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University-industry collaboration for academic success and employability: a connectivist perspective

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ABSTRACT

Despite the widespread recognition of university-industry collaboration benefits, a significant research gap exists in understanding the lived experiences of both students and industry practitioners regarding the effectiveness of feedback mechanisms and sustained employability development. Higher education institutions (HEIs) face growing pressure to equip graduates with industry-relevant skills to prepare them for the workforce. In marketing, where industry demands shift rapidly, university-industry collaborations can help enhance student engagement, academic performance, and employability. This study applies Connectivism Theory to examine how real-world industry engagement shapes students' learning experiences. The research employed a qualitative approach, conducting three in-depth focus groups with marketing students and 16 structured interviews with expert industry guest speakers. Key findings revealed that students strongly valued hands-on experiences with industry-standard tools like Google Analytics and SEMrush, while advocating for more structured career preparation activities, including CV building and portfolio development. Industry speakers emphasized their role as knowledge facilitators but identified significant challenges, including time constraints, content alignment difficulties, and lack of interactive engagement opportunities. Both groups highlighted critical gaps in feedback mechanisms and called for more structured mentorship programs. Our study recommends strengthening partnerships through structured feedback loops, expanded mentorship, and industry-aligned education and certifications.

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Higher education; university-industry collaboration; connectivism theory; marketing education; partnerships for the goals; graduate employability

Introduction

Heightened pressures on higher education institutions (HEIs) necessitate a strategic focus on equipping graduates with skills commensurate to the complexities of the global labor market (UI Hassan, Murtaza, and Rashid 2025). The teaching of marketing exemplifies this phenomenon, where rapid technological advancements necessitate that students cultivate both theoretical and practical proficiencies, alongside industry-specific competencies (Healy 2023; Jackson and Bridgstock 2020). Consequently, university-industry collaboration is an essential strategy for addressing these challenges

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to bridge the gap between the dynamic needs of the workforce and academic knowledge (Arranz et al. 2022). In the UK context, recent statistics from the Higher Education Statistics Agency (HESA 2023) indicate that only 68% of marketing graduates secure graduate-level employment within six months of graduation, highlighting the persistent employability gap that university-industry collaborations aim to address.

These collaborative initiatives, encompassing guest lectures, industry mentorship, and work-integrated learning experiences, have been posited to enhance student engagement, academic achievement, and graduate employability. While the theoretical advantages of these partnerships are substantiated, empirical investigations into the lived experiences of students and industry practitioners remain limited, particularly regarding the effectiveness of feedback loops and the development of sustained employability (Encinas and Mirabent 2022). This gap is especially pronounced in understanding how both stakeholder groups perceive and navigate the practical challenges of meaningful collaboration.

Existing theoretical frameworks have sought to elucidate the complexities of graduate employability. For instance, human capital theory postulates that accumulating skills, knowledge, and experiences augments a graduate's value within the labor market (Becker 1993). Similarly, employability models, such as the USEM framework (Knight and Yorke 2004), underscore the interplay of understanding, skills, efficacy beliefs, and metacognition in shaping graduate employability. However, more recent conceptual frameworks, such as Tomlinson's 'graduate capital' model (2017), emphasize that employability extends beyond individual attributes to encompass access to networks, confidence-building, and professional identity formation elements that align closely with university-industry collaboration outcomes.

While these models provide valuable insights, they often focus on individual attributes rather than the dynamic, networked interactions that shape learning and employability outcomes.

Departing from the limitations of extant theoretical models, this study adopts Connectivism, a contemporary epistemological framework that conceptualizes learning as forming and navigating interconnected knowledge networks (Renda and Kuys 2015; Siemens 2005). In contrast to traditional cognitive paradigms, which prioritize internal knowledge construction, Connectivism posits that learning is fundamentally contingent upon the capacity to establish and leverage connections with external knowledge repositories, encompassing social networks, digital platforms, and industry partnerships (Voskoglou 2022). Such a theoretical lens is particularly apposite within the context of higher education, wherein there is an increasing imperative to augment pedagogical efficacy through the integration of authentic experiential learning and technological affordances (Healy 2023).

In marketing, industry collaborations function as dynamic 'knowledge nodes' that facilitate the contextualization of academic learning within practical settings (Jackson and Rowe 2022). Recent studies, such as Petruzzello et al. (2022), indicate that students actively engaging with industry professionals through mentorship programs, internships, and live client projects develop more robust problem-solving skills and career resilience. According to Encinas and Mirabent (2022), one of the core objectives of university-industry partnerships is enhancing employability. Employers are increasingly placing increased emphasis upon graduates with strong theoretical knowledge and those who demonstrate adaptability, problem-solving, and digital proficiency abilities (Lifewire 2025). As a result, many HEIs have started incorporating industry engagement initiatives such as guest speakers, work-integrated learning and professional networking into their curricula (Jackson and Tomlinson 2021). While such approaches offer clear advantages, challenges persist in ensuring these initiatives translate into tangible employability outcomes.

Although the university-industry partnership has generally been viewed as beneficial, its effectiveness is contingent on meaningful student engagement. Experiential learning initiatives tend to yield more substantial employability outcomes when students receive structured feedback from industry professionals (Healy 2023). However, there remains a gap in understanding how feedback mechanisms influence student learning and career preparedness. Petruzzello et al. (2022)

found that while many HEIs facilitate industry-led workshops and mentoring programs, students often report inconsistencies in the feedback they receive. In some cases, industry speakers provide valuable insights into job market expectations, yet there is limited follow-up to monitor students' subsequent application of this knowledge. Therefore, addressing these gaps requires a more structured and reciprocal feedback approach, wherein students can articulate how industry interactions have shaped their learning and career aspirations.

Despite the growing concerns surrounding commercial and industry-relevant skills, there is a discernible lacuna in the literature regarding the facilitation of awareness and understanding of practical, real-world knowledge within curricular and learning experiences. This study seeks to address this lacuna and stimulate further scholarly inquiry into the validation of learning experiences by applied practitioners. Specifically, it examines the impact of university-industry collaboration on marketing students' learning experiences, focusing on three core aspects: student engagement, academic performance, and employability. Adopting a Connectivist lens, this research investigates how students perceive and navigate knowledge networks through real-world exposure, specifically examining the impact of university-industry collaboration on marketing students' learning experiences, focusing on student engagement, academic performance, and employability.

In addition, this study explored the development of students' explanations of the impact of practitioner experiences, shedding light on how they create connections between academic learning and building professional experiences and how this evolves.

Research questions

RQ1. How do students perceive the value of real-world exposure and practical learning in enhancing their readiness for a marketing career?

RQ2. What role do industry speakers believe they play in bridging academic knowledge with industry expectations for marketing students?

Therefore, this study addresses the identified research gap by examining student and industry practitioner perspectives on university-industry collaboration effectiveness, particularly on feedback mechanisms and sustainable employability development within marketing education contexts.

Literature review

Introduction to connectivism theory

Connectivism, as originally articulated by Siemens (2005), represents a learning theory specifically designed for the digital age, emphasizing the significance of social and digital networks and the interconnectedness of distributed information. Renda and Kuys (2015) further developed this theoretical foundation, highlighting how this theory departs from traditional cognitive theories that prioritize individual cognition by positing that knowledge is distributed across networked connections. In real-world industrial settings, Connectivism manifests through professional networks, mentorship relationships, and technology-mediated learning platforms that enable continuous knowledge exchange between academic and professional environments (Siemens 2005). Voskoglou (2022) reinforces this perspective, emphasizing the impact of social networks on learning and asserting that knowledge acquisition occurs through the formation and navigation of these networks. Consequently, the focus of the learning process shifts to the ability to construct and traverse these networks, with knowledge defined as the capacity to access and connect information as required.

While Connectivism provides the primary theoretical lens for this study, it is important to acknowledge its relationship with other established learning theories in higher education pedagogy. Communities of practice theory (Wenger 1998) similarly emphasizes learning through social participation and shared meaning-making within professional groups, while signature pedagogies focus on discipline-specific learning approaches that characterize particular fields of study. However, Connectivism's unique contribution lies in its emphasis on network navigation and digital connectivity,

making it particularly relevant for contemporary university-industry collaborations that rely heavily on technological mediation and distributed knowledge sources.

Subsequently, educators, as facilitators who guide students in the creation and navigation of knowledge networks, hold a pivotal role within Connectivism. According to Healy (2023), they are instrumental in establishing and supporting these knowledge nodes. Specifically, they contribute to cultivating environments where students can engage with diverse perspectives and establish connections with specialized nodes. Furthermore, they assist students in developing the critical thinking skills necessary for acquiring and applying knowledge in practical contexts. Joiner et al. (2021) showed that including structured peer criticism in coursework increases student engagement and understanding. This aligns with connectivism principles, highlighting the importance of social interactions and collaborative learning. Petruzzello et al. (2022) support this by demonstrating that students who engage in collaborative, feedback-driven learning environments report higher levels of self-efficacy and preparedness for industry demands. Additionally, Borah, Malik, and Massini (2021) emphasize that structured learning networks within industry-academic collaborations help students develop problem-solving skills critical for career progression.

Furthermore, the role of educators within Connectivism is further accentuated by the integration of professional networks with real-world experiences. The integration of Billett's (2009) work on curriculum integration further supports the Connectivist framework, as he argues that the educational value of work experiences fundamentally depends on how they are structured and integrated into formal learning processes rather than existing as isolated activities. This integration is essential for creating meaningful knowledge networks that extend beyond superficial industry exposure. This approach also enhances the educational process and equips students for the challenges of the contemporary workforce. Healy (2023) demonstrated the impact of applying academic knowledge to real-world scenarios, finding that students participating in networked learning activities exhibited increased engagement, thereby demonstrating the effectiveness of Connectivism in augmenting student engagement and academic performance.

Moreover, Voskoglou (2022) highlights the crucial role of educational and industry collaborations in fostering networked learning environments where students connect with industry professionals and gain real-world experiences. Tuononen and Hyytinen (2022) posit that connections between disciplines, concepts, and ideas are crucial in the modern workforce. Consequently, the development of technical and interpersonal skills essential for employment is contingent upon this collaboration, which exposes students to diverse industry perspectives and practices, fostering capabilities such as socialization, communication, and problem-solving.

Therefore, in a connectivism framework, students gain industry-relevant skills through hands-on experiences and mentoring, with educational institutions promoting a networked learning environment. Voskoglou (2022) asserts that integrating networking and self-organization principles enhances the learning process, making it more applicable and efficient. This approach also stimulates critical thinking and provides real-world context, aiding student learning (Healy 2023; Joiner et al. 2021). By bridging the gap between academic knowledge and real-world applications, this strategy encourages educators and administrators to evolve (Tuononen and Hyytinen 2022). Connectivism is thus essential in preparing students for success, fostering engagement, academic success, and employability by connecting students, faculty, and industry experts. Hence, how real-world exposure and hands-on learning experiences create practical knowledge nodes that enhance student learning is needed, which will be further explored in the following section.

Real-world exposure and practical learning

Exposure to the real world is paramount in the development of practical knowledge nodes among students. Extracurricular activities, internships, placements, participation in professional events, and field trips are examples of practical experiences instrumental in bridging the divide between academic learning and valuable applications, thereby enhancing their knowledge and employability.

According to Jackson and Bridgstock (2020), these activities significantly increase students' exposure to industry and practical skills, augmenting their preparedness for the labor market. Consequently, the provision of practical experiences and industry insights enhances the relevance and engagement of their education. Similarly, Jackson and Tomlinson (2021) emphasized the value of real-world experience in raising job attainment and lowering perceived overqualification. These experiential learning opportunities cultivate valuable knowledge nodes, thereby enhancing student learning and employability. Research confirms that employability outcomes improve when industry exposure is paired with structured feedback loops (Encinas and Mirabent 2022).

Tomlinson's graduate capital framework (2017) provides additional theoretical insight into how real-world exposure contributes to employability by building not just human capital (skills and knowledge) but also social capital (networks and relationships) and psychological capital (confidence and resilience). This multi-dimensional approach aligns with Connectivist principles by recognizing that effective learning occurs through diverse, interconnected knowledge sources rather than isolated skill acquisition. The framework emphasizes that graduates need access to networks, confidence-building, and professional identity formation elements directly facilitated through structured university-industry collaborations. These experiences are viewed positively by both students and business professionals, who acknowledge their significance in bridging the divide between theoretical knowledge and real-world application. For instance, according to Bodolica and Spraggon (2021), experiential learning is crucial for fostering entrepreneurial skills and improving students' comprehension of real-world procedures. Byrne (2020) demonstrates the influence of graduate skills, academic achievements, and personal characteristics on employability, highlighting the value of real-world experience in strengthening these qualities. In discussing the importance of extracurricular activities in student learning and leadership development, Haber-Curran (2019) underscores the contribution of these activities to students' holistic development and professional preparedness.

Tuononen and Hyytinen (2022) highlight the relevance of links between disciplines, concepts, and ideas in enhancing employability skills through real-world contact. Joiner et al. (2021) observed that structured peer assessment in courses enhances student engagement and understanding, aligning with hands-on learning principles. Voskoglou (2022) argues that practical experiences and professional networks enhance learning by establishing and exploring knowledge networks. Healy (2023) highlights real-world contact's relevance to improving student engagement and employability, noting that such experiences provide valuable insights into industry practices and aid in developing critical skills. A thorough review by Muzaffar, Nikolaus, and Nickols-Richardson (2020) demonstrates that experiential learning significantly enhances motivation, academic achievement, and problem-solving abilities.

Furthermore, Acut (2024) highlighted that field visits offer students worthwhile practical experiences that enhance their comprehension of academic ideas and boost their enthusiasm and involvement. For instance, field trips and STEM work immersion programs improve students' interest in STEM jobs, understanding of scientific concepts, and level of participation. In addition, a program in Italy, according to Fantinelli et al. (2024), demonstrates that the school-alternation program has a good effect on students' perceptions of their employability and sense of agency, highlighting the value of hands-on learning in bridging the gap between education and practical application.

Considering all this, developing practical knowledge nodes that enhance students' learning and employability necessitates real-world exposure and hands-on learning opportunities. As a result, engaging students in internships, field trips, and co-curricular activities facilitates the acquisition of valuable insights into industry practices, develops critical skills, and enhances their professional preparedness. Both students and business experts concur on the merits of these experiences, underscoring their critical role in bridging the gap between classroom instruction and practical application. Furthermore, the role of industry speakers in networked learning is highlighted as providing crucial insights that bridge academic knowledge with industry expectations, further enriching the learning experience, which will be explored in the subsequent section.

Role of industry speakers in networked learning

The narrowing gap between academic knowledge and industry expectations has made including industry speakers in educational settings essential. By providing students with real-world insights that complement academic theories, speakers act as important knowledge nodes within networked learning structures. According to Arranz et al. (2022), speakers contribute first-hand knowledge and current information on industry trends, obstacles, and expectations that enhance students' educational experiences and augment their relevance in future employment. However, research suggests that feedback mechanisms remain inconsistent. Studies indicate that many industry interactions remain one-directional, constraining students' capacity to operationalize feedback (Encinas and Mirabent 2022). A more structured feedback loop is recommended, where students reflect on industry sessions and engage in meaningful dialogue with practitioners (Petruzziello et al. 2022). Jackson and Bridgstock (2020) also emphasise that speakers help students understand the real-world implications of their studies by aligning academic content with industry needs. Therefore, classroom industry speakers can help bridge the knowledge gap between academia and industry standards.

Römgens, Scoupe, and Beusaert (2019) rationalize this alignment as an essential element ensuring students have the skills and capabilities employers require when entering the job market. Engaging with industry speakers supports students in learning about the day-to-day realities of their chosen fields, which allows them to prepare for their careers (Jach and Trolan 2021). Furthermore, incorporating a feedback loop can be crucial to effective industry speaker engagement in academia. Effective feedback systems can enhance their contributions by ensuring that industry speaker presentations are tailored to meet students' needs and expectations (Henderson et al. 2019). Hence, students' educational experiences are greatly enhanced by partnerships between academic institutions and businesses, which industry speakers facilitate. These partnerships provide students with real-world insights that can enhance and personalize learning. Students can improve their practical skills and career readiness by being exposed to real-world practices through projects, industry events, and guest speakers.

Considering this, it is important to recognize that education-industry collaborations are instrumental in developing both hard and soft skills critical for students' employability. By fostering the development of soft skills such as teamwork, communication, and problem-solving, these partnerships can significantly increase graduates' workforce readiness, according to Succi and Canovi (2019). Since most soft skills are rated higher by employers than by students, they also analyze the importance of soft skills in improving graduates' employability. According to Jackson and Rowe (2022), these partnerships facilitate professional socialization by facilitating the development of professional identities and adjust to workplace cultures. The importance of soft skills was emphasised by O'Regan et al. (2023), who also confirmed the value of these educational programs in creating workforce-ready graduates.

In summary, these work-based learning and career coaching efforts are examples of effective pedagogical practices that greatly enhance the development of industry-relevant skills. Thus, aligning curriculum design with industry needs ensures students are adequately prepared for their careers. In the same way, connectivism theory is highly relevant in this context as it emphasises the formation and navigation of knowledge networks, where speakers assist in creating a networked learning environment. This facilitates connections between students, industry professionals, and real-world experiences, thereby increasing student engagement, academic performance, and employability (Voskoglou 2022).

1. Integration of digital tools and emerging technologies

To prepare students for the modern workforce, the education sector must include digital tools and emerging technologies in the curriculum. Artificial intelligence (AI), machine learning (ML), and analytics systems are examples of digital tools that provide students with real-world, hands-on

experiences that enhance their learning. By acting as dynamic knowledge nodes, these technologies enable students to engage and apply theoretical concepts in real-world settings. Their understanding is enhanced by this engagement, which also gives them the tools they need to succeed in the rapidly changing job market (Bhatti et al. 2022). These capabilities ensure that students are ready for their future employment by bridging the gap between academic knowledge and industry expectations in educational settings (Rajaram 2021).

As a result, traditional learning venues can be transformed into dynamic, interactive learning spaces with the help of digital tools and developing technology. With these tools, networked learning environments may be established where students can interact with professionals in the field, obtain current information, and work together on projects. Large data sets can be analyzed using AI and ML, for example, providing students with insights into market trends and fostering the growth of their critical thinking and problem-solving skills. Student motivation and success depend on a more relevant and engaging learning environment, which is fostered using these technologies in the classroom (Rajaram 2021). Therefore, it is essential to incorporate digital technologies into the curriculum to ensure that students are ready for their future employment. Curricula design would consider industry demands and include technology commonly used in the workplace. Employers value skills such as digital literacy, data analytics, and technological proficiency, which students develop thanks to this alignment. Educational institutions can improve students' employability and facilitate their transition into the workforce by providing them with access to these resources (Timotheou et al. 2022).

Additionally, using digital tools and developing technologies in the classroom can be supported by the connectivism theory, which emphasises the significance of creating and navigating knowledge networks. These tools create a networked learning environment that enhances academic performance and student engagement by fostering relationships between students, teachers, and business leaders. Students can access a variety of perspectives and materials using digital tools, which enhances their ability to problem-solve and think critically. Students should be prepared for the needs of the contemporary job market through this networked approach to learning (Voskoglou 2022).

In short, enhancing student engagement, skill development, and employability in the classroom necessitates using digital tools and technological advancements. By acting as dynamic knowledge nodes, these tools facilitate the bridging of the divide between industry standards and academic understanding. By integrating these technologies into the curriculum, educational institutions can provide students with a well-rounded education that prepares them for successful professional trajectories. Notwithstanding the impact of these technological advancements on students' employability and professional preparedness, the subsequent topic will explore the role of career preparation activities in improving employability within networked learning environments.

2. Career preparation and employability

Engaging in career preparation activities such as networking events, workshops, mentorship, CV building, and interview preparation is crucial to providing students with the skills and information they need to succeed in the workforce. Students gain the skills needed for their chosen vocations and gain an understanding of business expectations through these activities. According to Succi and Canovi (2019), partnerships between the education sector and business greatly increase graduates' workforce readiness by fostering technical and interpersonal skills development. Students gain real-world experience and insights into industry processes through these partnerships, which increases their employability. In addition, career preparation activities are essential for connecting students with industry resources and people within a networked learning environment. By fostering the sharing of experiences and knowledge, this setting allows students to develop professional networks and gain important insights into their future employment. The beneficial effects of university-industry collaboration on employability were examined by Arranz et al. (2022), who emphasised how such alliances improve students' readiness for the workforce. Students can interact with industry

professionals, get guidance, and experience real-world possibilities and challenges by participating in career preparation activities.

Moreover, Healy (2023) highlights the significance of including career development learning in higher education courses to improve employability outcomes. According to Van der Baan et al. (2024), career coaching helps students develop employability qualities that facilitate their transfer into the job. To help undergraduates develop career-readiness skills, Mayorga (2019) emphasises the value of experiential learning opportunities provided by university-affiliated company incubators. However, in their analysis of the effectiveness of employability initiatives in higher education, Scandurra et al. (2023) emphasised the importance of ongoing assessment and development. Employability is assessed using a variety of measures, and these programs aim to provide students with the information and skills they need to thrive in the workplace.

Therefore, by providing students with the skills and resources they need to succeed in the workforce, career preparation activities are essential to the networked learning environment, improving students' employability and bridging the knowledge gap between academia and industry standards. By integrating these activities into the networked learning environment, educational institutions can significantly improve student employability and workforce readiness. Also, ongoing assessment and feedback are crucial to ensure these programs remain successful and relevant. Thus, to strengthen and grow the network of knowledge nodes, the following section will examine the importance of feedback and ongoing development.

3. Feedback and continuous improvement

Students who receive feedback are more likely to have a growth mindset and see challenges as opportunities for personal improvement rather than obstacles (Namaziandost, Behbahani, and Naserpour 2024). This is also true for teachers, as it helps them improve their teaching strategies and better meet the demands of their students. Therefore, effective teaching relies on feedback, which is essential to the learning process by providing information about performance and allowing the recognition of areas of strength and areas for growth. Robust feedback mechanisms are crucial to continuous development, according to Healy (2023), who also suggests that by ensuring that teachers and students are continually changing and improving, such systems can significantly enhance the educational experience.

Furthermore, improved feedback systems are essential to facilitate networked learning. For instance, peer review systems, digital platforms that allow for real-time feedback, and structured reflection exercises are just a few examples of how these processes can be implemented. Roderick (2019) highlights interactive and participatory feedback methods that can result in improved learning outcomes and higher levels of student engagement. This highlights the importance of active learning and feedback in enhancing employability. According to Mayorga (2019), timely and relevant feedback can significantly increase students' readiness for the workplace, highlighting the importance of feedback in workforce development. Thus, educational institutions can establish a more dynamic and responsive learning environment by incorporating these improved feedback mechanisms into the curriculum.

Therefore, encouraging instructors and students to view feedback as an essential and constructive component of the learning process is another strategy for improving feedback systems and creating a culture of continuous improvement within educational institutions. Implementing robust feedback systems can help educators and business professionals tailor their strategies to meet the needs of their students better (Healy 2023). This can be achieved through professional development programs for faculty that emphasise data-driven teaching practices and effective feedback methods. Institutions can foster continuous learning and growth by creating an environment where feedback is appreciated and applied.

In summary, feedback is essential to good teaching since it helps create and improve knowledge nodes and promotes continuous improvement. A culture of constant improvement and better feedback mechanisms, such as digital technologies, could greatly enhance work results and the learning process. Educational institutions can guarantee the continuity and novelty of their programs while educating students for success in their future occupations by incorporating these strategies into a

collaborative learning environment. Continuous feedback promotes personal development and makes educational programs more flexible and better overall, satisfying the constantly shifting needs of the labor market.

Method

Research method

This study aims to explore university-industry collaboration for academic success and employability. The qualitative exploratory case study approach allows for an in-depth exploration, providing insights for a richer understanding of how knowledge networks evolve within University of Wolverhampton (Yin 2018). Case study approach is well suited for this study as it allows to explore educational practices with a bounded environment (Stake 1995; Yin 1994)

Student focus groups and industry expert interviews

We held three focus groups to collect data from marketing students who were selected based on their enrollment in industry-integrated marketing courses. A focus group is an appropriate approach for this study as it allows participants to interact, reflect and build on each other's responses in a meaningful way (Barbour 2013). A semi-structured discussion covered topics during focus groups such as industry exposure, practical learning experiences, and perceived gaps in the curriculum which was effective to collect diverse perspectives of students on shared experiences (Morgan 1996).

Furthermore, a total of 16 structured interviews were conducted with industry guest speakers. Structured interviews were an effective method for understanding the university-industry collaboration from employers' perspective, as they ensure consistency and comparability (Yin 2018). During the interviews, industry professionals were asked about their role in shaping students' learning experiences, the challenges in engagement, and feedback mechanisms.

Industry guest speaker demographics

Within our sample, 10 participants identified as male and six as female. Regarding qualification of the participants, 10 held a master's degrees, 4 had a bachelor's degree and 2 held a doctorate. In terms of age, six of the participants were aged 31–40, six were 30 or below, four were over 50, and one participant was in 41–50 age band. Finally, seven participants had over 10 years of industry experience, four had 5–10 years, three had 3–5 years, and two had less than three years of experience.

Inclusion criteria

Marketing students who were part of the industry-integrated marketing modules, participated in the focus group through purposive sampling. We used purposive sampling to select students and industry guest speakers who can provide rich information (Patton 2015). Similarly, industry guest speakers who participated in this study, delivered guest lectures and also acted as practicum mentors through the module.

Data collection & analysis

All the marketing students were using multiple digital platforms such as LinkedIn which is the industry leading professional social media platform for career development and professional networking (Techtarget 2025) and content management systems like Wix and WordPress. They could see their progress clearly throughout the module and get hands-on learning experiences. Practicum mentors were giving support using these digital platforms. During interviews students and practicum

mentors were referring to these digital dashboards to share experiences which made their responses less subjective, and more evidence based.

In order to analyze data, team-based thematic analysis (Braun and Clarke 2006) was used to identify patterns across student and industry feedback. The first phase involves data familiarization, followed by the generation of initial nodes (phase 2), then the development of themes (phase 3). In phase 4, themes are reviewed, and in phase 5, the themes are defined and named. The final step is to write up the findings (phase 6). Emerging themes included practical learning preferences, the effectiveness of guest speakers, and gaps in feedback mechanisms. Team-based thematic analysis allowed cross-validation of emerging themes (Nowell et al. 2017) as we are using two different participant groups; team-based thematic analysis allows theme comparison and collaborative coding on data sets. This also supports methodological triangulation to cross validate findings, ensures transparency, consistency and trustworthiness (Terry et al. 2017).

Table 1 provides an overview of the themes and sub-themes that emerged from the analysis of the focus group data.

Ethical considerations

As our study involves human participants (students and industry experts), therefore, we have strictly followed ethical guidelines for this project. Before data collection we have obtained formal ethics clearance from the University of Wolverhampton's research ethics committee. All the participants (students and industry experts) have given informed consent before data collection. We have not collected any personal or unnecessary information from participants. We have removed identifiable information. All the participants had the option to withdraw any time, without any notice and without any penalty. Finally, for data protection we are strictly using university protected devices.

Results

This section presents the empirical findings analyzed from the student focus groups and industry expert interviews, structured to directly address the study's research questions and key themes regarding university-industry collaboration in marketing education.

Table 1. Themes and sub-themes based on student focus groups on covering discussions on industry exposure, practical learning experiences, and perceived gaps in the curriculum.

Theme	Sub-themes
Real-World Exposure	- Field trips to marketing agencies - Internships and networking opportunities
Guest Speakers	- Collaboration with industry professionals - Relevant and practical guest talks
Integration of AI and Digital Tools	- Criticism of less relevant topics - Use of AI in marketing (e.g. ChatGPT)
Curriculum Relevance	Requests for more practical tool integration (SEMrush, Google Analytics)
Hands-On Learning	- Importance of user-generated content - Deeper exploration of content creation, brand strategy, Canva
Career Preparation	- Practical lessons vs. theoretical lectures - Access to digital tools and software - Video editing and other media skills - Building portfolios - CV-building
Feedback on Learning Methods	- Industry certifications (SEMrush, SEO platforms) - Positive reception to practical methods - Suggestions for more interactive lessons - Subscription access to industry tools
Marketing Trends	- Importance of video marketing - Interest in professional video editing training
General Satisfaction	- Appreciation for practical insights - Desire for more work experience and exposure to professionals

Student perceptions of real-world exposure and practical learning (RQ1)

RQ1 explored how students perceive the value of real-world exposure and practical learning in enhancing their readiness for a marketing career. The qualitative data from the three student focus groups showed strong demand for hands-on learning experiences, emphasizing the significant value students placed on practical engagement. Students expressed a keen interest in field trips to marketing agencies and the opportunity to undertake internships. Table 1 provides a complete overview of the themes and sub-themes that emerged from the data from the student focus group data helps in addressing RQ1.

A consistent theme was the enthusiasm for greater integration of digital marketing tools into the curriculum. Students advocated for more direct, hands-on experience with industry-standard platforms such as SEMrush and Google Analytics, alongside professional video editing software. They also voiced concerns about a perceived lack of focus on user-generated content and its increasing importance for securing professional roles, suggesting a deeper exploration of content creation, brand strategy, and design tools like Canva.

While acknowledging overall satisfaction with the current bootcamp and teaching methodologies, students called for more direct access to industry-standard tools and professionals – especially those who discussed practical tools like LinkedIn networking and AI technologies like ChatGPT, some guest talks were less relevant to their marketing interests. To enhance their employability, students anticipated the inclusion of industry certifications (e.g. SEMrush, SEO platforms) and practical skill-building content, such as CV development and portfolio creation. Despite praising the use of AI in marketing sessions, students suggested that the curriculum could benefit from offering subscription access to more digital tools and incorporating a greater number of interactive, practical lessons over predominantly lecture-style learning. These preferences highlight a clear student imperative to move beyond superficial exposure to novel technology tools and towards sustained, meaningful professional development.

Industry speaker perspectives on bridging academic knowledge with industry expectations (RQ2)

RQ2 investigated what role industry speakers believe they play in bridging academic knowledge with industry expectations for marketing students. These interviews with industry guest speakers provided insights into their perceived roles and the challenges they encountered in fostering university-industry collaboration. In particular, industry speakers see their role in bridging academic knowledge by helping students understand career paths by providing real world opportunities, to serve as mentors and provide internships and job interviews. Industry speakers provided qualitative responses to 12 questions, and the responses to these questions are provided below.

Background and experience in marketing

Respondents have diverse backgrounds and experience in digital marketing, academia, and product management roles. Many have several years of industry experience, including mentoring, leading marketing campaigns, and managing digital marketing operations. Some respondents mentioned offering informal guidance to students on projects, while others have supervised graduate interns or provided short-term placements. Industry speakers also mentioned formal mentorship opportunities are not always feasible due to role limitations.

Keeping marketing knowledge up to date

Many professionals rely on continuous learning through industry thought leaders, certifications, LinkedIn courses, and articles. Some find it challenging to stay updated due to rapid industry changes

but recognize the importance of ongoing skill development. Access to industry platforms and consistency with industry news were also noted as valuable resources.

Role in helping students understand career paths

Respondents view their roles as guides and say they help students gain insights into real-world industry expectations, essential skills, and possible career trajectories. Some emphasise sharing personal experiences to illustrate career paths, while others provide hands-on project support, aiding students in practical applications of marketing concepts.

Providing mentorship, internships, or job opportunities

While some professionals have offered mentorship or short internships, others lack the authority or opportunity to provide these experiences to students. However, informal guidance and advice are common forms of support. A few companies indicated a willingness to support internships if they align with business needs or to serve as project sponsors for academic assignments.

University-industry collaboration improvement suggestions

Respondents suggest that universities could host more events and workshops with industry professionals and strengthen ties with businesses. They also note that there could be a focus on areas where students need additional skills. They also recommend deeper engagement with smaller companies and propose integrating live client briefs or project-based learning experiences. Partnerships and deeper involvement in curriculum planning were also mentioned as ways to bridge gaps.

Successful models of university-industry collaboration

Examples include knowledge transfer partnerships (KTPs), placement years, and apprenticeship programs. Additionally, some universities were praised for organizing boot camps, practice days, and networking events that offer tangible experiences. Smaller-scale mentorship programs and interactive workshops with real-world scenarios were highlighted as successful collaboration models.

Impact of guest sessions on students' performance

Some respondents noted tangible impacts, like students developing new ideas, applying new tools, and becoming more active in industry practices. However, others found it difficult to gauge long-term impacts without direct feedback or follow-up, though they valued the sessions as rewarding. One respondent noticed students using AI tools but sometimes incorrectly, suggesting the need for continued guidance on best practices.

Useful metrics to measure impact on student outcomes

Suggestions included student feedback, attendance records, employability benchmarking, and forms or surveys to capture students' initial expectations and learning outcomes. Longer-term follow-up surveys and assessments of project or skill-based performance were also proposed as indicators of session impact.

Challenges faced as guest speakers

Industry speakers noted challenges including time limitations, ensuring material relevance to students' academic curriculum, and engaging non-interactive student groups. Speakers also noted

difficulty balancing theoretical and practical content, especially with seating arrangements that hinder interaction. Some proposed solutions include adjusting content for interactivity, offering more discussion spaces, and requesting feedback from academic counterparts.

Suggestions for maximising benefits of industry speakers

Recommendations were provided, including focusing on relevant topics, providing quality video recordings of sessions, encouraging interactive discussions, and choosing speakers aligned with students' future career needs. Additional suggestions included preparing students in advance, aligning topics with curricula, and holding roundtable or networking sessions for more interaction.

Additional resources or support needed

Suggestions that were provided include workshops involving practitioners, lab-based presentations, and spaces equipped with necessary technology. Access to current marketing platforms or digital tools was also noted as beneficial for hands-on learning. Some speakers indicated they had sufficient resources and found their sessions already well-supported.

Additional comments

Only a few respondents left additional comments, though one remarked on the event's positive impact. Others appreciated the chance to share industry knowledge and noted the benefits of diverse guest speaker backgrounds for both students and staff.

Implications

Collectively, the results reveal a compelling alignment between students' strong desire for practical, industry-relevant learning and industry practitioners' recognition of their pivotal role as knowledge facilitators. While students eagerly seek hands-on experience with digital tools and structured career preparation, industry speakers, despite their willingness, frequently encounter time constraints and content alignment difficulties that hinder deeper, more interactive engagement. This critical interplay highlights not only the perceived value of university-industry collaboration but also the systemic and practical barriers preventing its full realization. The consistent call from both groups for improved feedback mechanisms and structured mentorship further highlight shared vision for enhanced professional development, suggesting that successful collaboration hinges on cultivating sustained, reciprocal knowledge networks that extend beyond traditional, one-off interactions. Ultimately, these results offer a robust foundation for developing targeted strategies aimed at bridging existing gaps and fully realizing the transformative potential of these partnerships in marketing education.

Discussion

The empirical data unequivocally demonstrates the critical importance of integrating practical, real-world experiences and digital tools into the marketing curriculum.

Student perspectives on practical learning and career readiness

First, the qualitative analysis of student responses revealed a strong desire for hands-on learning experiences, emphasizing the value of field trips, internships, and interactive sessions with marketing agencies. Students strongly preferred hands-on learning experiences, advocating for more exposure to industry-standard tools like Google Analytics and SEMrush. This aligns with Tomlinson's graduate

capital model (2017), which emphasizes that employability development requires skills acquisition, confidence building, and professional identity formation through authentic industry engagement. The model's three-dimensional approach to human capital (skills and knowledge), social capital (networks and relationships), and psychological capital (confidence and resilience) directly corresponds to what students identified as missing from traditional academic approaches. This preference aligns with Connectivism Theory, which emphasizes that knowledge acquisition occurs through dynamic networks rather than isolated cognitive processes (Siemens 2005), as evidenced by the student's desire to engage with industry-standard tools. Students engage with external knowledge nodes by integrating industry-standard tools and hands-on experiences, reinforcing the theory's emphasis on learning through professional and technological connections (Voskoglou 2022).

The students also highlighted the need for certifications and practical skill-building, such as CV development and portfolio creation, to boost their employability. This finding supports Billett's (2009) argument that the educational value of work experiences depends critically on their integration into structured learning processes rather than existing as standalone activities. Even valuable industry exposure may fail to translate into sustainable employability outcomes without proper curriculum integration. According to Byrne (2020), students who engage in practical, industry-driven learning experiences develop stronger problem-solving abilities and a higher level of adaptability, which employers increasingly prioritize in recruitment. While they appreciated guest speakers covering LinkedIn networking and AI tools like ChatGPT, there was a call for more relevant, career-focused content directly addressing their marketing interests. The data indicates a clear student imperative to engage deeply with industry relevant skills and tools, moving beyond superficial exposure to sustained, meaningful professional development.

Industry speaker perspectives and challenges

Second, the industry speakers echoed students' calls for practical knowledge, underlining the importance of keeping marketing skills current. They shared insights into career paths and offered informal mentorship, though some found it challenging to provide structured opportunities due to organizational limitations. While many professionals desired to support students, they cited time constraints, content alignment with curriculum, and lack of interaction as common challenges. This finding is consistent with Jackson and Bridgstock (2020), who found that while employers recognize the value of university collaborations, they often lack structured involvement strategies. This lack of structured involvement strategies represents a significant impediment to the development of robust knowledge networks that are central to Connectivist learning theory.

Furthermore, this gap underscores a limitation in current industry-academic partnerships: while guest speakers serve as knowledge nodes, their influence remains superficial without structured, ongoing interaction. Connectivism Theory suggests that students must actively navigate and sustain these external knowledge networks for meaningful learning rather than passively receiving information (Siemens 2005). This necessity for active engagement underscores the inadequacy of one-off guest speaker sessions. Indeed, without structured mentorship or engagement opportunities, industry professionals remain underutilized as critical learning nodes (Voskoglou 2022). Future initiatives should focus on interactive engagement strategies and formalized mentorship programs that extend beyond traditional guest speaking formats.

Moreover, they emphasised the need for better engagement strategies, such as more interactive sessions and alignment with students' future career needs. This suggests that practitioners may only interact during sessions without apparent efforts to establish expectations for student engagement and support through meaningful and timely activities, making engaging with interactions beyond the educational environment challenging. Some speakers proposed additional university-industry events, live project briefs, and improved collaboration with smaller companies to strengthen university-industry ties. This further emphasises the impact of spatial dynamics and power relations it introduces. Critically, our findings reveal that establishing meaningful student-practitioner connections

requires consciously acknowledging and dismantling inherent power dynamics. Without this, interactions risk reinforcing inequitable relationships and perpetuating preconceived notions about educational outcomes.

Towards sustainable university-industry integration

Third, by introducing novel learning materials and collaborative opportunities, the educational environment can significantly elevate students' professional awareness, foster their development, and cultivate critical skills. In practice, the hands-on tasks and internship experiences allowed students to explore applied marketing methods, acclimate to professional environments, and experiment with practical marketing strategies guided by real-world outcomes. Integrating theory and practice enabled students to connect marketing activities to their professional aspirations and achieve meaningful learning outcomes, supporting Tomlinson's (2017) emphasis on professional identity formation as a core component of graduate capital development. Furthermore, the synergy between practitioner and faculty guidance fostered a rich learning environment where students could explore and reflect on marketing ideas from multiple perspectives, demonstrating the effectiveness of Billett's (2009) curriculum integration approach. Collectively, students, faculty, and practitioners recognized the value of the boot camp setting in establishing innovative approaches to collaborative learning.

Crucially, our findings underscore that the efficacy of university-industry collaborations is fundamentally contingent upon the explicit recognition and mitigation of power imbalances that can limit meaningful engagement between students and industry professionals. Students often struggle to leverage industry connections effectively (Arranz et al. 2022). From a Connectivism perspective, this struggle reflects a breakdown in students' ability to navigate and engage with external knowledge networks. Siemens (2005) highlights that successful learning occurs when learners connect meaningfully with diverse knowledge sources, but this requires more than passive exposure to industry representatives.

However, students cannot fully benefit from these industry relationships without structured engagement and feedback loops. Universities can enhance knowledge transfer and improve long-term employability by designing collaborations where students actively participate in co-created learning experiences (Voskoglou 2022). Research recommends incorporating co-created learning experiences, where students and professionals engage in two-way feedback mechanisms that facilitate mutual learning and knowledge exchange (Encinas and Mirabent 2022). This approach facilitates the development of reciprocal knowledge networks, aligning with the core tenets of Connectivism while addressing the structural barriers identified in our findings.

Integrating these theoretical frameworks, connectivism, graduate capital theory, and curriculum integration, provides a comprehensive understanding of how university-industry collaborations can move beyond superficial engagement to create sustained, meaningful learning networks that enhance both academic outcomes and long-term career prospects for marketing students.

Study contributions

Theoretical contribution

This study contributes to the discourse on employability by integrating the Connectivism Theory with employability models such as USEM (Knight and Yorke 2004). Unlike traditional frameworks emphasizing individual competencies, Connectivism situates employability within knowledge networks. Findings from previous research further support the role of networked learning in career readiness (Tuononen and Hyytinen 2022). Scandurra et al. (2023) further highlight that incorporating networked learning models into university curricula helps students transition more seamlessly into professional roles by strengthening their professional identity formation.

Practical contributions

The alignment in feedback from both groups suggests closer university-industry partnerships could enhance future marketing curricula. We suggest the following:

- **Industry-Aligned Certifications:** Incorporating industry-recognized certifications can enhance students' credibility and employability.
- **Hands-On Learning:** Project-based learning and access to practical tools can equip students with the necessary skills to tackle real-world marketing challenges.
- **Emerging Technology Integration:** Leveraging AI and user-generated content can empower students to harness the potential of digital marketing.
- **Continuous Feedback Loops:** Implementing a feedback mechanism can enable industry speakers to assess the impact of their sessions and tailor future presentations to meet students' evolving needs.

Study limitations

This study acknowledges several methodological and contextual limitations that may influence the generalizability and depth of findings:

Methodological constraints

The study's reliance on a single institutional context limits the transferability of findings to other university settings with different industry partnerships, student demographics, or disciplinary cultures. The cross-sectional design captured participant perspectives at a single point in time, potentially missing the longitudinal development of student-industry relationships and their long-term impact on employability outcomes. Additionally, the study did not employ observational methods or ethnographic approaches that could have provided richer insights into the actual dynamics of university-industry interactions.

Sample limitations

While the study included 16 industry speakers, their involvement was primarily limited to guest speaking sessions rather than sustained mentorship relationships or ongoing collaborative projects. This may have constrained the depth of insights regarding long-term collaborative processes and their effectiveness in building meaningful knowledge networks. Additionally, the student participants were drawn exclusively from final-year marketing programs, potentially limiting perspectives from students at different academic stages who may have varying needs and expectations regarding industry engagement.

Participant Bias: Students' responses may have been influenced by social desirability bias (Fisher 1993; Larson 2019), particularly when discussing the value of current educational approaches or expressing satisfaction with existing programs. Given their voluntary participation in guest speaking activities, industry speakers may represent a more engaged subset of practitioners, potentially skewing perspectives toward more positive collaboration experiences and underrepresenting challenges faced by less motivated industry partners.

Data collection constraints

The study relied primarily on interview and focus group data without incorporating multiple data sources such as reflection journals, portfolio assessments, or performance tracking that could have provided triangulation and enhanced trustworthiness. The absence of longitudinal tracking of student outcomes means the study cannot assess the actual long-term effectiveness of university-industry collaborations on career progression and professional development.

Theoretical limitations

While the study successfully integrated Connectivism Theory with graduate capital and curriculum integration frameworks, it did not explore potential tensions or contradictions between these theoretical approaches. Additionally, the study did not examine how cultural, socioeconomic, or technological factors might influence students' ability to navigate and benefit from knowledge networks.

Recommendations for future research

Future investigations should address these limitations through several methodological and theoretical advances:

Longitudinal research designs

Future research should incorporate longitudinal tracking of student outcomes to assess the long-term impact of university-industry collaborations on graduate employability, career progression, salary advancement, and job satisfaction. Multi-year studies could examine how different types of industry engagement (guest speakers, mentorship, internships, project-based learning) contribute to sustained professional development and network building.

Comparative and multi-institutional studies

Comparative studies across different institutional contexts, disciplinary areas, and national education systems would enhance understanding of how collaboration effectiveness varies across educational environments. Research should examine how institution size, industry partnerships, regional economic conditions, and cultural contexts influence collaboration outcomes.

Mixed-methods and multi-source approaches

Future research should employ mixed-methods approaches that combine qualitative insights with quantitative measures of employability outcomes, including employment rates, salary progression, job satisfaction metrics, and professional network development. Studies should incorporate multiple data sources such as reflection journals, portfolio assessments, performance evaluations, and employer feedback to enhance triangulation and validity.

Employer and graduate perspectives

Future research should investigate the perspectives of employers who hire graduates from university-industry collaboration programs to understand the perceived value and effectiveness of these educational approaches from a recruitment and professional development perspective. Additionally, studies should track graduates 2–5 years post-graduation to assess long-term career impacts and network sustainability.

Theoretical development

Research should explore potential integration challenges between different learning theories and examine how digital literacy, cultural background, and socioeconomic status influence students' ability to navigate professional knowledge networks. Studies could also investigate how emerging technologies (AI, virtual reality, social media) reshape university-industry collaboration possibilities.

Cross-cultural and diversity research

Future investigations should examine how university-industry collaborations function across different cultural contexts and how they can be designed to support diverse student populations, including international students, first-generation college students, and students from underrepresented backgrounds.

Conclusion

This study has provided compelling evidence for the transformative potential of structured university-industry collaboration in marketing education, while identifying critical systemic gaps that currently limit partnership effectiveness. The empirical evidence unequivocally demonstrates a marked preference among students and practitioners for collaborative learning formats that facilitate meaningful engagement, accelerated skill development, and the cultivation of robust professional networks. Of particular significance is the observed alignment between student demands for practical, industry-relevant learning and practitioners' recognition of their role as knowledge facilitators, despite structural barriers that currently prevent optimal collaboration.

The theoretical contribution of this research lies in demonstrating how Connectivism Theory, when integrated with Tomlinson's graduate capital framework (2017) and Billett's curriculum integration principles (2009), provides a comprehensive understanding of how university-industry collaborations function as dynamic knowledge networks rather than static information transfer mechanisms. Unlike traditional employability models focusing primarily on individual skill development, our Connectivist approach reveals that sustainable employability emerges through students' ability to navigate and sustain professional knowledge networks extending beyond graduation. Our findings reinforce the critical role of active learning methodologies and supportive pedagogical frameworks in contemporary higher education. The collaborative learning model, by design, facilitated the seamless integration of theoretical constructs with practical applications, empowering students to effectively bridge the perennial divide between academic scholarship and industry exigencies.

Key practical implications include the need for structured feedback mechanisms that enable two-way knowledge exchange, the systematic integration of industry-standard digital tools throughout the curriculum, and the development of sustained mentorship programs beyond one-off guest speaking engagements. The findings demonstrate that effective collaboration requires addressing systemic challenges, including time constraints, content alignment difficulties, and power imbalances that can limit meaningful student-industry engagement. Without addressing these structural barriers, university-industry partnerships risk remaining superficial rather than transformative.

In alignment with Connectivist principles, the study reveals that future educational interventions should create sustainable knowledge networks by strategically integrating pedagogical and technical tools, structured peer-mediated learning opportunities, and ongoing professional mentorship programs. This integration generated more profound and impactful learning experiences, characterized by enhanced relevance and applicability.

The study's limitations, particularly its single-institutional context, cross-sectional design, and reliance on self-reported data, suggest important directions for future research, including longitudinal tracking of graduate outcomes, comparative analysis across diverse educational settings, and multi-stakeholder perspectives that include employer viewpoints. The cross-sectional design captured perspectives at a single point in time, potentially missing the longitudinal development of student-industry relationships and their long-term impact on employability. Furthermore, the study's sample limitations, particularly the primary involvement of industry speakers in guest sessions rather than sustained mentorship, may have constrained the depth of insights into long-term collaborative processes. Future research should address these by employing longitudinal and multi-institutional designs, incorporating mixed-methods and multi-source approaches, and exploring employer and graduate perspectives over extended periods.

The implications of this research extend beyond the immediate context of marketing education within Business Schools, suggesting a broader imperative for higher education institutions to embrace collaborative, industry-aligned pedagogical approaches that foster student agency and facilitate the development of transferable professional competencies. By adopting such approaches, institutions can better prepare graduates for the complexities of the contemporary workforce, thereby enhancing their employability and contributing to advancing knowledge-driven economies. Finally, the study serves as a catalyst for further exploration into the role of Connectivism in facilitating meaningful learning experiences within collaborative educational settings, prompting a re-evaluation of traditional pedagogical paradigms in favor of more dynamic, networked approaches that recognize learning as fundamentally social and distributed rather than individual and isolated.

The research demonstrates that when properly structured, theoretically grounded, and systematically implemented, university-industry collaboration can serve as a transformative catalyst for higher education reform, better aligning academic preparation with contemporary workforce demands while fostering the development of lifelong professional learning networks.

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All the authors contributed equally to this work.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Ethics statement

This study received ethics approval from the University of Wolverhampton.

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