



Soft Skills Development in Work-Based Learning: a systematic literature review

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Soft skills development in work-based learning: a systematic literature review

Abstract

Purpose - The purpose of this systematic literature review is to identify which soft skills are developed during work-based learning (WBL) programmes in Higher Education contexts. Additionally, the study sought to identify strategies used to promote soft skills development within work-based learning programmes.

Design/methodology/approach - The authors used the PRISMA-P protocol to guide the methodology and ensure the transparency and reproducibility of the paper. 29 papers were considered eligible from the search conducted in two databases in the ten years between 2013-2023.

Findings - Findings indicate that while there is some overlap in the soft skills mentioned, great variety exists due to the complexity of soft skills frameworks. The soft skills most frequently referenced were communication and teamwork skills. Regarding strategies, a few articles mention reflection and personal connections for enhancing soft skills development, however, further research is needed in this area.

Practical implications - A clearer understanding of skill development could significantly benefit higher education institutions, students, and related organisations. This understanding may enhance programme quality and better prepare students for their future.

Originality/value - Although research on the development of soft skills in the context of WBL programmes is still limited, there is increasing evidence suggesting they may be an effective means of fostering these skills. This paper presents an overview of the research conducted to date and outlines potential avenues for further investigation.

Keywords - Work-based learning, Higher Education, Soft skills, Soft skill development, Dual higher education

Paper type - Systematic literature review

1. Introduction

Students must be equipped with a wide range of skills to be able to face challenges and shape their future while contributing to others (OECD, 2018). In this regard, Higher Education Institutions (HEIs) are expected to go beyond education and research by actively contributing to the economic, social, and cultural development of their communities (Arbo and Benneworth, 2007). Skill development is a crucial component of higher education (HE), with widely acknowledged skills (such as problem-solving, critical thinking, or teamwork) representing the higher-order thinking skills that universities

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3 expect from graduates, which also establish the basis of the professional identity of a graduate
4 (Clarke, 2017). Becoming job-ready involves acquiring not just knowledge and technical skills, but
5 also understanding how to work in a team, communicate effectively with others, and learn about
6 working methods and workplace culture (Trede, 2012). In Europe, the Bologna Process led to an
7 emphasis from HEIs on developing these skills, including teamwork, problem-solving, planning,
8 and communication (Sin and Neave, 2016).
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12 Regardless of the growing relevance of skills, the definition and theoretical consistency of studies
13 on skills, especially soft skills, lack consensus, and terms such as soft skills, competencies, and
14 generic skills are frequently used interchangeably (Marin-Zapata *et al.*, 2022). Many frameworks
15 have tried to assist in this task, such as Life Skills Education in School (WHO, 1993), 21st Century
16 Skills (OECD, 2009), Future Work Skills 2020 (ITTF, 2011) or the OECD Future of Education and Skills
17 2030 project (OECD, 2019). This last one defines skills as “the ability and capacity to carry out
18 processes and to be able to use one’s knowledge in a responsible way to achieve a goal. Skills are
19 part of a holistic concept of competency, involving the mobilisation of knowledge, skills, attitudes
20 and values to meet complex demands.” (OECD, 2019, p. 86). Furthermore, it also seeks to define
21 the knowledge, skills, attitudes, and values students require to adapt to environmental and daily
22 life changes and contribute to shaping the future (OECD, 2019).
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27 Despite the attempts of HEIs to address the issue of soft skill development (Succi and Canovi, 2020),
28 in the public sector of Europe, an estimated 8.6 million people lack skills, such as problem-solving
29 capacity, creativity, entrepreneurial thinking, self-initiative, adaptability, and digital literacy (Chinn
30 *et al.*, 2020). Moreover, there are some discrepancies among employees, employers and education
31 providers regarding skills needed in the workplace referred to as a “skills gap”, which has been
32 studied globally across different industries and sectors (Rikala *et al.*, 2024). As the skills gap arise
33 from discrepancies among these groups (Rikala *et al.*, 2024), the inclusion of the workplace in HE
34 programmes and the collaboration between HEIs and companies could facilitate the acquisition of
35 competencies and skills of students (Arranz *et al.*, 2022; Ferrández-Berruero *et al.*, 2016).
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40 WBL programmes have been perceived as useful for soft skills development (Tuononen *et al.*,
41 2022), as they facilitate the application of discipline-specific knowledge and skills in the workplace
42 (Clarke, 2017). However, there is some debate on the model of transfer of skills or knowledge from
43 university to the workplace (Hinchliffe and Jolly, 2011). Furthermore, the mere participation in WBL
44 programmes is insufficient to ensure successful learning outcomes; the activities within the work
45 experience need to be meaningful and aligned with the intended learning objectives (Orrell, 2004).
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49 Various theoretical perspectives have been identified for the successful implementation of WBL
50 programmes (Ferns *et al.*, 2024). They mention “Reflective practice” based on the theories of Schön
51 (1983) and Gibbs (1988), and Kolb (1984) and Dewey’s (1938) “Experiential learning” theory and as
52 they allow students to reflect on their workplace experiences and acquire new knowledge that can
53 be applied to future professional practice. They also mention other theoretical perspectives, such
54 as the “Theory of progressive education” (Dewey, 1897), the “Social learning theory” (Bandurra,
55 1977), the “Situated learning theory” (Lave, 1991; Lave and Wenger, 1991; Wenger, 1998) and
56 “Socioculturalism” (Vygotsky, 1978; Engestrom, 1999). All of these theories relate to learning that
57 occurs through the context and social interactions inherent in WBL programs. These interactions
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should be considered, as their context can enable reflection and subsequent learning of the students (Ferns *et al.*, 2024).

To further understand skill development during WBL programmes, this study presents a systematic literature that aims to determine which soft skills are developed during these programmes. We provide a general perspective of the research conducted on this topic to date and gather information from different countries and fields of study. Furthermore, since skill development should be integrated into the curriculum rather than being isolated as additional learning (Murray *et al.*, 2020), we also aimed at identifying any specific strategies used for their development.

To this end, the following research questions (RQ) were formulated:

RQ1: Which student soft skills are developed during WBL programmes in the context of Higher Education?

RQ2: What are the strategies used to develop student soft skills during these programmes?

2. Methodology

The PRISMA-P protocol (Page *et al.*, 2021) was followed to ensure the transparency and reproducibility of the paper. Following the protocol also provides the reader with detailed information on eligibility criteria, search strategy, and data analysis process.

2.1 Data collection

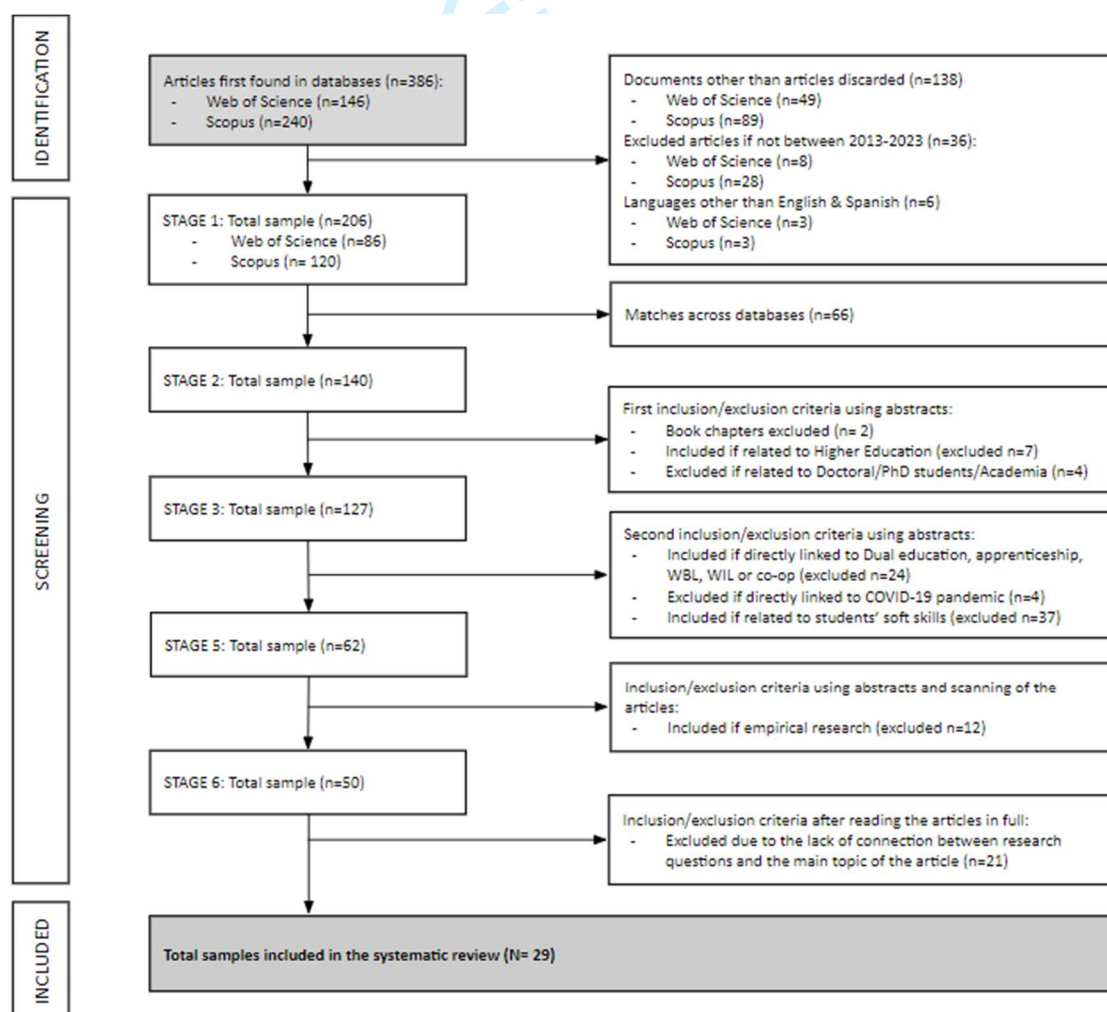
The search was conducted between March and April of 2024 using the databases Web of Science (<https://www.webofscience.com/>) and Scopus (<https://www.scopus.com/>). These two databases were selected based on their academic research ranking and ability to provide international papers, giving us a broader knowledge base. WBL, soft skills and their respective synonyms were used for the search. It was also limited to HE, and VET was excluded. The search was done in Title, Abstract, and Keywords in accordance with the Prisma-P protocol, and the following Boolean search string was used:

("soft skill*" OR "generic skill*" OR "transferable skill*" OR "employability skill*" OR "key skill*" OR "core skill*" OR "power skill*" OR "essential skill*" OR "basic skill*" OR "necessary skill*" OR "socio emotional skill*" OR "life skill*" OR "graduate* skill*" OR "personal* skill*" OR "generic skill*" OR "noncognitive skill*" OR "social skill*" OR "interpersonal skill*" OR "21* century skill*" OR "transversal competen*" OR "horizontal competen*" OR "generic competen*" OR "general competen*" OR "social competen*" OR "meta competent*" OR "key compten*") AND ("dual education" OR "work-based learning" OR "WBL" OR "apprentice*" OR "work integrated learning" OR "WIL" OR "workplace learning" OR "co-op") AND ("higher education" OR "HE" OR "universi*") AND NOT ("VET" OR "vocational education training" OR "vocational education" OR "vocational training"))

2.2 Inclusion and exclusion criteria

After conducting the search using the specified string, 386 papers were found, $n=146$ in Web of Science and $n=240$ in Scopus. We then narrowed our search by only considering articles published in English or Spanish between 2013-2023. This left us with 206 articles, and after discarding duplicates, 140 articles were considered for the second stage of the discard process. During this stage, we carefully reviewed abstracts to ensure that all papers were relevant to the topic. We excluded book chapters, articles unrelated to HE, and articles focused on doctoral programs or academia. Furthermore, articles that were not related to dual education or similar programs, articles situated in the context of the COVID-19 pandemic, and articles not related to soft skills, were also excluded. We then scanned the articles to exclude any articles that were not empirical research. Last, after reading the articles in full, further papers were discarded due to the lack of connection between the research questions of the review and the main topic of the article. Thus, 29 articles were finally included in this systematic review. All authors agreed upon the discarding process illustrated by a flow diagram in Image 2 to reduce selection bias.

Table 1. Literature flow diagram



Source: Authors own work

3. Study characteristics

Most of the studies in this literature review come from Oceania ($n = 11$), specifically from Australia ($n = 9$) and New Zealand ($n = 2$). There are seven studies from Europe, three from the UK and one each from Hungary, The Netherlands, Malta, and Spain. Six other studies were conducted in Asia, three in Malaysia, and one each in China, Thailand, and Vietnam. Lastly, two articles were conducted in North America, specifically in the USA and Canada, and three others in South Africa. It could be assumed that studies related to the development of soft skills during WBL programmes in HE have been conducted all over the world. However, there is a lack of representation from Latin American countries.

When examining the study designs, twelve papers employed a mixed-method approach. Among them, one utilised an exploratory sequential method, and the other a mixed case study. Eleven of them followed quantitative methodologies, one being a quantitative longitudinal study. Interestingly, only six papers conduct qualitative studies, including two qualitative case studies.

Moreover, it must be mentioned that 20 studies analysed the perspective of students, in which one study analysed students and graduates, while another analysed just the graduates. Furthermore, eight studies included other stakeholders in the sample, all of which also included students. A single paper included a sample without students, which analysed employers' perceptions and satisfaction. Related to this, it should be noted that five of the articles provide a low response rate.

4. Findings and discussion

Table 2 summarises the articles included in this review, providing information on the origin, the soft skills each article mentions to be developed, as well as the strategies mentioned for their development.

4.1 Soft skill development during WBL programmes

The terminology and categorisation of soft skills are debated in the literature, leading to challenges and misconceptions among researchers. In this article, we have identified 50 different soft skills, and after grouping them into the three clusters proposed by the OECD Learning Framework (OECD, 2018) (see Appendix 1 for further information), we observed that communication is the skill most frequently mentioned, falling within the cognitive and meta-cognitive cluster. This finding is in line with other reviews aiming to identify skills in specific fields who found communication and collaboration to be the highest ranked skills (Dooley *et al.*, 2024). Moore and Morton (2017) also mentioned that 'effective communication' is identified as one of the most important skills, yet it is also one that graduates often lack. However, it must be mentioned that Halili *et al.* (2022) found that communication is not significantly related to students' readiness for employability 4.0 in WBL programmes.

Another skill mentioned within the social and emotional cluster is teamwork. Activities involving teamwork are especially valuable as they not only foster opportunities for their development, they also provide a context for developing leadership skills, interpersonal skills and communication

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3 (Crebert *et al.*, 2004). Teamwork is a skill needed to succeed both academically and professionally
4 (Konstantinou and Miller, 2021), and thus, its development in both contexts should be needed.
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6 Lastly, in the physical and practical skills cluster, ICT skills are mentioned the most. However, it
7 appears that they are less developed or acknowledged, as they are referenced in fewer articles
8 compared to the previous two. It must also be mentioned that gender differences in perceived
9 skills importance seem to exist, as female students seem to value the importance of
10 communication, critical thinking, and event organisation skills more than male students (Ha and
11 Duong, 2022).
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Table 2. Characteristics of the included articles

| Paper | ID | Country | Developed soft skills | Strategies for soft skill development |
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| P1 | Ali et al. (2017) | Malaysia | Communication skills | |
| P2 | Cain et al. (2022) | UK | Networking skills | Networks and personal connections |
| P3 | Cull et al. (2022) | Australia | Self-efficacy, self-confidence, communication, teamwork, and problem-solving. | |
| P4 | Dewi and Velasquez (2023) | Australia | Students: Communication, teamwork, problem-solving, and time management and organisational skills. Workplace supervisors: Teamwork, communication, and research skills. | Networking and mentoring |
| P5 | Doolan et al. (2019) | Australia | Communication, professional relationships and networking, planning, organisational, and problem-solving skills | Integration of reflective practice into the programme |
| P6 | Downs et al. (2023) | UK | Self-awareness, self-direction, and self-regulation | Reflection and individualised learning programmes |
| P7 | du Plessis and Bezuidenhout (2019) | South Africa | Communication, professional and ethical behaviour, critical thinking / problem-solving, use of technology, integration of theoretical knowledge and practical skills, and teamwork | |
| P8 | Dwesini (2017) | South Africa | Self-confidence, communication, teamwork, professionalism, time management, and computer skills | Reflective monthly reports |
| P9 | Fleming and Haigh (2017) | New Zealand | Communication, teamwork, and networking skills | |
| P10 | Goodwin et al. (2019) | Canada | | STAR-reflection |
| P11 | Griffiths et al. (2018) | UK | Communication, self-management, coaching delivery, teamwork, leadership, problem-solving, reflection, and IT literacy | |
| P12 | Grooters et al. (2023) | The Netherlands | Oral communication skills, teamwork skills, ethical thinking, project-based working skills, and leadership skills | |
| P13 | Ha and Duong (2022) | Vietnam | Foreign languages, communication, presentation and event organisation, risk management, information technology, problem-solving, critical thinking, time management, and | Networks and personal connections |

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| | | | teamwork | |
| P14 | Halili et al. (2022) | Malaysia | Interpersonal skills, information technology, problem-solving, entrepreneurial, and self-management skills | |
| P15 | Hu (2023) | South Africa | Critical thinking skills | Socratic questioning |
| P16 | Jaaffar et al. (2016) | Malaysia | Employers: Working effectively with others, communication, critical thinking, develop professionalism, and data analysis and the use of technology | |
| P17 | Jackson (2013a) | Australia | Problem-solving, critical thinking, communication, working effectively with others, develop an understanding of what constitutes being a professional, and efficient practice in the field. | Classroom activities involving self-reflection on performance and achieved outcomes, and on-the-job training, coaching and mentoring during placements. |
| P18 | Jackson (2013b) | Australia | Working effectively with others, communicating effectively, self-awareness, thinking critically, analysing data and using technology, problem-solving, developing initiative and enterprise, self-management, social responsibility and accountability, and developing professionalism | |
| P19 | Jewpanya et al. (2023) | Thailand | Self-adjustment, awareness of responsibility, self-development, pursuit of knowledge, problem analysis, creativity and supportive thinking, and communication. | |
| P20 | Macdonald et al. (2014) | Australia | Communication, interpersonal, concept and analysis skills, and professional skills | |
| P21 | Martin-Lara et al. (2019) | Spain | Communicative skills, adaptability, teamwork, decision-making, and persistence and perseverance | |
| P22 | McManus and Rook (2021) | Australia | Networking, project planning, self-management, strategic management, communication skills, and intergenerational tolerance | Combining on- and off-campus activities, and networking |
| P23 | Miller et al. (2022) | USA | Communication skills, cultural awareness, and disability awareness | Think-pair-share method (it is not used in their research, but mentioned in the discussion as an option) |
| P24 | Ng et al. (2021) | China | Entrepreneurship, professional development, working with others, self-management, communication, and problem-solving | |

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| P25 | O'Brien et al. (2013) | Australia | Communication skills | |
| P26 | Pogatsnik (2018) | Hungary | Apply academic knowledge and skills in the work environment, collaborate in teams, network with professionals, and improve time and organisational management skills | |
| P27 | Sambell et al. (2020) | Australia | Career management, self-management, initiative skills, conflict management, research, and communication skills | |
| P28 | Tan et al. (2022) | New Zealand | Applying knowledge in real situations, seeing connections between theory and practice, and the ability to consolidate knowledge. Planning and analysing, critical thinking, synthesising information, problem-solving, and reflective thinking. Teamwork, oral communication, interpersonal skills, self-confidence, positive attitude and business awareness skills. | Good mentoring and cooperative team members |
| P29 | Thake (2021) | Malta | Research, communication, time management, and networking skills | Mant's plan-do-review cycle |

Source: Authors own work

All the articles in this systematic review except one (Jaaffaar *et al.*, 2016) showcase the students' perspectives on their soft skill development. However, the soft skills that students mention may not align with the needs and perspectives of governments, universities, or employers. For instance, García-Álvarez *et al.* (2022) in their systematic review found basic skills (literacy, numeracy and communication), teamwork skills, and problem-solving skills to be the most important soft skills for employers in an international context. Even though our findings align with García-Álvarez *et al.* (2022) in the first three most mentioned skills, in our review only three articles mention "Interpersonal skills", while they find it to be the fourth most important skill for employers. Furthermore, some of the skills mentioned in the (OECD, 2018) clusters are critical thinking, creative thinking, learning to learn, self-regulation, empathy, self-efficacy, collaboration and ICT skills. All of them are mentioned in the articles in this systematic review, however, not at the same level. Prikshat *et al.* (2019) also found that stakeholders identified deficits in self-management, communication, teamwork and political competencies. They mention that the causes of these deficits could be associated with expectation gaps between educational providers and industry, a lack of graduates' self-awareness, employers' unclear expectations, and a lack of industry engagement.

4.2 Strategies for soft skill development during WBL programmes

4.2.1 Reflection

When considering the strategies used to develop soft skills during WBL programmes, we found that few papers mention them explicitly. However, some refer to different forms of reflective practice as a strategy or theoretical perspective useful for their development (Doolan *et al.*, 2019; Downs *et al.*, 2023; Goodwin *et al.*, 2019; Hu, 2023; Jackson, 2013a; Miller *et al.*, 2022; Thake, 2021). For instance, Miller *et al.* (2022), cite the possibility of using the Think-Pair-Share method as a strategy. Another approach is, as Thake (2021) proposes, to incorporate Mant's Plan-Do-Review conceptual framework (Mant, 1997) which is based on Kolb's experiential learning theory (Kolb, 1984) during the placements of the students.

Related to reflection, Downs *et al.* (2023) mention that, in their research, students had to submit monthly reflective logs throughout their internship. In them, students captured work-based learning incidents and developed action plans to face them. They state that students need to engage in reflective practice in order to develop their meta-competencies.

Likewise, Hu (2023) cites Socratic questioning as another strategy to encourage reflective practice. According to their findings, participants acknowledged the benefit of Socratic questioning for developing critical thinking. However, their findings suggest that proper implementation of Socratic questioning requires sufficient time and space for discussion and qualified lecturers.

Goodwin *et al.* (2019) examined whether students can articulate, retain and transfer their employability skills over time. Based on the study of Brumm *et al.* (2006), Goodwin *et al.* (2019) integrated the STAR-reflection (Situation/Task, Actions, Result) assignment into the course.

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3 Students had to develop three reflection assignments using the STAR-reflection template, after
4 which they received summative and formative feedback from their instructor and peers. According
5 to their findings, this assignment helped the STAR-instructed students become more aware than
6 the non-STAR-instructed students of the connection between employability skills and their
7 university course. Although students' ability to articulate employability skills is affected by students'
8 involvement in the STAR-reflection assignment, findings suggest that it is not affected by their year
9 of study or participation in co-op programmes.
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13 Doolan *et al.* (2019) also mention that recurring critical reflection on practical applications offers
14 opportunities for growth and development. Nevertheless, Griffiths *et al.* (2018) noted that the lack
15 of importance students placed reflective practice was concerning, despite mentioning it as one of
16 the top five most developed skills during the programme. As a result, Griffiths *et al.* (2018) argue
17 that more emphasis should be placed on reflective practice among students. Engaging in feedback
18 and self-reflection helped students develop some soft skills, while also developing a better
19 understanding of what defines professional and effective practice in their field (Jackson, 2013a).
20 Jackson (2013a) considers that classroom activities that help students with their WBL experience,
21 and consequent skill development, should include feedback and review cycles. Importantly,
22 feedback on WBL programmes should also include the perspective of the placement supervisor,
23 although there is limited literature on how to do so (Thake, 2021).
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28 This finding is relevant as OECD (2018) mentions skills are developed using the sequence of
29 reflection, anticipation and action. Reflective practice entails adopting a critical viewpoint when
30 making decisions, choices, and actions by distancing oneself from preconceived notions and
31 examining the situation from multiple perspectives (OECD, 2018). Moreover, this theoretical
32 perspective is also mentioned by Ferns *et al.* (2024) as a theoretical framework for the design and
33 execution of WBL programmes. However, the likelihood of reflection increases when structured
34 formal and informal opportunities are available to support it; for instance, by including mentoring
35 sessions, feedback sessions, or engaging in dialogue with supervisors, peers, and colleagues (Smith
36 and Trede, 2013). This is also in line with Twyford and Dean (2024) who mention feedback and,
37 more specifically self-feedback through reflection as a strategy for the development of some soft
38 skills. Nevertheless, few articles in our review incorporate reflective practice, feedback and group
39 sessions in their research, and therefore, there is limited research showcasing the effectiveness of
40 these practices regarding soft skill development.
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46 WBL and other similar programmes previously mentioned possess significant educational
47 potential, acting as a bridge for cultivating professional identity between the university and the
48 workplace (Trede, 2012). Authentic workplace experiences help students develop their
49 professional identity. Bowen (2018) also notes that by describing and reflecting on workplace
50 relationships, the research participants were able to understand how professional identities are
51 formed and transformed. However, active engagement and agency in conjunction with
52 appropriate support and mentorship is needed (Trede *et al.*, 2012).
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4.2.2 Personal connections and networking

A number of papers in this review highlight the significance of personal connections and networks. For instance, Tan *et al.* (2022) found that students' development of cognitive and behavioural skills is directly linked to their interactions with supervisors and co-workers. They also note that the group of students who did not show much improvement in behavioural skills could be attributed to the lack of involvement from their mentors. Ng *et al.* (2021) discovered that employer engagement plays a significant role in improving employability skills, particularly in communication, problem-solving, and self-management. Fleming and Haigh (2017) also note that some students in their research consider developing networks and personal connections a significant benefit of cooperative education.

Only a few studies in this review have gathered the perspectives of additional stakeholders participating in WBL programmes. Nevertheless, the ones that have included academics in their research (Doolan *et al.*, 2019; Fleming and Haigh, 2017; Jewpanya *et al.*, 2023; McManus and Rook, 2021; du Plessis and Bezuidenhout, 2019) indicate that these interpersonal relationships are significant not only for students but also for academics. As McManus and Rook (2021) found, the academic group in their research mentioned networking with employers as one of the top three important types of assistance for managing their WBL programme.

The collaboration and improvement in personal connections is essential for the development of student soft skills. For instance, (Doolan *et al.*, 2019) found that improving communication channels between the tertiary institution and industry partners was a recurring theme in their research. Similarly, du Plessis and Bezuidenhout (2019) found that proper and well-timed communication is important to ensure the quality of learning in WBL programmes, as this would help to communicate expectations regarding outcomes, assessment methods and supervision. In their research, email correspondence was the most used communication system, followed by advisory committee meetings. However, the fact that over half of the supervisors in this study stated that they never visited the student or reported minimal visits was concerning to them.

The recurring emphasis on personal connections and networking suggests that these elements could be crucial for the effective development of students' soft skills. This is also in line with the theoretical perspectives mentioned by Ferns *et al.* (2024) who stress the importance of social learning and WBL programmes' learning context when considering learning outcomes and the design and implementation of WBL programmes.

5. Conclusion

This literature review aimed to identify the soft skills developed in WBL programmes, as well as any utilised strategies to foster them. The literature analysed revealed that most of the skills developed are from the cognitive and meta-cognitive, and social and emotional skills clusters. More specifically, the skills that were mentioned in ten or more articles were communication situated in the cognitive and meta-cognitive cluster and teamwork in the social and emotional skills cluster. Regarding the utilised strategies, a combination of reflective practice, the development of personal

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3 connections and communication between peers and individuals involved in the programme seem
4 to be the most effective.
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6 However, several limitations should be considered, which are common to many investigations.
7 Despite being transparent and objective, the systematic procedure has some drawbacks. The
8 selection of the articles was influenced by the fact that despite the use of multiple synonyms for
9 "soft skills" and "work-based learning", some may have been overlooked. Furthermore, specific
10 skills were not included in the search and the search was limited to titles, abstracts and keywords.
11 A more extensive database could have been achieved by searching through the whole article.
12 Moreover, the search was conducted in Web of Science and Scopus, further research should
13 consider the use of other databases, such as Google Scholar and ERIC. Additionally, we focused on
14 papers written in English and Spanish, which could lead to overlooking contributions in other
15 languages.
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20 This systematic review reveals that most articles focus on specific contexts or fields of study, with
21 some research reporting low response rates, and lacking any longitudinal research. Furthermore,
22 the sources analysed in this review are based on the perspectives of students. Additionally, the
23 absence of contributions from Latin American countries is concerning. Hence, there is a need for
24 further investigations that encompass extended longitudinal studies and a diverse range of
25 scenarios within this area of study. Such research could shed light on the environments that
26 facilitate soft skill development. Besides, further studies should seek to identify more strategies
27 that promote skill development, as not many strategies were found in this review. A closer
28 examination of the identified strategies (namely, personal connections and reflective practice)
29 could be beneficial for understanding the characteristics necessary for their effective
30 implementation and the extent of their impact on soft skills development.
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35 Despite these drawbacks, this study contributes to the understanding of the soft skills developed
36 during WBL programmes in different countries around the world, as well as providing some
37 strategies used for their development. The outcomes could hold practical implications for HEIs,
38 students and other entities participating in these programmes as they could lead to the
39 improvement in the overall quality of the programmes and, thus, the preparedness of the students
40 for employability and the future.
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Asterisked references indicate studies included in the review.

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Appendix 1. Soft skill development categorised into the OECD Learning Framework

| OECD learning framework 2030 skills | Soft skill | Author | |
|-------------------------------------|---|-------------|------------|
| | | Development | Importance |
| Cognitive & meta-cognitive skills | Communication skills (oral and written) | 18 | 2 |
| | Problem-solving / problem analysis | 9 | 2 |
| | Critical thinking | 8 | 1 |
| | Integration of theoretical knowledge and practical skills | 4 | |
| | Leadership skills | 2 | |
| | Reflective thinking | 2 | |
| | Initiative skills / developing initiative and enterprise | 2 | |
| | Entrepreneurial skills | 1 | 1 |
| | Self-awareness | 1 | 1 |
| | Business awareness skills | 1 | |
| | Concept and analysis | 1 | |
| | Creativity and supportive thinking | 1 | |
| | Decision-making skills | 1 | |
| | Ethical thinking | 1 | |
| | Information synthesis | 1 | |
| Planning and analysis | 1 | | |
| Pursuit of knowledge | 1 | | |
| Project-based working skills | 1 | | |

| | | | |
|---------------------------|--|----|---|
| | Risk management skills | | 1 |
| | Self-regulation | | 1 |
| Social & emotional skills | Teamwork/working with others | 13 | 1 |
| | Networking / professional relationships | 5 | 1 |
| | Self-management | 4 | 2 |
| | Developing professionalism | 4 | |
| | Self-confidence | 3 | |
| | Professional behaviour | 3 | |
| | Interpersonal skills | 2 | 1 |
| | Social responsibility and accountability | 2 | |
| | Career management | 1 | |
| | Coaching delivery | 1 | |
| | Conflict management | 1 | |
| | Cultural awareness | 1 | |
| | Disability awareness | 1 | |
| | Ethical behaviour | 1 | |
| | Persistence and perseverance | 1 | |
| | Positive attitude | 1 | |
| | Self-adjustment | 1 | |
| | Self-development | 1 | |
| | Self-efficacy | 1 | |

| | | | |
|-----------------------------|---|---|---|
| | Intergenerational tolerance | | 1 |
| | Self-direction | | 1 |
| Physical & practical skills | Information and communication technology (ICT) skills | 5 | 2 |
| | Time management | 5 | 1 |
| | Organisational skills | 3 | |
| | Research skills | 3 | |
| | Planning skills | 2 | |
| | Adaptability | 1 | |
| | Foreign language | | 1 |
| | Presentation and event organisation | | 1 |
| | Project planning | | 1 |

Source: Authors own work