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*Work-Integrated Learning Special Section*

# Student and Supervisor Perceptions of Effective Placement Supervision in Work-Integrated Learning Programs: A Systematic Literature Review

## ABSTRACT

This article presents a comprehensive synthesis of literature on effective supervision for students undertaking placements in higher education. The aim is twofold: first to examine differences and similarities between students' and supervisors' perceptions of effective work-integrated learning (WIL) supervision, and second, to identify prevailing trends, patterns, and gaps in the existing literature on placement supervision. Over the course of a two-year systematic review, the authors analyzed 9,349 peer-reviewed articles published in English and Norwegian between 2010 and 2023. Bibliometric findings show that most of the literature is qualitative, student-focused, and predominantly situated within allied health sciences, education, and social work in Western developed countries. The review revealed a notable divergence in perceptions of effective placement supervision: student-centered research emphasizes the relational and emotional dimensions of effective placements, including supervisor support, trust, inclusion, affirmation, and positive feedback. These affective aspects are critical to creating meaningful learning environments. Conversely, supervisor-focused studies often underplay these relational aspects, placing greater emphasis on the importance of clear expectations, goal setting, and theory-practice integration. The analysis also highlights key structural elements for effective supervision, including access to quality training, adequate time and resources, and formal recognition for supervisors' contributions. The study concludes by proposing a three-step model for effective placement supervision.

## KEYWORDS

student placements, placement supervisors, systematic literature review, work-integrated learning, higher education

## INTRODUCTION

Work-integrated learning (WIL) encompasses a range of offerings, from experiential learning within the curriculum that is industry-connected to placements in industry that help bridge the divide between academic training and learning, as well as contribute to employability and job-readiness goals (Bartkus and Higgs 2011; Zegwaard and Pretti 2023). WIL has been demonstrated to benefit

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students' employability preparedness and employment outcomes when it is effective and provides relevant experiential learning outcomes that are linked to or mirror professional practice (Lasen, Evans, Tsey, Campbell, and Kinchin 2018).

As WIL opportunities expand, universities are increasingly recognizing the importance of preparing all parties to engage in effective placement experiences. However, in the absence of a clear, shared understanding of what constitutes effective student supervision and the purpose it intends to achieve, it remains challenging to support, coordinate, and equip supervisors so that they can create learning environments that meet the needs of students, educational institutions, and the evolving labour market. Further, while the literature on placements is extensive, the research on supervisor experiences remains limited. As Trede and Mahinroosta (2018) suggest, much of this research focuses on only specific or localized disciplines, resulting in a narrow understanding of effective placement practices across WIL.

Therefore, this study aims to explore how students' and supervisors' perceptions of effective placement supervision differ and converge across diverse contexts, industries, and learning experiences. It examines different forms of WIL, including graded and ungraded placements, various placement durations, and different student year levels. To guide the analysis, the authors posed the following research questions: What are supervisors' and students' perspectives of effective placement supervision? How do those perspectives differ? In what ways are they similar? Addressing these questions can enhance our understanding of how to effectively prepare all stakeholders for meaningful participation in WIL placements. Such insight supports the sourcing and allocation of appropriate resources, training, and support mechanisms for both educational institutions and industry partners.

To address the questions, the study undertook a large-scale systematic literature review, sourcing, reviewing, and synthesizing over 9,000 peer-reviewed articles published between 2010 and 2023. The authors used this analysis to identify similarities and differences between student and supervisor perspectives of effective placements, uncover trends and gaps in existing literature, and inform the development of a three-step framework for effective placement supervision, and identify future research directions.

### **Conceptual Issues: Placement and effective supervision**

#### *WIL placements*

A major WIL model is placements, which are highly diverse experiences. A placement experience may be paid or unpaid; it can last several days, weeks, or months; it may be continuous or segmented; conducted remotely or on-site; graded or ungraded; and may require different forms of feedback from workplace supervisors and/or university educators (Zegwaard et al. 2023). Furthermore, the term "placement supervisor" can refer to different roles, such as mentor, coach, sponsor, or manager. Despite these differences in placement types and supervisor roles, there is shared understanding amongst WIL scholars that a variety of support options are essential in order to ensure effective student placement supervision in the workplace (Rowe, Ferns, Lucas, Piggott, and Winchester-Seeto 2023). For instance, supervisors are often responsible for various aspects of the placement experience, including induction to the workplace and onboarding, occupational health and safety (OHS) preparation, administrative processes, goal setting, facilitating reflection and learning, and evaluation, among other tasks.

### *Effective supervision*

The concept of effective supervision can be understood differently depending on the area of focus. In this study, effective supervision aligns with the frameworks proposed by Ford, Courtney-Pratt, Marlow, Cooper, Williams, and Mason (2016) and Rowe et al. (2023). Ford et al. (2016) suggest that “quality learning environments are those that support the student learning experience and that support staff in enabling student learning” (97). Rowe et al. (2023) extend this understanding by identifying key quality parameters and actions that support quality outcomes in WIL placement, including fostering student agency, enhancing workplace productivity, and building strong and sustainable partnerships.

## METHODOLOGY

The authors conducted a systematic literature review (SLR) in both Norwegian and English. For the SLR, the authors sourced, selected, analyzed, and synthesized the research on students’ and supervisors’ perceptions of effective placement experiences. They first presented the preliminary findings of this research at the 2024 World Association of Cooperative Education (WACE) Conference in Sweden (Fannon, Brekke Hauglid, and Hains-Wesson 2024). This study builds upon those initial insights by providing a comprehensive analysis of the overall results.

The authors decided to use SLR as the primary methodology for this study based on the emergence of SLRs as a beneficial approach for reviewing and synthesizing existing and emerging knowledge while identifying new directions for research. By conducting a SLR across multiple languages, researchers can capture a broad range of insights and evidence, leading to more reliable and generalizable findings (Booth, Sutton, Clowes, and Martyn-St. James 2022; Fink 2019; Gouch, Oliver, and Thomas 2012; Hart 2018; Healey and Healey 2023a, 2023b; Imel 2011; Irvine, Roberts, and Bradbury-Jones 2008).

Further, the authors chose a SLR because it is the ideal methodology for unpacking existing knowledge prior to exploring fresh ideas or lines of inquiry (Thomson, da Silva, Draper, Gilmore, Majury, O’Connor, Vaquez, et al. 2017), especially when guided by tested criteria. International research collaboration and peer input developed the criteria used in this review, though it followed the framework outlined by Healey et al. (2023a, 2023b). Healey et al. (2023a, 2023b) advocate for informed SLR decisions, such as scope, focus, aim, and defining terms before starting an investigation. Thus, the authors first scoped the SLR methodology presented to focus on placement pedagogy, specifically supervisors’ perspectives on effective placements. The study is focused on placement experiences that were offered as part of a formal and accredited higher education institution’s WIL programs at undergraduate and/or post-graduate levels. To achieve this, the authors followed three key steps: first, identifying key ideas and defining terms; second, developing a SLR process; and third, establishing the inclusion and exclusion criteria for the literature review and analysis.

### **Identify key ideas and define terms**

First, the authors completed a scoping exercise on the existing supervision literature to determine the most appropriate and commonly used terms, such as supervision, leadership, coaching, and mentoring, in order to inform the SLR framework. These terms are used interchangeably in the WIL literature, especially regarding placement learning. Following Lasen et al.’s (2018) SLR method, the authors set up an eligibility criterion that aligned with the study’s justification. These included a set of exclusion parameters and the range of terms which are frequently used in WIL research (Martin, Rees, Fleming, Zegwaard, and Vaughan 2019; Zegwaard et al. 2023).

### **SLR process**

To finalize the keywords, the authors worked closely with university librarians and WIL peers. This involved aligning Norwegian keywords with their English equivalents. Given that Norwegian WIL terms are not easily translated to English, consultation with the respective library staff helped to optimize translation outcomes before the authors finalized the Norwegian keywords. In addition, the authors paid attention to cultural nuances and language differences, which often lead to *missed meaning* (Irvine et al. 2008) and can hinder how a multilingual search process is conducted. To address this, the authors connected with international experts in the WIL field, inviting them to contribute to the keyword list. Further, guided by linguistic and disciplinary considerations, the authors selected the most prominent academic literature search engines (e.g., +A Educational Abstracts, ERIC via Proquest, Informit, Web of Science and Proquest). Finally, due to the vast amount of literature, the authors decided on a date range for inclusion, which was 2010 to 2023 (see Appendix for the overall SLR process).

### **Inclusion, review, and analysis**

After collecting all data points (N=9349), the SLR included relevant peer-reviewed journal studies published in English or Norwegian between January 2010 and March 2023 which met the inclusion criteria and addressed the research questions. During the review process, Rowe et al. (2023) and Ford et al. (2016) guided the study's framing of what constituted "effective" placement, as previously noted. These two works informed the criteria for article selection, exclusion, and analysis. For instance, the authors included an article when a study focused on supervision in the workplace as part of a curricular (i.e., for credit as part of a degree) and/or accredited program (i.e., compulsory requirement to practice in the field upon graduation) in WIL and when it occurred at a higher education institution.

The review excluded non-peer-reviewed journal articles, conference papers, abstracts, books, and book chapters. The only exception was the *Routledge International Handbook of Work-Integrated Learning* (2023) due to its emphasis on WIL scholarship. Exclusions also included duplications. The exclusion decisions adhered to SLR research practices emphasizing rigour and validity (Hart 2018; Gouch et al. 2012; Healey et al. 2023a, 2023b; Imel 2011). The authors gathered data points using the specified search engines and organized them in Excel. The Norwegian searches facilitated the downloading of data points by allowing export to Excel via Zotero.org.

The authors conducted the review with Covidence as the preferred literature management platform. Covidence is an online literature review program that enables bulk uploads of data, searches files, and allows individual and collective review processes in real time. The Covidence platform facilitates the application of agreed-upon inclusion and exclusion criteria, alongside tagging and keyword highlighting in abstracts. This process encompasses individual and team journal review settings based on the preferred framework for defining "effectiveness" and "elements" in placement learning, such as "yes," "no," and "maybe." Each article allows for one or more reviewers to determine inclusion or exclusion according to the established criteria. Any data classified as "maybe" necessitates approval from a second reviewer, for example. Disagreements among reviewers prompt an additional discussion involving at least one author of this paper, aiding in the creation of consensus regarding inclusion or exclusion (see Appendix). Each journal article underwent review by at least one named author prior to agreeing on the classification of the journal type, with careful attention to the study's aim, research questions, methodology, methods, country, type of WIL, findings, and future research.

### **Coding of the data**

One hundred and eighty journal articles met the criteria, 150 in English and 30 in Norwegian. For each included study, the authors noted details about the study's methodology, aims, key findings, limitations, and any additional notes. These additional notes focused on first-order constructs (how participants described effective supervision, if relevant) and second-order constructs (how the researchers interpreted effective supervision). Using these detailed notes, the authors then conducted a meta-synthesis to identify themes in the key findings and differences in focus regarding effective placement supervision for supervisors and students.

Meta-synthesis is a recommended interpretative approach for SLRs. This includes integrating or comparing findings from qualitative studies (Sandelowski, Docherty, and Emden 1997) and was thus deemed most appropriate for this SLR, even though it contained both qualitative and quantitative studies. To conduct the meta-synthesis, one author reviewed the methodology, study aims, key findings, limitations, and notes for each paper. Then, that same author coded the key findings, including the enablers and barriers towards effective supervision. All authors reviewed the coding, adding and revising codes based on their interpretation of the notes. The framing of what constitutes "effective" and "elements" in placement learning influenced this work. The authors refined the codes and then counted to identify the predominant sentiments across the studies. Using these codes, the authors then identified key themes and concepts, mapping patterns and contradictions, particularly in how students and supervisors viewed effective supervision.

A synthesis of the results is presented next, followed by a discussion of the review.

### SYNTHESIS OF FINDINGS

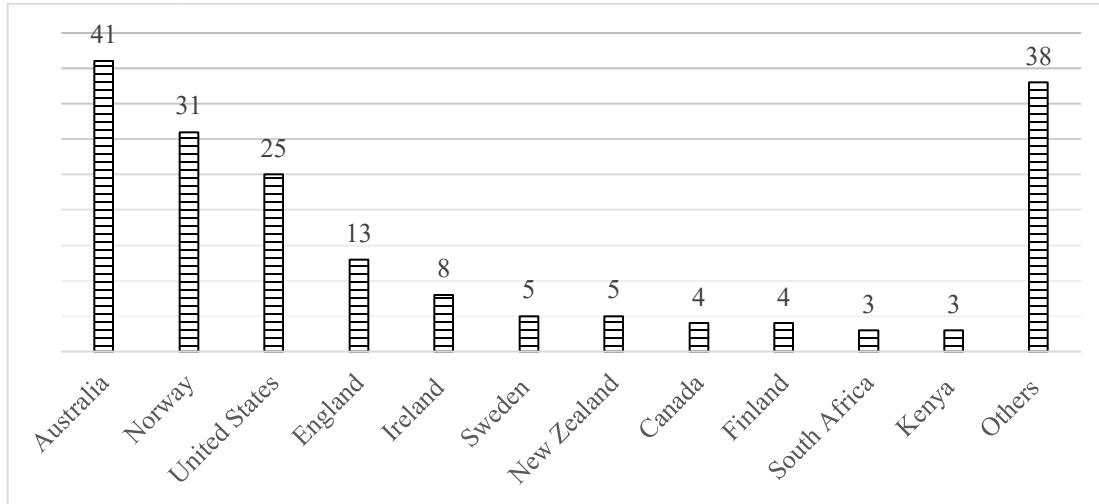
Thematic analysis of students' and supervisors' perspectives on effective placement supervision revealed four main themes: the creation of a caring environment where the student feels included and safe; the importance of a positive relationship between supervisor and student; the implementation of a learning environment that promotes skill development; and the operational and structural elements that either facilitate or detract from effective placement supervision. Notably, the attention given to these themes varied between studies focusing on students' perspectives and those centered on supervisors. Student-focused studies emphasized the emotional aspects of the placement experience, highlighting the importance of a caring environment to foster positive, affirming, and supportive relationships during supervision. In contrast, supervisors' perspectives emphasized the necessity of creating a learning environment that effectively connects theory to practice. They also highlighted the formal, operational, and structural elements that impact effective placement supervision, particularly challenges such as lack of resources or inadequate supervisor training.

Additionally, the SLR explored potential tensions or overlaps among the clusters, including the relationship between psychological safety and supervisory feedback, as well as the interaction between operational issues and emotional experiences. These themes intersect, reinforce, or complicate one another, thus influencing supervision experiences for both students and supervisors. For example, psychological safety, a fundamental aspect of a caring environment, can be affected by the context and tone of supervisory feedback. If feedback is excessively critical and a lack of relational support is present, it may diminish students' confidence and willingness to engage. Similarly, operational constraints, such as time pressures or lack of supervisor training, can inadvertently affect the emotional climate of the placement, resulting in decreased student motivation or perceptions of care.

### Overall synthesis

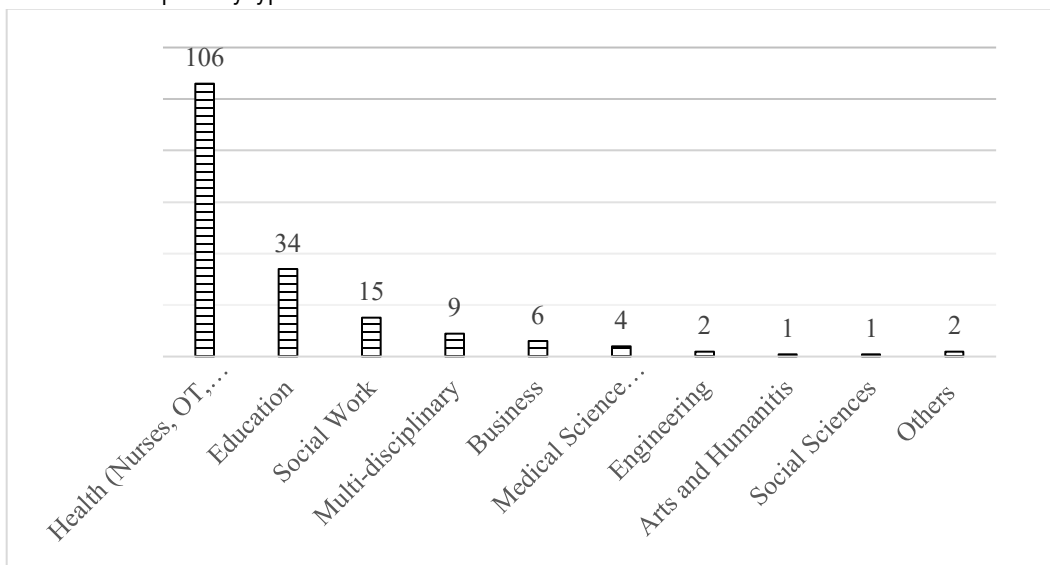
The results from 180 SLR suggest that the top three countries offering studies in effective placement supervision are Australia (n=41), Norway (n=31), and the United States of America (n=25) (see Figure 1). Multiple studies were also published in England, Ireland, Sweden, New Zealand, Canada, Finland, South Africa, and Kenya. Thirty-eight other countries, including Israel, Qatar, Turkey, and Pakistan, published only one study each and are represented under “other.” Importantly, Norwegian studies are overrepresented in this review due to the deliberate inclusion of publications in the Norwegian language.

Figure 1. WIL demographic locations



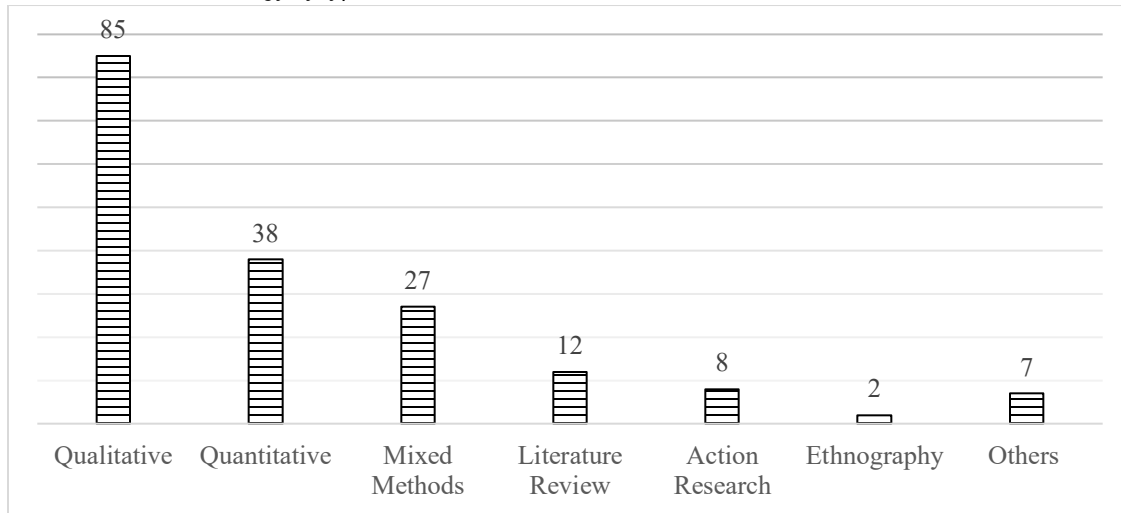
In terms of the disciplinary areas, Figure 2 shows that most of the studies included samples from the field of allied health sciences (n=106), compared with business studies (n=6), engineering (n=2), the arts, and social sciences (n=1).

Figure 2. Main WIL discipline by type



The types of methodologies used included qualitative methodologies (n= 85), quantitative studies (n = 38), and mixed methods research, a combination of quantitative and qualitative approaches (n = 27). Other methodologies, including action research (collaborative inquiry involving researchers and participants), ethnography, and literature reviews, were less prominent. Seven studies, categorized under “others,” used unique methodologies, such as Delphi, a creative hermeneutic approach, or the development of theoretical frameworks (see Figure 3).

Figure 3. Main WIL methodology by type



It is important to note that the predominance of qualitative methodologies WIL studies does not diminish the value or relevance of quantitative approaches. The choice of research methodology will always depend on the research question/s, objectives, and the nature of the phenomena being studied, as well as the researchers’ skills. As WIL scholarship evolves, there may be an increasing recognition of the value of quantitative, mixed methods, and innovative methodologies, such as auto-ethnography, to help provide a diverse understanding of WIL experiences in disciplines other than health and medicine.

The volume of research focusing on supervision has fluctuated over the years without any clear or consistent trend. As Figure 4 depicts, this included during the COVID-19 disruptions, when there was widespread pausing or cancellation of placement programs, along with increased interest in technology, remote work, and paid versus unpaid placements.

Figure 4. Amount of WIL research

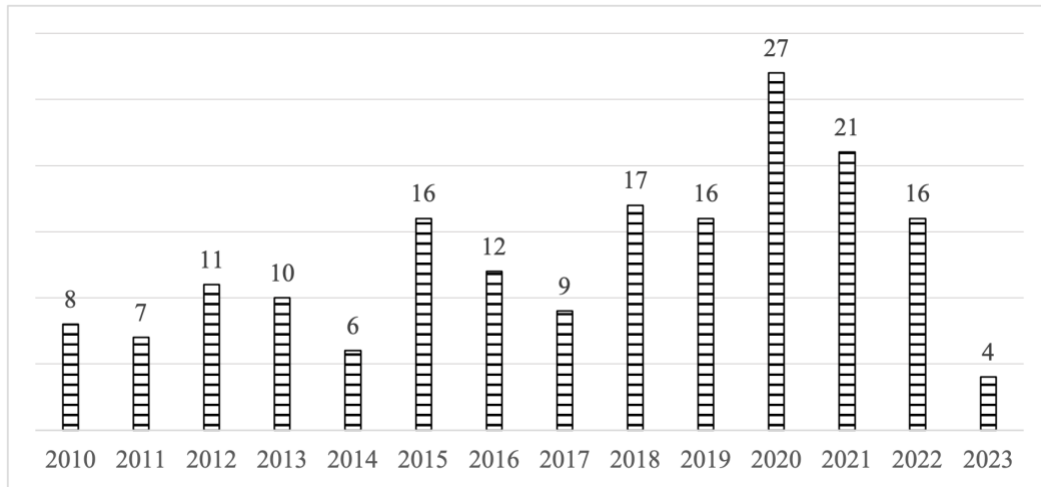
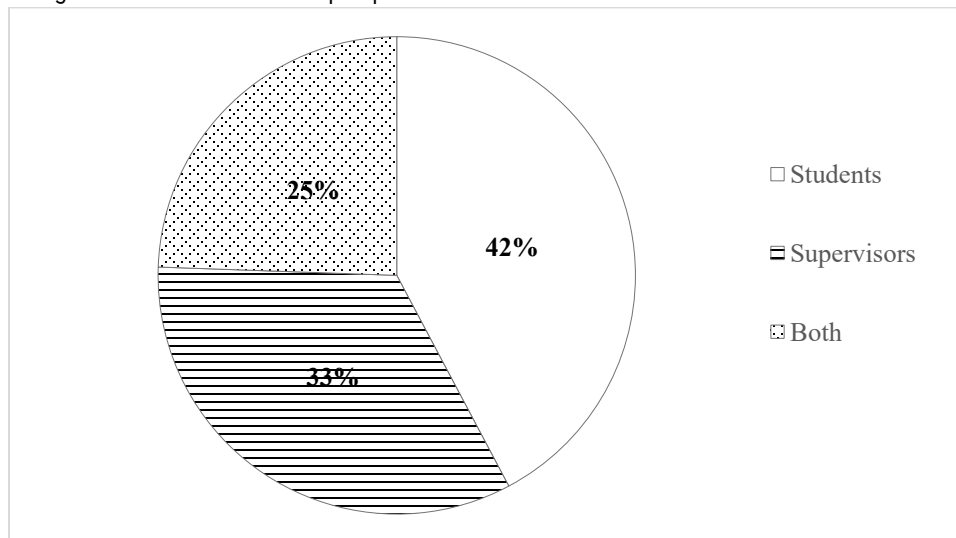


Figure 5 shows that most supervision-related studies focus on student perspectives. Specifically, 42% of the studies in this review focused on the student perspective, 33% on the supervisor perspective, and 25% considered both students’ and supervisors’ perspectives.

Figure 5. Percentage of research on different perspectives



Overall, the dynamic and evolving nature of the scientific landscape, coupled with external influences and priorities, may contribute to the fluctuation in type, demographic location, context, and topic of WIL research. Researchers and higher education institutions continually adapt in order to address emerging challenges and opportunities (Rowe, MacKaway, and Winchester-Seeto 2012; Smith, Ferns, and Russell 2019), leading to a shift in WIL research that is reflected in the data sets presented.

### Student perspectives

One of the most dominant themes in the student-focused studies was the creation of a caring environment where students feel included, welcomed, valued, and safe. Inclusion emerges as the most prevalent concept within this theme, primarily relating to the students being seen and heard (Bogsti, Solvik, Ingeborg Engelién, Larsen Moen, Sonstebj Nordhagen, Struksnes, and Arvidsson 2013; Haddleland and Söderhamn 2013), having feelings of belonging (Gray, Wright, and Pascoe 2019), and being recognized as vital members of the work team (Koch, Øgård-Repål, Knutson De Presno, and Dahl Gundersen 2023; Luthen, Hollup, Bratland, Korseberg, and Warem 2021; Nautvik and Røykenes 2020; Quigley, Loftus, McGuire, and O’Grady 2020; Ridley 2012; Sabatino, Rocco, Stievano, and Alvaro 2015; Thomson, Docherty, and Duffy 2017). Indeed, the integration of the student into the work team was highlighted across multiple studies, particularly those within allied health fields, underscoring the necessity for students to feel welcomed and valued within organizations. Notably, King, Bulsara, and Russell (2017) introduced the W.A.N.T.E.D framework (Welcome, Attitude, Nurture, Talk, Encourage, Delight), illustrating the critical importance of a comprehensive organizational approach to welcoming students and fostering a sense of belonging. WIL environments that nurture psychological safety also featured significantly in the findings; several studies examined the role of psychological safety in developing self-efficacy (Lejonberg 2018) and supported optimal readiness for student learning (Pienaar, Orton, and Botma 2022; Thyness, Steinsbekk, and Grimstad 2022).

The studies also revealed that the development of the specific relationship between student and supervisor plays a vital role in establishing a caring environment. Supervisors significantly influence the conditions of belonging and inclusion between the organization’s staff and placement students (King et al. 2017). Indeed, a positive relationship with the supervisor surfaced as the most dominant theme in the literature on student perspectives. Numerous studies, for example, focused on the affective components of the student-supervisor relationship, with the term “supportive” being the most frequently referenced attribute students sought in a supervisor. Approximately 24% of studies identified this as a key factor in students’ perceptions of a good mentor (Thomson, Docherty et al. 2017; Zuchowski, Cleak, and Clever 2021). Other critical aspects of the student/supervisor dynamic include the establishment of mutual trust, particularly in students feeling trusted by their supervisors (Olsen and Knudsen 2015; Nautvik et al. 2020), and supervisors exhibiting a positive, development-focused attitude to enhance wellbeing (Mo, Tsang, Wong, Sing, and Cheung 2021; Sabatino et al. 2015).

Additionally, student-focused findings highlight key actions taken by supervisors to enhance effective placement supervision. These include providing feedback, particularly affirming feedback on the students’ abilities and professionalism (Martinez Aguado 2016; Wheeler and Williams 2012). Supervisor presence also emerged as a critical component of a positive relationship, with studies indicating a lack of availability as a significant detractor in supervisor relationships (Cleak, Zuchowski, and Cleaver 2022; Zuchowski et al. 2021). Another important action was supervisors setting clear expectations (Lejonberg 2018), especially during the beginning of the placement (Miehls, Everett, Segal, and du Bois 2013).

Student-focused studies also examined the conditions required to develop a learning environment where new knowledge and skills can be gained. Some research explored the concepts of linking theory to practice (Hall, Kasujja, and Oakes 2015; Solstad 2010), while much of the literature concentrated on personalized learning, such as the supervisor’s role in goal setting (Miehls et al. 2013) and meeting students at their learning stage (Hamshire and Wibberly 2017). Students expressed the desire to be challenged in their roles (Worum and Bjørndal 2018), viewing this as a crucial aspect of an effective placement and seeking supervisor support in this area. Reflection also emerged as a

significant learning tool, with approximately a dozen studies identifying it as a key element of effective placements (Andreason and Høigaard 2017; Koch et al. 2023; Olsen et al. 2015; Solstad 2010).

Finally, the student-focused studies explored the concept of developing autonomy in placements (Andreason et al. 2017; Thomson, Docherty et al. 2017). They highlighted that the supervisor had a vital role in scaffolding learning so that the student felt comfortable taking on tasks and growing independently. Autonomy was such an important subject in the learning environment realm that some studies, such as Clouder, Jones, Mackintosh, and Adefila's (2022), focused specifically on the means for assigning responsibility and increasing autonomy, leading to the development of a heuristic framework for effective supervision. Importantly, key aspects previously discussed, such as a positive relationship between supervisors and students, the establishment of mutual trust, and the setting of appropriate goals, were deemed critically important towards establishing autonomy (Clouder et al. 2022).

### **Supervisor perspectives**

While the literature on students' perspectives of effective placement supervision focused heavily on experiencing a caring environment, the subject of building a caring environment received scant mention in the supervisor-focused studies. Subjects like inclusion and psychological safety were more likely to be referenced in studies that explored both student and supervisor perspectives of effective placement supervision (see Izadinia 2015; King et al. 2017; Koch et al. 2023). Only a few supervisor-focused studies mentioned these concepts and when they did, they were often listed as one of many responsibilities that supervisors felt required to assume (see Winchester-Seeto, Rowe, and Mackaway 2016).

A substantial body of the examined literature focused on the critical role of a positive relationship between the supervisor and the student. As with student-focused papers, some of these studies explored the need for the supervisor to actively support and encourage placement students' learning environments (Mikkonen, Tomietoo, Cicolini, Kaucic, Filej, Riklikiene, Justkauskiene, et al. 2020; Wilson 2014), but the affective elements of the student/supervisor relationship, such as caring for the student, trusting the student, and even bringing a positive and developmental attitude to the relationship, received less attention in studies focused on the supervisor's perspective. Finally, some studies explored supervision from a cultural lens. For example, Mena, Faikhatma, and Clarke's (2020) study on "Mentors" as an approach to practicums in the Spanish and Thai contexts explored cultural differences in supervisors' perspectives on effective mentoring. This finding helps highlight differences in foci across contexts; for example, Thai supervisors prioritize ethics and role modeling while Spanish mentors prioritize the importance of interpersonal relationships.

The literature explored several other aspects of the supervisor's role, from establishing clear expectations (Ivarjord and Kitzmuller 2019; Nyhagen, Sjöberg, Austenå, Sørensen, Høybakk, and Heggdal 2019) to being available and present for the student (Ivarjord et al. 2019; Olander, Rayment, Bryar, and Brook 2018). Notably, the role of feedback, particularly affirmative feedback, which featured prominently in the results for the student-focused literature, received modest attention in the supervisor-focused studies. Most often, it only appeared in studies that explored both perspectives (Izadinia 2015; Richardson, Jackling, Henschke, and Tempone 2013). While the supervisor-focused literature emphasized much less on giving feedback, a subset of studies did focus on the importance of asking questions in order to foster learning (Woolston and Dayman 2022; Worum et al. 2018). This was a topic that did not appear in the student-focused literature.

In terms of creating a learning environment, the supervisor-focused literature centered the supervisor's role as a co-educator. First, a significant quantity of the literature focused on the supervisor's desire to connect theory to practice, often noting that a lack of understanding of the student's baseline knowledge inhibited the supervisor's ability to support their learning (Ivarjord et al. 2019; King, Edlington, and Williams 2020). Interestingly, the supervisor-focused literature mirrored the student-focused literature quite closely when it came to emphasizing the importance of personalized learning, including identifying the individual student's learning needs (Pramilia-Savukoski, Juntunen, Tuomikoski, Kaariainen, Tomietto, Kaucic, Filej, et al. 2020) and supportively challenging students (Dancza, Copley, and Moran 2021).

Finally, the supervisor-focused literature stressed the operational and structural aspects essential for effective placement supervision. This focus often came from a deficit perspective, highlighting that a lack of resources and support for supervisors created barriers that hindered them from providing supervision as effectively as possible. Key detractors included a lack of supervisor training and preparation to onboard students into the workplace (Kjær, Raudaskoski and Sørensen 2016; Keating 2012; King et al. 2017; Spector and Infante 2020), a failure of industry/organization leadership to properly recognize student supervision either through adjusting supervisors' workload or providing incremental resources (Andersson, Danielsson, Hov, and Athlin 2013; McKellar and Graham 2017; Reynolds and McLean 2023) and a lack of collaboration between the higher education institutions and organizations who supervise students (Ross, Ta, and Oliaro 2020; Reynolds et al. 2023).

## DISCUSSION AND CONCLUSION

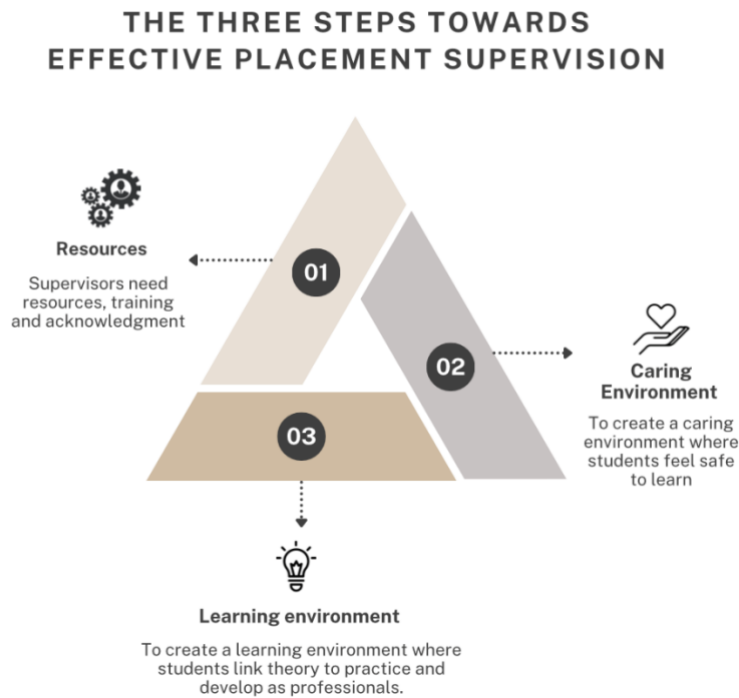
From a bibliometric perspective, this study identified trends and gaps within the literature, highlighting the distributions and areas of focus for supervision-focused studies in WIL. The results reveal that WIL scholarship in placement research is heavily tilted towards allied health sciences and teacher education, reflecting the professional accreditation requirements and large-scale placement needs of those fields. Subsequently, it is important to reflect on how disciplinary conventions may shape the conceptualization of effective supervision and its key elements, because these placement experiences may be more prominent or valued in health or education contexts, potentially leading to underrepresentation of supervisory priorities in disciplines such as business, engineering, or the arts, where different relational norms or learning expectations may prevail. This disciplinary bias invites a more nuanced reading of the literature and raises questions about the transferability of effective supervision elements across diverse WIL settings, warranting caution in generalizing the applicability of the findings presented here. Finally, a preference for qualitative methods is evident in the literature. Perhaps this is because qualitative methods are often best suited for exploring the intricate social and contextual dimensions of placements (Bartkus et al. 2011; Coll and Zegwaard 2011).

Beyond these bibliometric patterns, however, the study identified differences in student and employers' perspectives on effective supervision. The diversity of placement experiences and the breadth of discourses used to describe these encounters pose a challenge to WIL scholars, particularly when attempting to determine what defines effective placement supervision in a way that takes into account varied perspectives, contexts, cultures, and disciplinary lenses. WIL scholars have examined the experiences, requirements, and needs of students and supervisors to help create enriching placement experiences (Ford et al. 2016). However, to date, limited research synthesizes the knowledge obtained through a large-scale SLR to identify overall themes and bibliometric data. The SLR presented here shows that research on placement supervision has been confined to specific disciplinary areas, developed Western economies, English language papers, and qualitative methods;

it also tends to prioritize students' perceptions over those of supervisors. This study presents one of the largest systematic literature reviews to date on a topic that is only anecdotally understood regarding students' and supervisors' perspectives on effective placement experiences. Effective placement supervision is a critical success factor for students' development as professionals, which is one of the goals of work-integrated learning (Rowe et al. 2012; Smith et al. 2019). However, the findings presented here also reveal a significant divergence between students' and supervisors' perspectives on effective supervision. While students emphasize the importance of psychological safety and supportive relationships (a caring environment), supervisors often prioritize resource needs and institutional backing, as well as creating a learning environment for students to connect theory to practice while developing as professionals. Together, these findings indicate a potential gap in how student/supervisor environments are constructed and operationalized.

Based on this finding, the authors propose a three-step model to help produce an effective placement experience for both students and industry supervisors:

Figure 6. A three-step model for effective placement supervision



First, supervisors require sufficient resources and recognition from both their own organizations and higher education institutions before student placement needs can be met. The findings from this study indicate that one of the primary challenges supervisors face is organizational, wherein access to adequate resources and recognition is critical for effective supervision but not always provided. These resources form the foundation for building effective supervisory practices (see step one in Figure 6). For example, a university could provide an online supervision credential training module and a dedicated support team for field educators, along with an annual recognition award. Further, industry stakeholders could significantly enhance the quality of student supervision by

prioritizing it within their strategic frameworks. By integrating supervision into organizational strategies and allocating dedicated time and resources, industry partners can ensure that those responsible for supervising students are well-equipped and receive the necessary support.

Second, this study highlighted the importance of fostering a caring environment and establishing a positive relationship between students and supervisors, as reflected in step two of the model. Psychological safety, which enables students to feel welcome and secure enough to ask questions, seek feedback, and express their opinions, is a crucial factor to foster learning and knowledge development (Edmondson 1999). A caring environment encourages openness, where students feel safe to ask questions, express their thoughts, and learn more effectively. Thus, creating such an environment is essential for effective supervision. For instance, a placement supervisor could hold regular one-on-one check-ins with students to foster trust, address concerns early, and affirm their development, which is formally allocated as part of their role and workload. These check-ins could emphasize the importance of nurturing positive emotions and building relationships, thereby caring for students' wellbeing and creating a supportive and encouraging learning environment.

Finally, and as depicted in step three of the model, with the necessary time, resources, and a caring environment in place, supervisors can focus on creating a learning atmosphere where students connect theory with practice and develop professionally. This could be incorporated by organizations, and supervisors could give students structured opportunities to reflect on their practice during work hours through guided journal entries linked to weekly theoretical frameworks, re-connecting learning to work experience.

However, achieving this objective depends on the successful implementation of the first two steps, because supervisors need resources in order to provide what students view as effective supervision (a caring environment). Effective placements require appropriately resourced coordination to influence positive student placement experiences. This then becomes key to ensuring learning standards, psychological safety, and supportive operations (Coll et al. 2011; Campbell and Pretti 2023).

### **Limitations and future directions**

There are several limitations that suggest directions for future research. First, the authors' disciplinary perspectives, cultural backgrounds, and language barriers influenced what articles were included or excluded during the SLR. For example, the Norwegian research articles were the only non-English data sources. This choice affected the number of journal articles included and represented within the data. Second, the authors did not conduct an in-depth exploration of the intersections among themes related to disciplinary limitations, such as focusing only on allied health. Third, the study focused on a cumulative placement experience and did not differentiate by duration of a single placement, whether it was graded or ungraded, or by level, including variations in student learning levels, like undergraduate versus postgraduate. Finally, the results did not reveal how the diversity of placement experiences, demographic backgrounds, and contexts relates to the operationalization of "effective" placements, highlighting key elements. Therefore, further research should explore these phenomena and include placements in countries beyond Western cultures. It would also be beneficial to examine other methodological approaches, such as research-in-action, ethnography, and auto-ethnography. Conducting WIL research this way could showcase diverse placement experiences across different perspectives and contexts, helping researchers, practitioners, teachers, supervisors, and policymakers better understand the essential components of effective placement supervision. Lastly, the three-step model developed from the study's findings serves as a conceptual framework only, and it requires additional investigation and validation.

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## DISCLOSURE

We used Grammarly for final grammatical edits on the accepted manuscript.

## ETHICS

This study did not require ethical review due to the researchers using secondary data only.

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## APPENDIX

### Systematic Literature Review Process

Databases: A+ Education Abstracts, ERIC via Proquest, Web of Science, Proquest, Oria.no, and Idunn.no

Search words (English): We explored titles, abstracts, and journal papers with search words such as (“supervision” OR “mentoring” OR “mentor” OR “supervision leadership” OR “mentoring leadership” OR “leadership in supervision”) AND (“work-integrated learning” OR “work integrated learning” OR “WIL” OR “co-operative learning” OR “cooperative learning” OR “co-operative education” OR “cooperative education” OR “co-op” OR “coop” OR “workplace learning” OR “work based learning” OR “work-based learning” OR “industry based learning” OR “industry-based learning” OR “placement” OR “placements” OR “internship” OR “internships” OR “field placement” OR “field placements” OR “apprenticeship” OR “apprenticeships” OR “practicum” OR “practicums” OR “service learning” OR “house doctor”) [We instigated separate searches for each database].

Keywords (Norwegian): Keywords used in title, abstracts, and subject headings. Search was broadened in Oria, see the section on “process and selection” for further description. (veiledler OR praksisveiled\* OR veiledning OR mentor OR mentoring OR veiledningsledelse OR mentorveileding) AND (utplassering OR praksis OR praksisordning OR praksisclass OR praksisstudent OR klinisk praksis OR profesjonspraksis OR arbeidsintegret læring OR arbeidsintegret utdanning OR arbeidslivsrelevant utdanning OR Arbeidsplassbasert læring OR Praksisnær utdanning OR yrkestilknytning [We conducted separate searches for each database using database specific subjects, headings, and keywords].

Publications: 2010 (January) - 2023 (March), human subject, English, and Norwegian languages only, English search performed on: March 31, 2023, Norwegian search performed on March 28, 2023.

**Step One:** total articles found **9,349**.

**Step Two:** **2,147** English and **656** Norwegian duplicates removed.

**Step Three:** **4,268** English and **2,278** Norwegian titles and abstracts screened.

**Step Four:** **5,842** identified for secondary review.

**Step Five:** **217** final selection of articles that met the criteria.

**Step Six:** **180** full text articles assessed for eligibility.

**Step Seven:** **517** full text articles excluded (reasons: supervisors’ skills and placement experience not a part of formal WIL programs, students’ learning was not mentioned, and/or placements in higher education not mentioned).

**Step Eight:** **180** studies classified according to research type, country, field of education, and WIL reference to research question with interrater reliability check = 100% on 100% samples.

**Step Nine:** **180** studies classified according to supervision placement type and research type; appraised for supervision design quality with interrater reliability check = 100% agreement on 100% of samples.

**Step Ten:** **180** studies appraised (for) placement supervisor type, design, and quality with interrater reliability check = 100% agreement on 100% of samples.



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