

Transitions to Successful Careers: Pharmacy, Psychology and Business Students Reflecting on Practicum Feedback



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1 Feedback

Practicums, placements, or internships are specific types of work-integrated learning (WIL) that typically occur within an external partner's workplace supervised by a member of the host organisation. WIL is a valuable experience for students, allowing immersion into real world workplaces and facilitates application of knowledge and skills from the classroom into the complex world of work. These WIL experiences may also improve learner self-efficacy and increase awareness and capacity for working in professional settings. WIL can include learning through completion of a set project designed with a specific outcome in mind, or can involve the student taking up a placement to fulfil a role within the organisation that may involve different tasks or a cycle of responsibilities across the experience.

While evaluations of WIL have reported mixed findings regarding the development of skills or competencies (see Bates, 2005 for a review), other advantages include an improved understanding of the workplace, including organisational policy and workplace politics (Bates, 2005). WIL experiences also provide the valuable 'past work experience' that employers prefer but is often difficult for students to find (Cullen, 2004), and give students the opportunity to evaluate their fit for a particular career path (Patford, 2000).

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2 Feedback and Work-Integrated Learning

Feedback is seen as crucial way to facilitate students' development as independent learners, so that they are able to monitor, evaluate, and regulate their own learning, allowing them to feed-up beyond graduation (Ferguson, 2011). Typically, feedback is defined as "specific information about the comparison between a trainee's observed performance and a standard, given with the intent to improve the trainee's performance" (Van De Ridder, Stokking, McGaghie, & Ten Cate, 2008, p. 183) and to improve their performance (Lizzio & Wilson, 2008). Feedback can be provided at a range of points across a learning experience and can be provided from a range of sources including peers, teachers or facilitators, and other observers. In this way, feedback provides a bridge between actual and desired learning.

While a great deal of evidence supports the usefulness of feedback in increasing student learning, simply providing information about a student's performance alone is not sufficient to improve outcomes (Lew, Alwis, & Schmidt, 2010). Some authors have raised the concern that there is a potential for feedback to have no impact on practice (Perera, Lee, Win, Perera, & Wijesuriya, 2008) or that the evidence that feedback improves practice is inconsistent (Shute, 2008). There are also concerns that students may not access written assessment feedback, or at least avoid it. Students also expressed concern that the feedback itself may not provide the clarity needed to act upon the feedback, or they did not always understand the comments or suggestions provided (Green, 2019). This discrepancy in how feedback is intended to be used by the provider, compared to the students' ability to make sense of, and their motivation, mindset and capacity to utilise feedback creates a gap. Even when the evaluation of performance and suggestions are of a high quality, the gap can be wide depending on the student's ability to use it.

In part, the problem of feedback has been created due to the origins of the concept. Feedback has its strongest roots in other disciplines, not education, originally arising from biological and then electrical feedback systems or loops. Boud and Molloy (2013) argue that a number of assumptions have been generated as the concept of feedback was borrowed and then cultivated in education. For example, the assumption or nostrum that all feedback is useful to learning. Certainly, there are characteristics of some feedback that make it more effective in supporting learning than other sources and types of feedback (Gedye, 2010). There is also an assumption that more feedback will be more helpful to learning (Lam, DeRue, Karam, & Hollenbeck, 2011). However, Boud and Molloy (2013) observe that now, perhaps more than ever, students encounter multiple sources of feedback over multiple assessment tasks but are "more disillusioned with feedback than ever" (p. 13). Perhaps the most distracting and harmful belief is that 'feedback is telling'. While direct information about how to best work through a task can be appropriate for procedural learning with an approved or single best way to approach a task, it is unclear how effective simple 'telling' motivates or encourages excellence in other

areas. Boud and Molloy (2013) encourage educators to explore the underlying assumptions of this belief. Aligned with the biological or electrical feedback loop, this belief positions learners as passive receivers of information who can automatically adjust their outputs in response to feedback. Clearly, when considering the complexities of human learners, this is not the case.

Boud and Molloy (2013) conceptualise feedback as a process, rather than a single-direction transfer of information. In this re-framing, feedback is a process that learners need to engage in, to develop a shared understanding of their current performance and level of learning and what is required to meet the expected standard of work. Learners are active participants in this process and may be the initiators of the process, asking for feedback based on their own evaluations of their work (Gedye, 2010). This re-framing also means feedback extends beyond the 'telling' part, into revised ways of working or performance and possible steps or stages the learner might attempt to develop this revised way of working. Facilitators of learning share the responsibility for planning these scaffolding tasks. Boud and Molloy (2013) refer to these two ways of looking at feedback as Mark 1 (traditional) and the improved Mark 2 of feedback. They carefully qualify that these two approaches may not be mutually exclusive and admit that in some cases, learners may prefer the straight forward transmission of information characteristic of Mark 1.

3 Effective Feedback, Growth Mindset and Resilience

WIL, including practicum, placement and internship experiences, are critical opportunities for feedback, particularly feedback that is contextualised within the intended setting. However, often students and supervisors involved are not prepared for giving and receiving feedback, and may misunderstand or ignore each other's previous experiences with feedback when evaluating the student's learning. An important opportunity exists for educators to support students and supervisors through work-based feedback within pre- and post-practicum experiences.

Formal education relies strongly on assessment tasks to authenticate the learning of students and to provide feedback regarding the quality of student work in relation to that assessment task. While assessment and feedback in WIL experiences may follow a formal format or may become more fluid and informal. The role of feedback for students in WIL settings is important to learners' transitions to the workplace. However, it is unclear how universities prepare learners for receiving this type of feedback or support learners to interpret and respond to this feedback during and after a WIL experience. As these experiences are still learning experiences hosted by the university, higher education providers have a responsibility to scaffold this transition and help learners prepare for, seek, and respond to feedback.

4 Study Rationale and Objectives

Effectiveness of feedback is also determined by the individual and contextual factors of feedback. For example, the beliefs held by learner and facilitator about learning and the learning process will strongly influence how each party interprets their role in the process (Price, Handley, & Millar, 2011). This can include the students own willingness to persevere at the task or learning (Vermeer, Boekaerts, & Seegers, 2000), and this is informed by students' past experiences with feedback and their own schemas about how they best learn (Weaver, 2006). DeNisi & Kluger (2000) observed that there are three levels of performance goals: 1. *meta-level* which are goals related to the individual's self-concept; 2. *task-level* goals related to task performance; and 3. *task learning-level* related to task details and the specifics of performing it. Learners experienced negative emotional responses to feedback when they misinterpreted task-level feedback at the meta-level. DeNisi and Kluger suggested that this confusion diverts attention from the task to the self where it is perceived as a generalised criticism leading to negative feelings like self-doubt, anger or frustration.

An important element of learning through WIL opportunities is the expectation that the learner will be prepared to engage with, and request feedback. The learner's own personal characteristics also play a particularly important role including their emotional state and their subsequent ability to process the information (Boud & Falchikov, 2007). The personality and psychological attributes of the learner can be important with regards to the way in which a student interprets negative feedback. Learners who believe their abilities and intellect expand with practice are in an advantageous position for learning. This attitude towards education can be described as growth mindset and is believed to increase creativity and improve the learners' attitude towards relationships with peers (Han, Stieha, Poitevin, & Starnes, 2018). Growth mindset describes a belief that capabilities and characteristics such as intelligence, can be developed, while a fixed mindset describes a belief that one's capabilities are static or fixed (Dweck, 2015). An academic environment that instils growth mindset, can encourage students to persevere. A growth mindset may have a direct influence on grades (Blackwell, Trzesniewski, & Dweck, 2007) and can be encouraged and cultivated through educators.

A crucial task for educators is to prepare students to respond with resilience when challenges in learning experiences arise. While some research is available on the relationship between mindset and resilience, some studies position resilience as a moderator between growth mindset and engagement (e.g. Zeng, Hou, & Peng, 2016). Other studies suggest resilience is an outcome of mindset, and there is clear indication that how learners attend to and respond to mistakes is related to their mindset (Yeager & Dweck, 2012). As summarised by Han (2018), learners' growth mindsets have been positively associated with improved academic performance (Pennington & Heim, 2016; Ravenscroft, Waymire, & West, 2012), seeking challenging tasks (Yu-Hao Lee, Magerko, & Medler, 2012), superior drive for academic goals and appraising feedback (Aditomo, 2015; Forsythe & Johnson, 2017; Gheith

& Aljaberi, 2017; Yu-Hao Lee et al., 2012) a drop in stress and a rise in well-being (Holm, 2015; Lindsay, Kirby, Dluzewska, & Campbell, 2015), while also decreasing life dissatisfaction (Waithaka, Furniss, & Gitimu, 2017). These positive outputs of growth mindset are also aligned to defined components of academic and professional resilience as highlighted in the design of the R@W (Resilience At Work) scale developed by Winwood, Colon, and McEwen (2013).

Advocates of WIL such as Boud and Molloy (2013) suggest students should take on a greater role and responsibility in their own learning process. However, this creates an imperative for training for both educators and students in how to give and receive feedback (Carless, 2007; Carless, Salter, Yang, & Lam, 2011; Nicol & Macfarlane-Dick, 2006). In workplace learning, this issue is complicated by the multiple potential sources of feedback and varied levels of experience and commitment from supervisors to the education of the student.

Central to this is also the scaffolding of student self-judgement skills, which are essential to enable improvement independent of an authority figure or 'expert'. While Boud, Lawson, and Thompson (2013) argue that learning must be designed to allow the development of self-judgement skills over time, educators have less scope to influence how these skills are used and generalised while a learner is on practicum, placement or internship. The study in this chapter reports on the development and delivery of a workshop aimed to support this learning. The chapter will also elaborate on the development and iterative refinement of the workshop over a number of semesters, and report on the student responses to the workshop across three different disciplines, each preparing students for different types of WIL and different careers.

5 Approach and Method

Feedback plays a significant role in learning during the professional experiences of students. However, feedback is highly dependent on multiple factors such as the environment, the student's mindset, and how feedback is received and responded to. In this study, we present how feedback relates to experiential learning, specifically WIL as practicums, to a growth mindset and to the impact on the receiver's resilience, as presented by current literature.

The aim of this study was to explore the effectiveness of a post-practicum workshop across the disciplines of business, pharmacy, and psychology. The workshop was deployed into each of the disciplines within existing WIL classes.

The objectives of the workshop were:

- To increase students' awareness of growth mindset;
- To explore changes in students' understanding of feedback; and
- To identify likely changes in students' resilience.

5.1 Participants

Institutional ethics approval was received and students were fully informed about the nature of the class and data collection prior to the workshop. Each participant created their own unique code which was used to link the survey responses and worksheets. The learning approach adopted in the relevant WIL classes was face-to-face workshop activities for students undertaking these experiences as practicums, placements, or internships. The workshop activities were designed to develop students' understanding of feedback, and introduce or reorient them to growth mindset and resilience. Generally, each workshop had between 30 and 50 students participating. The evaluation of the workshop involved the use of surveys (both online and paper; see Fig. 1) and analysis of the student responses to the workshop. Each of these aspects is described below.

To account for the different WIL arrangements across disciplines, the face-to-face workshop was conducted within 2 weeks of students completing their practicum experience. A pre-workshop survey was distributed either as a paper-based survey in classroom prior to start of workshop, or as an online survey up to 1 week before the scheduled workshop. The online surveys were hosted in the learning management system for the students enrolled in the WIL units selected for the

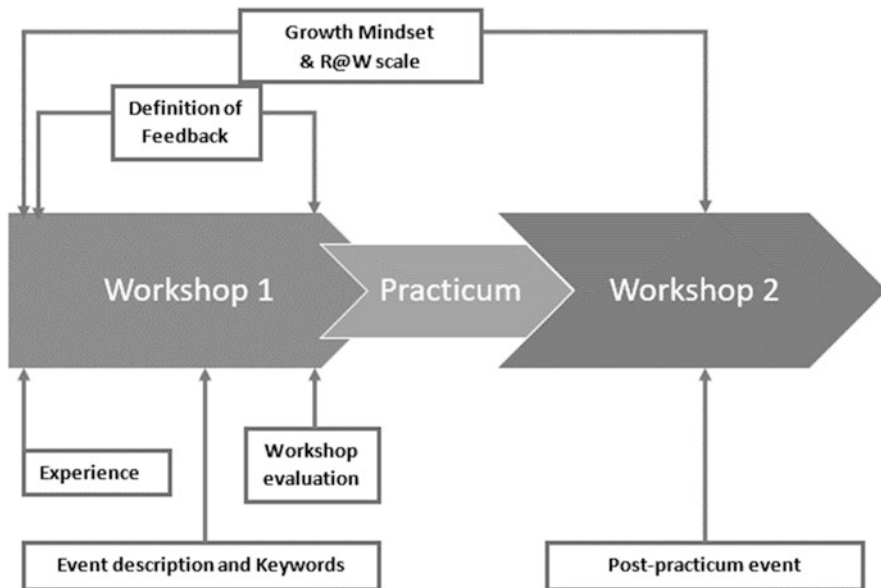


Fig. 1 Project overview and process. Initially, there was a single post-practicum workshop (labelled here in the final process as “Workshop 2”). In later stages of the project, this workshop was moved to pre-practicum with the addition of the pre-practicum R@W scale. Workshop 2 became a reflective debriefing session with completion of post-practicum R@W scale and discussion of positive and negative examples of feedback and mindset

project. The post-workshop survey was made available immediately at the end of the workshop, either as a paper-based or online survey. The pre- and post-workshop surveys were designed to elicit students' definition of feedback, through free text responses, growth mindset and resilience, by using the total scale selected from the Resilience At Work (or R@W) scale ($\alpha = 0.84$) developed by Winwood et al. (2013). Participation in the workshop, and pre- and post-workshop surveys were encouraged, but not mandatory.

To begin the workshop, students were asked to think about a time when they received and learned from feedback in a professional setting. Students shared their stories in a pair or triad, and then from the group, nominated a story to share with the larger group. The facilitator (an academic staff member) used questions to encourage students to explore and share how they sought, received, and responded to feedback. The questions for the facilitator were developed with guidance of the work of Molloy and Boud (2014). Students considered and articulated their feelings before, during and after feedback being provided. Using a paper-based worksheet, participants were also asked to describe the feedback process with up to five keywords. Finally, students were introduced to the concept of growth mindset, using a short video (7 min) developed by QUT Student Success Group, as part of a suite of online modules to support development of enterprise and employability skills. In the final iteration of the workshops the debriefing/reflective post-practicum 'Workshop 2' was introduced. In this session students were asked to reflect on their placement experiences of feedback and their mindset and again share these with their peers. Students had an opportunity to develop a feedback plan to take away with them for use in any future work-experience interactions. At the end of this workshop students were asked to complete the R@W scale again.

5.2 Analysis

The project was undertaken at QUT across two academic years. Students undertaking WIL in one of three disciplines were invited to participate. These classes included final year Bachelor of Business students, Bachelor of Psychology students and Bachelor of Pharmacy students, and 2nd year Bachelor of Pharmacy students. A total of 242 students completed the pre-workshop survey, while 123 completed the post-workshop survey (Table 1).

The participants had different arrangements in terms of time spent at their practicum sites (Table 2). Students had varying levels of work-experience (paid and unpaid). Approximately 60% of pharmacy 2nd years, business and psychology students had some experience related to their courses. While the number of students reporting practicum or work experience was slightly greater from the 4th (final) year pharmacy students at 87%, it should have been 100% since QUT pharmacy students attend compulsory practicums in 2nd, 3rd and 4th years of the course.

Table 1 Numbers of participants returning completed pre-workshop and post-workshop surveys

Area of study	Number of respondents from February 2017 – December 2018	
Pharmacy	2nd year	Pre-workshop n = 92 Post-workshop n = 33
	4th year (Final year)	Pre-workshop n = 36 Post-workshop n = 20
Psychology 3rd year (final year)	Pre-workshop n = 54 Post-workshop n = 36	
Business 3rd year (final year)	Pre-workshop n = 60 Post-workshop n = 34	
Total	Pre-workshop n = 242 Post-workshop n = 123 In-workshop activity sheets n = 112 Matchable* R@W scores n = 22 *Students supplied unique codes which were matched between pre- and post-practicum R@W scales	

Table 2 Student program of study, and practicum experiences

Program of study	Year level (intended duration of full time study)	Time at practicum as a part of the course	Percent of students who have paid or unpaid work- experience related to their course (prior to practicum)
Health			
Pharmacy	2nd year (4 year course)	3 h/week over 8 weeks (24 h total)	57%
Pharmacy	4th year (4 year course)	150 h (4 x 5 day weeks)	87%
Psychology	3rd year (3 year course)	50 h	58%
Business			
Advertising, international business, marketing and public relations	3rd year (3 year course)	120 h	66%

6 Findings

Descriptive statistics and thematic analysis were used to analyse the pre- and post-workshop surveys, to compare the influence of the workshop on student perception and understanding of feedback and resilience in responding to negative feedback (see Table 3).

The three parts of the event description and each of the keywords were tagged with a sentiment in the range of Negative, Neutral or Positive and allocated values of -1, 0 and 1 in order to describe the overall feeling of the cohort (Table 1). These definitions were also assigned a sentiment based on the Negative, Neutral or Positive

Table 3 Examples of student definitions of feedback, and the interpreted level of personal involvement and sentiment

Example of student definition of feedback	Level of personal involvement	Interpreted sentiment
“Returning information regarding performance”	Low – Passive	Neutral sentiment
“Constructive information that a person can build upon to improve their own ideas, thoughts or processes.”	High – Active	Positive sentiment
“Reflecting the good or bad experience wanted to share and looking for improvement or development.”	Low- Passive	Negative sentiment

scale used above and also allocated a level of active engagement. This ‘activity’ level was based on whether the definitions given by students indicated any level of engagement with the feedback process, and whether that was passive (receiving of information), active (reflection on or acting on information) or neutral (not possible to assign activity level) using values of -1 , 0 and 1 respectively. Table 3 above shows examples of how quotes were coded. All manual coding was performed by two members of the research team independently and discrepancies discussed.

The R@W scale was given to students in workshops before and after placement. Every answer in the 5-point scale from ‘strongly disagree’ to ‘strongly agree’ was assigned a score between 1 and 5, where 5 was the most resilient answer and 1 the least. Students’ resilience was described in a scale of 21–105 as obtained from the number of points scored out of the 21 questions in the R@W scale.

6.1 How Students Define Feedback

Pre-workshop definitions of feedback varied slightly from post-workshop definitions (Fig. 2). Thematic analysis of sentiment and perceived level of engagement with feedback showed an increase in the positive sentiment towards feedback, but an increase in neutrality towards engagement. It is notable that passivity decreased, however this did not translate into increase active level of engagement but rather a more neutral view. .

6.2 Before, During and After a Specific Feedback Event

A total of 112 students completed and submitted the in-workshop activity sheets containing the 5 keywords. However, only 82 from the total 112 provided a description of ‘before’, ‘during’ and ‘after’ a feedback event. Similarly, some students did not complete all the steps or all the keywords, and therefore the findings are presented as a group of participants, rather than as separate disciplines.

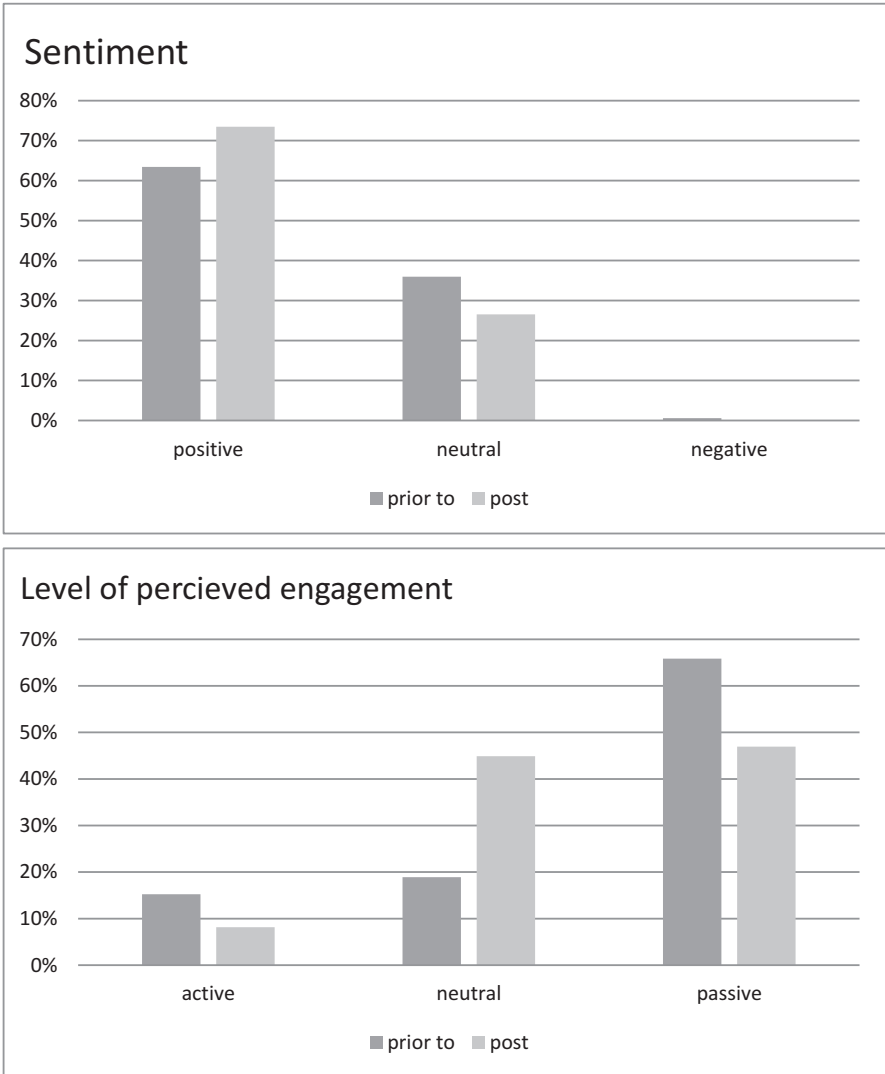


Fig. 2 Students sentiment towards feedback and the level of personal involvement in the feedback process (engagement-level) as interpreted from feedback definitions given by students in ‘pre-’ and ‘post’-workshop surveys. Pre-workshop surveys (n = 242), Post-workshop surveys (n = 123)

As a group, participants highlighted a certain level of insecurity when they were concerned about not having completed a task appropriately. There was usually no sense of self-evaluation that justified the anticipation and provision of feedback. Examples of students’ comments about feelings associated with feedback: “*unsure*

of work, whether doing the right thing or not”; “anxious – surprised – overwhelming”.

Students reported uncertainty during the feedback obtained in the event described, though there was clear trend towards realisation in their comments. This was highlighted with comments like:

“asked for confirmation if I was doing the right thing. Confirmed by manager” or “This didn’t add up. I went back over everything. I did and found a problem with my thought process”.

A linear overview of the sentiments clearly highlights the positive realisation that the most participants experienced toward the end of the feedback process (Fig. 3) through comments such as: “Took feedback and worked to become more proficient in this”; “more confidence in work and eager for trying again next time and getting it right”.

6.3 Keywords to Summarise Feedback Events

When nominating keywords to describe their experiences, students used a total of 446 keywords of which 232 were unique words across all students. A total of 19 words were repeated five or more times adding a total of 138 instances. In this list, only four words were labelled as negative and one as neutral, the equivalent of 30 instances out of the 138 (21.7%). Overall, 60% of words were described as positive, 23% were negative and 17% were neutral (Table 4).

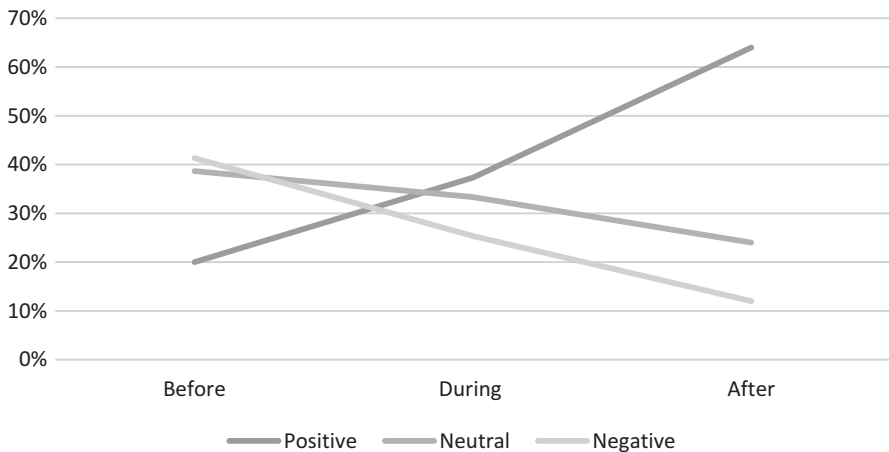


Fig. 3 Change of sentiment across feedback process

Table 4 Keyword coding

Repeated	Word	Sentiment
15	Helpful	Positive
14	Learning	Positive
14	Constructive	Positive
9	Improvement	Positive
8	Humbling	Neutral
7	Positive	Positive
6	Understanding	Positive
6	Thankful	Positive
6	Scared	Negative
6	Confident	Positive
6	Challenging	Negative
6	Beneficial	Positive
5	Unsure	Negative
5	Nervous	Negative
5	Interesting	Positive
5	Insightful	Positive
5	Informative	Positive
5	Growth	Positive
5	Confidence	Positive

6.4 Resilience

The R@W scale was completed by 22 students in pre- and post-practicum workshops. The average resilience score of the participants was 77 (SD 7.55) before the practicum, in comparison to the 80.1 (SD 6.52) after practicum and the post-practicum workshop. This was an average increase of 3% (SD 0.08; Fig. 4). Student scores were generally at the higher end of the scale, with majority of the scores lying between 75% and 85%. Most of the differences between the pre- versus post-practicum survey showed an increase in resilience score. In addition the greatest area of variability in resilience score (from -10% to +10%) was clustered around the 80% level. While the increase in resilience from pre- to post-practicum survey is not statistically significant, it is worthy of note that 15 students showed increased resilience compared to 5 showing decreased resilience between the two survey points.

6.5 Workshop Evaluation

Greater than 90% of pharmacy 2nd year students found the workshop ‘helpful’, (Fig. 5) closely followed by psychology and business students with approximately 90% of students agreeing. Neutral responses in these three cohorts made up less than 10% (6%, 8% and 9% respectively) while 3% of business and psychology students

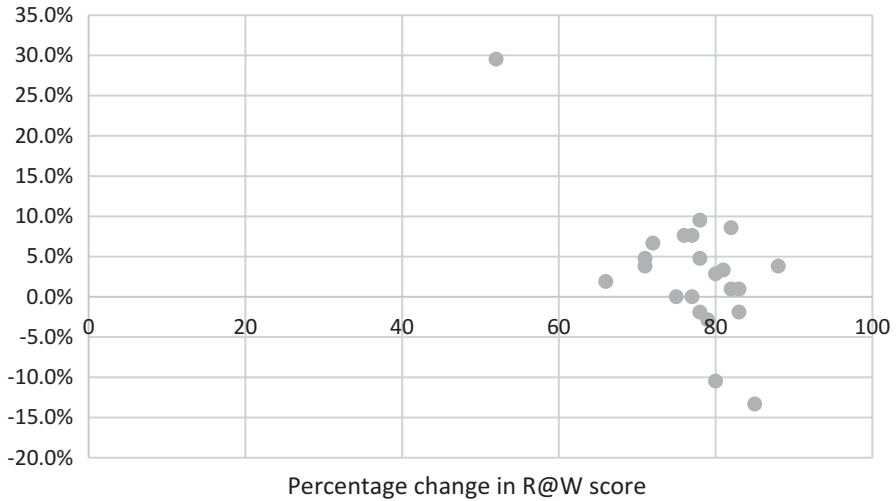


Fig. 4 The percentage change in resilience between pre-practicum and post-practicum workshop surveys

did not find the workshop to be helpful. The 4th year pharmacy student cohort had the largest number of students who did not find the workshop helpful (10%). Compared to the other students, a larger proportion of the 4th year pharmacy student cohort in attendance at the workshops chose not to complete and submit either of the surveys.

When asked if the workshop ‘provided tools to help seek feedback’ almost all (97%) of pharmacy 2nd year students agreed (Fig. 5). Of the final year students (pharmacy 4th years, and psychology and business 3rd years), the majority of students (~80%) also agreed, with approximately 15% having a neutral opinion and a small number (5–8%) disagreeing with the statement.

When asked whether the workshop ‘provided tools to learn from and apply feedback’ approximately 90% of pharmacy 2nd year students agreed, as did greater than 80% of psychology and business students. Slightly fewer pharmacy 4th year students agreed with the statement (75%) (Fig. 6). Small numbers of pharmacy 2nd year students and business students disagreed, 3% of both cohorts, while pharmacy 4th year students had 5%, and psychology had 11% of students disagree. Neutral opinions were expressed by 20% of pharmacy 4th year students, 12% of business students, 8% of psychology students and 6% of 2nd year pharmacy students.

Approximately 90% of second year pharmacy students and psychology students agreed that the workshop provided ways to receive negative feedback. Fewer business (~80%) and 4th year pharmacy students (70%) agreed with this statement, with approximately 10% of both of these cohorts disagreeing with the statement. For psychology students 3% of the cohort disagreed. Neutral responses were given by approximately 10% of pharmacy 2nd year students, psychology and business students, while this was much higher in pharmacy 4th year students, of whom 20% gave neutral responses (Fig. 6).

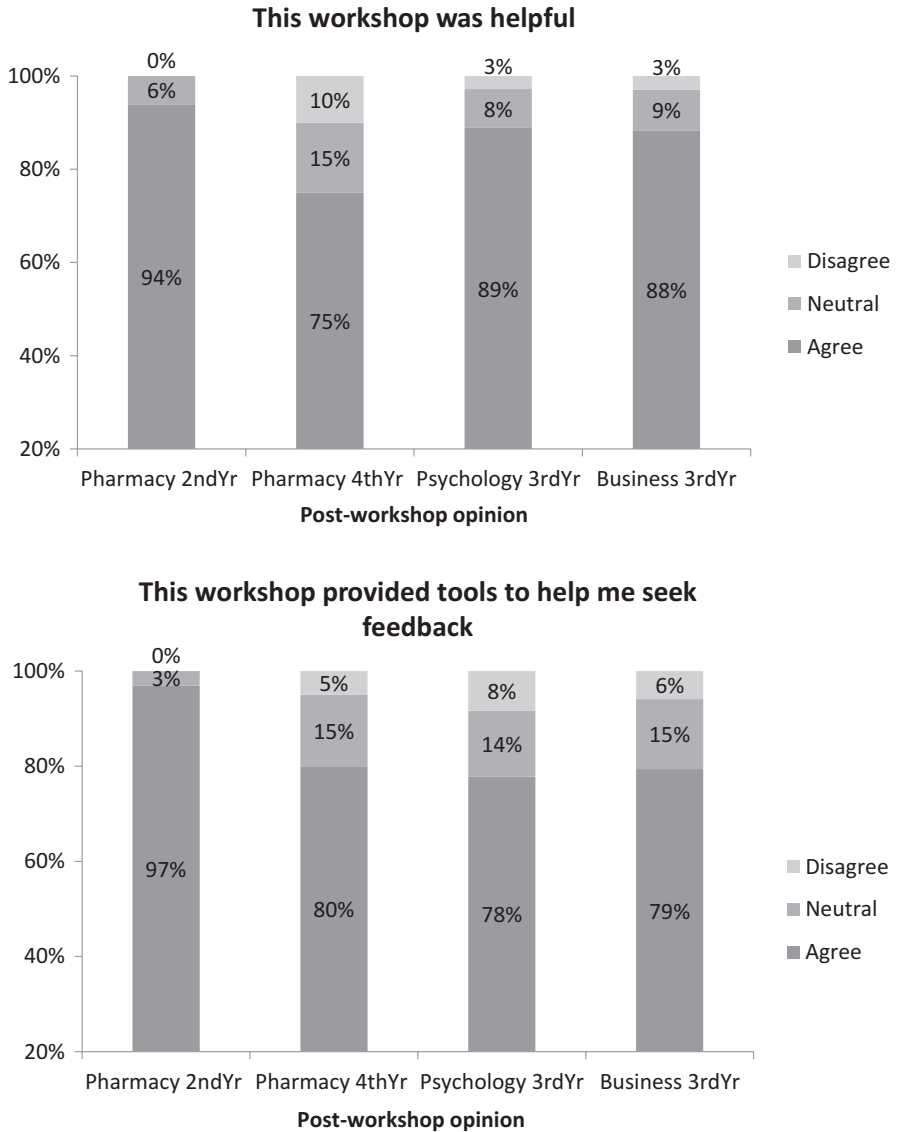


Fig. 5 Opinions of students from the four cohorts on the feedback workshop. Numbers of students from each cohort that voluntarily completed the survey are pharmacy 2nd years (n = 33), pharmacy 4th years (n = 20), psychology 3rd years (n = 36), and business 3rd years (n = 34)

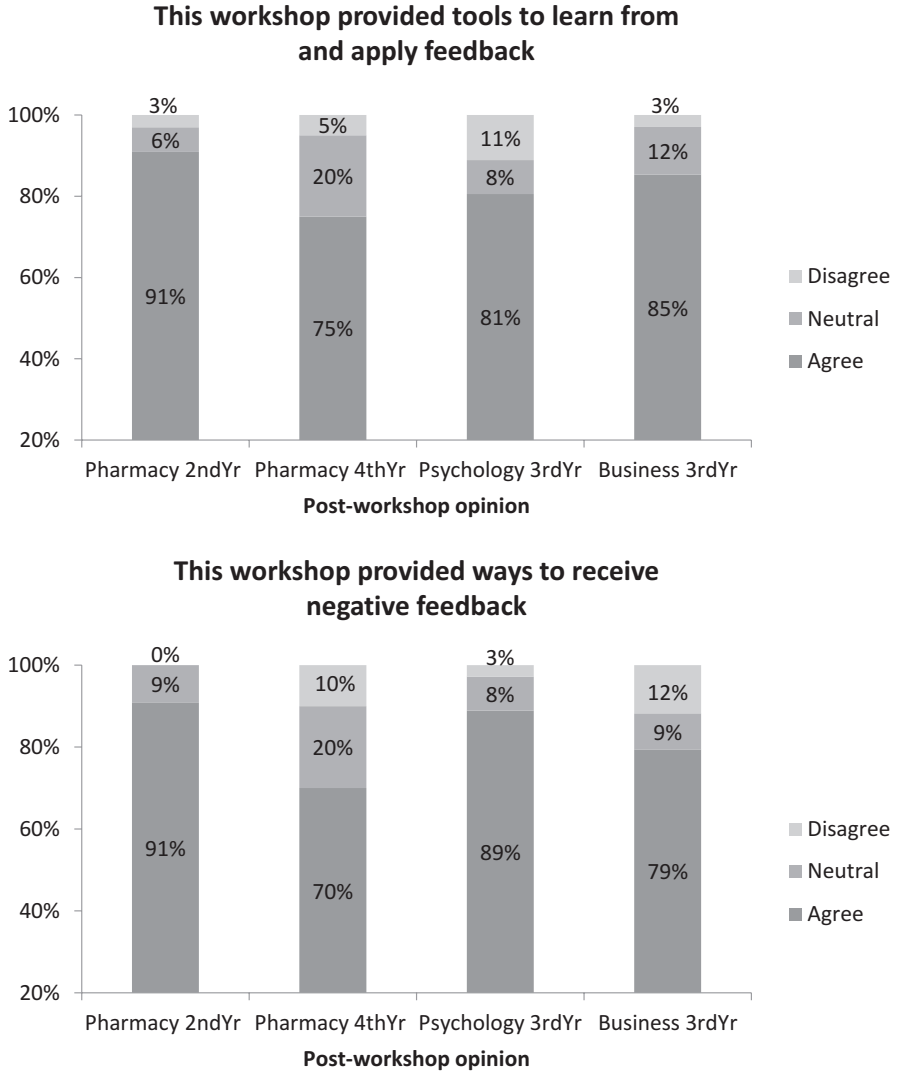


Fig. 6 Opinions of students from the four cohorts on the feedback workshop. Numbers of students from each cohort that voluntarily completed the survey are pharmacy 2nd years (n = 33), pharmacy 4th years (n = 20), psychology 3rd years (n = 36), and business 3rd years (n = 34)

7 Discussion

7.1 How Students Define Feedback

The pre-workshop surveys showed that students generally defined feedback as a passive experience, with most definitions using words such ‘information’ and ‘comments’ which are ‘given’ to them from the supervisor or perceived expert. While students did generally perceive feedback with a positive sentiment, recognising it was for ‘improvement’ most students did not define feedback with an active component. This passive engagement with the definition of feedback remained true after the workshop, even though the workshop discussed the feedback process and the need for active involvement and self-reflection. This is an area that may need to be strengthened in future workshops or other interventions with a greater emphasis on actively seeking feedback and using feedback including self-reflection for improvement.

7.2 Keywords and Descriptions of Feedback Before During and After Feedback Event

Only approximately 50% of the students who were present in the workshops completed and then shared their feedback stories. It is quite possible that those with a less positive outcome may have chosen not to share or may not have completed the worksheet at all. Nonetheless it is worthwhile for students to complete this activity as a way to contextualise their learning about feedback and in doing so they may become aware that the feedback process is ultimately a positive one for students in a practicum environment.

This study brought awareness of the value of feedback to the students through reflection on WIL activities. The students’ tendency to have a positive perception of feedback towards the end of the study indicates that reflective activities embedding a framework of growth mindset may be a successful approach. There is also value in including ‘sharing’ of feedback experiences in a post-workshop as this encourages students to identify and appraise feedback they or their peers have received during WIL. The findings of the study also indicate that educators can prepare and support learners to pursue feedback by encouraging students to understand how to seek, identify, and respond to feedback during WIL experiences.

7.3 Resilience and Mindset

The growth mindset video was incorporated to explicitly link a positive and active approach to feedback to a person’s positive mindset. As resilience has been demonstrated to moderate mindset, this was measured through the R@W scale in the later

stages of the study. While there was a change in resilience noticed at the descriptive level, sample size restricted any further analysis. Further investigation is required to understand the connection between resilience, mindset, and related characteristics such as self-efficacy and dispositional optimism. These future studies should also try to attempt to measure possible confounders reported in the literature, including stressful life events.

7.4 Workshop Evaluation

A strength of the current study was the iterative design approach which allowed the material and support to be modified as data was collected. This ensured that the student feedback was used to adjust the design as the project progressed and attempted to offer optimal support to each cohort. However, the design and the small sample sizes in each iteration limit the quantitative analysis available. In this way, the project reflected a participatory action research model more than a test-retest design.

Overall, the students supported the introduction of the workshop and identified useful learning from the content, but this opinion varied depending on the level and experience of the student. That is, 4th year pharmacy students being the cohort that had completed most WIL experiences were the least supportive of the utility of the workshops. This was in contrast to the 2nd year pharmacy students, 94% of whom found the workshops helpful and 97% agreed that the workshop provided tools to help them seek feedback. For these early-course pharmacy students the workshop occurred after their first brief WIL experience; they perhaps saw greater value in the 'tools' introduced in the workshop due to being in the early years of their studies. These 2nd year students were aware that they had many future opportunities to apply the tools to their work-related experiences. The difference between the 2nd year and 4th year students was also evident when asked to evaluate the workshops provision of 'ways to receive negative feedback'. A large majority of pharmacy 2nd year students agreed the workshop gave them ways/strategies to receive negative feedback (91%), while only 70% of 4th year pharmacy students and 79% of 3rd year business students agreed. Psychology 3rd year students had similar numbers to the 2nd years however, with 89% in agreement, although this may be due to the fact that psychology students are more-equipped to recognise the psychological 'tools' presented in the workshop than the business and pharmacy 4th year students.

The difference in value of the workshop between 'early' and 'late/final-year' students is not surprising, but does suggest that workshops for more-experienced students may need to be tailored to these students. Alternatively, the post-practicum aspect may need to be supplemented with a pre- or mid-practicum component to enable students' who only experience one major practicum generally later in their course to utilise these skills in a WIL environment. This pre-practicum workshop or other intervention would be in keeping with the understanding that learning doesn't just 'happen' while completing a WIL experience, that it takes critical reflection and

re-visiting of an experience for effective learning (Beard, 2013). The pre-practicum workshop introduced late in the iterative design process in this study did show slight increases in positive attitude towards feedback and small reductions in ‘passivity’ towards the feedback process. These results are encouraging and demonstrate the potential value in having multiple short workshops at different times relative to practicum experiences.

7.5 *Future Directions*

Further research should expand the measures used to track student development, including self-efficacy and optimism. A strength of this project was the inclusion of several disciplines each with their own approach to WIL. Expanding this project to other disciplines would allow a better understanding of the role of professional approaches. A qualitative study to explore the students’ experiences of feedback post-placement is also underway. While some changes in student resilience were reported at the individual level, it is unclear how sustained the impact of this single workshop might be. An expansion of the learning activities would incorporate more mid- and post-practicum support and resources to re-engage with students, and to consolidate learning from the pre-practicum workshop. This would ensure students are reminded to implement learnings whilst on practicum.

The design and timing of all resources in this study was considered in the context of competing demands placed on students. Any future workshops and resources should also consider the learners’ needs and capacity to participate. Online and flexible options for supporting students and encouraging reflection on their approaches to feedback is needed.

7.6 *Conclusion*

The current project demonstrates an iterative approach to responding to students’ needs both before and after practicum. The project findings demonstrate that students broadly welcome support to engage in feedback processes and opportunities to adopt a growth mindset, and test and flex their resilience. The findings also identify that students typically think of feedback as a very passive event of ‘receiving’ information from an ‘expert’ and they recall approaching feedback with sense of uncertainty about their own skills or abilities. However, after reflecting on past experiences of feedback they are able to identify the benefits and learning outcomes associated with feedback. The study suggests that further development of the workshop is warranted and that incorporation of additional learning activities and support alongside broader evaluation methods would be beneficial.

This project has delivered a framework and set of resources for use across disciplines and types of WIL experiences. Overall introducing and exploring the

concepts of feedback, growth mindset, and resilience provided valuable learning and development opportunities for students. This learning was evidenced across disciplines and is more impactful in early years and during initial placements to support student success.

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