty (N = 180) being business students. Of the total cohort there were 63% females. The projects that were offered covered government organisations (42 students), Consulting firms (40 students), Community organisations (29 students) and Corporations (238 students). There were 69% domestic and 31% international. Students suggested that they preferred project allocations (21%) that involved commercial and corporates and/or consultant-orientated organisation that focused on investigating digital disruption and/or topics on the future of work, for example.

6 Challenges to the Study

First, the Work-Integrated Learning Program that forms a large part of this investigation's context of operation and therefore the data collection process became challenging, due to the first author no longer being involved in the pilot program from 2018. Second, due to ethics' requirements, the results of this study can only focus on business students' perceptions and their beliefs of completing the post-practicum teamwork assessment task. Finally, national data shows a continuing decline in the willingness of participants to respond to surveys. We also found that this was the case for this study. This trend is troubling given the central role that our surveys played in collecting data for investigating students' perspectives about their experiences (Dey, 1997). We did however receive a 22% response rate to the surveys and used the focus group interview to combat the less than average response rate.

7 Methodology

We chose to implement an evaluation research framework for this study. This methodology has been used more broadly in areas outside of business education research, such as when investigating audience participation and perceptions for improving theatre marketing, theatre performances, 'visitors' satisfaction of theatre (Boerner & Jobst, 2013), "subjective experience in theatres" (Boerner, Moser, & Jobst, 2011,

p. 877) and the impact of audiences' responses when visiting multiple types of theatres (Boerner et al., 2011; Boerner & Jobst, 2013). This methodology has also assisted educational scholars to understand students' learning experiences for assessment designs for active learning (Gibbs & Simpson, 2004; McDowell, Wakelin, Montgomery, & King, 2011), undertaking commissioned evaluation reports (White & Coventry, 2002; White & Mason, 2003; Wilson & Wright, 1993) as well as evaluating practicum-based assessments for learning (Billett, 2009; Boud, Cohen, & Walker, 1993; Calway, 2006; Coll & Chapman, 2000; Eraut & Hirsh, 2007; Gibbs & Simpson, 2004; Jones, Higgs, De Angelis, & Prideaux, 2001; Orrell, 2011; Richardson, 2005; Yorke, 2006). It is, therefore, a tested methodology that has wide applications. On this basis, we determined that an evaluation research framework was a good choice for a study such as this, because it aided us to explore the mechanics of what works and what does not work when focusing on students' perspectives for a post-practicum teamwork assessment task, especially when it is linked to the three interventions. Finally, the methodology of choice allowed us to identify, what we are doing, valuing why we are doing it, and to understand how we might make improvements in the future (Walter, 2011).

8 Methods

Due to our methodology choice, we chose a mixed methods approach to the study. First, students are central in such learning experiences and are expected to reconcile what they have learnt and why. Second, without their participation in this study we would struggle to identify better ways of improving post-practicum teamwork assessment tasks or how to better provide interventions that align to the learning outcomes of the program. Therefore, a mixed methods approach was ideal, because it allowed us to "provide statistics and stories that complemented and contrasted to inform our thinking about the problems at hand" (Watkins & Gioia, 2015, p. viii). Eliciting students' views and opinions was therefore crucial for deciding which type of intervention/s would be recommended for future long-term gains. The target population consisted of students enrolled in a Business course, such as Bachelor of Commerce or a Master of Commerce at a large University Business School in Sydney, NSW Australia. The demographic distribution of students who enrolled in the Business School is presented in Fig. 1, below. The participants who took part in this study did so either via participating in a semester long (13 weeks) or an intensive study (6 weeks) period (which was for credit) from 2017 to 2018.

The participants were invited to take part in a pre- and post-survey about their experiences of a post-practicum teamwork assessment task for a multi-disciplinary WIL program. We also invited the same students to take part in a focus group recorded interview. The focus group interview was beneficial in that it helped us to further elicit students' perspectives about their experiences. Students who took part in the study noted that they had minimal exposure to the workplace and/or

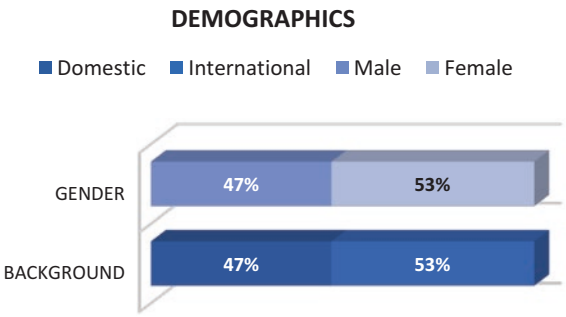

Fig. 1 Demographic distribution of students who enrolled in the Business School where this study took place

professional practice associated with their courses. The data were analysed using standard mixed methods analysis techniques with two key themes emerging. These were:

1. purpose and approach to post-practicum teamwork outcomes;
2. working in diverse multi-disciplinary teams alongside industry.

9 Data Collection

9.1 Surveys

The survey questions were designed by first investigating the literature on post-practicum learning to ascertain the knowledge gaps. We also sought peer-review feedback on the design of the questions, receiving advice from an external expert in post-practicum learning for higher education. The final survey instruments were also tested by students and peers. The surveys consisted of several closed- and open-ended questions that focused on collecting students' responses on their expectations of completing a post-practicum teamwork assessment task. The questions also centred on asking students about the challenges and benefits associated with the interventions. We also sought and received appropriate ethics approval to undertake the study.[1]

9.2 Focus Group Interview

The recorded focus group interview questions were developed and designed to complement the survey questions. In addition, the focus group interviews were instigated to elicit qualitative narratives from participants on how they believed educators

[1] Please contact the first named author for a copy of the pre- and post-survey questions: rachael.hains-wesson@sydney.edu.au

could improve post-practicum teamwork assessment tasks and why. Six students participated in the recorded focus group interview. Students were asked to answer the following questions:

1. What do you believe were the key challenges when engaging in a post-practicum teamwork assessment task and why?
2. What would make an effective and fair post-practicum teamwork task for assessing what you have learnt through a placement/industry-based project and why?
3. How should educators work with students and industry partners to create effective and fair post-practicum teamwork assessment tasks and why?
4. How can students work more professionally with industry to create effective and fair post-practicum teamwork assessment tasks and why?
5. How can teamwork assessment tasks be used during a placement/industry-based project and after a placement/industry-based project to promote your employability more effectively and why?

The authors also met regularly (once per month for 6 months) during and post-collection of data to undertake critical friends' meetings. These meetings were used as part of the data collection process and to inform the overall data analysis. We also reviewed the literature on Work-Integrated Learning for post-practicum education to inform these meetings (N = 15). Therefore, the survey instruments, recorded focus group interview, critical friends' meetings and the authors' literature investigations informed the mixed method data collection process. We analysed the data for the emergence of themes and in accordance with previous tested evaluation research methodology and frameworks suggested in the literature (Hains-Wesson & Campbell, 2014).

10 Findings

In the next section, we discuss the findings of the study and in terms of each method instrument that was used.

10.1 Survey Results

Twenty-seven students (N = 27) completed the pre-survey and 15 students (N = 15) completed the post-practicum survey. The demographics of the participants are presented in Table 2. The majority (N = 19) of participants noted that prior to completing the three interventions that were linked to the teamwork assessment task that they had previously undertaken five or more teamwork assessment tasks.

We conducted a Word Cloud Analysis of the participants' responses. We achieved this by utilising NVivo's key word function. This is a type of key word analysis utility, which aids in presenting a visual representation based on key word frequencies.

Table 2 Demographics of the pre- and post-survey participants

N = 42		Degree/Discipline	
Gender		**Degree**	
Male	11	Undergraduate	34
Female	31	Postgraduate	8
Age group			
Under 20	3	**Disciplinary area**	
20–24	34	Finance	14
25 and above	5	Accounting	10
Background		Business analytics	6
Domestic	19	International business	4
International	23	Other	8

Fig. 2 The top non-technical skills students expected to achieve prior to undertaking the post-practicum teamwork assessment task

For instance, in Fig. 2, the main learning expectations that students listed, before completing the three interventions and the teamwork assessment task, was that they desired to improve their communication skills as well as other types of communication-related skills, such as public speaking, presentation skills, negotiation and the skills required to explain ideas in a group context, confidently and persuasively. Additionally, other non-technical skills noted by students were: improving efficiency in teamwork, problem solving, conflict resolution, leadership, organising and management skills, interpersonal skills and cultural competency. The results of this finding correlate with previous research, such as those that focus on competency skills, and which are most desired by industry (Allred, Snow, & Miles, 1996; Brown & Latham, 2002).

Many of the participants (N = 22) who took part in the pre-survey suggested that completing the post-practicum teamwork assessment task was essential or very important to their overall learning experience for job-readiness. In addition, participants' responses (N = 25) were future-reflective, because they also believed (as does industry) that they would need (Mean 4, Std.D. 0.95 on a scale of 1 to 5)

non-technical skill development to improve employability. Students also expressed that the post-practicum teamwork assessment task was either going to be extremely challenging or quite challenging (N = 14) with several students (N = 13) articulating that it would be challenging or not very challenging (Mean 3.6, Std.D 0.8).

Overall, the pre-survey data matched what others have also said about teamwork, such as teamwork behaviour is a complex task (Brown & Latham, 2002; Wood, 1986). Therefore, developing and integrating interventions along with evaluating their effectiveness (Cain et al., 2019) can potentially achieve strong student learning outcomes for post-practicum education.

In the post-survey, when participants were asked to reflect on how challenging their post-practicum teamwork experience was, the average response dropped to 3.3 (Std.D 0.65). This finding proposes a decrease in students' perceptions of the difficulties for completing a teamwork assessment task. However, the results also point to an increase in their self-confidence, but only once they had finished a post-practicum teamwork task for improving relevant employability skills. For instance, in Table 3, the data presents the participants' expectations (in the pre-survey) and their reflections (in the post-survey) about their top challenges, which they believed would occur while undertaking the post-practicum teamwork assessment task. We discovered from these results, that the participants were mostly lacking confidence in their communication skills prior to undertaking the experience. Participants were concerned about their communication skills in a professional working environment, public speaking, being able to explain ideas clearly and persuasively. A few of the respondents were not sure about which types of communication skills would be most required during conflict. For instance, when pressure was placed on them due to working with diversified multi-disciplinary groups. International students whose native language was not English were highly concerned about their communication skills when working with English speakers. Other challenges, that were noted by

Table 3 Students' expectations (pre-survey) vs. reflections (post-survey) for the top challenges while undertaking the post-practicum teamwork assessment task

Pre-survey	No.	Post-survey	No.
Communication	13	Research	9
Public Speaking	2	Industry knowledge	7
Expressing opinions	4	Communication	6
Language	3	Presentation	1
General	4	Academic writing	3
Time management	10	General	2
Organising and managing	8	Managing diversity	5
Managing diversity	6	Organising and managing	4
Conflict resolution	6	Limited guidance	3
Industry knowledge	6	Time management	2
Decision making	4		
Effective collaboration	4		
Limited guidance	2		

participants and according to the ranking of the responses, included: time management, organising and managing teamwork, conflict resolution, lack of industry knowledge, decision-making, ensuring effective collaboration and limited guidance on the assessment task. These result, further emphasise, the important requirement to prepare students for Work-Integrated Education, which can then augment post-practicum learning, because preparation for pre- and post-experience learning can have a direct impact on the way that teaching and learning takes place (Billett, 2009, 2015; Brown & Latham, 2002; McTighe & Emberger, 2006).

When we compared the results from the post-survey with the pre-survey data, we found that some challenges that were previously noted by students had disappeared, such as those relating to task-orientated specific skills. For example, participants no longer mentioned language, conflict resolution, decision-making, or effective collaboration as their top challenges when reflecting on their post-experience learning. Instead, we noticed that there were new challenges being highlighted by students. One new issue related to students expressing that they felt that they did not have enough research skills, especially when they reflected on being in a professional setting or presenting in front of industry experts (see Table 3). Students went on to suggest that they struggled with the following research-related skill areas: how to conduct research for the group project work, reviewing relevant literature and identifying gaps for contribution, conducting data analysis, and undertaking academic writing. All too often, the student perspective is underplayed when evaluating curriculum (Cain et al., 2019). Therefore, this finding suggests that the program's academic skill area requirement needs further development and student support options.

Other participants expressed that they felt they lacked industry knowledge as well as how to manage diversity, organise and manage teamwork roles and instigate effective time management. Additionally, participants noted that they felt that they had limited guidance from teachers and industry partners on how to complete post-practicum teamwork assessment tasks. Despite the noted challenges by participants, students however, stated that they had improved upon the required skills by taking part in the interventions, actively communicating with their team members, seeking advice from peers and friends who had similar experiences. Participants felt that the intervention approaches helped to reduce their stress and enhanced their ability to problem solve. The participants also noted specific areas for further improving the post-practicum teamwork assessment task, such as the need for additional teaching support, assistance with conflict resolution, how to encourage team motivation and incorporate time management skills. Students felt that additional support options, such as the areas noted earlier, would effectively help them to navigate future post-practicum teamwork experiences. Thus, the findings not only point towards students' perceptions around post-practicum teamwork assessment tasks as being challenging, but that these are not negative or surprising. This result is not a new discovery *per se.* However, what it does shed light on, is that when interventions (prior to students undertaking post-practicum learning) are clearly aligned to students' non-technical and technical needs, learning benefits will arise. For example, participants suggested that educators could do the following:

1. Articulate and showcase to students the variety of challenges (via real stories from students) of completing post-practicum teamwork assessments successfully and with a focus on positive failure;
2. Articulate and showcase the support options (early) that will be provided, highlighting what will not be provided and why;
3. Provide students with non-graded but compulsory interventions that will support a post-practicum teamwork assessment task and its outcomes, which are relevant, fun and engaging.

The above points are useful when considering future improvements for the program as well as addressing and reconciling interventions that can assist with reducing stress and anxiety around teamwork assessment tasks (Cain et al., 2019). As one participant noted, 'I expected everyone working together in a peaceful and supportive environment' and 'be able to hear different perspectives and share one's opinions' via an 'assessment that everyone is satisfied and excited about'. This is not always the case though, and especially for teamwork presentations, which are often complex and resource intensive for educators to support (Brown & Latham, 2002).

10.2 Focus Group Interview

From the results of the focus group data analysis, we discovered three themes that emerged: (i) students' preparedness of post-practicum teamwork learning; (ii) managing students' expectations; and (iii) uncovering interpersonal employability skills. Whilst undoubtedly not exhaustive, these issues are discussed in the following section.

10.3 Preparedness

Acknowledging and understanding students' abilities and work experience (Brown & Latham, 2002) when working in teams is paramount for preparing students adequately to undergo post-practicum teamwork projects, especially when industry outcomes/deliverables are of a focus. When starting a teamwork project unprepared, the experience might be overwhelming and lead to dissonance, rather than enabling effective learning post-practicum to occur (McTighe & Emberger, 2006). For instance, students indicated in the focus group interview that the following areas required additional preparation, suggesting that this needed to occur prior to undertaking a post-practicum teamwork experience. Firstly, students were anxious about working in diversified multi-disciplinary teams. One student suggested that when working with team members from different disciplines, cultural backgrounds and/or with different levels of work experience that they became very concerned. They were concerned about conducting effective communication, incorporating

collaboration techniques for resolving conflict, ensuring equal contribution amongst team members and encouraging commitment from team members who were less engaged. Students readily acknowledged the complications resulting from such situations, its complexity and the various challanges associated with diversity, especially when being observed by industry partners. For instance, increased anxiety levels, which were suggested by one participant who stated, 'students from different backgrounds may have very different norms and beliefs', and 'the same sentence may be interpreted in different ways in different cultures and religions.' Furthermore, students expressed that they found it challenging to 'bring people from different working styles, standards, and motivations to the same page', especially when an industry client changed the scope of the expected deliverable. This finding is no different to what students might find in industry as a professional upon graduation (Allred et al., 1996). However, what we found interesting was that students felt less confident to act like a professional in an industry context, especially when they felt that they were not adequately prepared to do so. To offset unrealistic expectations, to minimise anxiety and stress levels, students suggested that they had found the interventions helpful. For instance, participants expressed that the interventions supported them to address feelings of being unprepared, to better participate in the post-practicum teamwork assessment task, prepare for self-directed learning, such as understanding urban planning, marketing strategies for art galleries, or working in unfamiliar workplaces, such as the children's hospitals, for example.

10.4 Managing Expectations

Managing students' participation and engagement expectations for the three interventions and the post-practicum teamwork assessment task proved to be a key challenge for educators. Practicum-based programs that include a placement and/or industry-based project add additional elements that consumes educators' time and resources (Billett, Newtown, Rogers, & Noble, 2019). For example, students highlighted in the focus group interview that team management, especially when trying to keep team members motivated, on track or engaged persisted to be a challenge. Frustration often arose when team members were demotivated when the tasks 'seemed to be less relevant [to the assessments]', repetitive, or too difficult. Free riders often existed, and the teamwork task mainly relied on students who 'were the most motivated or the most desperate'. This caused problems with timing, organisation and advancing progress for the post-practicum presentation experience. These concerns are also a known phenomenon for teamwork in the higher education literature (Hains-Wesson, Pollard, & Campbell, 2017). Students commented regularly that the educator, for post-practicum learning, plays a crucial role in setting-up the expectations and standards early, and that this should be completed prior to the program's first assessment task. This finding augments previous studies about the importance of the educator's role for post-practicum learning in the area of interventions when they are conducted in small groups and mediated by more experienced individuals (Cain

et al., 2019; Lindgren, Brulin, Holmlund, & Athlin, 2005). Furthermore, students requested that educators regularly monitor the progress of the teams, encouraging educators to do this throughout the program and especially during post-practicum learning. Students suggested that this does not have to be graded, but rather should focus on students being accountable for post-practicum learning. This in turn, would encourage less motivated students to feel obligated that their involvement was essential. Students' perspectives on this point was also observed, for example, when we noted that very few students turned up to the third intervention, which was the career development workshop. Therefore, without this intervention aligning to an assessment or becoming compulsory, low attendance numbers will remain.

10.5 Interpersonal Skills

In the post-practicum survey, when participants were asked 'How helpful, overall, were the group assessment/s of learning for your career development?', 83% of students chose 'essential', 'very important', or 'important' (Mean 3.75, Std.D. 0.97, 5 being essential and 1 being irrelevant). This finding also correlated to the focus group interview data. Participants highlighted that the post-practicum experience had largely improved their communication skills (noted by all participants), time management skills, problem solving skills, team management and organising skills. Some informants mentioned that working in diverse teams, such as multi-disciplinary groups, while also being involved in a professional industry environment allowed them to practise articulating ideas and to persuade others to consider ideas. This is an important finding, because it suggests that students' employability improved, and was based on the theory of learning from experience by Boud et al. (1993). Overall, students noted that working in diversified, multi-disciplinary teams was beneficial for improving employability skills and developing resilience. Participants believed that they had acquired the knowledge, understanding and practice to learn that diversification equates to better brainstorming, resulting in important innovation outcomes that hase meaning for team members and industry partners. Although, as one student noted, 'it's challenging to reconcile everyone's ideas, especially when there were conflicts and arguments', which requires respect and open mindedness. Furthermore, students suggested that they had learnt to deal with challenges and unknowns that arose from the post-practicum teamwork experience. For example, a student commented that navigating complexity, challenges and undertaking additional learning requirements (i.e. the interventions) 'did make me look at group work in a different way and, [reflecting on my experience and approaches], I am better aware of my strengths and weaknesses as a group member.'

Therefore, the results of this study support Billett's (2015) research where students' opinions of feeling 'uneasy' or ''overwhelmed' is often associated with the scale and complexity of the industry-linked learning experiences. Consequently, the students' post-experience reflections in this study further support the need for integrating interventions into the post-practicum curriculum. This in turn, will aid in

relieving feelings of anxiety and supporting students to prepare for issues or challenges throughout the learning cycle.

11 Outcomes

From the set findings, we will now discuss the benefits of the interventions that were used to support the post-practicum teamwork outcome.

11.1 Improvements to Student Teamwork Processes for Post-practicum Learning

The post-practicum teamwork assessment task, investigated in this chapter, meets the definition of being dynamically complex due to the ongoing changes in the acts and information cues required to perform the tasks (Brown & Latham, 2002). Therefore, ensuring that there is an adequate and appropriate level of structure in the post-practicum teamwork experiences, including the sequencing of the interventions (whether they are graded or not) and the management of students' progress pre-, during and post-experience, are important elements to consider. Part of that structuring could include more compulsory and hands-on interactive, online, preparation activities and/or activities that provide opportunities for students to discuss perceived and/or actual issues of immediate interest. Therefore, part of any future structuring for post-practicum learning experiences could be used to develop the students' capacities to engage effectively in teamwork activities when failure occurs. Of course, such structured processes should leave open the options for educators to facilitate the areas of uncertainty or lack of clarity that is often common practice for the workplace. This in turn, would allow students to feel confident to raise and discuss failure before and after it has occurred. We believe that this would be most advantageous for students learning about the workforce if industry were involved. We would also posit that such processes should be followed-up at some point by graded assessments. This would ensure that what was learnt was appropriate and in accordance with the domain of learning, and that was most desired.

11.2 Issues of Student Engagement for Post-practicum Learning

Clearly, if students are being expected to do something for which they are not adequately prepared to productively engage with, the learning outcomes will likely be inferior or negative. The other key issue with students' engagement for post-practicum teamwork is their willingness to participate as an active team member

when they are demotivated, stressed or unsure about what is required. Another major concern is that students might merely respond to the assessment criteria, in a superficial and intentional way, rather than engage in the learning process, and in this case the three interventions.

12 Considerations for Curriculum and Pedagogy

From the findings discovered, it is now possible to identify some key considerations for curriculum and pedagogy when developing and/or improving post-practicum teamwork experiences. It is these points that conclude this chapter.

12.1 Relationship Between Interventions and Graded Assessments

An opportunity in which to prepare students to actively take part in post-practicum, graded teamwork learning outcomes is for the educator to initially observe teamwork practices, in action or attend student/industry meetings where teamwork outcomes are discussed first. This will assist students to develop a level of readiness, motivate engagement and prepare them for post-practicum learning interventions. The key observations made from this involvement with student groups could then be infiltrated into future intervention activities. The interventions could then be utilised to review student learning to ascertain if students lack readiness to engage in the teamwork activities or assessment tasks. For example, the interventions mentioned in this study might be better orchestrated via students contributing to the delivery structure of what is to be learnt. This in turn, would re-focus the interventions on what is most topical or of an issue, meeting the call for students to decide on how to engage with the interventions (Cain et al., 2019), which need to support post-practicum teamwork assessment task and the relevant outcomes.

We also discovered that the post-practicum teamwork assessment task had several advantages. These included, the potential of the interventions to be directly related to the intended outcomes of the course or unit. However, there were also some disadvantages. These included, students' responses being constrained to a specific focus or topic that related to the graded assessment task, rather than on learning for learning sake. From our experience, we found that most students will always be more concerned about grades. This in turn, provides the kind of student responses, which they conclude their educators want, rather than what is most important, which is to be a life-long learner and an evolving professional over time.

13 Recommendations

Based on the findings, we now present some recommendations for advancing the three interventions as well as discuss how educators might further improve upon these. The recommendations can be graded or not, but we believe, at the very least, they should be compulsory to combat low attendance rates and include the following:

1. As part of the LTC intervention – allow students to develop a best practice model for preparing teamwork outcomes when working with industry. This can be completed pre- and post-practicum with the results of the outcome being compared and reflected upon for deeper employability skill development and articulation;
2. As part of the problem-solving workshop – provide online support options that are student-centric when working with industry, such as examples and opportunities for students to discuss mistakes, errors and successes by turning these opportunities into authentic story telling artefacts. This can be completed pre- and post-practicum with the results of the outcomes being compared and reflected upon for deeper employability skill development and articulation;
3. Create and develop interventions that students note as being interesting, relevant to what needs to be achieved and that students would want to complete as part of an assessment or outside of it, because they are also fun;
4. Allow students and industry to help co-design the career development learning debrief workshop. This should be compulsory but only if it is relevant, engaging and fun.

In addition, we add to the research by Billett (2015, 2019), but with the added emphasis on improving post-practicum teamwork assessment activities, which are:

1. Discuss experiences that students have found worthwhile/interesting/complex during teamwork meetings with industry partners;
2. Link what is expected for professional practice about how to work as an effective multi-disciplinary/disciplinary team member to what is taught at university;
3. Allow students to learn more about teamwork practices in their preferred occupations;
4. Allow students to learn about other students' teamwork experiences during the professional practice with industry as a key partner in this learning process;
5. Allow students to learn how preferred teamwork practices are completed for multi-disciplinary versus disciplinary outcomes;
6. Secure feedback from industry and peers for post-practicum teamwork assessment experiences;
7. Support students through career development learning expertise on how to articulate effective teamwork experiences as well as when things do not go to plan;
8. Incorporate an evaluation process that can assist with improving the teamwork experiences for post-practicum teamwork assessment tasks and its interventions for the next cohort of students.

14 Conclusions

In this study, we discovered that students did not always feel confident when undertaking pre-, during or post-practicum-based learning experiences for developing their job-readiness for teamwork. Nor, did they understand how to effectively collaborate with peers from diverse disciplines when working in teams with industry. Therefore, by understanding students' perceptions about these challenges and how they perceive the post-practicum teamwork assessment task as well as the interventions, we discovered new ways for supporting students' self-confidence building. This study also provided an avenue to gather students' responses to assist us with improving the program for future iterations, because we agree that "all too often, the student perspective is underplayed and undervalued" (Cain, et al., 2019, p. 28). It was therefore vital that students' perspectives were elicited when establishing how to enhance the curriculum.

We also observed that many business students found it challenging to present their ideas verbally or to communicate their personal and professional thoughts in both the written and verbal form. We found that this was especially the case when these thoughts/narratives needed to focus on employability skill development when things did not go to plan, i.e. articulating failure as a positive professional quality. To assist with further understanding such student-centric challenges and obstacles, how-to best support students with taking negative experiences and re-positioning these into opportunities, we investigated students' perceived self-confidence levels pre- and post-practicum learning experience. We mainly focused on understanding students' strengths and weaknesses around communication and interpersonal skill development when undergoing a post-practicum teamwork assessment task. We believe, along with Billett (2015, 2019), that without understanding students' perspectives about these challenges and the many obstacles of undertaking such teamwork activities as part of post-experience initiatives, we cannot continue to assume that graded post-practicum assessment tasks for teamwork (i.e. presentations and reports) are enough for acquiring employability skills.

We discovered, from the results of this study, that supporting students with interventions that are aligned to assessments, that are engaging and fun will continue to be difficult unless attendance rates for ungraded interventions are improved. The interventions and the post-practicum teamwork assessment task that were illustrated in this study, allowed students to be encouraged to lead, manage and shape the experiences for themselves and their peers. This approach, when the students elected to engage with it, seemed to be the one that elicited the highest engagement outcomes. However, there were concerns that such processes can lead to challenges and upsets. That is, students became distracted by previous negative teamwork experiences, such as negative group think, lack of engaged team members and unresolved conflict. These challenges may have been some of the reasons for the low attendance rate at the non-graded interventions. Finally, we advocate that an educator's competence for preparing, engaging students and augmenting their work experiences through interventions, which firmly link to a post-practicum teamwork task, can

optimise educational provisions, promote employability beyond graduation and provide a bases for students to be confident, active learners throughout working life.

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