





PAPER

Bite-sized brilliance: mixed-methods approach of unwrapping the benefits of sandwich courses for Sport Science students

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ABSTRACT

This study explores the benefits of sandwich courses for Sport Science students, particularly in relation to academic performance, graduate employment, and professional development. Work-integrated learning (WIL) that can be incorporated within the form of year-long placements provides students with real-world experience that enhances both their practical and theoretical knowledge. Quantitative analysis comparing attendance and degree grades of honours (1,012) and sandwich course (186) students at Nottingham Trent University (NTU) demonstrates that placement students achieve higher academic outcomes and improved attendance records. Results indicate that sandwich course students increase their final degree classification by 12.91% compared with their honours pathway counterparts.

KEYWORDS: work placement, sandwich course, sport science, higher education.

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Introduction

In today's competitive job market, the employability of graduates is a central concern for universities, employers, and policymakers alike. As students strive to secure meaningful careers after graduation, the role of higher education institutions in facilitating their professional development has become increasingly vital. Against this backdrop, universities have adopted pedagogical and curricular approaches to bolster their graduates' employability

(Bridgstock & Jackson, 2019; Healy et al., 2022; Inceoglu et al., 2019; Perusso & Wagenaar, 2022). Among these approaches is work-integrated learning (WIL), an educational approach that integrates academic learning with practical workplace experience, enhancing students' employability, professional skills, and understanding through structured, real-world engagement. This approach has emerged as a widely recognised strategy, enabling students to bridge the gap between academic theory and practical experience in the workforce.

WIL, particularly in the form of professional year-long placements or 'sandwich' placements, offers UK undergraduate students a unique opportunity to gain real-world experience as part of their academic curriculum. These placements, typically undertaken between the second and final year of study, allow students to immerse themselves in a professional setting, applying the knowledge and skills gained in the classroom while developing new attributes (e.g., time management and contingency management) that are essential for the workplace (Jackson, 2018). By engaging in professional placements, students not only gain valuable work experience but the exposure to the working world can also shape their graduate identity (Holmes, 2015; Jackson, 2016) and better prepare them for the challenges of the labour market.

Professional placements also play a critical role in enhancing employability. Employers frequently seek candidates with practical work experience, and many are inclined to recruit graduates who have already demonstrated their abilities through placements (Bullock et al., 2009; Ranabahu et al., 2020). In fact, students who complete a placement year are often more competitive in the job market compared with their peers who do not, which was noted by McGuinness et al. (2016) who indicated that placements can significantly improve the quality of graduate employment, positioning students for better career outcomes and higher salaries. Therefore, integrating WIL into higher education benefits students in multiple ways. First, it enables them to acquire and refine transferable skills such as communication, teamwork, and time management, which are essential for success in any professional environment (Arsenis & Flores, 2023). These experiences also provide students with a 'trial' of the world of work, helping them to understand better the expectations and demands of their chosen career paths. This practical exposure helps students to clarify their career goals, determine the type of work they enjoy, and make more informed decisions about their futures (Tomlinson, 2017). Additionally, Tomlinson (2017) suggests that placements often lead to the expansion of



students' professional networks, providing valuable connections that can assist them in securing employment after graduation.

Beyond the individual benefits, work placements strengthen the relationship between higher education institutions and industry. Through partnerships with employers, universities can offer students valuable insights into the practical application of their academic knowledge, fostering a more holistic educational experience. Moreover, as the landscape of higher education continues to evolve, placements are adapting to include a variety of formats, including internships, virtual placements, and both paid and unpaid opportunities (Lasrado et al., 2023; Wong et al., 2021). This flexibility enables students to engage in diverse work environments and develop a wide range of skills that are relevant to the modern, globalised workforce.

University sandwich courses in the United Kingdom

Sandwich courses have grown in popularity, particularly for undergraduate students seeking practical experience alongside academic study. However, over the past five years, UK universities have witnessed changes in the enrolment and outcomes of students on sandwich courses, with a significant impact pre- and post-COVID. A survey by Prospects Luminate outlined that 26.1% of university finalists lost their work placements or internships due to the pandemic (Greaves, 2020, para. 2). Post-COVID, some disruptions occurred in work placement availability, affecting enrolment figures slightly, though the appeal from students to gain a placement remained strong (Higher Education Statistics Agency, 2023). Data from 2019–2020 reveal that approximately 20% of full-time undergraduate students were enrolled in sandwich courses, a percentage that has fluctuated slightly but remains consistent post-COVID (Higher Education Statistics Agency, 2023). This is particularly relevant to the study as some data were collected during the COVID-19 pandemic, a period that significantly disrupted student placements. Many students faced considerable challenges in securing opportunities, with approximately 25% experiencing the withdrawal of their placement contracts for the sandwich course as a direct consequence of the pandemic (Higher Education Statistics Agency, 2023).

Work placements have long been regarded as a bridge between academic learning and the professional world, offering students a chance to gain practical experience that aligns with



their career aspirations, while still pursuing their studies. These placements are seen as an opportunity for students to enhance employability and improve career prospects. It is also suggested that the practical experience gained during placements allows students to explore their professional identity and refine their career goals, leading to better alignment between their education and job prospects (Holmes, 2015; Jackson, 2016). However, Jackson (2016) suggests that while work placements may increase the likelihood of securing full-time employment, they do not always guarantee higher job security. In addition, Arsenis and Flores (2023) argue that professional year placements offer no significant advantage in securing permanent or full-time employment. Some studies even indicate that non-placement graduates report higher levels of job security than their placement counterparts (Wilton, 2012).

Developing skills and CPD during placement

Work placements play a crucial role in developing a range of skills and attributes in students. These skills, both technical (hard skills) and interpersonal (soft skills), equip students to transition smoothly from academic environments into professional settings (Turner et al., 2015). In addition, one of the most significant soft skills developed during work placements is resilience (Altintas & Turanligil, 2018). Work placements often introduce students to challenging situations, such as time pressure, workplace conflicts, and dealing with customers. Mezirow (2000) suggests that these 'disorienting dilemmas' encourage students to adapt and find solutions, fostering a resilience that is increasingly valued by employers (Grant & Kinman, 2012; Turner et al., 2015). According to Jackson (2017), resilience is key in helping students manage high emotional demands in the workplace. Research by Ramgoolam-Atchiamith et al. (2022) highlights that WIL programmes play a crucial role in fostering resilience. The findings suggest that gaining practical coping mechanisms through time management and problem-solving in real-world environments could contribute to a student's overall wellbeing and academic success.

Additional key attributes nurtured during placements include communication, teamwork, and emotional intelligence (Beer & Mulder 2020). The ability to work within a team, convey ideas clearly, and receive constructive feedback is often highlighted as a critical outcome of these experiences (Bracken et al., 2022). Moreover, the reflective learning processes embedded in WIL allow students to internalise these skills, contributing to their overall employability



(Graham, 2017). Ultimately, work placements foster both technical expertise and personal growth, preparing students for the complexities of the professional world. By developing resilience, emotional intelligence, problem-solving abilities, and teamwork, placements offer students a transformative experience that equips them for long-term career success.

The downfall of work placements

Work placements, while offering valuable real-world experience, come with notable challenges for both students and institutions. The transition from academia to the professional world can be jarring for many students, with some struggling to adapt to the demands and expectations of the workplace (Smith et al., 2007). This shift is compounded by the (often) high expectations placed on students to be 'job-ready', despite many employers reporting that graduates lack the practical skills required for the workforce (Jooma et al., 2025; Moore & Morton, 2017). Additionally, the onset of the COVID-19 pandemic introduced new challenges such as remote working, which diminished peer interactions, lowered motivation, and increased anxiety about performance evaluations (Pretti et al., 2020). As a result, Pretti et al. (2020) also noted that work placements may leave students feeling underprepared and disconnected from their academic and professional aspirations.

Academic success between sandwich course and honours pathway students

It has been suggested that students who undertake a professional year placement likely achieve better academic performance when compared with those following an honours pathway. The differences may be attributed to several factors (Graham, 2017). Research has shown that placement students typically demonstrate improved academic outcomes in their final year (De Hollander et al., 2018), with Jones et al. (2017) further finding that professional year placement participants often perform better academically, suggesting the placement itself may contribute to enhanced academic skills. One possible explanation for this improved performance is the issue of self-selection. Students who choose to enrol in professional year placement programmes are often more academically motivated or possess specific personal traits that predispose them to succeed (McCann & Hewitt, 2023).

Additionally, the work placement experience itself provides practical benefits that can enhance academic understanding (St Clair-Thompson & Chivers, 2019). By engaging in real-world tasks and industry-related activities during their placements, sandwich students often



gain insights that help them contextualise and apply theoretical knowledge in their final academic year. This exposure to professional environments equips students with problem-solving skills, critical thinking abilities, and a greater understanding of their field, which can further improve their academic performance when they return to their studies. However, it is important to note that the opportunity to participate in professional year placements is not equally accessible to all students. Factors such as cultural capital and socio-economic barriers can prevent some students from appreciating or accessing these opportunities, leading to broader concerns about equality in higher education (Allen et al., 2013). Therefore, to what extent do universities provide opportunities for long-term placements, and how can higher education institutions effectively support students during their placement year?

Statement of the problem

Previous findings have highlighted the benefits that students will gain when completing a one-year placement during their undergraduate degree programme. However, there is limited knowledge when investigating the relationship between attendance and grades and any differences that may exist between honours and WIL students. In addition, further investigation from a student's perspective can provide a reflection on their work placement journey and highlight the benefits after one year of employment. To investigate this further, the research will provide a case study on Nottingham Trent University (NTU) Sport Science students, expecting to see that students who go on to a one-year placement will have an improvement in their attendance and overall degree aggregate grades.

Aim of the study

This study investigates the differences in attendance records and degree grades between students in the Sport Science department who completed their degree on a sandwich course and the students who graduated with an honours pathway. The research also collates interviews with NTU Sport Science alumni who completed a year-long placement to gather qualitative insight to underpin the positive and negative aspects of the sandwich course experience.

Methodology

Research design

This study employed a mixed-methods design. The quantitative component involved comparing attendance records and grade point averages between honours pathway and sandwich course Sport Science students at NTU. This was followed by a qualitative phase, in which focus group data were collected from alumni to provide deeper insights into specific aspects of the placement year. This longitudinal study spans five academic years, from 2019-2020 to 2023-2024. The total sample includes 1,012 honours pathway students and 186 sandwich course students, totalling 1,198 students. This equated to 14% of NTU Sport Science students completing a sandwich course, compared with the national average of 21% of all undergraduate students across the United Kingdom (Universities UK, 2021).

Participants and data collection

The quantitative data collected attendance records and overall degree aggregate grades of both honours pathway and sandwich course students. Data were obtained from students in their Level 5 year of study (2nd year of study) and once again in their Level 6 year of study (final year) to provide comparative data that could be further analysed between years. Attendance data for all compulsory classes were collected using NTU software (Student Dashboard) for the most recent academic years 2022–2023 and 2023–2024. Similar to attendance, degree scores were taken at Level 5 and Level 6 for both honours and sandwich course students to allow analysis and recognition of any improvements or decline. Table 1 demonstrates how students are awarded their degree classification utilising a grade point range metric.

Table 1. Grade scores equating to degree classification for Sport Science undergraduate students.

Class	Grade	Mark range (%)	Grade point ranges
First	Exceptional 1 st	93–100	15.5–16.0
	High 1 st	85–92	14.5–15.4
	Mid 1 st	78–84	13.5–14.4
	Low 1 st	70–77	12.5–13.4
Upper second	High 2.1	67–69	11.5–12.4
	Mid 2.1	64–66	10.5–11.4
	Low 2.1	60–63	9.5–10.4
Lower second	High 2.2	57–59	8.5–9.4
	Mid 2.2	54–56	7.5–8.4
	Low 2.2	50–53	6.5–7.4
Third	High 3 rd	47–49	5.5–6.4
	Mid 3 rd	44–46	4.5–5.4
	Low 3 rd	40–43	3.5–4.4
Fail	Marginal fail	35–39	2.5–3.4
	Mid fail	30–34	1.5–2.4
	Low fail	1–29	0.5–1.4
Zero	Zero	0	0.0–0.4

The qualitative component of the study involves alumni who completed a sandwich placement year in the past five years. Fifty participants across four-degree programmes (Sport & Exercise Science, Exercise Nutrition and Health, Sport Science & Management, and Sport Science & Coaching) were contacted, with 20 agreeing to participate in the focus group exercise. Five focus groups were subsequently held, each consisting of four alumni participants. The average duration of the focus groups was 54 minutes. A semi-structured approach was taken for the focus groups, allowing for comparable, reliable data alongside two-way communication and the flexibility to ask follow-up questions (Creswell & Plano-Clark, 2018). The focus group aimed to provide discussion around nine open-ended questions, which can be read in Appendix A. These questions elicited reflections on placement experiences and discussions on skills gained beyond university, personal and career



development, challenges faced, promotional ideas for placements, and how the university could better support future students. Before data collection commenced, informed consent was obtained from all participants involved in the focus group study. Ethical approval for the study was granted by NTU in advance of data collection.

Data analysis

All interviews were transcribed and anonymised through the use of pseudonyms. The transcripts and memos, obtained via Microsoft Teams, were subsequently processed and analysed in NVivo (Beekhuyzen & Bazeley, 2024), which enhances qualitative data analysis by efficiently identifying recurring themes and facilitating data reduction through robust coding and query features (Guest et al., 2012). Through qualitative data collection, the aim was to explore recurring themes related to participants' perceptions of employability gains and practical skill acquisition during sandwich placements (Braun & Clarke, 2006).

Quantitative data was input into Excel (Office 2021), where the means and standard deviations for each variable were calculated. Descriptive statistics were calculated using SPSS 28, and one-tailed independent t-test was performed when comparing attendance between honours and sandwich pathway students in the 2022-23 academic year and again in the 2023-2024 academic year. Welch's adjustment to the degrees of freedom was applied as group variances were unequal. Statistical significance was set at $p < .05$ for all quantitative comparisons. The results from both quantitative and qualitative analyses have been triangulated to draw comprehensive conclusions.

Results

Table 2 reports overall degree aggregate grades of honours students and compares these with those students who undertook a sandwich course. The results indicate significantly ($P < 0.001$) higher grades (please refer to Table 1 to compare grade percentages) of those students who completed a placement during their degree programme when compared with a traditional honours pathway, where students have not completed WIL.



Table 2. Overall mean degree aggregate grades for honours and sandwich students.

Year	Mean honours grade point range	Mean sandwich grade point range	% Change
2019–2020	10.16	11.37	11.91
2020–2021	10.22	11.45	12.07
2021–2022	10.01	11.29	12.96
2022–2023	9.83	11.96	21.07
2023–2024	9.61	11.19	16.57

Similar patterns are observed when analysing attendance records between the same two sample groups, and we conclude that placement students had an increase in attendance compared with non-placement students. The results of this increase for the 2022-2023 academic year show an increase of 11.25% in attendance from Level 5 to Level 6 if undertaking a placement, but only a 2.74% increase for those students who did not complete WIL. Data for attendance change has also been completed for the 2023-2024 academic year, which shows a statistically significant increase in attendance for those students who undertook a placement year. A Welch t-test confirmed this pattern, indicating that sandwich students attended significantly more than honours students in 2023–2024; $t(5.91) = -3.95$, $p = .008$. Furthermore, Table 3 identifies the overall average attendance for students solely in their final year. Again, the data highlight the higher records for those students who gained industry experience across all four programmes studied, identifying the consistency of this increase in attendance for those completing WIL.

Table 3. Overall Level 6 average attendance records for sandwich and honours pathway students.

Pathway & Academic Year	Sport & Exercise Science	Sport Science & Management	Sport Science & Coaching	Exercise, Nutrition & Health	Average
2022–2023–Honours Pathway	56.92%	67.64%	52.04%	83.61%	65.05%
2022–2023–Sandwich Course	67.08%	73.28%	58.80%	95.09%	73.56%
2023–2024–Honours Pathway	46%	66%	49%	51%	53%
2023–2024–Sandwich Course	79%	79%	65%	83%	76%

Key findings from alumni student focus groups

From the 186 Sport Science students who completed a sandwich course between 2019-2024, 20 alumni students accepted an invitation to take part in one of the five focus groups that took place over three consecutive days. Based on the transcripts provided, the interviewers noted five key themes regarding the benefits of work placements and how they helped students gain employment. These were 'practical application of knowledge', 'soft skills development', 'networking and professional exposure', 'gaining specific qualifications and continued development', and finally 'career clarity and confidence'.

Practical application of knowledge

Work placements provided a platform to apply academic concepts in real-world situations, making student learning more meaningful and applicable to the 'real world'. It was highlighted that this not only made the participants more confident in their roles but also allowed them to see the relevance of their education in professional environments. Some participants mentioned how applying academic knowledge in their placements deepened their understanding and made them more adaptable when tackling real-world problems.



For example, Gemma explained that her placement in the NHS allowed her to bridge the gap between theoretical learning and practical application, as ‘working in a clinical setting really helped me apply my learning. It made the connection between what we studied and what patients actually need from us in the field’. This elucidated how her studies in nutrition and exercise physiology were essential when working with patients at risk of diabetes and highlighted that the placement was not just about technical skills but also about how to work efficiently in high-stakes situations.

This theme was echoed by Robert, who mentioned how work placements provided insights into the practical dimensions of working in sports organisations. He learned how to apply academic knowledge in areas such as team management, nutrition, and exercise, all of which made him more confident when applying for jobs.

Soft skills development

Seventy-five percent of the participants found that their placements were instrumental in developing soft skills that were not necessarily taught during their academic programmes. While technical skills were part of their education, soft skills like communication, teamwork, leadership, and adaptability were honed during their placements. These skills are often critical for success in any professional environment, especially when dealing with clients, patients, or co-workers.

More specifically, communication was a key area of development for participants. Jenny suggested her placement allowed her to improve her ability to communicate with people from different professional and personal backgrounds. She emphasised that learning to adapt her communication style to different audiences gave her a distinct edge in interviews and workplace settings.

Leadership was another crucial soft skill developed through placements. Several participants shared experiences of leading teams or managing small projects during their placements, which built their confidence for future leadership roles. Speaking to this, Lulu explained, ‘you learn how to manage people’s expectations, especially when they’re frustrated or unsure. That’s something I didn’t learn in university’. This kind of real-world exposure to leadership underpinned their employability, setting them apart from peers who lacked practical experience in such settings.



Networking and professional exposure

Being in a professional environment gave students a chance to build relationships with potential employers and industry insiders, which some students said led to job offers post-graduation. For many participants, placements were not just about learning new skills but were about making connections that could open doors for future career opportunities.

Jenny, for example, reflected on how her work placement directly led to her first job offer. She mentioned how building relationships with senior professionals within the field provided a competitive edge in the job market, noting 'the connections I made during my placement really helped me land my first job. It gave me an edge because I had already built relationships in the industry'. Similarly, Ethan talked about the importance of networking, explaining how his role in sports marketing allowed him to meet professionals who later became critical contacts for advancing his career: 'networking gave me access to people in higher positions, which helped me get my foot in the door for my first full-time role'.

Participants also learned how to navigate workplace dynamics, understanding who to talk to and how to communicate professionally. This networking experience helped them secure references, future job offers, and even mentorship, which often provided them with further progression compared with peers who lacked such industry connections.

Gaining qualifications and continued professional development

Work placements were identified as a chance to gain additional qualifications and certifications that made students stand out in the job market. Whether these qualifications were related to health coaching, personal training, or niche industry skills, participants felt these certifications added substantial value to their CVs and helped accelerate their career growth.

For instance, Poppy shared how her placement allowed her to obtain both Level 2 and Level 3 Personal Trainer qualifications, which were vital for her career in fitness and sports management. She stated, 'getting my personal training certifications while on placement meant that I was more employable as soon as I graduated. It gave me a head start'. Similarly, Gemma mentioned how her health coaching qualification, earned during her placement, allowed her to explore broader career opportunities within the NHS: 'I was able to get my



health coaching qualification during my placement, and that made a big difference in terms of job offers’.

Career clarity and confidence

Participants expressed how their placements helped them gain clarity about their career paths. For some, placements confirmed that they were on the right trajectory, while for others, it showed them what aspects of a field they did not want to pursue. This career clarity allowed participants to focus their job search post-graduation more effectively, making them more confident in interviews and applications.

Robert, for instance, noted that his placement experience gave him the confidence to pursue a specific path within Sport Science, explaining that ‘having that hands-on experience just gave me the confidence that I was on the right path and could succeed in the industry’. Similarly, Poppy shared how her placement clarified that teaching PE was not the career direction she wanted, allowing her to shift focus while still in university. Such clarity saved time and helped the students focus on roles better suited to their strengths and interests, with Poppy reflecting, ‘the placement really clarified that I didn’t want to go into PE teaching, which saved me from a lot of uncertainty later on’.

Confidence was a recurring theme across participants’ responses. The work placements helped them to feel more prepared for the challenges of full-time employment, making them more assured in their abilities. By the time they graduated, many felt that they had already been ‘tested’ in a real-world setting, giving them the poise to pursue their desired careers with certainty.

These five expanded themes reveal the comprehensive benefits of work placements, from practical skill development to networking opportunities, helping students transition into full-time roles more smoothly. The experiences shared by various participants highlight the lasting impact placements had on their career clarity, confidence, and employability.

Discussion

From the findings of this mixed-methods study, undergraduate students of Sport Science pathways who have completed a year-long placement see benefits across a wide range of areas. Both quantitative and qualitative data analysis highlight strong attendance records,



engagement, skills, career progression, and development. This helps to support previous literature findings, which highlight students who complete a one-year placement do exhibit improvements in their degree aggregate scores (Jones et al., 2017; McCann & Hewitt, 2023; St Clair-Thompson & Chivers, 2019). Research also suggests that student engagement after return to university is helped by the development of communication skills, time management, contingency planning, and nurturing of their emotional intelligence (Arsenis & Flores, 2023; Brooks & Timms, 2023; Holmes, 2015; Jackson, 2017).

Improvement in degree grades and attendance figures

The findings from the quantitative data (Tables 2- 3) demonstrate better attendance and overall academic performance in students completing a sandwich placement compared with those following the honours pathway. These results align with existing literature, suggesting that work placements positively impact student engagement and academic success (Jones et al., 2017). Table 2 evidences an increase of grades for sandwich course students for all four-degree programmes over the past five years (2019–2024). On average, the aggregate grade increased by 12.91% with no course identifying grade decreases.

Placement students often return to university with heightened motivation, likely due to the professional habits and time management skills cultivated during their time in a real-world setting (St Clair-Thompson & Chivers, 2019). This professional experience not only supports academic rigor but also helps sandwich students achieve higher overall degree classifications. Consistent with the findings of McCann and Hewitt (2023), the integration of academic knowledge with workplace application fosters a deeper understanding of course material, facilitating improved performance in their final year.

Moreover, quantitative analysis shows higher aggregate grades and attendance records in Level 5 to Level 6 when comparing honours pathway and sandwich course students. This trend mirrors reports from Arsenis and Flores (2023), who found that professional placements serve as a bridge between theoretical learning and practical application, thereby increasing students' academic commitment upon returning to university. This is because WIL provides students with learning experiences that allow them to gain appreciation of work, enhance practical knowledge, develop further transferable knowledge and skills (e.g., communication in a professional environment, teamwork, and time management), build their professional network, and determine or reshape their career goals. While honours students



showed minor attendance improvements, the placement experience provides sandwich students with unique learning opportunities that directly impact their university attainment and academic growth.

Personal development of sandwich course students

We identified that work placements not only improve academic performance (Table 2) but also enhance professional development. The participants reported gains in both hard and soft skills, including resilience, adaptability, and teamwork, which are critical attributes that help graduates transition from academia to the workforce. Literature on WIL supports these findings, emphasising that placements provide unique challenges that push students to refine skills not easily developed in a classroom setting, such as delegation skills and negotiation management (Grant & Kinman, 2012; Jackson, 2017). Additionally, placements helped students clarify their career pathways, with 20% more sandwich students finding jobs closely aligned with their professional goals than their non-placement peers (Arsenis & Flores, 2023).

Notably, students cited that their emotional intelligence and social maturity were nurtured through workplace interactions, as these allowed them to approach their final-year studies with a more professional perspective. Placement experiences support the development of emotional intelligence, an essential quality for career resilience and success (Holmes, 2015; Mayer & Salovey, 1997). Practical application of knowledge in professional environments not only helped them to understand academic content but also provided transferable skills to embed in real-world contexts. This integration of knowledge and skills has been noted in a study by Brooks and Timms (2023) as a key driver of academic motivation, particularly when students are exposed to hands-on roles that provide immediate feedback on their performance.

Strengths and limitations

This study offers valuable insights into the academic and professional benefits of sandwich courses within Sport Science education. One of its primary strengths is the use of a mixed-methods approach, which allows for both quantitative comparisons and qualitative insights into students' experiences. By examining attendance and academic performance across honours and sandwich pathway students, the study provides a robust analysis of the specific benefits of professional placements. Additionally, focus group data adds a qualitative



dimension, capturing personal narratives and reflections that quantitative measures alone cannot fully convey. These perspectives enhance the depth of the findings, illustrating the transformative impact of placements on skills like time management, resilience, and communication, which are essential for professional success (Arsenis & Flores, 2023; Jackson, 2017).

However, the study also presents limitations. Data limitations, such as the unavailability of complete attendance records for earlier years, may have influenced the robustness of the quantitative analysis. This lack of data restricts longitudinal tracking and weakens comparisons across academic years. Another limitation is the potential for self-selection bias, as students opting for placements may possess characteristics (e.g., greater motivation or conscientiousness) that independently contribute to improved academic performance (St Clair-Thompson & Chivers, 2019).

Future research

As mentioned, further research could expand on this study by investigating the impact of placements across different academic disciplines. Although sandwich courses have proven beneficial within Sport Science, exploring disciplines such as Business, Health, and Engineering may reveal discipline-specific patterns or challenges associated with professional placements. Additionally, a multi-institutional study could compare the effectiveness of placements across universities, considering variations in resources, industry partnerships, and placement structures (Brooks & Timms, 2023).

Future research could also address the influence of socio-economic background on students' access to placements. Belford (2017) indicates that financial challenges—especially for unpaid placements—pose barriers for students from lower-income backgrounds. Examining the effects of socio-economic factors on placement access and outcomes would help address equity issues within WIL. Similarly, exploring the role of university-provided financial support, such as grants, could yield insights into improving access for all students.



Conclusion

The findings of this mixed-methods study demonstrate that undergraduate students who undertake a year-long placement as part of a sandwich course have improved attendance records and academic performance in their degree aggregate grades, when compared with honours pathway students. Additionally, when comparing sandwich course students with honours pathway students, there was a much higher improvement in the increase of both attendance and degree aggregate scores for the former when comparing their Level 5 and Level 6 performance. Placement students not only benefit academically but also gain valuable life skills. Sandwich course alumni noted that their time management, contingency planning, maturity, and professional decorum were all developed during their placement year. These enhanced skills made students feel more confident and better prepared for their chosen careers.

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Appendix A: Question guideline for focus group

Opening questions:

1. Introduce yourself to the group, when you graduated and where you currently work.
2. Where did you go on placement and what degree programme did you complete at NTU?

Questions on key themes of your placement:

1. During your placement, what were your main ASK's that you learned, which were not taught/developed at NTU?
 - (a). What CPD/training did you receive and was this beneficial during your current employment role?
2. How did your placement change your character, and did it make you more prepared for your final years of study? Yes or no, why was this the case?
3. How would you promote the benefits of taking a placement to our current students?
4. How have you progressed, mainly to the alumni who have worked over two years, on climbing the career ladder? How did your placement help you gain a promotion ahead of your colleagues?
5. Memorable moment(s) during placement of achievement or inspiring that helped you gain motivation in your desired career pathway?
6. Is there anything else you would like to add on how your placements have helped you during your career?
7. What did you not enjoy during your placement and how could NTU have helped you during your difficult periods during your sandwich year?
8. In addition, was it easily accessible/marketed on gaining information on how to gain a work placement at NTU?
9. Reflecting back at university, how could the Sport Science department promote the benefits of completing a placement?

