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## Front loading the curriculum: Early placement experiences enhance career awareness and motivation for students with diverse career options

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### Abstract

*Deciding which career path is right for undergraduate students can be challenging and positive outcomes are linked to early work placements. The aim of the current study was to explore the student experience following the introduction of early career-based awareness-raising and reflective learning opportunities in first-year sport and exercise science-based students. Students met with the first-year coordinator to discuss career progression and career aspirations. From this meeting, students were allocated a placement. Following the placement visit, students submitted a reflection piece addressing their experiences at the placement site with six themes identified including: 1) positive experience; 2) degree selection; 3) exposure and reinforcement of practices; 4) career awareness; 5) supervisor impact; and 6) negative experience. The provision of early placement for students in an observational capacity appears to be beneficial to first year experience to assist in consolidating their choice of degree.*

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## Introduction

A common motivation for students to enroll in a university degree is to improve career prospects (Balloo, Pauli & Worrell, 2017). While university retention is multi-factorial in nature, career education to inform degree selection is an important component in enhancing the likelihood of degree completion (Department of Education and Training, 2017). Students enroll in university degrees with varying levels of decisiveness about their intended careers. Some students may have a concrete career goal in mind, while others may be largely undecided (Cuseo, 2005). Both situations have potential positive and negative consequences. A clear career goal provides a focal point for study planning and university completion, but may cause distress if the expectations of the career are misaligned or extrinsically motivated (Cuseo, 2005). An undecided career enables flexibility and experimentation with study, however may cause delays with degree completion once a career pathway is selected. Front loading the degree with regular faculty contact regarding study advice and career planning; and with early career awareness opportunities such as placement may assist with developing timely career impressions and making timely decisions on study plans (Cuseo, 2005). Front loading degrees may also increase retention and enhance student learning experiences (National Institute of Education, 1984).

Work placement, as a form of Work Integrated Learning (WIL), is most commonly scheduled in the final stages of a degree as an application of knowledge and skills in the workplace after the attainment of sound theories practiced in controlled classroom environments (Anderson & Kiger, 2008). This is different to work placement in the early stages of a degree, which is more focused on developing professional contexts, setting goals and having the end-goal in sight. The inclusion of early work placement into first year curriculum can provide an

enriching educational experience for the students. Placement allows the students to observe and interact with practitioners who have completed the same degree and are currently working in the industry. Early work placement can help shape more realistic expectations of the degree and career choices, and allow the students to see how the knowledge and skills learned in the classroom are applied in the real world (Diack, Gibson, Munro & Strath, 2014; Thomas, 2012; Willcoxson, Cotter & Joy, 2011; Yorke & Thomas, 2003). It can also reinforce the value of the chosen degree, which is especially beneficial when the student's enrolled degree was not their first preference (Yorke & Thomas, 2003). Therefore, placement can have an inspiring effect on students' understanding of their future careers (Kaighin & Croft, 2013), help develop a sense of professional identity (Jackson, 2016) and increase interest in subject content (Andrew, McGuinness, Reid & Corcoran, 2009). Despite these benefits of first year placement, a survey involving 2,330 first time students attending Australasian universities, reported only nine per cent of students having undertaken practicum placement (Coates, 2010). Traditionally, sport and exercise science degrees have diverse career pathways and the degree structure often incorporates placement in the latter years of the course which focus on transitioning from university to the workplace.

The contribution of WIL to student learning is grounded in Kolb's Experiential Learning Theory (Kolb, 1984) and the Transformative Learning Theory (Cranton, 2011). Experiential Learning Theory comprises a continuous learning process involving experiencing/observing an activity, reflecting on the observation/activity, creating new knowledge concepts, and applying the new knowledge. Transformative Learning Theory focuses on the process by which a critical reflection of an experience results in a transformative shift in a perspective and consequent action (Cranton, 2011; Taylor & Cranton, 2012). Front loading the first year

curriculum with an early work placement opportunity and career planning, enables students to test their current knowledge and perceptions through observation; and upon reflection, confirm or transform their knowledge and perceptions. In this way students have agency to make informed study and career goals early in their university experience.

While many health professions have specific professional career pathways, sport and exercise science-based degrees can lead to a variety of diverse careers such as a sports science based coaching or development officer, a clinically based cardiac/respiratory technician or a corporate health-based fitness or health consultant (Exercise & Sports Science Australia, 2013). Due to the large variety of career opportunities, it is often challenging for first-year students to decide which career path is right for them. As the literature advocates for early front loading (Cuseo, 2005) and positive outcomes are linked to early placements (Yorke & Thomas, 2003; Kaighin & Croft, 2013); the aim of the current study was to explore the student experience following the introduction of early career-based awareness-raising and reflective learning opportunities in first-year sport and exercise science-based students. The research question for investigation was: Do early career awareness activities impact on student choice of degree during their first year of university study? It was expected that the early career awareness activities would consolidate their choice of degree.

## Context

James Cook University is a regional university with multiple campuses. Within the University's Division of Tropical Health and Medicine there are many professional degrees that offer placement opportunities late in the degree structures. Over 50% of students are first-in-family to attend university, which may lead to a reduced awareness of professional outcomes and requirements. Anecdotally, a large

proportion of students enrolled in the undergraduate sport and exercise science and clinical exercise physiology programs are unsure which career path they would like to take, while others are interested in areas which are not typical outcomes of the degree.

In 2016, 201 students were enrolled in a core first year, first semester, introductory sport and exercise science subject. Although the subject is core for sport and exercise science and clinical exercise physiology students, it is also a popular elective for study abroad students, education students and for students enrolled in other degrees. As part of an initiative to front load the subject, this study looked at the students' experiences of early career planning and work placement. All students completed administrative, pre-placement requirements such as confidentiality forms prior to attending their placements. Although the placement was a requirement for the subject as a hurdle assessment, students were advised that their participation or non-participation in the research project would not impact their overall subject grade, however they were still required to attend a placement site and submit a reflective piece.

All students met individually with the first year coordinator in the first four weeks of study period one and informal discussions were held regarding career progression and career aspirations. From this meeting the first year coordinator allocated a placement based on the students' interest and degree enrolment. The available placement opportunities included three exercise physiology placements (clinical populations) and four sport and exercise science placements with varied population groups (e.g. young children, school-aged children, healthy adults and athletes). If possible, students were sent in pairs to generate discussion about their experience and to form peer relationships. To provide some direction during the placement, students were provided with a booklet, which had space to take notes and some questions they may wish to ask the

supervisor. Some example questions included in the booklet were 'what are your expectations in visiting this facility?' and 'ask your supervisor, why did you decide to become a (insert role)?' Students were advised to ask additional questions pertaining to their individual interest and observations if they desired. The placement visit was two to four hours and the students attended the placement in an observational capacity (i.e. did not interact with the clients or participants). Some sport and exercise science students suggested they were interested in a rehabilitation setting post-graduation and students were advised by the first year coordinator to attend an exercise physiology placement because a sport and exercise science placement would not enable exposure to the specific population group or setting. This also highlighted that students may need to transfer from the bachelor of sport and exercise science to the bachelor of exercise physiology early in their university experience if they decided to continue with a rehabilitation career path.

## Method

### *Participants*

Only students enrolled in the sport and exercise science and clinical exercise physiology-based degrees were included in the analysis as they were the target population. These degrees include: sport and exercise science; exercise physiology (clinical); sport and exercise science and education; sport and exercise science and business; and sport and exercise science and psychological sciences. The total number of male and female students eligible for inclusion in the study was 131 and all students included in the analysis were domestic students. Students were provided with an information sheet and if the students decided to volunteer for the research project, they submitted a written informed consent form in accordance with the ethics approval granted by the University ethics committee.

### *Data collection*

Upon completion of the placement, students submitted a 250-word reflection piece regarding their experience of placement. Reflective writing enhances the ability to analyse actions and thoughts and therefore further improvements can be made). The use of reflective writing should be habitual in professional practice (Karm & Poom-Valickis, 2006). For the purpose of the study, students were advised to reflect on what they observed and experienced during their placement site visit and how the experience impacted their expectations and/or goals for future career paths. Students were encouraged to revise their completed booklet, reflect on their responses and write their reflection piece. Students were advised to contact the first year coordinator if they had any questions or concerns regarding the reflection piece. Only the written reflections submitted by the participating students were included in the research study.

### *Thematic Analysis*

The reflection pieces were thematically analysed according to Braun and Clarke (2006). Thematic analysis consisted of six phases: (1) familiarisation with the data; (2) create initial coding; (3) identify themes; (4) review themes; (5) define and name themes; and (6) produce the results.

## Results

Of the 131 eligible students, 93 students chose to partake in the study (37 clinical exercise physiology students, 26 sport and exercise science students, 30 dual degree sport and exercise science-education/psychology/business students). Six themes were identified from the thematic analysis of the reflective pieces, and are listed in order of prevalence: 1) positive experience; 2) degree selection; 3) exposure and reinforcement of practices; 4) career

awareness; 5) supervisor impact; and 6) negative experience.

### Theme 1: Positive experience

Almost all students reported that the placement was positive, with the experience described in terms such as 'useful', 'helpful', 'interesting' or 'enjoyable' (n = 81).

In the end I found this observation helpful because it enabled me to view how elite athletes train in specific gym areas with an EP. (Exercise Physiology (EP) student)

I had the opportunity to observe a group consisting of seven people that suffer from a mental illness... The session was interesting to observe because I was able to experience how exercise effects the mind. (EP student)

I thoroughly enjoyed my time at [placement site] and loved what my future could look like. (SES student)

Throughout the week I experienced what it was truly like to be a high school health and physical activity teacher and loved every minute of it. (Dual Degree student)

### Theme 2: Degree choice

Placement helped the majority of students confirm that they had either chosen the right degree for them and/or were motivated to continue with their chosen degree (n = 88).

My placement at [placement site] helped to ensure that I was doing the degree that I would want to pursue for the rest of my life. (Dual Degree student)

I also realised that this is a career I would really enjoy and it gave me motivation to continue with my studies as I got a glimpse at what my future could be. (Dual Degree student)

These observations reinforced my passion for completing this degree. Thank you for the opportunity to observe experienced

and accredited EPs in their chosen fields. (EP student)

Three students stated plans to withdraw from their current degree and re-enrol in another degree (physiotherapy, occupational therapy and nursing).

Despite really enjoying my placement, I have since reflected on my goals and have decided to apply for entry into physiotherapy. (EP student)

After talking to [placement supervisor] and asking him a lot of questions, it was clear to me that Occupational Therapy is exactly the profession I had in mind. (SES student)

### Theme 3: Exposure and reinforcement of practices

Approximately half of the students observed how and why practices taught in the classroom could be utilised in a professional setting (n = 49).

During the observation I was thinking how important anatomy class is to be good at the job. You have to really know all the muscle functions to pinpoint where it is all going wrong. (EP student)

This helped me realise the importance specific testing has on how professionals deliver programs to clients. It is the evidence found through these tests that evaluate what areas need more focus than others. Visiting this facility also set in concrete for me how important communication and the ability to adjust training for certain individuals is. (SES student)

Observing the 1 repetition max testing reiterated the importance of placing the assessments in the correct order, giving the right amount of coaching and encouragement and rest to achieve peak effort. (SES student)

Students also reported observing a range of clients with different conditions, thus broadening their exposure to practice.

Throughout my placement [placement supervisor] had a number of clients whom were training for different reasons, one of the clients was going to try and get enlisted into the navy... Another was a mixed martial arts athlete who was in training... (SES student)

I had the chance to witness a cancer patient post-surgery, a typical rehab sports injuries and an overweight client with knee constraints. (EP student)

#### Theme 4: Career awareness

Students reported that the placement either confirmed their motivation to pursue their chosen career, or increased their awareness of the possible career options available (n = 40).

Going into this placement I was expecting to see mostly healthy people as it was located in a gym but quite quickly I saw that the clients were in fact the opposite and working their way to treating an injury or condition... It became clear that the scope of exercise physiology varies more than just musculoskeletal treatments and other treatments were present including some talk about diet and cardio-respiratory. (EP student)

Going to this placement greatly solidified my decision and motivated me to pursue a career as an Accredited EP. (EP student)

Before enrolling into sport and exercise science, I had a slight idea of what sport and exercise scientists do and having the opportunity to go on an observational placement opened my eyes to realise what this profession can offer. (SES student)

#### Theme 5: Supervisor impact

The supervisors' professionalism, passion and advice were reported as having a positive

impact on the student during the placement experience (n = 40).

#### Professionalism

It wasn't possible for all of the refs to come down to [the institution] at the same time to collect their data. How she dealt with this stood out for me, because even if it was inconvenient, she strived to work around the schedules of the individuals... It was one of the many aspects of [placement supervisor] amazing professionalism she showed throughout the night. (SES student)

#### Passion

It was very obvious that [placement supervisor] had a passion for helping those in need; when asked why she became an EP, she replied with the fact that she purely wanted to help people and improve their quality of life. (EP student)

#### Advice

He [placement supervisor] also advised me to communicate with all cultures, as this will help me when going into the workplace and understanding different beliefs and values. (Dual Degree student)

She [placement supervisor] advised me once I have a degree, to never say no, to be open to all opportunities. I personally thought this was great advice to a student. (SES student)

#### Theme 6: Negative experience

Four students reported the placement as a negative experience all gave the same reason: they did not observe a practitioner who had completed the same degree as them. All of these cases occurred due to the client/s cancelling the session at a late notice (n = 4).

It was pretty quiet in the gym when I was there so I didn't get to see a lot ... Overall I did not learn a great deal from the placement as I have been working as a

personal trainer and crossfit coach for the last four years so a lot of the information they showed me I was already familiar with. (SES student)

Although I am doing a sport science degree, it was good to see what an EP does, but I would still like to experience what an exercise scientist does as that is what I would like to do. (SES student)

## Discussion

The themes that emerged from this study suggest that the early placement experience were beneficial for first-year sport and exercise science and clinical exercise physiology students.

Most students found the placement to be positive, with the workplace visit confirming their choice of degree and consolidating practices taught in class. The supervisor was a key factor for the students' positive perception of placement visit and only three students indicated that the placement experience was not beneficial due to limited opportunity to observe what would typically occur at their placement site. These findings are useful in the development and continuation of transitional activities to encourage students to select a career path early and persist with their studies.

Students suggested that they enjoyed their placement experience which has been highlighted as an influential activity for a good first year experience at university (Andrew, McGuinness, Reid, Corcoran, 2009). If students feel that the experience was positive, they are likely to connect with the content being taught as they can translate it to the workplace (Jonsen, Melender & Hilli, 2013) or what will be expected of them in future years. An early placement experience may provide the motivation students need to continue in their chosen degree or influence some students to reconsider their chosen career pathway (Jackson, 2015; Trede & McEwen, 2015). Additionally, front loading the degree by interacting with faculty

members regarding career planning and advice (Cuseo, 2005) may assist in the transition and decision-making process.

Previous literature suggests that the wrong choice of degree is a common reason given for withdrawal from university (Christie, Munro & Fisher, 2004; Yorke, 2000). It is promising that early placement experiences may reduce withdrawals as the experience enhanced the students' commitment to the degree and motivation to continue studying while providing an opportunity to increase awareness of potential careers. Similar findings suggested early workplace experience provides exposure to potential career pathways which reduced the thoughts of withdrawing from the degree, enhanced commitments to the degree and provided motivation to actively engage in the degree content (Trede & McEwen, 2015). The findings suggest that students were able to observe, reflect and confirm or transform their understanding of degree and career pathways to make informed decisions about their enrolment (Cranton, 2011; Kolb, 1984).

Bennett, Richardson and MacKinnon (2016) suggested that students should be provided with authentic learning experiences where they have an opportunity to critically reflect on their experiences. Placement in the early stages of the degree provided students with an opportunity to reflect on their experiences and resulted in exposure and reinforcement of the practices taught in a classroom setting. The practice of providing authentic learning experiences and an opportunity to reflect on actions and thoughts may enhance the employability of students in conjunction with other teaching and learning strategies (Bennett et al., 2016).

Many students reported what they learnt from their supervisor and how they found their advice inspirational and influential. Previously, students have indicated that supervisors assist in building confidence and eliciting passion for their chosen career pathway (Trepal, Bailie & Leeth, 2010). This may be due to the

connections the students made with their placement supervisor (Andrew et al., 2009) and that the student perceived the supervisor as a good role model (Donaldson & Carter, 2005). Trede and McEwen (2015) suggested that the interactions and experience of a supervisor could not be replicated within a classroom setting. This highlights the importance of providing opportunities to observe a practitioner in real-world settings (Trepal et al., 2010).

### *Limitation and future research*

The findings of the current study may not be transferable to disciplines that have narrow career pathways, and the findings may have been influenced by the large proportion of students who are first-in-family to attend university. Additionally, the findings are based on a single observational work placement and therefore future research should explore the impact of exposure to a variety of early workplace experiences for students that are enrolled in degrees with diverse career pathways. Future research should also consider potential impacts of student demographics such as cultural background.

### *Practical recommendation*

The authors recommend that first year student learning in degrees with diverse career options be front loaded with career awareness and early placement opportunities to enable confirmation or transformation of degree choice and career plans.

### **Conclusion**

Students enrolled in undergraduate sport and exercise science and clinical exercise physiology programs at a regional university reported early placement experiences were useful and enjoyable. The experience raised awareness of career opportunities for students enrolled in programs which have broad vocational outcomes. Additionally, the experience

consolidated the students' choice of degree and highlighted the importance of the practices taught in class. The provision of early placement for students in an observational capacity appears to be beneficial for consolidating degree choice in first year.

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