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‘Who is sitting in the learner’s corner?’: implications for a quality framework of work-integrated learning

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Abstract

This qualitative study explores how work-integrated learning (WIL) is understood and practised in work-life settings, extending beyond the higher education context. The aim of the study is to examine how WIL manifests in work-life settings and what implications can be derived for conceptualising a quality framework for WIL directed at both higher education institutions and work-life partners. Guided by sociocultural learning theories, a reflexive thematic analysis was conducted on empirical data collected from focus group interviews with teachers, managers, and supervisors at the university and a strategic partner organisation, as well as responses to open-ended student surveys. Three overarching themes were identified as key when conceptualising a quality framework for WIL: i) Enhancing WIL understanding; ii) Managing resources and supporting culture; and iii) Strengthening stakeholder engagement. Based on the findings, the study contributes a concept sketch of a WIL quality framework and four guiding principles for advancing the quality dimension in WIL. The main argument is to sustain a holistic perspective that gears a unified, integrative approach to accommodate the dynamic interrelationships and responsibilities that WIL poses on both higher education institutions and work-life partners.

Keywords: Collaboration, Holistic approach, Lifelong learning, Quality framework, Shared responsibility, Work-integrated learning, Work life

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Introduction

To compete in the global economy, graduates from higher education must be prepared for careers in work life, characterised by increased complexity, higher specialisation, and increased independence at work. This demands competencies beyond traditional theoretical knowledge, such as preparing for uncertainty and unknown outcomes (Barnett, 2000; Vallo Hult & Byström, 2021) and learning that involves a readiness to initiate and, in collaboration with others, drive societal change (Billett, 2014). Work-integrated learning (WIL) emphasises practical work and experiential learning during education, but these are also essential components of learning in the workplace (Billett, 2022). The WIL approach has traditionally focused on integrating academic learning with work experience in the context of higher education (e.g., Areskoug Josefsson et al., 2024; Björck & Willermarck, 2024). Within a WIL approach, the focus is generally on dynamic knowledge exchange among academics, students, and practitioners in the workplaces of collaborating organisations (Mackaway & Winchester-Seeto, 2018; Olsson et al., 2021). It is a pedagogical concept for organising higher education, where teachers invite partners from various work practices to contribute and collaborate for the benefit of all (Billett, 2009a).

However, WIL can further be understood from the perspective of lifelong learning as it is a continuous process of professional development in adults' working lives (Billett, 2009b; Field, 2000). Thus, WIL is not only for the growth of students' skills and their ability to meet their future work life, but also for university partners and teachers themselves when developing their educational and competence programs. From a broader perspective, continuing education is part WIL, extending beyond higher education, especially in specialised professions such as healthcare, where professionals need to keep their knowledge and skills up to date throughout their careers (Billett, 2014; Sargeant et al., 2018). While much WIL research focuses on higher education and students' learning, there is growing interest in how WIL activities can be integrated into continuing education and workplace learning as workplaces become increasingly complex and dynamic. There is a need for more studies that address these ongoing developments and their implications for the workplace, practice and research (Jaldemark et al., 2021). This study is based on an ongoing collaborative project involving researchers, teachers, managers, and practitioners at University West and the NU Hospital Group, as part of and aligning with work-integrated learning within the strategic partnership (Vallo Hult et al., 2024). The overall goal is to develop a quality framework that supports collaboration and communities of educators in understanding, designing, and applying WIL in higher education and work life.

Aim and research questions

This paper explores and discusses the conditions for and experiences of conducting WIL in teaching and learning at work from an educational as well as a work-life perspective. A broader view of work-integrated learning is advocated, emphasising that organisations, whether involving students or employees, must develop innovative ways of working and learning to prepare for a complex future workforce and continuous skill development. Based on a qualitative approach, the overall purpose of this study is to identify and provide knowledge underpinning the understanding and application of WIL in higher education and work life. More specifically, the aim of the study is to explore how WIL manifests in work-life settings and what implications can be derived for conceptualising a quality framework for WIL directed at both higher education institutions and work-life partners. The research questions are:

- *How can WIL be conceptualised and applied in work-life settings?*
- *What implications can be generated for the design of a WIL quality framework?*

The main contribution of the paper is a nuanced description of WIL conceptualisations and the importance of mutual knowledge exchange, along with a multi-perspective approach that incorporates multiple perspectives into the development and application of WIL. It also highlights how a framework based on these foundations can support quality development and enhance the application of WIL in both higher education and work life.

The remaining part of the paper is structured as follows: the next section presents a selected set of WIL approaches and frameworks, followed by the theoretical background, which outlines learning theories used to understand and conceptualise how WIL can be enacted and realised in higher education and work life. Next, the qualitative research approach and methods section of the current study is described. Thereafter, the findings are presented as three key themes derived from the analysis, followed by a discussion of the findings and implications for the quality framework. The paper concludes by considering the contributions of the study and proposing considerations for the design and use of the framework.

Related work on quality frameworks for work-integrated learning

Previous research has long stressed the need for universities to “break away from many established scientific norms” (Trencher et al., 2013, p. 41) and to foster transdisciplinary collaborations with actors from the public, private, and civil sectors. Within a WIL approach, the focus is generally on the dynamic knowledge exchange between academics, students, and practitioners across collaborating organisations (Mackaway & Winchester-Seeto, 2018; Olsson et al., 2021). Quality development in WIL is evolving through both institutional strategies and global frameworks. Institutions are encouraged to adopt university-wide approaches, using frameworks to scaffold WIL across degree programs and ensure consistency (Dean et al., 2020; Dollinger & Brown, 2019). Ongoing evaluation and adaptation are recommended to remain responsive to stakeholder needs and evolving industry trends (Marlow et al., 2021; Rowe et al., 2021; Smith et al., 2021). The integration of stakeholder feedback, regulatory standards, and competency-based models ensures that WIL remains relevant and impactful. Continued collaboration across borders and sectors will be essential for refining and sustaining high-quality WIL practices.

As WIL expands globally, institutions are developing quality frameworks to ensure the effectiveness, relevance, and sustainability of WIL activities. WIL has been developed in several colleges and universities globally, and there are prominent examples of how to assure quality specifically for WIL activities, e.g., in Australia (ACEN, 2015, 2023) and Canada (McRae et al., 2018). Especially in the higher education sector, there are some established, internationally developed approaches that can be compared with integration and progression models for how different forms of WIL can promote both subject-specific and general skills, as well as progression models in educational programmes. Three such well-established approaches are (i) the *Cohesive Approach*, which aims to map learning objectives for WIL across various courses within the program’s structure. It represents a vertical integration of different workplace-related learning elements into the curriculum to ensure continuous development of knowledge, skills, practice, and familiarity. (ii) The *Scaffolding Approach*, which aims to incorporate multiple WIL elements into the curriculum, enabling deep learning through a progression of WIL experiences from simple to increasingly complex and challenging. It focuses on specialisation and progression by linking increasingly difficult WIL elements to the same educational objectives. (iii) The *Diverse Approach*, which aims to expose students to various workplace, industry, and community partners in different contexts, focusing on gaining breadth and variety of experiences from diverse settings to meet the same educational objectives within the curriculum (Campbell et al. 2014). Furthermore, there are examples of quality development in relation to WIL with a focus on internship programs (Titov et al. 2023) that involve collaborating parties (cf. Lundh Snis et al., 2023) and systematic use of feedback and suggestions in the internship process, which copes with the idea of the quality framework of WIL.

While a few national initiatives have been carried out in sector-wide implementations of WIL-like models, such as within VILÄR (Carlsson, 2021), existing WIL models and methods typically exist as separate solutions without a cohesive academic or systematic framework. There is a gap in knowledge about what and how the quality dimension distinguishes WIL-like models in higher education and work life. Throughout this article, WIL is used as a holistic approach to education and learning for diverse groups in both higher education and working life. It is built on collaboration and knowledge exchange between the university and society, and the dual societal learning outcomes for the involved actors. In a lifelong learning experience, students become aware of the need for continual learning even after graduation and that the university intends to foster strategies for continuous learning.

Theories for work-integrated learning

The theoretical framework underpinning this study brings together interrelated learning theories to understand and conceptualise how WIL can be enacted and realised in higher education, workplaces and digital contexts. People never stop learning as they communicate and interact in situations where knowledge, skills, competence, or experience become highly valuable. Therefore, WIL has the potential to create synergies between work and learning that are directed not only towards students at universities and workplaces, but also towards organisations and society in a wider perspective.

Sociocultural theories and communities of practice

This study is anchored in practice-based and sociocultural learning theories, which emphasise the interdependence of participation in work practices and the process of learning. Individuals learn through their engagement in everyday workplace activities and interactions with colleagues, technology, and workplace artefacts (Billett, 2009b, 2014). This perspective critiques the traditional dichotomy between formal and informal learning, especially the assumption that informal or non-formal, ad hoc, and unstructured learning is less important. Instead, it views workplaces as essential learning environments for professional practice that generate potentially important learning (Billett, 2014; 2022). Adult learning theory, or andragogy (Knowles, 1970), highlights the unique ways adults approach learning compared to children or younger students. Adult learners prefer autonomy, practical application, and drawing on past experiences. They are self-directed and motivated by using their knowledge at work (Taylor & Hamdy, 2013; Zepeda, et al., 2014). These principles have shaped professional development, workplace learning, and continuing education, emphasising the need for relevance, autonomy, and immediate applicability in adult education settings. Experiential learning (Kolb, 2014), while focused on the individual's learning cycle, should also be mentioned in the context of WIL and adult learners because it positions experience as a central element of learning.

Learning from a sociocultural perspective (Säljö, 2000) extends beyond formal institutions and spans people's lives over the years, not only in institutionalised schools during their young years. Universities provide an institutionalised approach to learning within formal settings through activities such as lectures, seminars, and workshops. Workplace learning environments often differ because of the diverse methods used to produce goods and services. However, learning persists regardless of context, whether in routine work situations or between lectures in higher education, as it is embedded in social practices (Kress et al., 2021; Lave & Wenger, 1991). The sociocultural view recognises that knowledge and skills are constructed through social engagement within authentic workplace environments, where learners develop understanding not only through individual effort but also through collaboration, communication, and participation in workplace cultures (Säljö, 2000). This view of learning, deeply embedded in social practices and situated within specific cultural contexts, aligns with WIL, in which knowledge and skills are co-constructed through social participation and authentic activities. Wenger (1998) claims that learning occurs in engagement and ways of belonging to social practices when participants make contributions that form identities. The meaning-making of such contributions occurs through participation in social practices. Authentic work-life situations tend to be valuable to students as they engage in practical activities with university partners during higher education, such as internships (Billett, 2009a).

Taking the departure in sociocultural theories on learning enhances the understanding of collaboration and participation in social practices (Säljö, 2000). When several actors participate, they share knowledge and experiences and use, develop, and apply language and tools to make meaning of what they intend to create together. For instance, teachers, partners from work-life practices (e.g., supervisors outside academia), and students can be viewed as participants in social practices. A *social practice* within a sociocultural perspective is not the same as *practice* as the opposite of *theory*. Instead, it needs to be understood in terms of *belonging*, in which language becomes a tool for thinking and talking about WIL, and perhaps using structured resources like computers and software, and documents like manuals, etc., for what they do when working and learning (Lave & Wenger, 1991). Communities of practice (CoP) refer to groups of people who share an interest in a common subject and deepen their knowledge and expertise in that area by interacting on an ongoing basis (Wenger, 1998; Lave & Wenger, 1991). Participants contribute by taking a central or peripheral position, engaging in different ways based on their expertise and tasks within the community. Theories of CoP are helpful for understanding learning in terms of dimensions such as mutual engagement, joint enterprise, and shared repertoire (Wenger, 1998).

WIL can be viewed as a collaborative effort in which participants from both workplaces and higher education add value, content, methods, and tools, while working together to develop theoretical understanding and practical skills through negotiation of meaning (*cf.* Wenger, 1998). People learn to think collectively, not just on their own. Language becomes an essential tool for all participants who engage in learning. In collaboration, participants in WIL apply and contribute their theoretical and practical skills, drawing on their previous experiences and knowledge gained in life. In this way of thinking, people can never undo the learning they have already experienced. This way of thinking of learning creates conditions for thinking together to develop social practices, both at work and during university studies. In line with the sociocultural perspective on learning, participation becomes one concern that promotes both theoretical and practical knowledge as participants engage in activities.

Digital learning and connectivism

The integration of digital technologies has transformed learning environments, making sociocultural perspectives especially relevant. Studies have shown that digital tools and educational methods in higher education can support lifelong learning by enhancing usability, pedagogical quality, and relevance to practice (Islind et al., 2021; Jaldemark et al., 2021). Current WIL research on the design of digital learning environments for working professionals emphasises the importance of mirroring real-world challenges, promoting collaboration across different levels of expertise, and encouraging engagement in professional communities. To maintain engagement, digital learning should reflect real work-life situations and incorporate elements such as virtual case discussions and team-based activities. (Master Östlund et al, 2025). Meaningful learning is also enhanced by peer connections, personalised feedback, and opportunities for reflection practice (Schön, 1983). The sociocultural perspective (Säljö, 2000), along with other fundamental learning theories, was established well before the technological shift brought about by the advent of digital technologies and widespread Internet access, which now influence the way learning occurs. At the core of these theories is the concept that people develop new understanding through engaging with others and reflecting personally (e.g., Schön, 1983).

Connectivism (Siemens, 2005) builds upon earlier learning theories while incorporating the influence of digital technologies (Mattar, 2018; Malkawi & Khayrullina, 2021; Siemens et al., 2020). It presents a contemporary philosophy of learning, extending Vygotsky's idea of the zone of proximal development (ZPD) to encompass learning outside the individual, such as through social networks and digital tools (Mattar, 2018). Key trends that characterise digital learning include the recognition that everyday learning is as important as formal education; that learning is a continuous process requiring the development of meta-learning skills and the use of supportive applications to foster lifelong learning; and that learning occurs through diverse channels such as communities of practice, personal networks, and work-related challenges (Siemens, 2005). Furthermore, digital technology not only facilitates learning but also influences cognitive processes, shaping how people think. It has made learning more visible, persistent, and accessible, but also introduces challenges related to feedback, self-management, and digital inclusion (Malkawi & Khayrullina, 2021; Reneland-Forsman, 2018). The theory of connectivism expands the traditional ideas of "know-how" and "know-what" by adding "know-where", emphasising the importance of knowing where and how to access relevant information (Siemens, 2005; Siemens et al., 2020).

Sociocultural and experiential theories, together with connectivism, provide an integrated theoretical framework for the conceptualisation of WIL in the broader context of lifelong learning. This focus emphasises the development of understanding through collaboration, reflection, and meaningful participation in both traditional and digital learning environments.

Research methodology

The research approach is qualitative, inspired by collaborative practice research (Mathiasen, 2002), an approach that emphasises relating research activities to practice and close collaboration between researchers and practitioners with the dual purpose of addressing identified current, practice-relevant challenges and contributing to theoretical development.

Research setting

This research draws on experiences from the strategic and qualitative development of work-integrated learning (WIL) at University West in Sweden. The university has adopted WIL approaches for the last 30 years and, since 2002, it has been commissioned by the Swedish government to develop WIL as a pedagogical strategy. WIL has been realised through a number of approaches that integrate theoretical knowledge with practice work and bridge research, education and practice (see, e.g., Lundin et al., 2008; Patrick et al., 2008; Billett, 2009a; Bowen & Drysdale, 2017; Gellerstedt et al., 2015; Olsson et al., 2021). Aligning educational offerings with the long-term competence needs of the labour market is recognised as a necessity in preparing students for successful careers in the global economy. It entails developing programs in collaboration with partners in the surrounding society to offer a relevant and attractive range of courses, aligned with the long-term competence needs of job market organisations.

The project takes as its point of departure the case of the WIL certification process, a self-assessment and quality development process for all programs' pedagogical approaches and teaching practices. It was a strategic decision made by the Board of University West in 2018 to WIL-certify all educational programs, including a sustainability perspective, and to enhance this process by engaging in strategic partnerships to achieve qualitative development of WIL. The quote "working together, learning together" becomes explicit in participation and organising activities that foster collaboration and learning, integrating theoretical and practical knowledge rather than separating them into academia (theory) and work life (practice). This means that universities can learn from work practices by incorporating activities, tools, methods and ideas already implemented outside academia, and vice versa. Besides being a quality development process, the process can be seen as a policy initiative aiming to strengthen the collaboration dimension in higher education, as well as a way to assess and anticipate skills for a changing work life (OECD, 2023). Initial findings suggest that applying a WIL quality enhancement framework can effectively support the design and implementation of WIL initiatives in healthcare work-life settings (Vallo Hult et al., 2024).

The research group is inter-disciplinarily composed, drawing on experiences from the strategic and qualitative development of work-integrated learning (WIL) at University West in Sweden, and the strategic partnership between University West and the NU Hospital Group. The NU Hospital Group consists of two hospitals, NÄL (Northern Älvsborg County Hospital) in Trollhättan and Uddevalla Hospital. The collaboration's overarching goal is to strengthen the partners' capacity for successful education, business development, and research through WIL, benefiting both parties, i.e, a consortium that strives to improve education and work-life learning through collaborative quality development activities of WIL. The collaborative and engaged approach (Mathiassen, 2002) has been found to be overall beneficial in terms of access to empirical data and in anchoring the research in practice. However, given the institutional context, potential challenges associated with conducting research within the same organisation are also acknowledged. The study did not involve interventions aimed directly at changing participant practices but may have been influenced by the roles of the research team. Throughout the process, transparency regarding the researchers' roles and the project's purpose has therefore been carefully maintained in all phases. Furthermore, the strategic partner group included participants unfamiliar with WIL, thus offering an external perspective and contributing to respondent validation. Ethical principles were observed throughout the entire process, in accordance with good research practice as outlined by the Swedish Research Council (Swedish Research Council, 2024). No intervention or processing of sensitive personal data was made, according to the Swedish law in §§ 3–4 of the act concerning the Ethical Review of Research Involving Humans (SFS 2003:460). Considering the nature of the study and the researchers' dual role in the project, ethical considerations were continually discussed with relevant stakeholders, and the research team actively reflected on how their positionality might have influenced the process.

Data collection and analysis

The project has been conducted iteratively in several steps and phases (Figure 1). Data collection activities included literature reviews and examinations of similar frameworks, both internationally within the EU and in Swedish quality models, as well as focus groups and workshops with key stakeholders and student surveys. An iterative process has refined the purpose, basic principles, content, and components of the project. Three major international meetings have been held. The conceptualisation phase included prototyping, detailed planning, testing sessions, and additional workshops with reference groups involving students and educators from strategic partners. A prototype has been developed for further refinement, with discussions about a future digital system tool.

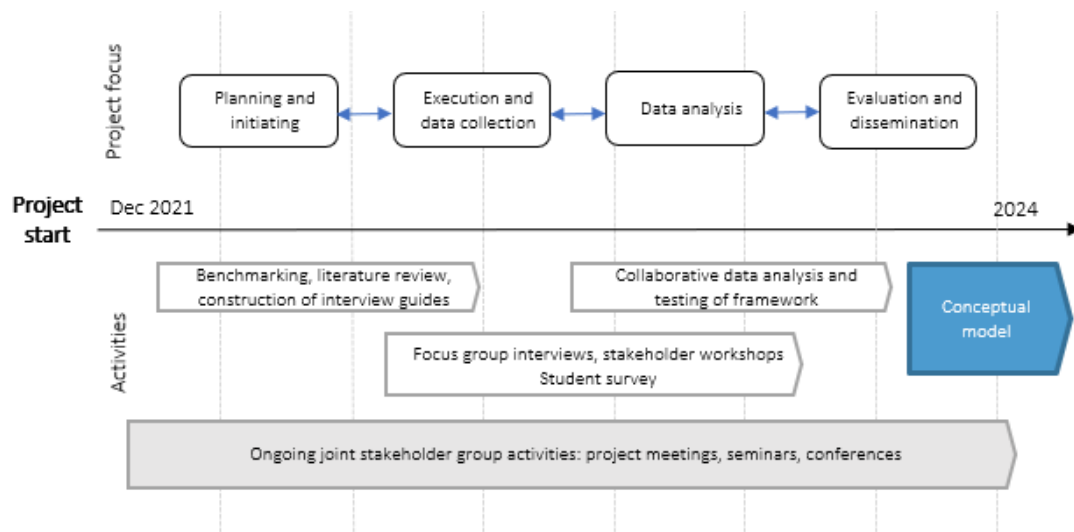


Figure 1: Data collection and project activities
Source: Created as part of the KAILU project

Focus group interviews were held with selected participants from the target groups at the university, including managers, department heads, and teachers, as well as at the strategic partner organisation, involving managers and supervisors of nursing students at the NU Hospital Group. The purpose of the focus groups was to map the conditions for and experiences of conducting WIL in teaching and learning at work, from both educational and organisational perspectives. The focus was on capturing participants' understanding and perspectives on WIL as a concept, aiming to identify good (or less good) examples of WIL, what they are, how they are understood, and why they are (or are not) important. In total, nine focus group interviews were conducted with 33 participants. They lasted between 0:36 and 1:15 h and were recorded and transcribed verbatim (see Table 1).

Table 1: Focus groups and participants (*Abbreviations in quotes: FG=Focus group A-I.*)

Focus group	Participants	Duration
Focus Group A	3 University managers	1:04 h
Focus Group B	3 University managers	1:05 h
Focus Group C	3 Teachers (Health Science)	1:06 h
Focus Group D	4 Teachers (Engineering Science)	1:15 h
Focus Group E	3 Teachers (Social & Behavioural Studies)	1:09 h
Focus Group F	4 Teachers (Business, Economics & IT)	0:43 h
Focus Group G	5 Hospital managers	0:55 h
Focus Group H	3 Hospital supervisors	0:55 h
Focus Group I	5 Hospital supervisors	0:36 h

Material from a survey among students at 12 education programs at the university is also included in this study as a knowledge base. The survey was distributed by the student union in spring 2023 and is considered a rough estimate or a temperature check of students' views on WIL. The response rate was 68% (271 out of approximately 400 respondents), and answers to open-ended questions about students' perspectives on WIL in their educational program were included in the analysis.

Reflexive thematic analysis (Braun & Clarke, 2006, 2019) was used to identify and describe themes in the empirical data collected from focus group interviews and student survey questions. The process was collaborative and iterative. In the first step, all transcripts were read individually to familiarise with the data and to conduct initial coding. This step was followed by joint meetings to discuss and identify themes in the material, resulting in an initial list of central themes and sub-themes, which was then critically reviewed and discussed within the research team, and further refined until a final consensus was reached.

Results

Three themes were identified in the analysis that are key to addressing when developing a quality framework for WIL. The three overarching themes are: *Enhancing WIL understanding*, *Managing resources and supporting culture*, and *Strengthening stakeholder engagement*. All three themes illustrate means and forms of learning that occur in work life from all stakeholders' perspectives, including both structured, more formal learning and competence development, as well as informal, everyday learning activities. The findings are presented and further discussed below, according to the themes, along with illustrative quotes.

Theme 1: Enhancing WIL understanding

A shared and established understanding and definition of the WIL concept was considered essential among the participants. Both teachers and supervisors described WIL in terms of practical applied knowledge and how WIL, in various ways, involves observing practical activities and providing process-oriented guidance to students, linking it to theory, and presenting the outcomes to the organisation. It was evident that participants across all groups commonly associated WIL with the educational approach of integrating work experience into students' education, in other words, what can be described as formal, education-oriented and student-focused WIL activities. This is reflected in the following quotes:

WIL began as a paid internship where students and businesses collaborated on tasks (FG:F)

Managers receive support or learn from students about different job aspects and perceptions, enhancing the student's employability (FG:I)

WIL is when students and businesses work together on tasks, preceding CO-OP experiences" (FG:F)

The students, likewise, advocated for "*a curriculum that involves both theoretical teachings and practical applications, potentially through more frequent and shorter Work-Integrated Learning periods*" (Student survey).

Many participants believed that there is a need for alignment between academic goals and practical training: "*Ensuring that the academic curriculum aligns with the practical training goals, preparing students effectively for real-world applications*" (FG:C). Student preparation includes, for example, presenting workplace environments through films or guest lectures by representatives, which are seen as means to stimulate dialogue and understanding. Adaptation of education happens through dialogue to make the curriculum more engaging, ensuring it doesn't become too narrow, and to include knowledge that can be generalised and potentially showcased in a portfolio. Practical engagement and mentorship programs were discussed as key ways to encourage close collaboration and engagement with practice, as such initiatives were to create shared understandings: "*they have mentors out in the workplaces that our students are connected to, and there are a lot of different variations on how to do it*" (FG:B). From the student perspective, authentic insights and industry engagement were deemed crucial: "*Requesting more real-life examples, contact with actual companies, and contemporary case studies for analysis to enhance understanding and preparation for the workforce*" (Student survey).

Reflective learning and portfolio development were specifically mentioned as one example of WIL activities to bridge theory and practice. One of the teachers emphasised this "*...the use of reflective portfolios for self-assessment and showcasing personal learning journeys that include both practical and theoretical aspects*" (FG:C). Along this line, university management highlighted the portfolio as crucial for integration for both students and teachers, incorporating reflection on learning:

Yes, and then we invest a lot of time in portfolios, which are meant to make the work-integrated relationship between theory and practice clear for both students and teachers. The aim is for students to incorporate reflection on what they learn and how this work integration affects the learning process. So, we're heavily engaged in this and exploring various approaches. (FG:A)

The importance of guidance and reflective learning to maximise the benefits of WIL was stressed, along with the acknowledgement that the workforce contributes through practical experience and shapes educational practices. Learning through reflection was highlighted: "*For it's not really that learning continues, as it does throughout one's entire life, but rather it's the guidance that persists in some way; in the first year, we have this reflection*" (FG:G). Interestingly, while

continuous and lifelong learning was acknowledged as an important part of all learning, for learning through reflection, guidance was considered required. That is a potential quality indicator for students and teachers.

Another aspect highlighted in this theme concerns ethical perspectives and sustainable development, where participants discussed how to integrate sustainable development into WIL by linking intentional change with ethical perspectives and factual knowledge: *"...this integration is pivotal for holistic learning and forward-thinking"* (FG:F). With an emphasis on mutual, double-directed respect and an ethical compass in this context, there was a wish for a co-creative WIL approach. However, while the findings showed high similarity in the participants' views and perceptions of WIL, they also revealed differences, as not all participants explicitly discussed WIL but instead focused on learning, self-improvement and development. Thus, different views and conceptualisations of WIL should be shared and commonly discussed to obtain a shared understanding.

In summary, the first theme emphasises the need for and the importance of a shared and established understanding and definition of the WIL concept to ensure clarity and alignment in WIL activities. Connecting the theme to quality in WIL, the findings suggest that the framework can be applied to enhance the quality of WIL activities in higher education programs and workplace-based training by supporting university teachers and workplace educators by functioning as a practical guide for including WIL elements into the design and development of internship programs and clinical placements, ensuring clarity and alignment in WIL activities and mutual value creation and cooperation in WIL.

Theme 2: Managing resources and cultivating structures

This theme highlights the need for management to include structured functions and supporting resources, and to align their strategies with these. A recurring point in the focus groups was the need for time and resources for collaboration and meetings. Both formal and informal meetings and interactions were perceived as particularly valuable from a WIL perspective, but were also challenging to achieve in practice: *"Partly, it's also about ensuring they have the time that allows them to work on this [WIL activities] in such cases, it's about allocating that type of resource so they can do this"* (FG:B). Furthermore, the necessity of structures for WIL to function and integrate diverse perspectives and knowledge was evident across all groups. Having management support was viewed as crucial, both at a strategic level and in practical terms. As described by one of the participants in the supervisor group: *"[It's largely in] the meeting between supervisors and students, where we learn from each other but also discuss our perceptions of work and what it might be and how it isn't [but] we must also acknowledge that in organisations, it's a challenge with students and utilising their knowledge"* (FG:H). Corresponding challenges, such as obstacles to mentoring and structures for collaboration, were highlighted by several participants, emphasising the need to strategically address these issues from both the university and the collaborating organisations' perspectives: *"It's largely about the mindset, and here, the head of the unit is a crucial part of seeing the student and their potential as future colleagues, even if it's not within our unit... as mentioned, the involvement of the unit head is crucial in resource allocation and a desire to work more strategically, even from the organisation's perspective"* (FG:I).

Additional insights related to this second theme include engaging in an ongoing dialogue about WIL to foster a culture of WIL and professional development. Engaging in critical and constructive dialogue about WIL can foster a sense of having WIL when there's a common, fundamental, and synchronised view of the concept: *"The importance of a shared language and understanding in workplace learning for both the students and the supervisors"* (FG:I). Here, the discussions were more generally around continuous learning, rather than specifically mentioning WIL, is emphasised, reflecting learning and development among and across all professions, where collaboration and meetings involve giving and taking, was viewed as contributing significantly to learning: *"The learning culture is about being in the moment and learning from someone experienced to understand why things are done a certain way"* (FG:G).

The participants also talked about how a learning environment like WIL is intertwined with safety culture and professional development. The following quotes from the teacher's perspective are illustrative for this view: *"Aspects focusing on case-specific project tasks where the student engages with industry partners and collaborates on work together"* (FG:F) [...] *"Students bring a workplace situation, work on it, theorise it, and then bring the task back, having applied theory and thus being able to view it from a different perspective"* (FG:C). The supervisor group, in a similar manner, reflected on how the desire to do good and right is inspired by professional development, and this includes meetings such as Workplace-Based Learning sessions, reflective gatherings, and ongoing reflection during work, open to both parties:

"How we give and take in our interaction with each other to convey the image, both as supervisors and students [...] meetings for many years [...] where we schedule specific reflection sessions and invite different professions [...] I think we're constantly contemplating and reflecting together" (FG:H).

In sum, this theme was derived from issues related to the need for supporting structures for WIL, resource allocation and organisational culture. WIL was discussed more in terms of non-formal WIL activities, highlighting the need for new and more flexible forms of continuous education, including examples of pedagogical methods that promote flexibility, such as digital learning, and the incorporation of learning for skills development. Participants emphasised the value of allocating time and resources to both formal and informal collaboration to cultivate a culture of WIL and support professional development, suggesting this could be incorporated into a supporting quality framework for WIL.

Theme 3: Strengthening stakeholder engagement

The participants recurrently discussed WIL in relation to cooperation among various stakeholders in education and work life. Meeting places were viewed as a central prerequisite in this regard, by setting up meeting places, where conditions for collaboration are created: *"[t]hat's what everyone has been talking about, how we set up the course and how we establish collaboration so that, through collaboration, we create Work-Integrated Learning in different ways. Essentially, meeting places in this context – that's what it's about" (FG:B).* Likewise, teachers pointed towards partnership and dialogue, such as encouraging collaboration between academia and industry, possibly through industry councils or other collaborative platforms, which aim to prepare students for the workforce: *"Such interactions help align academic goals with practical needs" (FG:E).*

The supervisor group talked about utilising each other's knowledge and emphasised the importance of incorporating students' academic knowledge into practical settings as mutually beneficial for learning: *"We benefit from the knowledge they bring from the university...having students is a prerequisite for [organisational] development" (FG:H).* Similarly, both the teachers and the management discussed collaboration and value exchange among students, supervisors, and the workforce, emphasising that for the partnership to work effectively, all stakeholders must experience benefits: *"It must be something of value for both parties; that's when collaboration happens" (FG:I).* As reflected in the following quote, when the 'value' of integration becomes visible, that's when collaboration really begins, and this is done through the involvement of all three stakeholders: *"...something that has truly grown in recent years, both in terms of our ability to offer it and in the recognition from the organisations about the importance of building bridges between academia and their operations [...] It's about bringing in clinically active personnel for teaching sessions, occasions at the clinical learning center, so that they, in collaboration with our staff, also instruct the students" (FG:A).* Connected to this, the participants also emphasised the importance of identifying the need for bridge builders to facilitate effective collaboration: *"WIL becomes a bridge from a graduating student to an employee, emphasising readiness through cooperation during education" (FG:E).*

The participants also talked about bridge builders, referring to key persons between academia and practice required to ensure and advance the integration of WIL, acting as a connection between graduating students and employment: *"I also think that we enable the staff to work as clinical adjuncts or clinical lecturers in healthcare facilities, right? We see that as extremely advantageous, having them spend 20% of their work time in these settings" (FG:B).* Such collaborative agreements were considered highly valuable from both university and practice perspectives, as well as among teachers/supervisors and managers. While some challenges in collaboration and knowledge integration were apparent, the participants gave clear examples of how collaboration among different stakeholders can benefit both students and organisations.

In sum, the third theme highlights the importance of involving stakeholders, such as students, teachers, and external partners, in developing WIL initiatives. Specifically, the focus was placed on value exchange and collaboration, highlighting the necessity for mutual value creation to foster cooperation in WIL. From a stakeholder perspective, it is about creating conditions that enable the development of capacities for transitioning from education to future work, as well as for improving professional development and work practices.

Implications for a WIL quality framework

There are several implications for a WIL quality framework, derived from the three themes in the analysis of the empirical data. More specifically, the first theme, *Enhancing WIL understanding*, suggests that a quality framework for WIL should comprise a repository of best practices, examples of WIL interpretations and applications, including context-specific WIL activities and practices. This can be operationalised, for instance, through authentic stories, experiences, videos, and quotes to illustrate the practical aspects and work related to WIL activities. It can also include templates and checklists, validated instruments, inspirational examples of educational models and assessment methods, as well as a pool of shared resources, such as lecturers and scientific articles. In the second theme, *Managing resources and cultivating structures*, the need for supportive structures for the functionality of WIL, integrating diverse perspectives and knowledge, was evident. Findings from this theme highlight the importance of professional development initiatives, such as workplace-based learning, reflective practice sessions, templates, and examples of learning outcomes and constructive alignment, as integral components for both supervisors and students in their learning journey. Hence, the framework can support education managers, HR staff, and others involved in competence development in incorporating WIL activities to enhance the quality of skills development and continuing education. The third theme, *strengthening stakeholder engagement*, emphasises the importance of including all three stakeholder perspectives in the framework for supporting WIL activities, highlighting their roles and responsibilities. By incorporating these aspects, the quality framework could function as a tool to facilitate different aspects of resource structures, strategically supporting the right conditions and prerequisites for a fruitful WIL environment and culture. For instance, this can be used to facilitate and make explicit the importance of lifelong learning skills in higher education and throughout working life. This theme is reflected in the framework through tools that provide established structures, such as networks and strategic approaches (rather than person-dependent). The framework may also provide practical guidance on integrating WIL activities into everyday learning in clinical settings.

Findings from this study suggest that a quality framework can serve as a facilitative tool for promoting WIL concepts and collaborations among teachers, students, and partners. A conceptual quality framework for WIL in higher education and work life is proposed in Figure 2 and explained in more detail below.

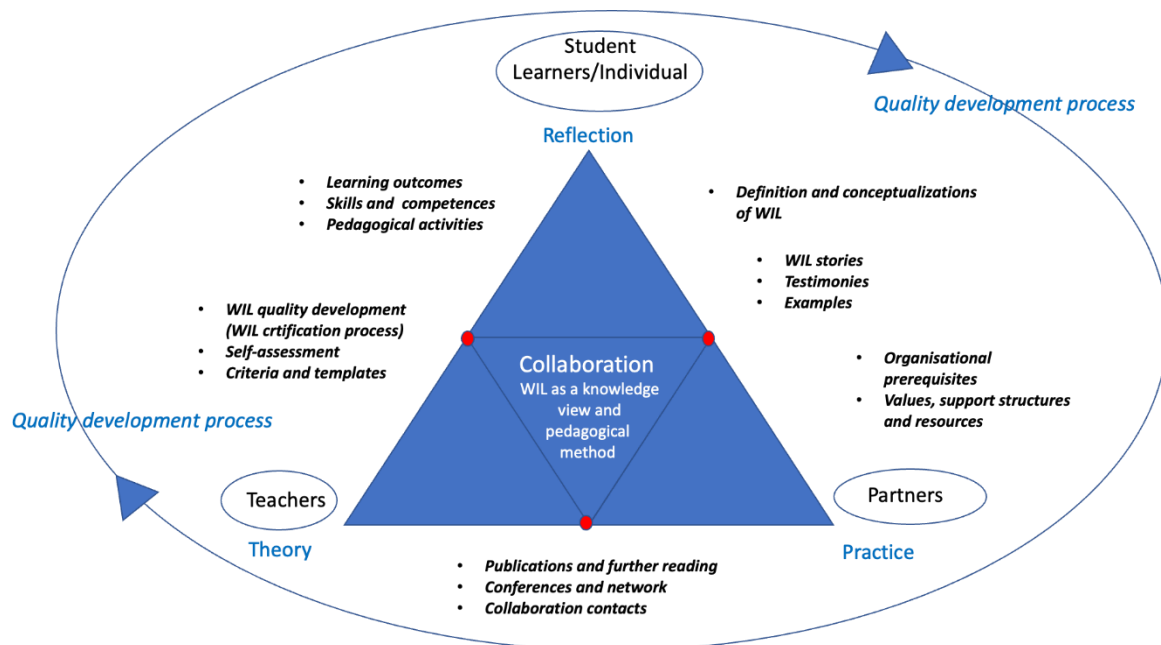


Figure 2: A principal sketch of a quality framework for WIL – a tripartite conceptualisation.

Source: Created as part of the KAILU project

The framework is intended to support the planning, implementation, reflection, and improvement of WIL across both educational and professional settings, with a tripartite composition. As illustrated by the triangle in the model, each corner represents one of the three key stakeholder groups—educators, external partners, and students—highlighting the interconnected value and relevance of WIL for all involved. The importance of collaboration and mutual understanding of WIL is a core finding embedded as the main quality foundation of the framework (the middle triangle at the core). The bulleted information surrounding the triangle shows the types of resources and support functions important for each stakeholder group, and these were derived from the thematic analysis and explained in more detail below. Rather than being exclusive to one group, these support functions form an overarching layer that can span all three stakeholders. Altogether, they reflect the shared needs and collaborative activities required to build and sustain a WIL-based education, whether within higher education or as part of professional development in working life.

The proposed quality framework reflects the multifaceted nature of WIL, highlighting its integration across academia, industry, and student experiences, and showcasing its impact on learning outcomes, preparing students for the workforce and ongoing learning at work. Based on the findings of this research, a holistic approach is advocated that includes all three stakeholder perspectives within the framework to enhance understanding and to improve and maintain the quality of WIL in education and work life.

Within the framework, three additional enabling assemblages are embedded, each constituting a tripartite relationship, as illustrated in Figure 3. The learning is directed towards all three stakeholders to promote and develop their capacity to actively engage in and learn why and how WIL can be facilitated and enhanced from their respective perspectives. Hence, the framework can function as an overarching approach, as a quality development process, maximising several pedagogical and learning practices applied both through educational processes and professional practices throughout work life. The reciprocity and intertwined relationship between integrating different knowledge forms, i.e., critical reflection and the integration of theory and practice, are fundamental to understanding WIL and its applications. A balanced view and agency of student-focused learning and of partner-oriented learning practices is argued for. The quality framework should be based on the idea that WIL should be developed through ongoing reflection with both internal and external stakeholders (e.g., students, teachers, partners).

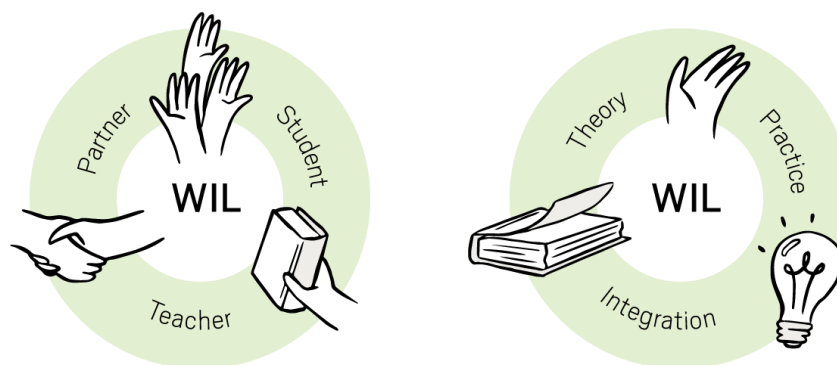


Figure 3: Key guiding principles and components in the emerging quality framework for WIL.

Source: Created as part of the KAILU project

Discussion

Throughout this article, WIL is used as a model of learning and educational practices that build on collaboration and knowledge exchange between the university and society, and that yield dual societal learning outcomes for the involved stakeholders. In a lifelong learning experience, students become aware of the need for continual learning even after graduation and that the university intends to foster strategies for continuous learning. In positioning the proposed WIL quality framework in relation to previous approaches and models, this study draws on sociocultural learning theory and quality development in WIL. A perspective that revolves around how to enhance and ensure the quality of collaboration through WIL activities. Findings from this study further strengthen the understanding that WIL involves a collegial learning

process as well as the emphasis on establishing a communicative process for collaboration with external partners. Since they will participate in a *quality development process*, meaning-making becomes explicit in what they do and think about higher education studies as well as work-life learning issues (Wenger, 1998; Lave & Wenger, 1991; Kress et al., 2021; Schön, 1983). All three stakeholder participants can take a central or peripheral position as they engage in negotiation of meaning about developing learning activities of WIL based on mutual engagement, joint enterprise and shared repertoire (Wenger, 1998). A holistic view of what they aim to do together is designed to become explicit in discussions when using the framework.

WIL bridges academia and the surrounding community, as it is in the encounter between the university and work life that insights are generated, and solutions and mutual development can meet challenges, such as the global goals of sustainable development in Agenda 2030 (see <https://www.un.org/sustainabledevelopment/development-agenda>). This approach aligns with the proposed framework by Titov et al. (2023), which suggests that increased collaboration and stakeholder participation can positively impact various WIL activities (e.g., internships) and improve them systematically, as feedback and suggestions from stakeholders can be utilised in the planning and implementation of the internship process. It aligns well with our WIL quality framework. The emphasis on an enriched understanding and interpretation of WIL relates to, and further extends and deepens, the work-integrated learning quality framework by McRae (2018).

Interestingly, findings from this study show that while continuous and lifelong learning was acknowledged as an important part of all learning, guidance was considered necessary for learning through reflection. That is a potential quality indicator for students and teachers. Issues concerning supporting structures for WIL, resource allocation and organisational culture emerged as key considerations. Management support at both strategic and practical levels was emphasised as crucial for effective implementation and important in relation to WIL, calling for strategic engagement from both the university and collaborating organisations. Hence, the findings confirm and extend existing approaches to WIL, suggesting that a quality framework for WIL should include components focusing on gaining a breadth and variety of experiences from diverse contexts as well as offering guidance in how to organise and integrate WIL-activities in both higher education and work life settings (Campbell, 2014; Smith et al., 2021). For WIL to function effectively, meeting places and times for collaboration where engagement with key stakeholders can be facilitated are necessary and should thus be an integrated part of the framework. Additionally, the findings also reflect that WIL promotes social sustainability by valuing the integration of diverse perspectives and learning that involves readiness to initiate and, in collaboration with others, drive societal change.

Engaging like a community of [WIL] practice (Lave & Wenger, 1991) would support sustainable interaction and partnerships, bridge and continue various learning processes throughout life, as well as put attention to multiple learners in the stakeholder model, e.g. transitions from education to work, collegial conversations, interorganisational learning etc. (Billett, 2014). It may further support ongoing competence development, such as workers' skills and professional development. In a lifelong learning experience, a portfolio can be a structured resource for all participants to provide in collaboration, explicitly stating their need for continual learning, even after graduation. In the context of the framework, such portfolios could also serve as material to promote a common need for specific skills when learning and working together, which the framework is designed to support.

Furthermore, in alignment with the sociocultural perspective of WIL (Wenger, 1998; Lave & Wenger, 1991), these findings suggest that a quality framework for WIL can promote a sense of belonging and, in doing so, serve as a tool for thinking and talking about WIL, making explicit the actions taken when working and learning (Lave & Wenger, 1991). Consistent with prior research, the integration of work and learning, for example, through WIL theory, research practice, and reflection via a portfolio (or industry councils) in seminar form, contributes to thesis work and prepares students to become agents of change (Gellerstedt et al., 2019; Richards et al., 2013). In addition, the framework could generate ideas for developing work-life in terms of WIL, as strategic partners become influential in how learning is organised in academia and vice versa.

In sum, WIL takes its point of departure from learning as a holistic approach, where participants engage in social practices that do not separate work from learning, theoretical from practical knowledge, thinking from doing, or the individual from the social practice. Thus, work life and universities can learn from each other. In ways of organising and designing for WIL, students can be the gatekeepers in developing both work-life and educational programmes if they are viewed as participants during their education, taking on and being given responsibilities and training in various situations.

The term that can be used to talk about WIL is the focus on what people do together as they participate in social practices, using structured resources to share knowledge and experiences. Hence, employees can adopt WIL forms and apply WIL in their immediate practice at the workplace, likewise, students.

Conclusion

This study has explored how WIL manifests in higher education and work-life settings and the role of a quality framework for WIL based on collaboration between higher education institutions and work-life partners. The results included conceptualisations and experiences related to WIL-based education and competence initiatives through these collaborations. Based on these findings, implications for creating a quality framework for WIL were suggested, where three themes emerged in the qualitative analysis, forming the basis for principles and functions of the framework. The paper has discussed how the framework can facilitate the design and implementation of WIL activities in higher education and workplace settings, in the realm of related foundational learning theories and WIL quality frameworks.

The study contributes by conceptualising a framework and applying WIL for lifelong learning in both higher education, work life, and workplace settings. This holistic view is the focus and contribution of the framework, and its uniqueness lies in that this is primarily achieved through meaningful meetings that are not person-dependent but rather stem from collegial communication and collaboration relationships. Hence, the findings suggest that collaboration between academia, working life, and strategic partners in the surrounding society can be strengthened by a quality framework that supports the planning, implementation, reflection, and improvement of WIL-based education and competence initiatives. By creating a quality framework for WIL, it becomes evident that, through interaction with colleagues and stakeholders, the impact of WIL on education and lifelong learning becomes more visible to all. The framework is expected to benefit students, staff, and strategic partners through competence development and lifelong learning.

Throughout this paper, a holistic perspective shift is advocated that moves beyond the traditional two-edged division of WIL, i.e., learning in educational settings versus learning in working life settings, toward a unified, integrative approach. WIL occurs and is enacted in a social context, beyond individual learning or learning as the transfer of knowledge, highlighting the emergent dynamics of people interacting with others—including technologies—in situated contexts of work and learning. This new perspective highlights the dynamic interrelationships and interactions that the proposed tripartite quality framework may support. The proposed WIL quality framework is conceptualised through an integrative approach that recognises the following guiding principles:

- 1 that learning is not confined to either the classroom or the workplace, but is a continuum across both domains; i.e., the role of sustaining mutual knowledge exchange among the various parties is essential.
- 2 that theoretical and practical knowledge as being mutually informing, with fluid and dynamic movement between contexts, i.e. the sustained reciprocity can be furthered through the constant need and interest in both theoretical as well as practical knowledge experienced through various activities.
- 3 that integration and reflection, as a core component of WIL, must be embedded not only in structured educational settings but also in the ongoing flow of professional and working life practices, i.e. the importance of collaboration and "humility" for each other's perspectives is essential.
- 4 that quality in WIL practices should move from siloed investigations to collaborative, cross-sectoral inquiries that involve students, teachers, partners and professional bodies as co-creators of knowledge and learning environments, i.e this quality development process should be mutual.

This new shift calls for rethinking WIL quality as a shared responsibility and an integrated process, where higher education institutions and working life partners collaborate to design and deliver learning experiences that are pedagogically sound, professionally relevant, and contextually adaptive. It opens space for WIL in terms of innovations in educative and work practices, as well as professional development and lifelong learning.

A strength of this qualitative study is the collaborative practice research approach and the involvement of key stakeholders, intended to ensure that insights, solutions and mutual development are created to meet the challenges society faces. However, the findings are limited to the context of a single Swedish university, and there is a potential risk of bias as

participants who volunteered may have had a greater interest in work-integrated learning than the general population of teachers, supervisors and managers. Since the external partner in this case was from the healthcare sector, it would be appropriate to apply the framework in other contexts and settings as well. For the next step, the framework will be developed into an interactive digital tool that incorporates the mentioned functions and elements. Further work will explore how practical and experience-based knowledge and learning can be incorporated into the framework to ensure quality and validation of prior learning.

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Declaration of interests

The authors declare no competing interests.

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