

Enhancing neurodivergent student wellbeing in co-operative education: A theoretical model and research agenda

ANTOINE PENNAFORTE¹

Conservatoire National des Arts et Métier, Paris, France

ANNE-MARIE FANNON

University of Waterloo, Waterloo, Canada

This paper explores ways to support the wellbeing of neurodivergent individuals participating in co-operative education (co-op). The authors propose a theoretical model for supporting neurodivergent student wellbeing in co-op, based on the current understanding of wellbeing in WIL and interventions for neurodivergent individuals at work and in higher education. The paper also identifies methodological considerations in neurodiversity research within the WIL context. It then presents a research agenda identifying critical topics for future WIL research. The expected outcomes and implications for WIL practitioners, organizations, and the WIL community are discussed, highlighting the potential for broad adoption.

Keywords: Neurodivergent learners; wellbeing; co-operative education; work-integrated learning; organizational behaviors; helpers; mental health

Research on neurodiversity (Johnson & Josh, 2016; Kapp et al., 2013) is helping with understanding how individuals with cognitive and learning differences can best thrive in social and organizational contexts. Neurodiversity, a constantly evolving concept, can be defined as the acknowledgment of neurological differences in brain functioning and related behavior in the population (Clouder et al., 2020; Singer, 1999). Neurodiversity does not describe mental pathologies but natural human variations that bring unique challenges and strengths (Chamak, 2008, 2018; Clouder et al., 2020; Hamilton & Petty, 2023). Within the general population, there are both neurotypical individuals, those with standard or average cognitive abilities, and neurodivergent individuals, those who do not have typical cognitive abilities or who have neurological differences (Doyle, 2024). A subset of neurodivergent people has been diagnosed with conditions ranging from those acquired at birth, such as autism spectrum disorder (ASD), attention deficit disorder (ADD), dyslexia and other learning challenges, and giftedness, as well as mental illnesses and injuries acquired through life (Doyle, 2020). The neurodivergent population is estimated to range from 10% (Haute autorité de Santé, 2024) to up to 20% (Doyle, 2020).

What is consistent across definitions is the notion that neurodivergent individuals have brains that function differently (Walker, 2021) and that they consequently experience life (Johnson & Josh, 2016) and work differently (Biétry & Richet, 2021; Kapp et al., 2013; Mouillot & Drillon, 2017). Often, however, these differences can create difficulties for neurodivergent individuals. Notably, neurodivergent individuals are more likely to experience challenges with both wellbeing and occupational exclusion, face disproportionately high unemployment rates, and have career struggles throughout life (Anderson et al., 2018; Doyle, 2020). While little has been studied on how higher education institutions can effectively support the school-to-work transition for neurodivergent students, some studies suggest that prioritizing career-related skill development and work-integrated learning opportunities for neurodivergent learners is one crucial strategy (Cheriyen et al., 2021). This paper aims to explore ways to support both the wellbeing and employment outcomes of neurodivergent individuals by proposing a conceptual model for wellbeing in co-op and a research agenda to test the model.

¹ Corresponding author: Antoine Pennaforte, antoine.pennaforte@lecnam.net

BACKGROUND

At work, wellbeing is defined as “a psychological state resulting from a positive relationship with others, oneself, time, and the physical work environment” (Biétry & Creusier, 2013, p.34). A multidimensional concept (Nande & Commeiras, 2020), wellbeing at work is related to psychological wellbeing, including hedonist (the principle of maximizing pleasure and avoiding suffering) and eudemonist (the feeling of fully living, being oneself, and being in harmony with one’s activity) facets (Dagenais-Desmarais & Savoie, 2012; Ryff, 1995). At work, wellbeing is related to personal values and development (Ryff, 1995). It concerns human experience (Deci et al., 2001). Wellbeing, as a multidimensional concept, is based on four main dimensions: 1) positive rapport with colleagues; 2) one’s manager; 3) work/life balance; and 4) a positive physical work environment (Biétry & Creusier, 2013). Wellbeing depends on individual characteristics and capabilities, including emotional intelligence, psychological capital, and authenticity (Avey et al., 2009; Carmeli et al., 2007; Sheldon et al., 2004), and organizational cultural practices such as solid relationships and psychological safety through a positive work environment and human resource supports (Deci et al., 2001). Individuals with strong wellbeing perform better (Christian et al., 2011; Cropanzano & Wright, 1999; Judge et al., 2001), may develop organizational citizenship behaviors (Lee & Allen, 2002), and are more independent (Staw et al., 1994).

Wellbeing in work-integrated learning (WIL) has received increased attention in recent years. In WIL, wellbeing has been defined as “an individual’s capacity to manage the social, economic, personal and physical factors that impact on the work-integrated learning experience and how the work-integrated learning experience impacts on an individual’s social, economic, personal, and physical wellbeing domains.” (Gillett-Swan & Grant-Smith, 2018, p.133). WIL wellbeing is “dynamic and fluid” (Gillett-Swan & Grant-Smith, 2018, p.133) and strengthened by institutional and community supports (Gillett-Swan & Grant-Smith, 2018). In WIL, work-related subjective wellbeing, (Bakker & Oerlemans, 2011) can enhance student performance (Drewery et al., 2017). Wellbeing at work could improve work performance, and wellbeing at school could enhance academic success. Before we can understand how to support the wellbeing of neurodivergent learners in WIL, we need to understand their needs and whether they differ from neurotypical understandings of wellbeing in WIL.

Neurodiversity is a constantly evolving concept but is becoming more commonly understood as differences in individual brain functioning, which are normal and expected variations in the human population (Chamak, 2008, 2018; Clouder et al., 2020). There are, however, many different lenses or perspectives with which scholars have viewed neurodiversity and neurodivergent individuals. The traditional medical model, for example, views neurodivergent individuals from a deficit perspective, pathologizing their differences and seeking cures to normalize neurodivergence (Dwyer, 2022; Hamilton & Petty, 2023). On the other hand, the social disability model suggests that disability is not biological but rather a function of environmental or social limitations. Thus, even though neurodivergent individuals may have cognitive limitations, these limitations are only disabling because of societally imposed processes or standards. For example, the sensory stresses experienced by many autistic individuals are not a disability, except that our environments often contain sensory stimuli that are acceptable to neurotypical individuals but damaging and exhausting to neurodivergent individuals (Raymaker et al., 2020). In this model, disability can be addressed by changing the environment or societal expectations.

The interactionist neurodiverse approach proposed by Dwyer (2022) posits that “disability is the product of an interaction between the characteristics of a disabled person and the environment around

them” (p. 77). This model recognizes that while some neurodivergent individuals have impairments, they also possess unique strengths (Carter et al., 2015; Dwyer, 2022; Russell et al., 2019). It suggests that, to support neurodivergent populations, we must change our environments and societal expectations, but we must also acknowledge where limitations exist and provide individual support. To this end, interventions could happen at both the environmental level (e.g., reducing stimuli for an autistic person) or at the individual level (e.g., medications to reduce anxiety for an autistic person) (Dwyer, 2022). Notably, the chosen interventions are the ones that best support the individual’s wellbeing and quality of life (Dwyer, 2022). This paper adopts Dwyer’s interactionist approach and explores the environmental and individualized supports that may be required to enhance the wellbeing of neurodivergent learners in WIL.

Currently, research on supporting the wellbeing of neurodivergent learners in higher education is generally limited (Hamilton & Petty, 2023), as is research on the wellbeing of neurodivergent workers (Szulc et al., 2021). What is known is that many neurodivergent learners want to act and behave as ‘typical’ individuals (Gauvrit & Clobert, 2021; Mouillot & Musquer, 2023). They develop strategies to compensate for their differences (Dwyer, 2022; Pennaforte, 2023b). This often involves masking or hiding their desired behavior and instead adopting stereotypical or socially acceptable behaviors. These masking modifications have been shown to harm their wellbeing, including burnout, stress, anxiety and even suicidality (Cage & Troxell-Whitman, 2019; Cassidy et al., 2018; Hull et al., 2017, 2019; Raymaker et al., 2020).

In the context of WIL, research on neurodiversity is limited and focuses on organizational and educational supports to increase socialization for neurodivergent WIL students (Pennaforte, 2023a). WIL provides an important context for studying the wellbeing and employability of neurodivergent individuals. Negative educational experiences can have a lasting impact on neurodivergent learners’ self-perception and wellbeing (Hong et al., 2016). Career success is thus often contingent on positive early educational and employment experiences (Hamilton & Petty, 2023). WIL is at the intersection of education and employment, providing an important context for studying wellbeing in neurodivergent individuals. For example, research on WIL students may help us better understand how to foster lifelong wellbeing in neurodivergent individuals. It can also identify how to support neurodivergent individuals in the early phases of their careers, including strategies for successfully integrating into the workplace and increasing long-term employment success.

Recent research indicates that WIL can help address labor market inequities for equity-deserving groups. For example, studies from Canada and Australia demonstrate that work-based WIL participation, such as co-op and internships, can close post-graduation salary gaps for equity-deserving groups and improve job attainment rates for students with disabilities (Australian Collaborative Education Network, 2023; Wyonch, 2020). However, there is a lack of specific information about the outcomes of WIL programs for neurodivergent learners, even though up to 20% of the WIL student population may be neurodivergent. This paper narrows in on the experience of neurodivergent co-op students and explores structures and supports to enhance their wellbeing in WIL. Co-op, in particular, is an interesting model of WIL to explore neurodivergent wellbeing because it closely mirrors the process of securing and succeeding in employment post-graduation. Students apply for their co-op positions and are paid members of an organization for their work term. Further, because co-op typically includes multiple work terms or work experiences, exploring the wellbeing of neurodivergent learners in co-op allows for examination of the role of various supports over time, including measures of wellbeing, work term success, academic success and overall persistence.

To address research gaps in supporting neurodivergent workers and learners, scholars are proposing theoretical models and conceptual frameworks for supporting learners and workers, drawing from existing neurodiversity research and current understandings of fostering student success (Hamilton & Petty, 2023). This paper proposes a similar approach for exploratory research on wellbeing of neurodivergent learners in WIL. Firstly, it proposes a theoretical model of neurodivergent wellbeing in the context of co-op programs, then presents a research agenda to explore and test the theoretical model. Finally, some methodological considerations in research with neurodivergent learners are discussed. This paper focuses on the experiences of all neurodivergent co-op students, both those with diagnoses and those without, as not all individuals are comfortable disclosing diagnoses and others may not seek a diagnosis at all (Clouder et al., 2020). Systems and structures must be implemented to support all learners, regardless of diagnosis or disclosure status.

THEORETICAL MODEL

As mentioned above, our understanding of how to support the wellbeing of neurodivergent learners is limited. However, research on supporting the wellbeing of neurodivergent people in different contexts, including in the workplace, provides a foundational understanding upon which to build.

Following the interactionist approach (Dwyer, 2022) we explore the environmental adjustments and individualized supports that could enhance the co-op experience for neurodivergent learners and support wellbeing. Our theoretical model is founded on the four dimensions of workplace wellbeing as defined by Biétry and Creusier. They define workplace wellbeing as having a positive relationship with one's colleagues, a positive rapport with one's manager, work-life balance and positive physical work environment. As co-op education includes both academic and workplace environments, the wellbeing model is expanded to include both contexts (Table 1). Our theoretical model explores interventions that could enhance wellbeing in each domain. These include both environmental adjustments and individualized support.

TABLE 1: Wellbeing dimensions through work-integrated learning.

Dimensions	At work	At school
Positive rapport with colleagues	Good relationships with colleagues Team socialization Team solidarity	Good relationships with classmates Class socialization Student solidarity
Positive rapport with manager/faculty	Support for career development Job tasks negotiation Acknowledgment	Support for academic development Able to choose courses Academic acknowledgement
Work-life balance	Schedule well-defined Work-life balanced	Academic schedule well-defined Academic schedule well-balanced
Positive physical work environment	Able to adapt my workspace Workspace adapted to my need Pleasant work environment	Able to be myself Classroom adapted to my need Pleasant school environment Sense of belonging

* From Biétry and Creusier (2013)

ENVIRONMENTAL ADJUSTMENTS

The literature on supporting neurodivergent individuals in school and work suggest three main areas of focus for environmental adjustments to be considered in co-op programs: universal design for learning, inclusive recruitment policies and practices, and training for co-op staff and workplace supervisors.

Universal Design for Learning

Universal design for learning (UDL) is an educational approach that “seeks to improve and optimize teaching and learning for all learners based on scientific insights into how humans learn” (CAST, 2024, para 1). It emphasizes multiple means of presenting knowledge and assessing learning by providing options for engagement, representation, action, and expression (CAST, 2024). UDL responds to the needs of many neurodivergent learners by recognizing that the traditional one-size-fits-all approach to higher education introduces many barriers to students who, fully capable of learning, are simply experiencing environmental barriers to doing so (Meyer et al., 2014). UDL also reduces the stigmatization of neurodivergent learners by introducing practices that benefit all learners, reducing the need for them to disclose and request accommodations (Anderson et al., 2018). While UDL has been adopted to varying degrees of success in various higher education contexts (Clouder et al., 2020), many have noted its implementation is inconsistent (Sarrett, 2018). Within the co-op context, UDL is recommended to support inclusive learning (Goldman et al., 2023). However, specific details on what UDL looks like in the co-op curriculum remain mainly unexplored.

Inclusive Recruitment Policies and Practices

Co-op often includes a competitive recruitment process that mirrors post-graduation job-seeking. While this learning experience provides a critical opportunity for students to practice articulating their skills and competencies in an employment context (Pretti & Fannon, 2018), the authentic design of this experience also introduces many stressors that affect students' wellbeing (Knapp & Drewery, 2025). These stressors may be more acute for neurodivergent individuals who already face barriers in the recruitment process (Baxter & Heys, 2019). These challenges include deciding when or whether to disclose neurodiversity (Giannantonio et al., 2024) to job postings with unapproachable language that deter neurodivergent candidates (Cheriyen et al., 2021) or not including information about accommodation processes (Chartered Institute of Personnel and Development, 2018). Additionally, traditional interview processes may favor neurotypical behaviors such as engaging in small talk, maintaining eye contact, and demonstrating interest through body language (Giannantonio et al., 2024; Spezio et al., 2007). While little research has focused specifically on the recruitment experiences of neurodivergent learners, the co-op recruitment process has been identified as a significant barrier toward inclusive experiences for equity-deserving students (Khan et al., 2024). Identifying and implementing ways to enhance inclusive recruitment in co-op presents many opportunities to improve the experience for all learners.

Training for Co-Op Staff and Workplace Supervisors

Neurodivergent individuals are often not included in definitions of equity-deserving groups (Dwyer, 2022). This means neurodiversity awareness is frequently excluded from equity, diversity, and inclusion-focused training programs (Bruyère & Colella, 2023). However, training in neurodiversity awareness and acceptance can be crucial in increasing supportive environments for neurodivergent workers and, by extension, co-op students. On the curricular side of co-op programming, training on

neurodiversity can help educators understand how to incorporate universal design principles for learning and the importance of doing so (Couzens et al., 2015). Training in neurodiversity can help recruiters write more inclusive job postings, practice inclusive interview processes, and reduce bias toward neurodivergent behaviors (Giannantonio et al., 2024). Supervisors trained in neurodiversity can provide better feedback and enhance communication with neurodivergent employees (Fung, 2024). Managers and leaders who understand neurodiversity can support universal design improvements in the workplace environment and policies, potentially benefitting all employees (Fung, 2024). An exploration of the role of training in building inclusive environments for neurodivergent co-op students could help identify and clarify the role of each partner in this work, improve outcomes for learners, and create awareness of the value of inclusive recruitment and workplace practices in host organizations (Rillotta et al., 2024).

INDIVIDUALIZED SUPPORTS

The emerging literature on neurodivergent employees and neurodivergent students also suggests the critical role of two forms of individualized support: helpers and accommodations and adjustments.

Helpers

A relatively unexplored area in supporting neurodivergent students is the role of dedicated support or helpers. Helpers are volunteers who assist individuals who may be in vulnerable situations. A supervisor can be considered a helper if they go beyond their basic supervisory role at work to enhance the comfort of a vulnerable person, such as neurodivergent learners. However, not every supervisor is a helper. For instance, a helper will attempt to anticipate the needs related to the specific characteristics of the neurodivergent individual, address identified shortcomings in the workplace (such as providing reassurance, listening, and support), and interpret implicit cues (Jaeger, 2023). Therefore, a helper can be described as someone who transcends their professional role to promote the specific wellbeing of neurodivergent individuals.

Some research explores the importance of helpers in traditional higher education contexts. For example, peer mentor programs are highly successful for neurodivergent students in a traditional academic context (Ames et al., 2016; Thompson et al., 2018). Another study showed that autistic students preferred receiving support from a personalized coach in their educational and personal lives, but peer mentors were also beneficial (Berry, 2018). Peer mentor programs are also recommended as one form of adaptation for neurodivergent workers (Doyle, 2020) and have been successfully implemented in large companies with neurodiversity support programs, such as System Applications and Products (SAP), Freddie Mac, and Hewlett Packard (Bruyère & Colella, 2023).

Within the WIL context, supports such as helpers have been shown to be highly important for neurotypical WIL students at work (Pennaforte, 2016) and helping students with mental health challenges (McBeath et al., 2017). Despite the clear role that helpers and dedicated supports can play for neurodivergent individuals at work and in classes, no studies have been done on the role of helpers for neurodivergent co-op students.

Accommodations and Adjustments

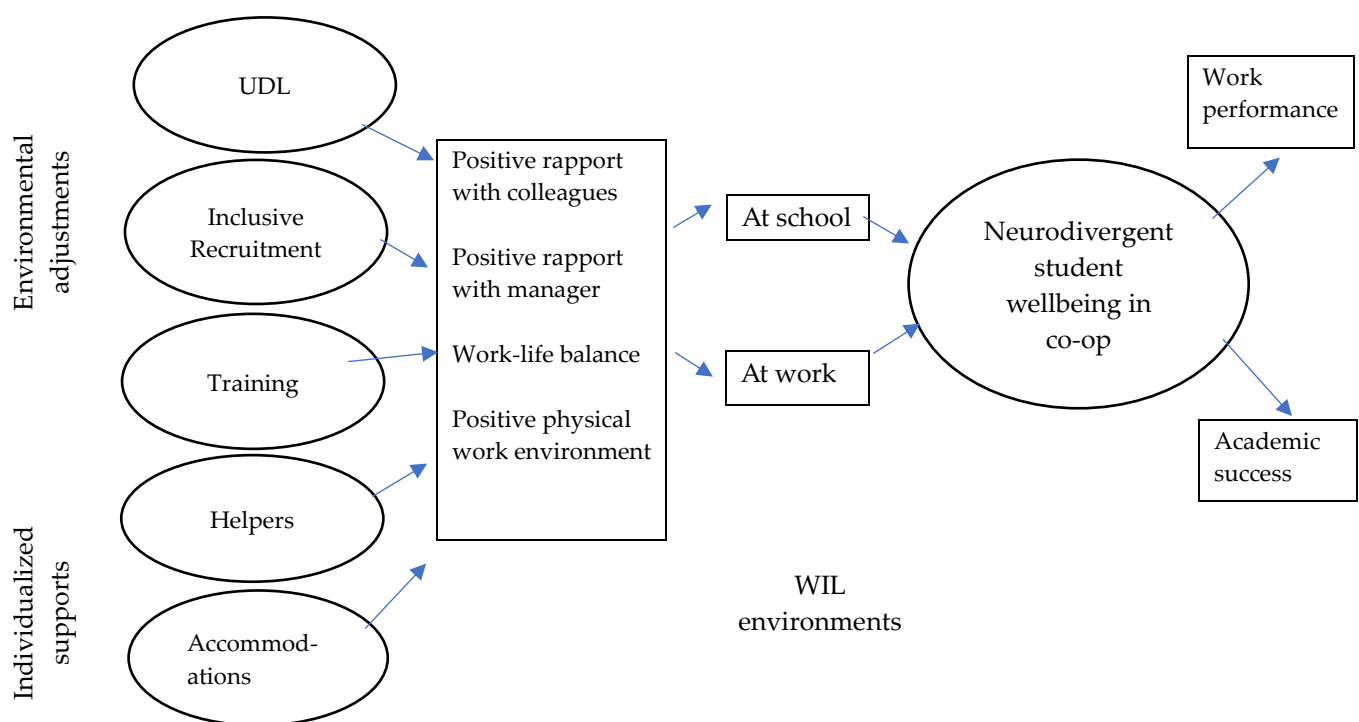
The second area of individualized support proposed by the conceptual framework is the role of accommodations and adjustments. Neurodivergent learners may experience barriers to success that require accommodation or adjustment. Barriers may be physical or process/rules-based and can be

encountered at any phase of the employment experience, from recruitment to onboarding to assessment (Bruyère & Colella, 2023). While in many jurisdictions, employers have a legal duty to accommodate employees with disabilities (see, for example, the Ontario Human Rights Code), students do not always receive the accommodations they need, even after requesting them (Khan et al., 2024). The legal status of co-op students and the educational nature of the co-op placement occasionally leads to confusion about what accommodations are required and who is responsible for providing them (Turcotte et al., 2016). Challenges around accommodations are exacerbated for neurodivergent learners who must often obtain and disclose a disability diagnosis to receive accommodations even if they do not feel as if they have a disability (Hamilton & Petty, 2023). Given the ambiguous status of co-op students and the complexity of the partnership between the higher education institution, the student, and the employer, it is imperative that we better understand the role of accommodations and adjustments in neurodivergent wellbeing in co-op.

Theoretical Model of Neurodivergent Student Wellbeing in Co-Op

The four dimensions of wellbeing described by Biétry and Creusier (2013) can be used to understand the wellbeing of neurodivergent learners and the effect of environmental adjustments and individualized supports. Once a theoretical model of neurodivergent wellbeing in co-op (Figure 1) is tested, practical suggestions for increasing wellbeing can be provided, addressing important research gaps (Doyle, 2024). For example, wellbeing can be enhanced by implementing HR and managerial inclusion strategies that focus on neurodiversity in the workplace and further supported by delivering workshops at higher education institutions (e.g., Pennaforte et al., 2024). A validated theoretical model will allow us to see how additional interventions might support enhanced wellbeing for neurodivergent learners and if these interventions are associated with enhanced academic success and improved work performance.

FIGURE 1: Theoretical model of neurodivergent student wellbeing in co-op.



METHODOLOGICAL CONSIDERATIONS

Research about neurodivergent learners require careful ethical and methodological design, as recommended for all research (Hennequin et al., 2021). A few aspects of study design are particularly important. Neurodivergent individuals, like other historically marginalized groups, have often experienced marginalization because of previous research efforts that, while well-intentioned, caused harm (Bernard et al., 2023; Dwyer, 2022). Further, many standard research practices may be inappropriate for neurodivergent individuals (Dwyer, 2022). The breadth of neurodivergent individuals also necessitates a range of approaches. These considerations require researchers of neurodiversity to carefully consider research team composition, study design, interpretation of data, and dissemination of findings (Bernard et al., 2023; Nicolaidis et al., 2019).

Researchers are encouraged to involve neurodivergent individuals in their research teams (Doyle, 2020; Dwyer, 2022; Nicolaidis et al., 2019). While participatory research methods are common with other marginalized groups, neurodivergent individuals, especially autistic adults, have often been excluded from research partnerships on neurodivergence due to perceived limitations in their capacity as partners (Nicolaidis et al., 2019). However, there is a growing interest in creating participatory research structures for neurodivergent individuals, and best practice guides are emerging. These guides recognize the role of power and privilege in research teams and the importance of clearly understanding partnership goals when developing a research approach (Bernard et al., 2023; Nicolaidis et al., 2019). This is particularly important when considering including neurodivergent students as part of a research team, given the power dynamics already inherent in research assistant/faculty or intern/supervisor teams (Dwyer, 2022; Nicolaidis et al., 2019). Table 2 presents examples of ethical considerations for researchers conducting research concerning neurodivergent individuals.

TABLE 2: Ethical considerations for conducting research with neurodivergent individuals.

Research stage	Ethical/Methodological considerations
Developing the research plan	<ul style="list-style-type: none"> Engage authentically with community advocates to understand previous harms from research and critical research questions from their perspectives (Dwyer, 2022) Consider how neurodivergent perspectives will be included in the research (e.g., as advisors, partners, and researchers) (Dwyer, 2022) Use general ethical principles: confidentiality, anonymity, freedom Consider mixed method design to increase accessibility with the project for learners with different types of neurodivergence. Be mindful of terminology, using neutral descriptive terminology whenever possible and working with neurodivergent groups to ensure the most appropriate language is used (Dwyer, 2022)
Recruitment and informed consent	<ul style="list-style-type: none"> Mobilize trusted individuals, such as community advocates, helpers, etc., in recruitment. Make the consent process as accessible as possible. Simplify language, add pictures, and provide consent in multiple formats. (Nicolaidis et al., 2019) Explain and detail research objectives through written and verbal means.

	<ul style="list-style-type: none"> • Ensure participant confidentiality. While critical for all research studies, this is particularly sensitive for neurodivergent individuals who may not disclose their neurodivergence to supervisors, faculty, or friends. Thus, recruitment protocols should prioritize anonymity in how participants respond to recruitment efforts and where data collection occurs.
Data collection	<ul style="list-style-type: none"> • Provide a detailed preface explaining the kind of information you are seeking in qualitative research (Nicolaidis et al., 2019) • Create accessible interview guides (Nicolaidis et al., 2019) • Include multiple ways of engagement, including synchronous and asynchronous interviews (Nicolaidis et al., 2019) • Consider conducting interviews with neurodivergent individuals and psychologists/helpers associated with helping contextualize the responses (Biétry & Richet, 2021; Brannen, 1988)

RESEARCH AGENDA

The theoretical model presented above provides a rich agenda for future research. As much of the research in the neurological space has been focused on studying and treating 'deficits' of neurodivergent learners (Dwyer, 2022), there is much to be learned regarding how environmental adjustments and individualized supports can positively affect wellbeing. Even the general literature on neurodiversity at work offers little about what can practically be done to improve work outcomes for neurodivergent individuals (Doyle, 2020). Research in this space can help answer important questions about what neurodivergent learners understand about their needs, how to advocate for themselves, how to navigate organizations and institutions (Dwyer, 2022), and how various interventions on the part of the higher education institution and employer can support self-efficacy. Below, we present the beginnings of a research agenda to address these critical questions.

- 1) What is wellbeing for neurodivergent co-op students? Is there a positive relationship between positive rapport with colleagues, positive rapport with the manager, work-life balance, and positive physical work environment at school and neurodivergent learner wellbeing? Does the neurodivergent understanding of wellbeing differ from that proposed by Biétry and Creusier?
- 2) What are the primary barriers faced by neurodivergent co-op students? Are there gaps in the theoretical model based on the barriers identified by these learners?
- 3) What does UDL look like in the co-op curriculum? Does a co-op curriculum built on the principles of UDL support neurodivergent wellbeing in higher education? How might it be adapted for different WIL types and cultural contexts?
- 4) What is the impact of inclusive recruitment processes on co-op placement attainment for neurodivergent learners? How can enhancing recruitment processes support wellbeing for neurodivergent learners? Do inclusive recruitment practices increase the likelihood of disclosure? What are the impacts on retention in and graduation from co-op programs for neurodivergent learners?
- 5) How does training of WIL staff and employers/organizations enhance wellbeing for neurodivergent co-op students? What barriers are removed by providing additional training on neurodiversity to WIL support staff, faculty, and employers? Do inclusive co-op experiences have an impact on the agency and self-efficacy of neurodivergent learners?
- 6) What is the role of the helper in fostering the wellbeing of neurodivergent co-op students? At university? At work during co-op?

- 7) What is the role of accommodations in supporting the wellbeing of neurodivergent co-op students? What do accommodations look like for neurodivergent learners in the co-op curriculum? In the co-op placement?
- 8) What are the long-term impacts of participation in inclusive co-op experiences on the wellbeing and employability of neurodivergent learners?

EXPECTED OUTCOMES

This research agenda aims to enhance our understanding of the challenges faced by neurodivergent learners in co-op. It explores both environmental adjustments and individualized supports to determine their impact on the wellbeing of neurodivergent learners.

For the WIL community, examining the relationship between neurodivergent learners and wellbeing could lead to a better understanding of how they navigate co-op and how to enhance the quality of programs. Exploring both the environmental adjustments and individual supports will help co-op practitioners design high-quality and inclusive WIL programs. The research will also provide better knowledge of the expectations of neurodivergent learners at co-op and in class. For WIL practitioners, a better understanding of neurodivergent learners will assist in developing training about individual characteristics for staff and faculty. Finally, this research will contribute to the general paucity of literature on wellbeing and inclusion in the workplace (Gillett-Swan & Grant-Smith, 2018).

Notably, while this research agenda focuses on improving the wellbeing of neurodivergent learners in co-op, we note that many of the questions could be applied to research in other forms of WIL. Further, there is an equally rich research agenda in exploring the impacts of training, inclusive recruitment practices, helpers, and effective accommodations on the organizations that host neurodivergent learners. Just as participation in inclusive WIL experiences may help to increase the self-efficacy and advocacy of neurodivergent learners, they may also help to build capacity in organizations, raising awareness of the capabilities of neurodivergent learners and the value of inclusive practices (Jackson et al., 2024)

For further research, developing a specific scale to measure WIL wellbeing would be interesting, as recommended for WIL students (Gillett-Swan & Grant-Smith, 2018) but for neurodivergent students. It would also be interesting to conduct the research described in an international team to better understand universal similarities and cultural differences in the experiences of neurodivergent learners.

CONCLUSION

Research on neurodivergent learners is essential in understanding how wellbeing in co-op differs from other forms of education. Conducting research with neurodivergent learners requires carefully designed methods within a robust ethics framework, including the participation of neurodivergent individuals as part of the research team. As our understanding of neurodiversity evolves, it is the responsibility of the WIL community to learn and take action to support these learners. This entails increasing our understanding of adapting environments to promote wellbeing and acknowledging the role and importance of individualized supports such as accommodations and helpers. If neurodivergent learners achieve wellbeing during co-op and other WIL experiences, they may be more likely to seek support again after higher education and to support others in achieving wellbeing. Improving the inclusivity of all WIL experiences for neurodivergent learners and so enhancing their wellbeing may be an important step in enhancing lifelong wellbeing and employability for this population.

REFERENCES

- Ames, M. E., McMorris, C. A., Alli, L. N., & Bebeko, J. M. (2016). Overview and evaluation of a mentorship program for university students with ASD. *Focus on Autism and Other Developmental Disabilities*, 31(1), 27–36.
- Anderson, A. H., Carter, M., & Stephenson, J. (2018). Perspectives of university students with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 48(3), 651–665. <https://doi.org/10.1007/s10803-017-3257-3>.
- Australian Collaborative Education Network. (2023). *The impact of WIL on graduate outcomes – A three-year review* <https://acen.edu.au/wil-in-gos/>
- Avey, J. B., Luthans, F., Smith, R. M., & Palmer, N. F. (2009). Impact of positive psychological capital on employee wellbeing over time. *Journal of Occupational Health Psychology*, 15(1), 17–28.
- Bakker, A. B., & Oerlemans, W. (2011). Subjective wellbeing in organizations. In K. Cameron & G. Spreitzer (Eds.), *The Oxford handbook of positive organizational scholarship* (pp. 178–189), Oxford University Press.
- Baxter, K., & Heys, T. (2019). Neurodiversity and the workplace. *Employment Law Journal*, pp. 12–14.
- Bernard, L., Fox, S., Kulason, K., Phanphackdy, A., Kahle, X., Martinez, L., Praslova, L., & Smith, N. A. (2023). Not your “typical” research: Inclusion ethics in neurodiversity scholarship. *Industrial and Organizational Psychology*, 16(1), 50–54. <https://doi.org/10.1017/iop.2022.100>
- Berry, K. M. (2018). *Experiences of students with autism spectrum disorder in Mississippi community colleges* (Electronic Theses and Dissertations 487) [Doctoral dissertation, University of Mississippi]. <https://egrove.olemiss.edu/etd/487>
- Biétry, F., & Creusier, J. (2013). Proposition d’un echelle de mesure positive du bien-etre au travail (EPBET) [Proposal for a positive measurement scale of well-being at work]. *Revue de Gestion des Ressources Humaines*, 87(1), 23–41.
- Biétry, F., & Richet, A. (2021). Comment etudier l’implication organisationnelle des salariés autistes Asperger? [How can we study the organizational commitment of employees with Asperger syndrome?] *@GRH*, 45(4), 63–88.
- Brannen, J. (1988). The study of sensitive subjects. *The Sociological Review*, 36, 552–563.
- Bruyère, S. M., & Colella, A. (2023). Neurodiversity in the workplace; An overview of interest, issues and opportunities. In S. M. Bruyère & A. Colella (Eds.), *Neurodiversity in the workplace: Interests, issues, and opportunities* (pp. 1–15). Routledge.
- Cage, E., & Troxell-Whitman, Z. (2019). Understanding the reasons, contexts and costs of camouflaging for autistic adults. *Journal of Autism and Developmental Disorders*, 49(5), 1899–1911.
- Carmeli, A., Yitzhak-Havely, M., & Weisberg, J. (2007). The relationship between emotional intelligence and psychological wellbeing. *Journal of Managerial Psychology*, 24(1), 66–78.
- Carter, E. W., Boehm, T. L., Biggs, E. E., Annandale, N. H., Taylor, C. E., Loock, A. K., & Liu, R. Y. (2015). Known for my strengths: Positive traits of transition-age youth with intellectual disability and/or autism. *Research and Practice for Persons with Severe Disabilities*, 40(2), 101–119.
- Cassidy, S., Bradley, L., Shaw, R., & Baron-Cohen, S. (2018). Risk markers for suicidality in autistic adults. *Molecular Autism*, 9, 1–14.
- CAST. (2024). *Universal design for learning guidelines* version 3.0. <http://udlguidelines.cast.org>
- Chamak, B. (2008). Autism and social movements: French parents associations and international autistic individuals’ organizations. *Sociology of Health and Illness*, 30(1), 76–96.
- Chamak, B. (2018). Modifications des représentations sociales de l’autisme et introduction du concept –“autism-friendly” [Changes in social representations of autism and the autism-friendly concept]. *Enfances & Psy*, 4, 80(4), 63–73.
- Chartered Institute of Personnel and Development. (2018). *Neurodiversity at work*. https://www.cipd.org/globalassets/media/knowledge/knowledge-hub/guides/neurodiversity-at-work_2018_tcm18-37852.pdf
- Cheriyian, C., Shevchuk-Hill, S., Riccio, A., Vincent, J., Kapp, S. K., Cage, E., Dwyer, P., Kofner, B., Attwood, H., & Gillespie-Lynch, K. (2021). Exploring the career motivations, strengths, and challenges of autistic and non-autistic university students: Insights from a participatory study. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.719827>
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89–136.
- Clouder, L., Karakus, M., Cinotti, A., Ferreyra, M. V., Fierros, G. A., & Rojo, P. (2020). Neurodiversity in higher education: a narrative synthesis. *Higher Education*, 80(4), 757–778. <https://doi.org/10.1007/s10734-020-00513-6>
- Couzens, D., Poed, S., Kataoka, M., Brandon, A., Hartley, J., & Keen, D. (2015). Support for students with hidden disabilities in universities: A case study. *International Journal of Disability, Development and Education*, 62(1), 24–41. <https://doi.org/10.1080/1034912X.2014.984592>
- Cropanzano, R., & Wright, T. A. (1999). A 5-year study of change in the relationship between wellbeing and job performance. *Consulting Psychology Journal: Practice & Research*, 51(4), 252–265.
- Dagenais-Desmarais, V., & Savoie, A. (2012). What is psychological wellbeing, really? A grassroots approach from the organizational sciences. *Journal of Happiness Studies*, 13(4), 659–684.
- Deci, E. L., Ryan, R. M., Gagne, M., Leone, D. R., Usunov, J., & Kornazheva, B. P. (2001). Need satisfaction, motivation, and wellbeing in the work organizations of a former Eastern Bloc country. *Personality and Social Psychology Bulletin*, 27, 930–942.

- Doyle, N. (2020). Neurodiversity at work: A biopsychosocial model and the impact on working adults. *British Medical Bulletin*, 135(1), 108–125. <https://doi.org/10.1093/bmb/ldaa021>
- Doyle, N. (2024). Defining neurodiversity and identifying neurominorities. In E. Patton & A. M. Santuzzi (Eds.), *Neurodiversity and work: Employment, identity, and support networks for neurominorities* (pp. 13–38). Palgrave Macmillan. https://doi.org/10.1007/978-3-031-55072-0_2
- Drewery, D., Pretti, J., & Barclay, S. (2017). Examining the effects of perceived relevance and work-related subjective wellbeing on individual performance for co-op students. *Asia Pacific Journal of Cooperative Education*, 17(2), 119–134.
- Dwyer, P. (2022). The neurodiversity approach(es): What are they and what do they mean for researchers? *Human Development*, 66(2), 73–92. <https://doi.org/10.1159/000523723>
- Fung, L. (2024). Strengths-based models and neurodiversity. In E. Patton & A. M. Santuzzi (Eds.), *Neurodiversity and work: Employment, identity, and support networks for neurominorities* (pp. 39–59). Palgrave Macmillan. https://doi.org/10.1007/978-3-031-55072-0_3
- Gauvrit, N., & Clobert, N. (2021). *Psychologie du haut potentiel* [Psychology of high potential]. De Boeck Superior.
- Giannantonio, C. M., Hurley-Hanson, A. E., & Griffiths, A. J. (2024). Autism in the workplace: The role of disclosure in recruitment. In E. Patton & A. M. Santuzzi (Eds.), *Neurodiversity and work: Employment, identity, and support networks for neurominorities* (pp. 157–179). Palgrave & Macmillan. https://doi.org/10.1007/978-3-031-55072-0_8
- Gillett-Swan, J., & Grant-Smith, D. (2018). A framework for managing the impacts of work-integrated learning on student quality of life. *International Journal of Work-Integrated Learning*, 19(2), 129–140.
- Goldman, A. S., MacKay, G., Lowes, V. L., Henville, L., Gillies, J., Jairam-Persaud, C., Soikie, S., Koffi, N. J. M., Shah, N., & Walchli, J. (2023). Applying principles of equity, diversity, inclusion, and access in work-integrated learning. In K. E. Zegwaard, & T. J. Pretti, (Eds.), *The Routledge international handbook of work-integrated learning* (pp. 510–532). Routledge.
- Hamilton, L. G., & Petty, S. (2023). Compassionate pedagogy for neurodiversity in higher education: A conceptual analysis. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1093290>
- Haute autorité de Santé. (2024, April 23). *Neurodevelopmental Disorder/ADHD: Diagnosis and therapeutic interventions in children and adolescents*. https://www.has-sante.fr/jcms/p_3302482/fr/trouble-du-neurodeveloppement/tdah-diagnostic-et-interventions-therapeutiques-aupres-des-enfants-et-adolescents
- Hennequin, E., Condomines, B., Kerguistel, A.-J., Pijoan, N., & Saint-Germes, E. (2021). *GRH et questions sensibles en entreprise: Approches sociales, sociétales et managériales* [HRM and sensitive issues in business - Social, societal and managerial approaches]. Vuibert.
- Hong, J., Bishop-Fitzpatrick, L., Smith, L. E., Greenberg, J. S., & Mailick, M. R. (2016). Factors associated with subjective quality of life of adults with autism spectrum disorder: Self-report versus maternal reports. *Journal of Autism and Developmental Disorders*, 46, 1368–1378. <https://doi.org/10.1007/s10803-015-2678-0>
- Hull, L., Mandy, W., Lai, M. C., Baron-Cohen, S., Allison, C., Smith, P., & Petrides, K. V. (2019). Development and validation of the camouflaging autistic traits questionnaire (CAT-Q). *Journal of Autism and Developmental Disorders*, 49(3), 819–833.
- Hull, L., Petrides, K. V., Allison, C., Smith, P., Baron-Cohen, S., Lai, M. C., & Mandy, W. (2017). Putting on my best normal”: Social camouflaging in adults with autism spectrum conditions. *Journal of Autism and Developmental Disorders*, 47(8), 2519–2534.
- Jackson, D., Dollinger, M., Gatto, L., Drewery, D., Ajjawi, R., & Fannon, A.-M. (2024). Work-integrated learning for students with disabilities: Time for meaningful change. *Higher Education Research & Development*, 43(7), 1679–1687. <https://doi.org/10.1080/07294360.2024.2354242>
- Jaeger, M. (2023). *Principes et pratiques d'action sociale* [Principles and practices of social action]. Dunod.
- Johnson, T. D., & Josh, A. (2016). Dark cloud or silver linings? A stigma threat perspective on the implication of an autism diagnostic for work-place wellbeing. *The Journal of Applied Psychology*, 101(3), 430–449.
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction – job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127(3), 376–407.
- Kapp, S. K., Gillespie-Lynch, K., Sherman, L. E., & Hutman, T. (2013). Deficit, difference, or both? Autism and neurodiversity. *Developmental Psychology*, 49(1), 59–71.
- Khan, T. H., Drewery, D., Ademuyiwa, I., Fannon, A., & Phillips-Davis, C. (2024). An investigation of barriers experienced by students from equity-deserving groups in a Canadian co-op program. *International Journal of Work-Integrated Learning*, 25(1), 51–65.
- Knapp, K. & Drewery, D. (2025). Examining co-operative education students’ responses to stressful events during the job search and application process. *International Journal of Work-integrated Learning*, 26(1), 75–88
- Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, 146(2), 131–142.
- McBeath, M. L., Drysdale, M. T. B., & Bohn, N. (2017). Pathway to mental health and wellbeing: Understanding and supporting students during critical school-to-work transitions: Global perspective on the future. In T. Bowen & M. Drysdale (Eds.), *Work-integrated learning in the 21st century* (pp. 171–191). Emerald.
- Meyer, A., Rose, D. H., & Gordon, D. (2014). *Universal design for learning: Theory and practice*. CAST.

- Mouillot, P., & Drillon, D. (2017). Risque et serendipité du recrutement : de l'intérêt de la détection des HQI dans l'embauche des nouveaux managers [Risk and serendipity in recruitment: The importance of detecting HQIs in hiring new managers]. *Marche et Organisation*, 2(29), 83-98.
- Mouillot, P., & Musquer, P. (2023). La motivation au travail des personnels à hauts quotients intellectuels (HQI): De l'autodétermination à l'utilité sociale [Work motivation of staff with High Intelligence Quotients (HQI): From self-determination to social utility]. *Revue Internationale de Psychologie et de Gestion des Comportements Organisationnels*, 29(78), 77-98.
- Nande, F., & Commeiras, N. (2020). Strategies identitaires en réponse aux signaux de l'environnement: Proposition d'une typologie et effets sur le bien-être au travail [Identity strategies in response to signals from the environment: A proposed typology and the effects on well-being at work]. *@GRH*, 35(2), 73-102.
- Nicolaidis, C., Raymaker, D., Kapp, S. K., Baggs, A., Ashkenazy, E., McDonald, K., Weiner, M., Maslak, J., Hunter, M., & Joyce, A. (2019). The AASPIRE practice-based guidelines for the inclusion of autistic adults in research as co-researchers and study participants. *Autism*, 23(8), 2007–2019. <https://doi.org/10.1177/1362361319830523>
- Pennaforte, A. (2016). Organizational supports and individuals commitment through WIL. *Higher Education, Skills and Work-Based Learning*, 6(1), 89-99.
- Pennaforte, A. (2023a). Neuro-atypical inclusion through WIL: how to manager neuro-atypical individuals through WIL for an inclusive future of work? In K. E. Zegwaard, J. Fleming, & M. Eady (Eds.), *Refereed Proceedings of the 23rd WACE World Conference on Cooperative and Work-Integrated Education 2023, University of Waterloo, Ontario, Canada* (pp. 43–47). WACE Inc. <http://www.waceinc.org/>
- Pennaforte, A. (2023b). Relation individu-organisation et comportements proactifs de socialisation des neuro-atypiques: le cas des hauts potentiels intellectuels (HPI) [Individual-organization relationship and proactive socialization behaviors of neuroatypicals: the case of high intellectual potential (HIP)]. 34^e congrès de l'AGR, 25-27 octobre 2023, Ajaccio, France.
- Pennaforte, A., Weinryb, N., & Djaileb, N. (2024). Permettre l'inclusion des personnes neuro-atypiques en formation [Allowing the inclusion of neuro-atypical people in training]. In S. Ventolini, B. Gosse, & D. De Saint Julien (Eds.), *Innovations RH et transformations sociales – 15 retours d'expériences et pratiques inspirantes* (pp. 39-53).Dunod.
- Pretti, T. J., & Fannon, A. (2018). Skills articulation and work-integrated learning. In F. Deller, J. Pichette & E. Watkins (Eds.), *Driving academic quality: Lessons from Ontario's skills assessment projects* (pp. 107–122). Higher Education Quality Council of Ontario.
- Raymaker, D. M., Teo, A. R., Steckler, N. A., Lentz, B., Scharer, M., Santos, A. D., Kapp, S. K., Hunter, M., Joyce, A., & Nicolaidis, C. (2020). Having all of your internal resources exhausted beyond measure and being left with no clean-up crew: Defining autistic burnout. *Autism in Adulthood*, 2(2), 1–12.
- Rillotta, F., Lindsay, L., & Gibson-Pope, C. (2024). The work-integrated learning experience of university students with intellectual disability: A descriptive case study. *International Journal of Inclusive Education*, 28(3), 1–18. <https://doi.org/10.1080/13603116.2021.19373438>
- Russell, G., Kapp, S. K., Elliott, D., Elphick, C., Gwerman-Jones, R., & Owens, C. (2019). Mapping the autistic advantage from the accounts of adults diagnosed with autism: A qualitative study. *Autism in Adulthood*, 1(2), 124–133.
- Ryff, C. D. (1995). Psychological wellbeing in adult life. *Current Directions in Psychological Science*, 4(4), 99-104.
- Sarrett, J. C. (2018). Autism and accommodations in higher education: Insights from the autism community. *Journal of Autism and Developmental Disorders*, 48(3), 679–693. <https://doi.org/10.1007/s10803-017-3353-4>.
- Sheldon, K. M., Elliot, A. J., Ryan, R. M., Chirkov, V., Kim, Y., Wu, C., & Sun, Z. (2004). Self concordance and subjective wellbeing in four cultures. *Journal of Cross-Cultural Psychology*, 35(2), 209-223.
- Singer, J. (1999). "Why can't you be normal for once in your life?" From a problem with no name to the emergence of a new category of difference. In M. Corker., & S. French (Eds.), *Disability discourse* (pp. 59-67). Open University Press.
- Spezio, M. L., Adolphs, R., Hurley, R., & Piven, J. (2007). Analysis of face gaze in autism using "Bubbles". *Neuropsychologia*, 45(1), 144–151.
- Staw, B. M., Sutton, R. I., & Pelled, L. H. (1994). Employee positive emotion and favorable outcomes in the workplace. *Organization Science*, 5(1), 51-71.
- Szulc, J. M., Davies, J., Tomczak, M. T., & McGregor, F.-L. (2021). AMO perspectives on the wellbeing of neurodivergent human capital. *Employee Relations*, 43(4), 858–872. <https://doi.org/10.1108/ER-09-2020-0446>
- Thompson, C., Falkmer, T., Evans, K., Bölte, S., & Girdler, S. (2018). A realist evaluation of peer mentoring support for university students with autism. *British Journal of Special Education*, 45(4), 412–434.
- Turcotte, J. F., Nichols, L., & Philipps, L. (2016). *Maximizing opportunity, mitigating risk: Aligning law, policy and practice to strengthen work-integrated learning in Ontario*. Higher Education Quality Council of Ontario
- Walker, N. (2021). *Neuroqueer heresies: Notes on the neurodiversity paradigm, autistic empowerment, and postnormal possibilities*. Autonomous Press.
- Wyonch, R. (2020). Work-ready graduates: The role of co-op programs in labour market success. *C.D. Howe Institute Commentary*, 562.



International Journal of Work-Integrated Learning

ISSN: 2538-1032

www.ijwil.org

About the Journal

The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues related to Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE).

In this Journal, WIL is defined as:

An educational approach involving three parties – the student, educational institution, and an external stakeholder – consisting of authentic work-focused experiences as an intentional component of the curriculum. Students learn through active engagement in purposeful work tasks, which enable the integration of theory with meaningful practice that is relevant to the students' discipline of study and/or professional development (Zegwaard et al., 2023, p. 38).*

Examples of practice include off-campus workplace immersion activities such as work placements, internships, practicum, service learning, and cooperative education (co-op), and on-campus activities such as work-related projects/competitions, entrepreneurship, student-led enterprise, student consultancies, etc. WIL is related to, and overlaps with, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal's aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, WIL practitioners, curricular designers, and researchers. The Journal encourages quality research and explorative critical discussion that leads to the advancement of quality practices, development of further understanding of WIL, and promote further research.

The Journal is financially supported by the Work-Integrated Learning New Zealand (WILNZ; www.wilnz.nz), and the University of Waikato, New Zealand.

Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL is primarily in two forms: 1) *research publications* describing research into aspects of work-integrated learning and, 2) *topical discussion* articles that review relevant literature and provide critical explorative discussion around a topical issue. The journal will, on occasions, consider good practice submissions.

Research publications should contain; an introduction that describes relevant literature and sets the context of the inquiry. A detailed description and justification for the methodology employed. A description of the research findings - tabulated as appropriate, a discussion of the importance of the findings including their significance to current established literature, implications for practitioners and researchers, whilst remaining mindful of the limitations of the data, and a conclusion preferably including suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical and scholarly discussion on the importance of the issues, critical insights to how to advance the issue further, and implications for other researchers and practitioners.

Good practice and program description papers. On occasions, the Journal seeks manuscripts describing a practice of WIL as an example of good practice, however, only if it presents a particularly unique or innovative practice or it was situated in an unusual context. There must be a clear contribution of new knowledge to the established literature. Manuscripts describing what is essentially 'typical', 'common' or 'known' practices will be encouraged to rewrite the focus of the manuscript to a significant educational issue or will be encouraged to publish their work via another avenue that seeks such content.

By negotiation with the Editor-in-Chief, the Journal also accepts a small number of *Book Reviews* of relevant and recently published books.

Reference

Zegwaard, K. E., Pretti, T. J., Rowe, A. D., & Ferns, S. J. (2023). Defining work-integrated learning. In K. E. Zegwaard & T. J. Pretti (Eds.), *The Routledge international handbook of work-integrated learning* (3rd ed., pp. 29-48). Routledge. <https://doi.org/10.4324/9781003156420-4>



International Journal of Work-Integrated Learning

ISSN: 2538-1032

www.ijwil.org

EDITORIAL BOARD

Editor-in-Chief

Assoc. Prof. Karsten Zegwaard

University of Waikato, New Zealand

Associate Editors

Assoc. Prof. Bonnie Dean

University of Wollongong, Australia

Dr. David Drewery

University of Waterloo, Canada

Assoc. Prof. Jenny Fleming

Auckland University of Technology, New Zealand

Assoc. Prof. Sonia Ferns

Curtin University, Australia

Dr. Judene Pretti

University of Waterloo, Canada

Dr. Anna Rowe

University of New South Wales, Australia

Senior Editorial Board Members

Dr. Craig Cameron

University of the Sunshine Coast, Australia

Dr. Phil Gardner

Michigan State University, United States

Assoc. Prof. Kathryn Hay

Massey University, New Zealand

Prof. Denise Jackson

Edith Cowan University, Australia

Assoc. Prof. Ashly Stirling

University of Toronto, Canada

Emeritus Prof. Janice Orrell

Flinders University, Australia

Emeritus Prof. Neil I. Ward

University of Surrey, United Kingdom

Dr. Theresa Winchester-Seeto

University of New South Wales, Australia

Copy Editor

Diana Bushell

International Journal of Work-Integrated Learning

IT Support

Erik van der Gaag

International Journal of Work-Integrated Learning

REVIEW BOARD

Assoc. Prof. Erik Alanson, University of Cincinnati, United States

Assoc. Prof. Martin Andrew, Otago Polytechnic, New Zealand

Prof. Dawn Bennett, Curtin University, Australia

Dr. Roelien Brink, Tshwane University of Technology, South Africa

Mr. Matthew Campbell, University of Queensland, Australia

Assoc. Prof. Clare Dannenberg, University of Canterbury, New Zealand

Dr. Julia Caldicott, Southern Cross University, Australia

Prof. Leigh Deves, Charles Darwin University, Australia

Prof. Michelle Eady, University of Wollongong, Australia

Dr. Alon Eisenstein, University of British Columbia, Canada

Assoc. Prof. Chris Eames, University of Waikato, New Zealand

Assoc. Prof. Wendy Fox-Turnbull, University of Waikato, New Zealand

Dr. Nigel Gribble, Curtin University, Australia

Prof. Rachael Hains-Wesson, RMIT University, Australia

Dr. Lynette Hodges, Massey University, New Zealand

Dr. Katharine Hoskyn, Auckland University of Technology, New Zealand

Dr. Nancy Johnston, Simon Fraser University, Canada

Dr. Julian Lee, RMIT University, Australia

Dr. Patricia Lucas, Auckland University of Technology, New Zealand

Dr. Jaqueline Mackaway, Macquarie University, Australia

Prof. Andy Martin, Massey University, New Zealand

Dr. Norah McRae, University of Waterloo, Canada

Dr. Katheryn Margaret Pascoe, University of Otago, New Zealand

Dr. Laura Rook, University of Wollongong, Australia

Assoc. Prof. Philip Rose, Hannam University, South Korea

Dr. Leoni Russell, RMIT, Australia

Dr. Jen Ruskin, Macquarie University, Australia

Dr. Andrea Sator, Simon Fraser University, Canada

Dr. David Skelton, Eastern Institute of Technology, New Zealand

Assoc. Prof. Calvin Smith, University of Queensland, Australia

Assoc. Prof. Judith Smith, Queensland University of Technology, Australia

Dr. Raymond Smith, Griffith University, Australia

Prof. Roger Strasser, Simon Fraser University, Canada

Dr. Kylie Taffard, University of Canterbury, New Zealand

Prof. Yasushi Tanaka, Kyoto Sangyo University, Japan

Dr. Raewyn Tudor, University of Canterbury, New Zealand

Dr. Faith Valencia-Forrester, Charles Sturt University, Australia

Dr. Thai Vu, Curtin University, Australia

Ms. Genevieve Watson, Elysium Associates Pty, Australia

Dr. Nick Wempe, Primary Industry Training Organization, New Zealand

Prof. Chris Winberg, Cape Peninsula University of Technology, South Africa

Dr. Karen Young, Deakin University, Australia

Publisher: Work-Integrated Learning New Zealand (WILNZ)

www.wilnz.nz

Copyright: CC BY 4.0