Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings

Transforming work-integrated learning: Preparing for a changing future

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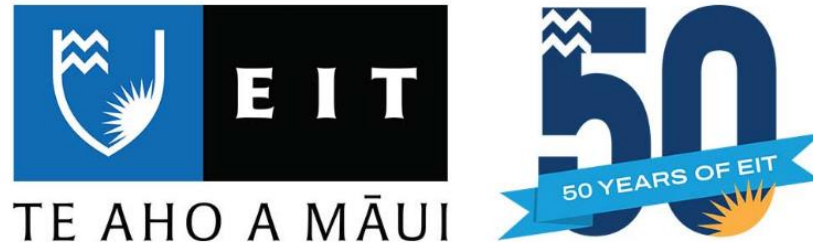

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CONTENTS

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Employer perspectives on work-integrated learning for skilled workers: A case of Bachelor of Labour Management, University of Colombo, Sri Lanka

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INTRODUCTION

Work-Integrated Learning (WIL) integrates classroom learning with real-world work experience. This study examines employer perspectives on WIL within the Bachelor of Labour Management (BLM) programme at the University of Colombo, Sri Lanka, focusing on alignment with employer expectations, benefits, challenges, and implications for workforce development.

Significance of WIL

WIL has gained global recognition as a critical tool for bridging the gap between academia and industry. It enhances students' employability by equipping them with practical skills, soft skills (e.g., communication and teamwork), and industry-specific knowledge (Jackson et al., 2024). For employers, WIL offers opportunities to identify and nurture talent, improve organisational productivity, and foster innovation (Bracken et al., 2021). In Sri Lanka, WIL is particularly significant due to the country's evolving labour market, which faces challenges such as skills gaps, high rate of graduate unemployment, and a lack of alignment between academic curricula and industry needs (Weerasooriya, 2013).

The BLM programme at the University of Colombo exemplifies the integration of WIL into higher education. Designed for working professionals with at least two years of experience, the programme combines academic learning with industry interaction, enabling participants to apply labour management theories in real-world settings (Sunnemark et al., 2023). This study investigates how employers perceive the effectiveness of WIL in preparing skilled workers and identifies opportunities for improving WIL programmes to better align with industry demands.

Research Problem and Objectives

Despite the growing importance of WIL, there is limited research on employer perspectives, particularly in Sri Lanka (Iddagoda & Opatha, 2017). This study addresses the following research questions: a) To what extent do WIL programmes align with the skills and competencies employers seek in the labour market? b) How do employers value candidates with WIL experience compared to those without? c) What challenges do employers face in integrating WIL graduates into their workforce, and what opportunities exist for future collaboration with academic institutions?. The study aims to provide insights that can guide the development of WIL programmes to enhance graduate employability and align educational outcomes with industry expectations.

LITERATURE REVIEW

Work-Integrated Learning (WIL) integrates academic learning with workplace experience, encompassing models like internships, cooperative education, and apprenticeships (Patrick et al., 2008). It has evolved beyond vocational training, preparing graduates with both academic and practical skills (Jackson & Bridgstock, 2021). Globally, WIL enhances employability, job performance, and innovation (Zegwaard et al., 2023). However, in developing countries like Sri Lanka, the challenges include resource constraints, curriculum-industry misalignment, and limited employer engagement (Jayawardena et al., 2023). While developed nations have structured frameworks, Sri Lanka faces barriers to effective WIL implementation, highlighting the need for stronger industry- academia collaboration and tailored strategies to bridge gaps in workforce development.

Benefits and Challenges for Employers

Employers benefit from Work-Integrated Learning (WIL) through access to skilled interns, talent acquisition opportunities, and the ability to shape future employees' skills (Jackson, 2016). WIL participants bring fresh perspectives, enhance productivity, and foster collaborative workplace cultures (Garrido-Moreno et al., 2024). Additionally, WIL improves employee retention, as graduates transitioning from WIL to permanent roles tend to remain with the organization longer (Al-suraihi et al., 2021). However, challenges include the time and resources needed for supervision, curriculum-industry mismatches, and workflow disruptions (Mayombe, 2024). Some employers note that WIL graduates still lack essential skills, underscoring the need for closer academia-industry collaboration to ensure programme relevance and effectiveness (Mabungela & Mtiki, 2024). Addressing these challenges can maximise WIL's benefits for employers and graduates alike.

While global research on Work-Integrated Learning (WIL) is extensive, Sri Lanka lacks context-specific studies, particularly on employer perspectives (Iddagoda & Opatha, 2020). Existing research focuses on student experiences and institutional roles, often neglecting employers' critical role (Weerasooriya, 2013). This study fills this gap by exploring employer perspectives, offering insights to inform WIL policies and practices in Sri Lanka.

METHODOLOGY

This study employed a mixed-methods approach combining quantitative surveys and qualitative in-depth interviews (Creswell & Plano Clark, 2018). The quantitative component involved a structured survey of 87 employers (51.7% public sector, 48.3% private sector) selected through purposive sampling, with data analysed using descriptive and inferential statistics in SPSS. Complementing this, 12 in-depth interviews were conducted through semi-structured guidelines with HR managers and department heads. While this paper primarily focuses on analysing survey findings, the in-depth interviews provide valuable contextual examples that illustrate key quantitative results.

Data Collection and Analysis

A questionnaire survey was conducted to collected quantitative data on employer perceptions of WIL, and analysed using descriptive and inferential statistics. In-depth interviews gathered qualitative data through interview guidelines, with thematic analysis identifying recurring themes on motivations, challenges, and strategies.

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Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

2

Ethical Considerations

The study received ethical approval from the Institute of Human Resource Advancement Ethics Review Committee (Ref: IHRA-ERC-2023-004), with all participants providing informed consent and data being anonymized for confidentiality.

DATA ANALYSIS

Quantitative Data Analysis

The table 1 provides the summary of the demographic profile of employers with WIL experience who participated in the study.

TABLE 1: Demographic Profile of Employers with WIL Experience

Category	Frequency	Percentage
Public Sector	45	51.70%
Private Sector	42	48.30%
Organisation Size		
Small (1-50 employees)	25	28.70%
Medium (51-200 employees)	35	40.20%
Large (201+ employees)	27	31.10%
Years of WIL Engagement		
1-2 years	30	34.50%
3-5 years	40	46.00%
5+ years	17	19.50%

Among the 87 employers with WIL experience, 51.7% were from the public sector, while 48.3% were from the private sector.

Employers with WIL experience were asked to rate their perceptions of WIL on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The majority of responses are presented in the table 2.

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Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

3

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TABLE 2: Employer Perceptions of WIL

Description	Mean	Standard Deviation
WIL improves the employability of graduates.	4.6	0.5
WIL participants bring fresh perspectives to the workplace.	4.3	0.6
WIL helps bridge the gap between academic knowledge and industry requirements.	4.1	0.7
Supervising WIL participants requires significant time and resources.	3.9	0.8
WIL graduates are well-prepared for the workforce.	4.2	0.6

Employers with WIL experience strongly agreed that WIL improves employability (mean = 4.6) and brings fresh perspectives (mean = 4.3). However, they also noted the challenges of supervision (mean = 3.9).

A correlation analysis was conducted to examine the relationship between employer satisfaction with WIL and organisational benefits.

TABLE 3: Correlation Analysis

Variable	Satisfaction with WIL	Organisational Benefits
Satisfaction with WIL	1	0.78**
Organisational Benefits	0.78**	1

**p < 0.01 (significant at the 0.01 level)

There is a strong positive correlation (r = 0.78) between employer satisfaction with WIL and perceived organisational benefits, indicating that higher satisfaction is associated with greater benefits (Table 3).

A chi-square test was conducted to determine if there is a significant association between industry sector and perceived value of WIL.

TABLE 4: Chi-Square Test Results

Variable	Chi-Square Value	p-value
Industry Sector vs. Perceived Value of WIL	6.78	0.009**

According to the results (table 4), employers in the private sector (mean = 4.4) perceived higher value in WIL compared to those in the public sector (mean = 3.8), and this difference was statistically significant (p = 0.009).

A regression analysis was conducted to predict organisational benefits based on employer satisfaction with WIL and supervision challenges.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

4

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TABLE 5: Regression Analysis

Predictor Variable	Beta Coefficient	p-value
Employer Satisfaction with WIL	0.7	0.001**
Supervision Challenges	-0.25	0.028*

**$R^2 = 0.62$

As per results obtained from regression analysis (table 5), employer satisfaction with WIL is a strong predictor of organisational benefits (β = 0.70, p = 0.001), while supervision challenges have a negative but weaker impact (β = -0.25, p = 0.028).

The quantitative analysis of survey data from 87 employers with WIL experience revealed that employers perceive WIL positively for its impact on employability and innovation, with a strong correlation between satisfaction and organisational benefits; however, private sector employers value WIL more than public sector employers, and while supervision challenges exist, they do not significantly outweigh the overall benefits, highlighting the importance of WIL in bridging academia-industry gaps and identifying areas for improvement, such as reducing supervision challenges and enhancing collaboration.

Qualitative data revealed that employers observed significant improvements in workplace dynamics post-WIL, noting better adaptability and alignment with workplace expectations. WIL participants brought fresh perspectives, enhancing innovation and operational efficiency while directly applying academic knowledge to improve job performance. Employers also reported a shift toward more collaborative and inclusive organisational cultures. However, challenges included managing productivity disruptions during WIL participation and addressing skill gaps, such as advanced technical competencies not fully covered by academic curricula, necessitating additional on-the-job training.

DISCUSSION

The study highlights the transformative impact of Work-Integrated Learning (WIL) on workplace dynamics, organisational culture, and employee performance, supported by quantitative data. 85% of employers attributed improvements in adaptability, problem-solving, and job performance to WIL, with one employer noting, "WIL participants brought fresh perspectives, leading to innovative solutions". Additionally, 78% of employers observed enhanced collaboration and communication, fostering a more inclusive work environment. However, challenges were identified, 62% of employers reported productivity disruptions due to employees' temporary absences during WIL participation. Furthermore, 70% of employers identified gaps in academic curricula, particularly in advanced technical skills, necessitating additional on-the-job training. Despite these issues, 90% of employers expressed satisfaction with WIL, citing improved employee readiness and performance.

Sector-specific differences were evident, with 88% of private sector employers reporting significant benefits compared to 65% in the public sector, indicating a need for tailored approaches to enhance WIL's relevance in the public sector.

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Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

5

CONCLUSION

WIL is a powerful tool for enhancing graduate employability, fostering innovation, and strengthening industry-academia collaboration. By addressing challenges such as supervision demands and curriculum gaps, stakeholders can maximise WIL's benefits. Implementing these recommendations will improve workforce readiness, support organisational growth, and contribute to Sri Lanka's economic competitiveness. For example, employers reported a strong positive correlation ($r = 0.78$) between satisfaction with WIL and organisational benefits, highlighting its potential for transformative impact.

RECOMMENDATIONS

To enhance the effectiveness of Work-Integrated Learning (WIL) programmes, it is recommended to strengthen industry-academia collaboration, provide employer support, align curricula with industry trends, address supervision challenges, promote WIL in the public sector, implement robust monitoring and evaluation mechanisms, and foster long-term university-employer partnerships, thereby optimising student learning experiences, meeting industry needs, and developing a skilled and adaptable workforce.

REFERENCES

Al-suraihi, W. A., Siti, A., Al-Suraihi, A., Samikon (2021). Employee turnover: Causes, importance and retention strategies. *European Journal of Business and Management Research, 6*(3), 10. https://doi.org/10.24018/ejbmr.2021.6.3.893

Bracken, L., Patton, N., & Lindsay, E. (2021). Compulsory work-integrated learning: A solution for equity degree propositioning and future proofing. *Asia-Pacific Journal of Cooperative Education, 22*(1), 15-29. https://files.eric.ed.gov/fulltext/EJ1373500.pdf

Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research (3rd ed.). Sage Publications.

Garrido-Moreno, A., Martín-Rojas, R., & García-Morales, V. J. (2024). The key role of innovation and organizational resilience in improving business performance: A mixed-methods approach. *International Journal of Information Management, 77*, 102777. https://doi.org/10.1016/j.ijinfomgt.2024.102777

Iddagoda, A., & Opatha, H. H. D. N. P. (2017). Identified research gaps in employee engagement. *International Business Research, 10*(2), 63. https://doi.org/10.5539/ibr.v10n2p63

Iddagoda, Y. A., & Opatha, H. H. D. N. P. (2020). Relationships and Mediating Effects of Employee Engagement: An Empirical Study of Managerial Employees of Sri Lankan Listed Companies. Sage Open, 10(2). https://doi.org/10.1177/2158244020915905

Jackson, D. (2014). Employability skill development in work-integrated learning: Barriers and best practice. *Studies in Higher Education, 40*(2). https://doi.org/10.1080/03075079.2013.842221

Jackson, D., & Bridgstock, R. (2021). What actually works to enhance graduate employability? The relative value of curricular, co-curricular, and extra-curricular learning and paid work. *Higher Education, 81*(4). https://doi.org/10.1007/s10734-020-00570-x

Jackson, D., Lambert, C., Sibson, R., Bridgstock, R., & Tofa, M. (2024). Student employability-building activities: participation and contribution to graduate outcomes. *Higher Education Research & Development, 43*(6), 1308–1324. https://doi.org/10.1080/07294360.2024.2325154

Jackson, D., Rowbottom, D., Ferns, S., & McLaren, D. (2016). Employer understanding of Work-Integrated Learning and the challenges of engaging in work placement opportunities. *Studies in Continuing Education, 39*(1), 35–51. https://doi.org/10.1080/0158037X.2016.1228624

Jayawardena, N., Chavali, K., Dewasiri, N. J., Mardani (2023). Exploring the challenges in developing and managing digital agility among Sri Lankan family business owners during the economic crisis situation. *Journal of Global Information Management, 31*(8). https://doi.org/10.4018/JGIM.326763

Mabungela, M., & Mtiki, S. V. (2024). Accelerating graduate employability through Work-Integrated Learning. *Research in Social Sciences and Technology, 9*(1), 291–304. https://doi.org/10.46303/ressat.2024.17

Mayombe, C. (2024). Promoting youths' skills acquisition through experiential learning theory in vocational education and training in South Africa. *Higher Education, Skills and Work-Based Learning, 14*(1),131-145.

Patrick, Carol-joy, Peach, Deborah, Pocknee, Catherine, Webb, Fleur, Fletcher, Marty, & Pretto, Gabriella (2008) The WIL (Work Integrated Learning) report : a national scoping study [Final Report]. Queensland University of Technology, Brisbane, QLD.

Sunnemark, L., Sunnemark, F., Dahlquist, K., Gahnström, E., Assmo, P., & Piper, L. (2023). Bridging theory and practice through Work-Integrated Learning (WIL): critical perspectives on the conceptualisations of WIL at a university in Sweden. *Critical Studies in Education, 65*(4), 403–420. https://doi.org/10.1080/17508487.2023.2294462

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C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

6

Weerasooriya, R. B. (2013). Major problems and issues in Sri Lankan university system - Study focus on the student perspective. *International Journal of Research in Commerce, Management, and IT (IJRCM), 3*(2).

Wickramasinghe, V., & Malik, K. (2018). University–industry collaboration in Sri Lanka -A developing country perspective. International Journal of Innovation and Technology Management, 15(4). https://doi.org/10.1142/S0219877018500323

Zegwaard, K. E., Lucas, P., Hay, K., & Fleming, J. (Eds.). (2023, May). *Work-Integrated Learning New Zealand 2023 Refereed Conference Proceedings. Weaving together: The future of work-integrated learning*. Work-Integrated Learning.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

7

The role of consistent, shared assessment of progress towards meeting prescribed sector standards in the education of early childhood teachers at Eastern Institute of Technology

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INTRODUCTION

The teaching profession in New Zealand is governed by The Teaching Council of Aotearoa New Zealand, who requires student teachers in initial teacher education (ITE) to be assessed against six Standards for the Teaching Profession (Teaching Standards), alongside a list of between ten and fifteen Key Teaching Tasks (KTTs) that are composed by the ITE provider in partnership with their local sector community. The preparedness and the ability of beginning teachers entering the teaching profession to demonstrate effective teaching practices within an ever-changing profession hinge on the ongoing and effective assessment of these standards.

This paper explores the role of shared assessment of prescribed sector standards in the Bachelor of Teaching, Early Childhood Education (BTECE) at EIT, in ensuring graduate teachers are ready to teach effectively and confidently from day one.

SHARED ASSESSMENT

The BTECE at EIT is a field-based programme where student teachers gain a sound theoretical understanding of, and weekly field-based teaching practice experience in, becoming qualified early childhood teachers (Whatman, 2017). Across the programme, they are assessed for meeting the Teaching Standards and KTTs in a supported environment in a variety of ways that include and value the voice of the student teacher and their wider early childhood education (ECE) community (Aspden, 2017). Methods of assessment include student teachers routinely evaluating their own teaching practice (McLelland, 2024); triadic discussions between student teacher, mentor teacher and teacher educator when assessing the student teachers' teaching practice (Bruneel & Vanassche, 2024; Verberg et al., 2016); and a culminating integrative assessment in the final semester of the programme (Teaching Council of Aotearoa New Zealand, 2019).

STUDENT TEACHERS' EVALUATION OF THEIR OWN PRACTICE

In each course throughout the programme, student teachers evaluate their own practice as to how they believe they have met relevant Teaching Standards and KTTs while implementing practical components of assessments in their field-based settings. These evaluative statements carry a weighting of the overall mark for each course, implying that student teachers must convincingly and effectively articulate how they have progressed towards these sector standards within the context of the implemented assessments and their teaching practice (Ross & Bruce, 2007). The statements are also designed and structured across all the courses of the programme to systematically encompass all six Teaching Standards and relevant KTTs by the conclusion of the programme. Winter (2010) asserts that student teachers' self-evaluation of how they are able to effectively "merge theory, content knowledge and

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Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

8

teaching methods" in their practice, is highly conducive to their level of self-assurance as confident and competent teachers, where *competence* is measured against the prescribed sector standards (p. 30).

TRIADIC ASSESSMENT OF STUDENT TEACHERS' PRACTICE

Assessment of student teachers' teaching practice as they progress towards meeting the Teaching Standards and KTTs in a supported environment is structured to be shared between student teacher, mentor teacher and teacher educator, giving each a voice in the process (Grossman, 2021; Wilks, 2019). Across the three-year programme student teachers' practice is observed and assessed three times per year, with the summative assessment being agreed upon each time during a triadic discussion (Bruneel & Vanassche, 2024). These observations and assessments of practice takes place twice a year in their field-based setting, and once during their block teaching practicum which is completed in a different ECE setting. Each of the six Teaching Standards and relevant KTTs are discussed, based on certain levels and related expectations for each year group that are spread across a continuum, and equal opportunity is given for articulating how the student teacher has progressed towards meeting these. This process makes for a robust, consistent and agentic process for student teachers in preparing them for entering the teaching profession with the necessary knowledge, skills and poise (Haigh, 2013).

Moreover, the triadic partnership creates ample opportunity for continual formative assessment across the programme in both the classroom and field-based setting, ensuring that any anticipated challenges in the student teacher's ability to meet the necessary standards are identified and circumnavigated as early as possible. In these cases, clear and open communication between the three parties is maintained throughout, and specific goals are agreed upon for the student teacher to work towards, followed by a teacher educator phone call or visit. Whether formatively or summatively, due diligence is taken to ensure that student teachers meet the standards and feel ready to teach effectually once they graduate from the programme (Brown et al., 2014).

THE CULMINATING INTEGRATIVE ASSESSMENT

In 2019 the Teaching Council of Aotearoa New Zealand introduced new requirements that included the Culminating Integrative Assessment (CIA), "that assesses whether a student teacher is able to effectively integrate theory and practice and synthesise their learning across the *Standards.*" (Teaching Council of Aotearoa, 2019, p. 32). At EIT this assessment was integrated into their newly reviewed and approved programme in 2020 as a stand-alone course in student teachers' final semester. Student teachers have agency to choose any authentic practice situation or puzzle of practice that they analyse with the support of literature and implement and evaluate a chosen solution. The evaluation includes a validation of how the student teacher believes they have met relevant Teaching Standards and KTTs with the implementation of the solution, as well as the theoretical and practical learning they have drawn upon from across the programme.

Formative assessment of the CIA takes place in the form of consistent and stepped support and feedback during weekly classes and in the field-based settings. Student teachers are also paired up to provide ongoing peer support and feedback. Summative assessment is completed by means of a written Inquiry Cycle (based upon common practice by qualified teachers working towards routinely re-certification), and a Professional Conversation. Student teacher, teacher educator and a local ECE community partner has equal voice in the final assessment outcome of the Conversation (Verberg et al., 2016). The assessor from the local ECE community who partnered with the teaching team in the Conversation at the end of

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

9

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2024 was in high praise of the student teachers' assertiveness in articulating their own teaching practice, with clear and strong links to the Teaching Standards and KTTs relevant to their CIA.

At the start of 2024 a national moderation event was held by the Teaching Council to evaluate each ITE provider's CIA, and at the time EIT's received only positive and affirming feedback, including that "Standards are assessed in a holistic sense"; "The CIA assesses evidence of integrative learning"; and "The CIA provides opportunities to show depth of thinking". EIT is confident that this course and their collective assessment processes are of high standard and conducive to graduating teachers' preparedness for the teaching profession, as was evident after the first delivery of this course. Student teachers' feedback was that they valued the autonomy of being able to choose and implement their own solution to a practice scenario, and mentor teachers' feedback was positive and in praise of the structure and the value of the CIA as means for ensuring graduating teachers have demonstrated they meet the required standards for teaching.

IMPLICATIONS FOR THE WORK-INTEGRATED LEARNING COMMUNITY AND FURTHER OPPORTUNITIES

The outcome of the rigorous shared assessment of student teachers' practice measured against the Teaching Standards and KTTs across the three-year ITE programme at EIT ensures that graduating teachers know what is expected of them in meeting prescribed sector standards and graduate with the readiness and confidence to be effective teachers from day one (Haigh, 2013). Local early childhood settings are very familiar with the programme and practical assessment processes at EIT, and they are confident that graduate teachers enter the profession with a sound knowledge of and extensive field-based experience in ECE as a result (Whatman, 2017; NZQA & Teaching Council, 2023). Furthermore, the depth of joint partnerships between EIT and these settings are continually reaffirmed and strengthened through this process of consistent, collaborative assessment (Work-Integrated Learning New Zealand, n.d.).

Further opportunities include the ECE teaching team at EIT undertaking research in the form of a case study, with the focus on 2024 graduate teachers' perceived agency while completing their CIA. The outcome will identify any shortfalls where student teachers argue they could be given more autonomy in choosing their authentic practice situation and a stronger voice in the assessment process, as well as highlight the efficacy of the overall assessment in preparing graduating teachers to teach effectively and confidently when they start as qualified early childhood teachers (Grossman, 2021).

CONCLUSION

The role of shared assessment of prescribed sector standards across the BTECE programme at EIT by means of student teachers' self-evaluations, triadic discussions, and the CIA in the final semester, has proven convincingly strategic in preparing student teachers to step into the profession as qualified teachers with the assurance that they can teach confidently and competently from day one. Student teacher agency and collaborative partnerships with the wider local ECE community have been highlighted in this paper, and ongoing quality assurance of this shared assessment model will be maintained by research foci of the teaching team, as well as scheduled programme reviews governed by The Teaching Council of Aotearoa New Zealand.

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C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

10

REFERENCE LIST

Aspden, K.M. (2017). The complexity of practicum assessment in teacher education: An examination of four New Zealand case studies. *Australian Journal of Teacher Education, 42*(12), 128-143.

Brown, A. L., Lee, J., & Collins, D. (2014). Does student teaching matter? Investigating pre-service teachers' sense of efficacy and preparedness. *Teaching Education*, *26*(1), 77–93. https://doi.org/10.1080/10476210.2014.957666

Bruneel, S., & Vanassche, E. (2024). Triadic mentoring as discursive practice: Complexities, opportunities, and perspectives. [Doctoral dissertation, KU Leuven].

Grossman, P. (Ed.). (2021). *Teaching core practices in teacher education*. Harvard Education Press.

Haigh, M. (2013). Are they ready to teach? Judging student teachers' practice. *Set: Research Information for Teachers, 3*, 3–10. https://doi.org/10.18296/set.0337

Lee, J., Tice, K., Collins, D., Brown, A., Smith, C., & Fox, J. (2012). Assessing student teaching experiences: Teacher candidates' perceptions of preparedness. *Educational Research Quarterly, 36*(2), 3-20.

McLelland, J. (2024). The value and purpose of reflective practice for professional learning. *He Kupu The Word, 8*(2), 3-11.

NZQA & Teaching Council. (2023). *Degree Monitoring Report: Bachelor of Teaching Early Childhood Education Eastern Institute of Technology Te Aho a Māui.*

Ross, J.A., & Bruce, C.D. (2007). Teacher self-assessment: A mechanism for facilitating professional growth. *Teaching and Teacher Education, 23*, 146-159.

Teaching Council of Aotearoa New Zealand. (2019). *ITE Programme approval, monitoring and review requirements.*

Verberg, C.P.M., Tigelaar, D.E.H., Van Veen, K., & Verloop, N. (2016). Teacher agency within the context of formative teacher assessment: an in-depth analysis. *Educational Studies*, *42*(5), 534–552. https://doi.org/10.1080/03055698.2016.1231060

Whatman, J., & MacDonald, J. (2017). *High quality practica and the integration of theory and practice in initial teacher education: A literature review prepared for the Education Council.* New Zealand Council for Educational Research.

Wilks, J.L., Snow, M., Lasczik, L., & Bowling, A. (2019). Working towards 'Doing it better': Seeking the student voice in teacher education. *Australian Journal of Teacher Education, 44*(1), 76-92.

Winters, B. K. (2010). *An investigation of pre-service teachers' perceptions of personal and general teaching efficacy prior to and following student teaching* (Order No. 3464552). Available from ProQuest Central; ProQuest Dissertations & Theses Global. (881648031). https://login.ezproxy.eit.ac.nz/login?url=https://www.proquest.com/dissertations-theses/investigation-pre-service-teachers-perceptions/docview/881648031/se-2

Work-Integrated Learning New Zealand. (n.d.). *Work-Integrated learning benefits.* https://wilnz.nz/about-work-intergrated-learning/

Southeast Asian civil servants: Student feedback on work-integrated learning elements of a New Zealand-based and blended programme

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INTRODUCTION

This article, and its associated presentation, look at WIL activities within a wider programme for mid-career civil servants from non-Anglophone Southeast Asia during a several-month, multifaceted professional development programme at a New Zealand university with a blended WIL element afterwards. This article outlines the programme and its WIL elements, describes collecting student feedback on it, notes themes within that feedback, and suggests options for the future improvement of the WIL elements.

CONTEXT

The New Zealand English Language Training for Officials (NZELTO) programme is a development aid programme funded by New Zealand's Ministry of Foreign Affairs and Trade (MFAT). It is a professional and English language learning programme for government staff from non-Anglophone Southeast Asian countries and Mongolia, aiming to develop participants' professional and language skills for working with international partners. The programme includes three months in New Zealand taught as an English for Specific Purposes language and skills programme, followed by a home workplace-based project and conference in Southeast Asia presenting that work early the following year. Space here limits details. For more detail, including research focused on cultural connections-building aspects of it, see Edwards (2020; 2024a; 2024b).

The NZELTO programme includes developing participants' general and workplace language skills, professional knowledge and skills, and cultural and international connections. WIL-related aspects including workplaces visits, workplace skills development, and projects are described in the method section. Part of the programme's structure comes from evidence that combining language learning for professionals with work role-related activities makes courses more relevant and engaging (Le, 2017).

In contrast to many WIL activities preparing students for *coming* roles (Wolf, 2024; Zegwaard & Pretti, 2023), the WIL elements here aim to enhance participants' abilities in their *current* roles and provide them with new skills to use in hoped-for promotions within their current agencies.

The research aims to track student feedback on various iterations of the programme from 2019 to 2025 and so monitor effectiveness, benefits, and shortcomings, and make recommendations for development.

RELATED LITERATURE

In language learning, tasks as authentic to real-life use as possible make tasks and materials more engaging and useful, in general and for professionals learning alongside work, although this does require time, expertise, and usually funding for needs/roles analysis, interviews, and knowing about

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

12

students' lives/roles (Le, 2017; McCullagh, 2017; Newton, 2021; Tomlinson, 2017). This also applies to education in general (Herrington et al., 2014; Huang, 2011). Linking WIL with language, Mackaway et al. (2024) discuss terminology used in WIL and in the workplace, highlighting an equity gap for students for whom the main language of study/the workplace is not theirs, but there appears to be a research gap regarding WIL participants' actual language proficiency or workplace-specific vocabulary knowledge. Research in the language learning field does look at work-related language (e.g., Drayton & Coxhead, 2024; Jonge & Macalister, 2021; Parkinson et al., 2022).

Many forms of WIL exist, however, for working professionals, taking account of *existing* work experiences to build on and to tailor the WIL to is rare (Wolf, 2024). There is also debate around whether institute staff or students in various contexts can and should source placements (Zegwaard & Pretti, 2023). In some cases, staff have greater standing and established networks, and in others students may have more understanding of their interests, and skills, and more time or motivation to seek workplace partners. That said, while sourcing their own connections can itself be a learning experience alongside gaining knowledge, competencies, and attitudes from the WIL experiences (Zegwaard & Pretti, 2023), international students may lack the local connections and contextual understanding, as well as language confidence, to do this.

Embedding short WIL experiences in study abroad is a growing area, as is research on this. However, this usually focuses on placements in countries *other* than where participants are studying, on intercultural skills and global citizenship, and work prospects, and there have been issues with host voice and preparation, and student cultural preparation (Kosman et al., 2023; 2024; Ramji et al., 2023). This is in contrast to NZELTO's international participants visiting workplaces and doing WIL-related classroom activities in New Zealand, then projects in their home countries and preexisting jobs, and having cultural and multinational workplace communication as part of the curriculum. NZELTO workplace visits can still suffer from having to accept whatever length and type of visit busy hosts are willing to offer, and students, despite briefings, having expectations of the experience which differ from the reality (Kosman et al., 2023).

There is limited research on WIL in Southeast Asia and developing countries. Nguyen and Nguyen (2022) look at preparation, curriculum/experience/skills match, and appropriateness and range of experiences/task (e.g., functioning as a photocopy dogsbody), and of the organisation. The 'dogsbody' issue as well as Kosman et al's (2023; 2024) findings about lack of preparation and voice by hosts and inconsistent preparation for students for the experiences can impact experience quality.

Other research (e.g., Afolabi & Medu, 2023), explores student needs, or virtual/Covid-related experiences (Ademuyiwa et al., 2024). The latter study notes that there are too few studies on any one aspect of these experiences to generalise.

METHOD

WIL Elements of the Programme

The class-based aspects of the programme include using texts about the topic's theme (e.g., renewable energy, disaster resilience, education), to develop vocabulary and professional knowledge in those areas. The programme staff survey authentic documents, reports, and research, and produce synthesised texts at an appropriate language level for participants. The texts allow for extension activities and are catalysts for discussions. The LexTutor website is used to highlight specific

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

13

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vocabulary to focus on as an additional programme strand. Guest speakers from universities, government departments, and theme-related organisations are organised by programme staff.

Classes include structured and progressive development of students' professional email writing, government-style writing, and professional speaking skills (e.g., briefing papers, researched and structured presentations). Small groups produce a poster presentation. Materials and curricula for these aspects are developed by experts within the programme team.

Workplace visits are organised by team members based the intake's theme and participants' jobs. However, many government agencies are busy and while they are often interested in involvement some may only be able to give an hour's general chat about their organisation in a meeting room, or facilities tours. Generally, university and government hosts do this for free while external organisations such as a sustainable farm ask for donations.

The workplace project, introduced in 2022, is conducted in students' spare time after returning home. It involves analysing aspects of their workplace. Students confirm the project focus with programme staff before they return home and meet with staff for discussions twice during the project. They present on it at the multi-cohort conference in Southeast Asia.

In 2020 and 2022 most aspects of the programme took place online, as described in Edwards (2020; 2024a; 2024b).

Data Collection for this Study

Data for this study was collated from anonymised post-course and post-conference surveys (n=347 from eight intakes 2019-2024) and from semi-structured interviews (Friedman, 2012) of 34 volunteer participants interviewed at the programme's conclusion. Interviews took place between 2020 and 2023 (2019's volunteers were interviewed remotely mid-2020). Human ethics permission: VUW#2020/HE286281.

General themes were gleaned from the student comments and feedback through reiterative analysis (Baralt, 2012), with student quotes for illustration. Only the WIL-related themes are focused on below. Student journals and external evaluations showed themes further supporting the findings below.

FINDINGS, CONCLUSIONS, AND THE FUTURE

Overall themes were that participants found the work-related classroom knowledge and language development highly useful. However, there was variation depending on individual students' language levels and work roles, usually because some slots on an intake might be taken by a Human Resources or Information Technology officer from a ministry not a subject specialist. Similar themes were clear in the feedback related to workplace communication skills and guest speakers.

A further theme was that the work-based projects were highly useful, and opportunities to apply concepts and skills learned on the programme both in the workplace itself and in the project evaluation and presentation. However, some feedback suggested that the participants lacked time to do this project once returning to full-time roles. It is good to know that participants appreciate developing skills and projects related to real issues that are genuinely of professional use (Le, 2017; Zegwaard & Pretti, 2023).

There were conflicting themes related to workplace visits, with mixed feedback based on different experiences on the visits and expectations by the students. Some visits were seen as highly relevant and

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useful for the participants, on which they learned many useful ideas and methods, and saw interesting equipment or made useful professional connections. Others were seen as hurried or general, or related to the course theme rather than the participants' personal roles. A minor but repeated theme in the feedback was the desire for extended workplace placements, or internships within the organisations visited.

Example quotes from participant feedback include:
- "The workplace communication really helped me in supporting my professional [sic] work because I use English in daily communication with other partner countries through various way, such as an email." (2024 survey 2/4)
- "doing daily tasks and the workplace project at the same time…difficult." (2024 survey 1/4)
- "…we can share…innovations for similar issues in our countries." (2024 survey 1/4)
- "…was a great opportunity for me to learn how the New Zealand meteorologist work in the office…that is a great role model." (Interviewee 3)
- "… it was quite nice, but…I hope in the future ELTO they will be able to have internship like this for one month." (Interviewee 31)
- "I'm a researcher…now…I know the way to make the research correct." (Interviewee 2)

Space precludes further examples. More are available via the following QR code:

FIGURE 1: QR code leading to more student feedback quotes.

In considering potential changes as a result of the feedback, practicalities preclude some changes. Internships or extended work placements may well enhance the programme. However, the current funding model does not allow for that, nor does the length of the programme which itself requires funding from a limited MFAT budget. This may be a consideration in future proposals. It is, of course, still useful to know the participants' feedback from WIL experiences (Dlamini, 2024). Better clarity for students and hosts about the workplace visits' aims, and what hosts are actually able to offer, is an aspect under continual development for us and within the wider WIL sector (Kosman et al., 2023; Nguyen & Nguyen, 2022). Other study-abroad projects have also found that each visited organisation sees the visits and does things differently (Finn, 2021).

A longer conference would also require extra funding. So would extending the programme length (assuming no other aspect is dropped), in order to complete the workplace project whilst in New Zealand, although this would also reduce participants' ability to directly relate their project and learning to their own workplaces and jobs (Wolf, 2024).

As proposals for changes to the programme go forward, the team aims to discuss with funders the aims and purpose of workplace visits and projects. Further ideas to consider include cross-discipline project teams and working on real-world problems or projects for organisations (e.g., community groups) within New Zealand (Pantidi, 2024; FADI, 2024). Collaboration between WIL practitioners and applied linguists specialising in workplace language and vocabulary is also of potential value to future WIL projects involving multinational participants.

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REFERENCES

Ademuyiwa, I., Brake, C., Drewery, D., & Fannon, A. (2024). Contemporary issues in work-integrated learning: A thematic and bibliometric analysis of the International Journal of Work-Integrated Learning from 2018 to 2023. *International Journal of Work-Integrated Learning, 25*(4), 505-516.

Afolabi, M. S., & Medu, M. K. (2023). A case for the introduction of cooperative education in the Nigerian education system. *International Journal of Work-Integrated Learning, 24*(4), 449-464.

Baralt, M. (2012). Coding Qualitative Data. In A. Mackey & S. M. Gass (Eds.). Research Methods in Second Language Acquisition: A Practical Guide (pp. 222-244). Blackwell.

Dlamini, M. E., (2024). Assessment of work-integrated learning: Including the voices of student teachers. *International Journal of Work-Integrated Learning, 25*(4), 679-691.

Drayton, J. , & Coxhead, A. (2024). Taking a Technical Vocabulary Approach to Teaching English in Aviation. In E. Friginal, M. Prado & J. Roberts (Ed.). *Global Aviation English Research* (pp. 201–219). London,: Bloomsbury Academic. Retrieved December 30, 2024, from http://dx.doi.org/10.5040/9781350411708.ch-11

Edwards, T. (2020). Connecting with New Zealand: The effect of the online mode on student experiences of an English language training course. *The TESOLANZ Journal, 28*, 1-16. https://www.tesolanz.org.nz/publications/tesolanz-journal/volume-28-2020/

Edwards, T. (2024a). Reconnecting with New Zealand: There, online, and back again for English for Specific Purposes students with a culture focus, 2019–2024. *Proceedings of the 9th IAFOR International Conference on Education in Hawaii 2024*, 289-302. https://doi.org/10.22492/issn.2189-1036.2024.25

Edwards, T. (2024b). Reflecting on the experiences of staff and students going here, there (online), and back again on an English for Specific Purposes program. *English Australia Journal, 40*(1), 22-35. https://doi.org/10.61504/ZKYX6273

Faculty of Architecture and Design Innovation (FADI) of Victoria University of Wellington, (2024, 14 November). Work-Integrated Learning Staff Showcase. Work-Integrated Learning Staff Showcase - Faculty of Architecture and Design - LibCal - Victoria University of Wellington

Finn, N. (2021). Learning to Participate in On-the-Street Interviews and Company Visits on a Short-Term Study Abroad Program. *The Journal of Learner-Centered Higher Education*, 45-61.

Friedman, D. A. (2012). How to Collect and Analyse Qualitative Data. In A. Mackey & S. M. Gass (Eds.). Research Methods in Second Language Acquisition: A Practical Guide (pp. 180-200). Blackwell.

Herrington, J., et al. (2014). Authentic Learning Environments. In J. Spector, M. Merrill, J. Elen, & M. Bishop (Eds.), *Handbook of research on educational communications and technology* (pp. 401–412). Springer. https://doi.org/https://doi.org/10.1007/978-1-4614-3185-5_32

Huang, K. H. (2011). Learning in authentic contexts: Projects integrating spatial technologies and fieldwork. *Journal of Geography in Higher Education, 35*, 565–578. https://doi.org/https://doi.org/10.1080/03098265.2011.559577

Jonge, C. B. D., & Macalister, J. (2021). English for the customer service industry: Considerations for curriculum design. *The TESOLANZ Journal, 29*, 69-86.

Kosman, B. A., Castro de Jong, D., Knight-Agarwal, C. R., Chipchase, L., & Etxebarria, N. (2023). Study abroad: Exploring the pre-departure preparation provided to students, staff and host communities. *International Journal of Work-Integrated Learning, 24*(4), 477-489.

Kosman, B. A., Knight-Agarwal, C. R., Castro de Jong, D., Chipchase, L., & Etxebarria, N. (2024). International work-integrated learning programs: Insights from the in-country partners. *International Journal of Work-Integrated Learning, 25*(3), 337-349.

Le, V. T. H. (2017). Authentic materials to fulfil workplace requirements for Vietnamese graduates. In A. Maley & B. Tomlinson (Eds.)., *Authenticity in materials development for language learners* (pp. 192-211). Cambridge Scholars.

Mackaway et al. (2024), Practicing equity, access and inclusion in work-integrated learning. *International Journal of Work-Integrated Learning, Special Issue, 25*(1), 1-21.

McCullach, M. (2017). Authentic Video: using a text-driven approach. In A. Maley & B. Tomlinson (Eds.)., *Authenticity in materials development for language learners* (pp. 247-259). Cambridge Scholars.

Newton, J. (2021). The Adoption of Task-Based Language Teaching in Diverse Contexts. In M. J. Ahmanian & M. H. Long (Eds.), *Task-Based language teaching* (pp. 649-670). CUP. https://doi.org/10.1017/9781108868327.036

Nguyen, T. N. H., & Nguyen, V. D. (2022). Enhancing student employability: A mixed-methods study into work-integrated learning curricula in Vietnamese universities. *International Journal of Work-Integrated Learning, 23*(3), 405-425.

Pantidi, N. (2024). An interdisciplinary approach to WIL. Victoria University of Wellington News. https://www.wgtn.ac.nz/wfadi/about/news/nadia-pantidian-interdisciplinary-approach-to-wil

Parkinson, J., Coxhead, A., Mackay, J., McLaughlin, E. (2022). Investigating the Complexity of Language Use in Trades Education in the Aotearoa New Zealand Context. In Chan, S., Huntington, N. (eds) *Reshaping Vocational Education and Training in Aotearoa New Zealand. Professional and Practice-based Learning, vol 34*. Springer, Cham. https://doi.org/10.1007/978-3-031-12168-5_10

Ramji, K., Ivković, S. S., Miller, N., Karim-Haji, F., & Trompetter, S. (2023). The practice of international work-integrated learning. In K. E. Zegwaard & T. J. Pretti (Eds.), *The Routledge International Handbook of Work-Integrated Learning* (pp.289-305). Taylor & Francis Group.

Tomlinson, B. (2017). Introduction. In A. Maley & B. Tomlinson (Eds.)., *Authenticity in materials development for language learners* (pp. 1-9). Cambridge Scholars.

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Work-Integrated Learning New Zealand
Tuia te ako, tuia te mahi, tuia te ara whaihua e

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

16

Wolf, A. (2024). Work-integrated learning that builds on professional learners' prior experiences. In K. E. Zegwaard, J. Fleming, & C. Dannenberg (Eds.), *Work-Integrated Learning New Zealand 2024 Refereed Conference Proceedings*, Victoria University of Wellington, New Zealand (pp. 37-41). Work-Integrated Learning New Zealand Inc.

Zegwaard, K. E., & Pretti, T. J. (2023). Contemporary challenges and diverse practices of work-integrated learning in Higher education. In K. E. Zegwaard & T. J. Pretti (Eds.), *The Routledge International Handbook of Work-Integrated Learning* (pp. 3-12). Taylor & Francis Group.

USEFUL LINKS REGARDING ENGLISH LANGUAGE AND WORKPLACES

Basturkmen, H. (2025). Core Concepts in English for Specific Purposes. Cambridge: Cambridge University Press.

Language in the Workplace Project https://www.wgtn.ac.nz/lals/centres-and-institutes/language-in-the-workplace

Language in the Trades Project https://ako.ac.nz/knowledge-centre/the-language-in-the-trades

Patel, M. et al., with the British Council. (2023). *The Future of English: Global Perspectives.* British Council. https://www.britishcouncil.org/future-of-english

- Section 5.9: To what extent is employment driving the future of English?

Also summarised in blog form: "To what extent is employment driving the demand for English?"
https://futureofenglish.britishcouncil.org/insights/employment

Neurodiversity and disclosure in work-integrated learning: Insights for staff and host organizations

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INTRODUCTION

Co-operative education (co-op) is a specific type of work-integrated learning (WIL) whereby students have opportunities to learn in relevant disciplinary settings for which they are often paid (Fannon, 2023). As a valuable educational opportunity (Eames & Bell, 2005), co-op provides a socio-cultural context for learning and developing professional and personal knowledge and skills. At Drexel University, Philadelphia, a majority of students complete either one or three 6-month co-op experiences as part of their undergraduate qualifying programme. Students engage with co-op advisors and faculty teaching staff both pre- and during co-op, and neurodivergent students registered with the Centre for Autism and Neurodiversity (CAN) receive further support from CAN staff. Employers review resumés and undertake interviews before they select students for co-op experiences. All these people are considered key stakeholders in the context of WIL.

Neurodiversity refers to the idea that people experience and interact with the world in different ways, but these differences are not deficits (Dwyer et al., 2023). The term is often used in the context of autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), and other neurological or developmental conditions. In the context of WIL, higher education institution (HEI) and host organization staff awareness of a neurodivergent learner's specific needs can be limited due to the less visible nature of the condition and limited understanding of disability (Lawlis et al., 2024; Pennaforte & Fannon, 2025 in press). This may create challenges for learners' preparing for and engaged in WIL as specific learner needs may not be requested or accommodated (Lawlis et al., 2024). HEIs have a responsibility to provide safe and equitable learning environments and promote student wellbeing (Hay & Fleming, 2024). Understanding how neurodivergent students can be supported at the different stages of the WIL process is therefore essential for their personal, professional and academic success.

METHODS

The research employed a qualitative methodology (Braun & Clarke, 2006), which facilitates the examination of social practices and processes, identification of barriers and facilitators for change, and considers the outcomes of interventions. The aim of the research was to explore how neurodivergent students can be supported to succeed in their co-op or other WIL experiences.

Semi-structured interviews of approximately one hour in length were undertaken with eight neurodivergent students enrolled in a range of majors at Drexel University. The questions were open-ended, for example, what are your views on disclosure; how do you think university staff can best support neurodivergent WIL students? All the students were registered with CAN. Six students had completed at least one co-op, and the other two students had completed the co-op job application and interview process and were waiting to begin their first co-op. Conversations with more than 15 academic and professional staff provided further contextual information and faculty viewpoints.

Reflexive thematic analysis (Braun & Clarke, 2019; Byrne, 2022) of the student interviews generated several themes including 1) limited understanding of neurodiversity by university staff and co-op employers, 2) disclosure, 3) systemic and institutional challenges, and 4) improvements to current co-op processes and curriculum. This paper will focus primarily on the first two themes.

WIL research with human participants should abide by ethical practice principles (Fleming & Zegwaard, 2018) and therefore the researcher ensured informed consent, beneficence through feedback processes, and confidentiality. The project was approved by the Massey University and Drexel University human research ethics committees as part of a Fulbright scholarship (OM3 24/14).

RESULTS

All of the student participants had a diagnosis of ASD, ADHD, or a co-morbidity of the conditions. They articulated that as neurodivergent students they faced particular challenges throughout the co-op process including limited understanding of neurodiversity by WIL and host organization staff, and whether to disclose to potential employers their diagnosis or need for accommodations.

As neurodiversity is often not well understood this can lead to WIL stakeholders avoiding or minimizing how this may impact student learning:

> ... it can get really exhausting constantly having to explain yourself and explain your disability and still have people not understand and at that point I'm just kind of thinking, OK what's the point?

> I told him [the manager] I was autistic, and he acted like I never told him. Period.

Limited knowledge about neurodiversity can also lead to stigma and discrimination:

> I wish I could say that people are very accepting nowadays, people are all accepting and do not like carry any like harmful beliefs about disabled people or autistic people, but that's just not the case.

Several of the students noted that as neurodivergent people they often felt underestimated, with their strengths going unrecognized:

> I would probably, say, just like people's assumptions are the biggest barrier... I hate being arrogant I really do, but I do think that I am someone intelligent and it really makes me angry when people assume otherwise. I can do a lot of things... I don't like it when people are just kind of assuming what I can or can't do.

> ... the reality is most workplaces are not neurodivergent friendly like there's a reason why this community is so underemployed. And I believe we are very valuable.

Deciding to disclose their neurodivergence to university staff or employers varied across the participants and was often linked to concerns about discrimination or ignorance:

> I tend to err on the side of caution. And I've always been that way just because I don't like it when people have preconceived notions about autistic people.

> No [to disclosure] because that would lead to a disadvantage because people who are neurodivergent are often like seen as different or they can't do as much.

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Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

19

For other students, their advocacy or activist work in the disability space had led them to be more comfortable with either direct or indirect disclosure to co-op stakeholders:

> I'm very open about it and kind of approach that in interviews with an open mind. Sometimes I might not mention it, but most of the employers will know because of my portfolio and my website, which is linked to my resumé.

> Technically [I disclosed] on my resumé for both [co-ops] because I mentioned disability stuff. I think I mentioned my specific disability on there, because I do public speaking engagements, so I had spoken at conferences and medical offices about my disability and my experience with it so that was plastered all over my resumé.

The students emphasized neurodiversity training, accepting the accommodations students request, and the availability of more neuroinclusive co-op workplaces, as ways they can be better supported in their co-op courses:

> I think the answer is education… The [university] need to educate the employers on neurodiversity and how to accommodate neurodiversity in the workplace.

> I think having more information for the employers to understand, like the [co-op] process and how accommodations could be implemented and the reason behind them.

> We want employers to be more open and communicate better and be more supportive.

Future initiatives however must be inclusive and thus be informed by neurodivergent students. As one student commented, drawing on a common phrase from the social model of disability movement, there should be "nothing about us, without us."

DISCUSSION

Equitable WIL opportunities rely on stakeholder capabilities and preparedness including an understanding of diversity and the learning needs of different student populations (Hay & Mafile'o, 2022; Lawlis et al., 2023). As a marginalized group, neurodivergent students have received minimal attention in the WIL literature (Pennaforte & Fannon, 2025), however this research has highlighted the importance of WIL stakeholders expanding their knowledge of neurodiversity so that students are better supported in their learning endeavours. Lawlis et al., (2024) encourage a strengths-focused approach for supporting disabled WIL students, and the results of this research endorse this perspective.

Neurodivergent students have talents and capabilities that should be valued in WIL however these may be diminished due to adverse contextual conditions. A neuroinclusive workplace is therefore critical for the success of this student population. This does not only refer to the organization in which the WIL experience occurs but also encompasses the university classroom and other WIL-related contexts, such as during conversations with WIL advisors. The Inclusive WIL Workplace Framework has considerable relevance here with its principles of self-determination, belonging, wellbeing, care and respect (Hay & Fleming, 2024). In particular, the associated wellbeing practices of learning about the student's lived experiences and recognizing and encouraging student's strengths can enable a supportive WIL environment, both on and off campus.

Disclosure of a disability is often dependent on context, timing, and perceived necessity (Stabenow & Anderson, 2024). Students in this research noted that they are more likely to disclose or discuss accommodations if they believed WIL stakeholders were trustworthy, safe, and respectful. Previous research has noted that WIL students may be concerned about whether their requests for accommodations will be "facilitated without judgement" (Dollinger et al., 2022, p.3). While disclosure of a diagnosis should not be required, or even be necessary, it is incumbent upon WIL stakeholders to ensure organizational systems, processes and practices cater for diversity through inclusive practices (Hay & Fleming, 2024; Shore et al., 2018; Stabenow & Anderson, 2024). Normalizing accommodations would remove potential bias and discrimination of neurodivergent students and enable them, and other students, to speak more freely about any specific tools or mechanisms that may increase their learning success.

While individual and organizational attitudes and behaviours can take time and energy to change (Dollinger et al., 2022; Lawlis et al., 2024), the participants encouraged HEIs to work alongside neurodivergent students and staff to develop educational opportunities and resources for WIL stakeholders. Centring these on a social model of disability would further "improve the perception of disclosure and accommodations" (Lawlis et al., 2024, p. 161), recognize the strengths that neurodivergent students bring to WIL (Dollinger et al., 2022), and prioritize their expertise in any future developments so that all work related to neurodivergent students offers genuine opportunities for inclusion (Stabenow & Anderson, 2024).

CONCLUSION

Neurodivergent students face many challenges in the higher education environment and a multi-pronged strategy is required so they are better supported to succeed in their WIL experiences. The results showed that neurodivergent students understand that WIL stakeholders often have limited understanding of neurodiversity, which may lead to stigma, discrimination, or restricted learning opportunities. This may impact student decision-making about disclosure or seeking accommodations that may support their learning and work outputs. A collaborative, educative approach to advancing WIL stakeholder knowledge about neurodiversity is therefore both timely and necessary. The development of any training or resources should be guided by neurodivergent students or others who have lived experience of neurodiversity. As HEIs seek to meet mandates for ensuring the wellbeing and safety of students, particular attention should be given to supporting neurodivergent WIL students. This research contributes to this focus; however, an expansive international research agenda is also required to gain comprehensive insight into the needs of this student population.

REFERENCES

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality and Quantity, 56*, 1391–1412. https://doi.org/10.1007/s11135-021-01182-y

Dollinger, M., Finneran, R., & Ajjawi, R. (2022). Exploring the experiences of students with disabilities in work-integrated learning. *Journal of Higher Education Policy and Management*, *45*(1), 3–18. https://doi.org/10.1080/1360080X.2022.2129317

Dwyer, P., Mineo, E., Mifsud, K., Lindholm, C., Gurba, A., & Waisman, T.C. (2023). Building neurodiversity-inclusive postsecondary campuses: Recommendations for leaders in higher education. *Autism in Adulthood, 5(*1), 1-14.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

WILNZ
Work-Integrated Learning New Zealand
Tuia te ako, tuia te mahi, tuia te ara whaihua e

21

Eames, C., & Bell, B. (2005). Using sociocultural views of learning to investigate the enculturation of students into the scientific community through work placements. *Canadian Journal of Science, Mathematics and Technology Education, 5*(1), 153–169. https://doi.org/10.1080/14926150509556649

Fannon, A-M. (2023). The practice of co-operative education. In K. E. Zegwaard & T. J. Pretti (Eds.), The Routledge international handbook of work-integrated learning (3rd ed., pp. 147-162). Routledge. https://doi.org/10.4324/9781003156420-12

Fleming, J., & Zegwaard, K. E. (2018). Methodologies, methods and ethical considerations for conducting research in work-integrated learning. *International Journal of Work-Integrated Learning, 19*(3), 205-213.

Hay, K., & Fleming, J. (2024). An inclusive workplace framework: Principles and practices for work-integrated learning organizations. *International Journal of Work-Integrated Learning, 25*(1), 83-94.

Hay, K., & Mafile'o, T. (2022). Improving work-integrated learning experiences for Pacific students. *International Journal of Work-Integrated Learning, 29*(2), 279-294.

Lawlis, T., Mawer, T., Andrew, L., & Bevitt, T. (2024). Challenges to delivering university health-based work-integrated learning to students with a disability: A scoping review. *Higher Education Research & Development, 43*(1), 149-165. https://doi.org/10.1080/07294360.2023.2228209

Pennaforte, A., & Fannon, A.M. (2025). Enhancing neurodivergent student wellbeing in co-operative education: A theoretical model and research agenda. *International Journal of Work-Integrated Learning, 26*(1), 99-111.

Shore, L.M., Cleveland, J.N., & Sanchez, D. (2018). Inclusive workplaces: A review and model. *Human Resource Management Review, 28*, 176-189. https://dx.doi.org/10.1016/j.hrmr.2017.07.003

Stabenow, A., & Anderson, J. (2024). A collaborative disability related accommodations process in work-integrated learning. *International Journal of Work-Integrated Learning, 25*(1), 127-140.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

22

The development of a work augmented learning model of delivery for a degree in whakaora ngangahau|occupational therapy in Aotearoa|New Zealand

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INTRODUCTION

This paper describes the development of an innovative model of delivery for the Otago Polytechnic degree in occupational therapy for rural and remote communities. The development was prompted by a request from NorthTec for Otago Polytechnic to consider delivery in their region using an apprenticeship model. Primary drivers were enabling earning and learning, place-based learning and enhancing equity of access to tertiary education. Other motivations were the need to better meet the health needs of the community through increasing the number of therapists in the region, to enhance indigenisation of content and processes to enable a culturally safe experience for ākonga (learners) Māori, and to have graduates well equipped to meet the specific health needs of their community. An apprenticeship model was not deemed possible, and an alternative developed that best fits the needs of key stakeholders.

WHY NOT APPRENTICESHIP?

Degree level apprenticeships are growing in popularity internationally, however only just emerging in Aotearoa New Zealand. Whilst the initial request was for an apprenticeship model, the decision was made for this initiative to move from traditional apprenticeship to an alternative, the work augmented learning pathway, for financial, social and pragmatic reasons. Apprenticeships at degree level in Aotearoa, particularly in allied health professions, are not supported financially. Additionally, regions best served by this opportunity experience lack of occupational therapy resourcing, and therapists who are in place do not have the capacity or resources to support an apprentice.

The UK Richard Review of Apprenticeships (Richard, 2012) concluded that the understanding of apprenticeship has broadened from the original concept of a learner being "apprenticed" to an employer to the extent often the employer is removed from the centre of teaching and learning. Their recommendation is a return to a more structured approach to apprenticeships, and acceptance of other educational models that include an element of work in learning as valid. The development of this work augmented learning pathway is an example of an innovative shift from traditional models and language.

WHY WORK-AUGMENTED LEARNING?

Terms such as work-integrated learning and work-based learning have an existing presence and understanding in Aotearoa New Zealand that differs from this model. Consequently, the term work-augmented learning (WAL) was intentionally chosen. This delivery model utilises blended learning, with ākonga together on campus, on marae, in online hui, working autonomously through the online

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

23

learning activities, and having a work-based context to deepen learning. The model intentionally draws on the benefits to ākonga, communities and the profession through making use of advantages of learning from home, being able maintain employment throughout the learning journey, and being able to situate learning in a familiar environment.

HOW WAS THE MODEL DEVELOPED?

Collaboration was established between Otago Polytechnic, NorthTec and key stakeholders in Te Tai Tokerau, the first region the model will be delivered in (MacKay et al. 2024). Stakeholders were included in all development decisions, and included prospective ākonga and whānau, iwi representatives, prospective employers, occupational therapists, and NorthTec and Otago Polytechnic personal. This ensured ideas would best meet the needs of both the community and Otago Polytechnic were incorporated. Throughout the process, the development team kept in mind that the model would ultimately need to meet the needs of other regions and be fiscally sustainable.

Data was gathered through workshops in the region with stakeholders, online meetings with specific groups, and conversations with key individuals. Additionally, degree level health apprenticeship literature was reviewed, and occupational therapy academics from the UK contacted regarding their apprenticeship programmes. A draft of the model was presented to the key stakeholders for feedback, minor alterations were subsequently made.

Given the high Māori population in Te Tai Tokerau, there was emphasis on the need to create a programme that would be a culturally safe experience for all ākonga in terms of teaching process and content. To this end, and to reduce impact of colonisation on tertiary education (Davis & Came, 2022), the work focused on developing content and teaching practices that would enhance mātauranga (knowledges) Māori and tikanga in the curriculum. Academics from NorthTec with expertise in mātauranga Māori were included in the development team, and Māori occupational therapists were involved in guiding content adjustment to enhance decolonisation and indigenisation of the programme.

WHAT'S IN THE WORK AUGMENTED LEARNING DELIVERY MODEL?

This model of delivery has six key elements, outlined below, which together form the pedagogy and the structure of the delivery.

Work-Augmented Learning

Work is a context to enhance ākonga capacity find meaning in the learning content for themselves and integrate the learning into their overall knowledge. Learning activities are provided to trigger deeper understanding of concepts through targeted observation, conversation and reflection. Work enables development of generic professional skills, however ākonga do not use occupational therapy specific knowledge or practices at work.

Digital Learning

The digital learning platform provides content for the week and guidance about how the week will look in terms of all the elements. Ākonga are only involved in two courses at a time, and all the learning tasks in a week link to that content.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

24

Day on Campus

Here ākonga come together in the classroom and are immersed in the content for the week (half a day per course). This includes access to presentations and involvement in learning activities.

Online Hui

The weekly online group conference is an opportunity for discussion, sharing, presentations (from ākonga, lecturers and external occupational therapists) to cement the learning in the context of the profession.

Marae-Based Wānanga

Noho marae experiences are included to enhance and deepen mātauranga Māori and the relationship between that mātauranga and occupational therapy.

Fieldwork

The fieldwork experiences remain the same in this model as with the campus-based programme. Block placements and longitudinal placements are dispersed across the three years and meet the World Federation of Occupational Therapy requirements of 1000 hours of fieldwork in the curriculum.
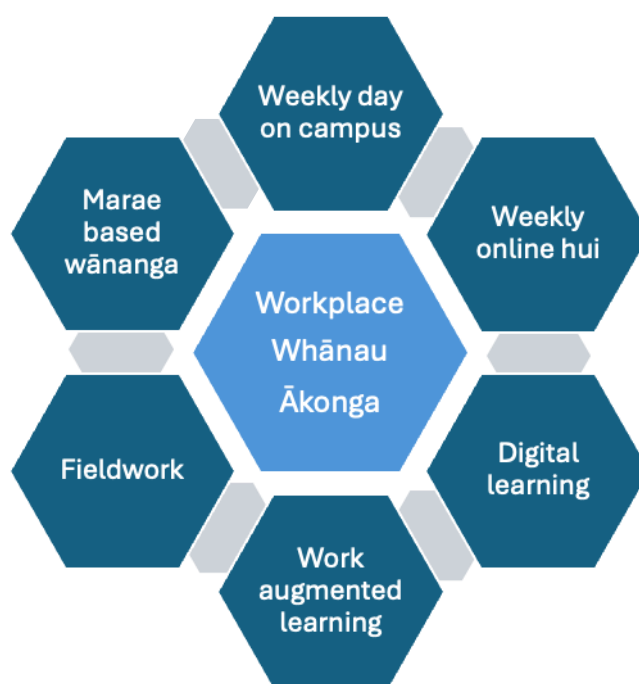
IMPLICATIONS

This delivery model benefits ākonga, communities, and ultimately the profession. Whilst reported in the context of occupational therapy, there is potential for other health profession education providers to consider such a pathway.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

25

Learn from Home.

Most health degree programmes in New Zealand are campus based and require ākonga to move to where the campus is situated for the duration of their study. This creates inequity for those who are unable to leave their community for family, financial or cultural reasons. Learning from home and having content that is directly relevant to the learners' own community enhances the relevance of the learning and creates a sense of community within the cohort.

Opportunities for tertiary education are enabled without significantly disrupting whānau/family or work, enhancing cultural safety throughout the learning journey. Additionally, learning content can be adjusted to increase direct relevance to the community. This includes aspects related to geographical location, specific health needs of the community, and deeper indigenisation of the curriculum through integration of place based mātauranga Māori.

Earn and Learn

A traditional full-time campus-based programme does not easily support capacity for ākonga to hold down employment at the same time, the financial impact for many is significant. Utilising a delivery model that requires learners to be in work and uses their work experiences as an integral element of their learning helps maintain financial security. In this model work is used as a context and draws on some of the benefits of other work-based learning models, however ākonga may be in workplaces where occupational therapists are not present. To this end, the workplace does not take responsibility for any teaching or assessment, and the education provider is not responsible for workplace management or supervision. Learning can be applied to work only if it is generic and appropriate for the role at work e.g. communication skills, and not if it is occupational therapy specific.

Grow your Own.

Lifting the profile of the occupational therapy in rural communities will likely build employment opportunities for the profession and reduce health service inequities. Strong relationships between ākonga and their community through their employment and through course requirements for community engagement will build on the communities' awareness of the value of occupational therapy to them.

Much of the ethos of occupational therapy in Aotearoa is informed by Eurocentric theory and concepts. Māori academics are emerging and influencing the profession, increasing the number of Māori into the profession and enabling deeper integration of te ao Māori in the curriculum will likely enhance this development.

Enhancing Diversity in the Profession

Occupational therapy entry cohorts typically have a dominance of young pakeha female ākonga, which results in low number of males and of Māori in the profession (OTBNZ, 2024). By enabling access to the programme without leaving their region, it is believed that a more diverse range of the population will be attracted into the profession. Low numbers of Māori therapists not only restrict the opportunity for Kaupapa Māori Hauora services to employ Māori occupational therapists (Whautere, 2022) but also has an impact on the development of theory and practices that advance an understanding of what te ao Māori occupational therapy is (Hopkirk & Wilson, 2014). It is believed that situating the education

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

26

opportunity in regions with high Māori population will positively influence not only occupational therapy within the region but the profession as a whole in Aotearoa New Zealand.

CONCLUSION

Initial research regarding development of an apprenticeship model resulted in understanding that traditional apprenticeships would not be viable for this programme. Work-augmented learning was created through community engagement and provides a way of conceptualising how a degree might be facilitated in regions that otherwise have limited access to health profession education. The process of stakeholder engagement enabled both the development of this model and indigenisation of the content so that cultural safety for ākonga Māori is enhanced. There is potential for such a process to benefit other programmes looking to offer tertiary education in remote regions.

Whilst developed with and for Te Tai Tokerau, the importance of serving other rural and remote regions was held front of mind throughout the development. Consequently, the WAL pathway for this degree can be delivered in other regions. Centralisation of much of the delivery creates efficiency of scale, and elements embedded in community such as some fieldwork experiences and the marae-based learning protects place-based learning benefits and development of regional mātauranga Māori.

- Enable earn and learn
- Enable place-based learning
- Enhance access to health profession education for rural and remote regions
- Enhance access to health profession education for more diverse populations, especially Māori
- Enable/enhance Māori occupational therapy
- Increase profile and resource of occupational therapy in remote communities

REFERENCES

Davis, G., & Came, H. (2022). A pūrākau analysis of institutional barriers facing Māori occupational therapy students. *Australian Occupational Therapy Journal*, *69*(4), 414-423.

Hopkirk, J., & Wilson, L. H. (2014). A call to wellness–Whitiwhitia i te ora: Exploring Māori and occupational therapy perspectives on health. *Occupational Therapy International*, *21*(4), 156-165.

Mackay, J., Nyhof, R., Jeffery, H., Tokolahi, E., Robinson, R., Cadzow, H. (2024). Comparing the development of two degree apprenticeships in New Zealand, one focused on the needs of industry and the other on needs of community. *Proceedings of EDULEARN24 Conference1st-3rd July 2024, Palma, Mallorca, Spain. ISBN: 978-84-09-62938-1*

OTBNZ (2024). Occupational Therapy Board of New Zealand Pūrongo | Annual Report. https://www.otboard.org.nz/document/8264/2024%20OTBNZ%20Annual%20Report%20FINAL.pdf

Richard, D. (2012). The Richard Review of Apprenticeships. School for Startups, available from: https://assets.publishing.service.gov.uk/media/5a79cfb1ed915d042206b345/richard-review-full.pdf

Whautere, H. (2022). *Treating with Te Tiriti in mind: Exploring how kaiwhakaora ngangahau occupational therapists are working with tangata whenua Māori in practice* (Master's thesis).

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

27

Wellbeing and older peoples' learning in work, for work, and after work: How can we design for thriving ageing?

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INTRODUCTION

As Aotearoa New Zealand's population ages so too does the country's workforce. In 2018, 15% of the population were aged 65 or more and this was projected to increase over the next fifteen years (Tatauranga Aotearoa - Stats NZ, 2022). Currently, half of 65- to 69-year-olds continue to work (Morning Report, 2022). Older people work beyond the age of 65 for a range of reasons, including financial security in the face of ongoing cost of living and housing crises, a desire to contribute to society, and the knowledge that being actively engaged in learning or work is more likely to enhance well-being. At policy level, training and upskilling for older people who are working has been signalled as a priority (Te Tari Kaumātua – Office for Seniors, 2019). Work transitions and retirement are also times when older people may be required to or choose to learn formally or informally. This paper accompanies a round-table discussion which opens a conversation about how we can design and plan for learning and teaching environments that support thriving ageing in an older cohort.

DEFINITIONS

Although some literature considers those over the age of fifty to be aged, for the purposes of this discussion older people are those who are 65 years or older. This is recognized by the New Zealand Government as the age when a person becomes eligible for the universal New Zealand Superannuation (NZ Super) or a Veteran's Pension provided the residency criteria are met (Ministry of Social Development (MSD), 2025). The Better Later Life - He Oranga Kaumātua 2019 – 2034 government aging strategy (Te Tari Kaumātua – Office for Seniors, 2019) also uses 65 years and older to define older people (p. 7).

Work can be in the form of fulltime, part-time or causal paid employment. Work also includes those in a volunteer role. A person may therefore work, paid or unpaid, for an organization, company, a partnership, themselves, or a charitable group. The reasons people work are many and varied, with reasons often changing as a person reaches another phase of their life.

Guided by research about longevity and health in the worlds Blue Zones, healthy ageing is considered possible through peoples ongoing active social, cultural and economic participation as they age (Plácido et al, 2022). The World Health Organisation and governments globally have developed health policy for older people with health maintenance and improvement, independence, and quality of life as a focus (Fallon & Karlawish, 2019). Wellbeing is a slightly contested concept, but is generally agreed to mean more than physical health and to be influenced by social, economic and environmental determinants and concerning both "quality of life" and "the ability of people and societies to contribute to the world in accordance with a sense of meaning and purpose" (World Health Organisation, 2021, p. 10).

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

28

Learning is a continuous, dynamic process (Laal, 2014) that involves transforming experiences into knowledge, skills, and attitudes, through reflection and action, in the context of an individual's life and social situations (Jarvis, 1987; Kolb, 1984). Learning can be formal or informal or incidental (Manuti, 2014). In an Australian based study, Boulton-Lewis (2010) investigated why, what, and how older people learn, though with limited consideration of learning in the context of work. The older person who is working might need to learn new knowledge or skills to remain in their current role or to ensure they can confidently change roles in employment or as they transition to retirement. Older people who volunteer might require knowledge and skills previously unfamiliar to them. Many older retired people may finally having time for learning associated with hobbies, interests, travel, but may also choose to pursue learning in a more formal sense to promote cognition and overall wellbeing (Boulton-Lewis, 2010).

WELLBEING, LEARNING, AND WORK

Research

Wellbeing for older people tends to differ from that of younger people. They have acquired a level of wisdom (Erikson, 1994) through their experiences of life which also incorporates the sense of living a meaningful life (Frankl, 1997; Ryff, 1995). Developmentally, older people tend to have moved from a materialistic focus to a broader more universal emphasis (Wadensten, 2007). These aspects contribute to a different motivation to engage in work than those of their younger colleagues.

Older people have better wellbeing when participating in learning and, or work because they have a stronger sense of meaning and purpose in life. Paoletti (2024) highlights that having "a strong sense of purpose in life" (p. 3) lowers the risk of developing dementia and cardiovascular conditions. McKnight and Kashdan (2009) identified seemingly unrelated daily activities such as social connectedness, volunteering, attending church, and looking after a pet, all lead to a longer life, with the shared underlying cause being that each offer a greater sense of purpose and meaning in the life of those who are involved or participating.

Massey University's 'Maximising workforce participation for older New Zealanders' funded by Ministry of Business, Innovation, and Employment (MBIE) investigated how government, employers, and workers might better effect participation of the older person in work (Massey University, 2018). The study did not shy away from the economic benefits that this participation might have when the number of older people in the country may reach one-million by 2028. The impact of poor wellbeing and health on already stretched health and aged care systems is also of importance, when we think about the place of work and learning, for health promotion and healthy aging for the older person.

Policy and Planning

Te Tari Kaumātua – Office for Seniors' Better Later Life Ageing Strategy (2019 - 2034) (2019) and Action Plan (2021 - 2024) (2021) determine ways that older people in Aotearoa New Zealand may be better supported to utilise skills and experience in the workplace and how employers may be enabled to develop sustainable multigenerational workforces. Actions in the strategy aspire for older people in Aotearoa New Zealand to have financial security and equitable opportunities to participate in work, to age healthily while contemporaneously continuing to experience social connectedness and active community participation.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

29

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The Better Later Life Action Plan (Te Tari Kaumātua – Office for Seniors, 2021) outlines the benefits for both employers and older workers when there is a multigenerational workforce. With Foci on Employment, Housing and Digital Inclusion, one might argue that all aspects of the plan relate to work in some way.

The Older Workers Employment Action Plan | He Mahere Mahi Whakawhiwhi Mahi mō te Hunga Pakeke (OWEAP) (The Office for Seniors – Te Tari Kaumatua, 2022) comprised eleven goals including those pertaining to education, training, research and further detailed actions towards employment foci. At the same time, the Public Service Association (2022) identified older workers' ongoing learning needs in the workplace might relate mostly to technology and that workplaces should remain cognisant of accessibility and of sensory accommodations.

Practice

There is a need for places of work to adapt to the changing need of their workers. At the same time there is also a need for older workers to make adjustments so they are able to continue as valued members of the workforce. There is a growing body of knowledge about how employers recruit and employ older workers and ensure that they are valued and respected in the workplace in the face of ageism. Practical resources for both employers and older workers are available online on the "Better Work in Later Life" website, an outcome of Massey University's "Maximising workforce participation" research programme. However, further understanding is needed about how organisations and employers involve the older person in professional learning opportunities, as either a learner or mentor. Providing options for older people to learn new skills to allow them to adjust to a changed work role is an important part of the adaptation needed to maintain a position at work for older adults.

MOVING FORWARD

Although steps have been taken to plan and develop policy that values the older person, in-depth stakeholder feedback at organisational level is limited. An internal report to the Minister of Seniors in February 2023 noted there had been progress to all of the OWEAP goals. However, unless cross-organisational reporting includes in-depth educational stakeholder feedback, then we are at risk of failing to plan effectively for older peoples' learning in, for, and after work.

The implications of an ageing workforce for tertiary learning and teaching environments as well as practice need to be considered promptly, given the increasing ageing population in Aotearoa New Zealand along with the changing local tertiary and vocational education context. In particular it seems important to explore:
- the areas and types of learning that are important to older people as they continue to work?
- how do these differ from the learning the older person chooses when transitioning to retirement?
- how tertiary learning organisations can work with employers and workplaces to be more responsive to older people's learning capabilities?
- what best tertiary learning and teaching practice with the older person might look like?
- how can we design for learning that ensures thriving ageing in paid and unpaid work?
- and finally, what are the implications of the tertiary education workforce itself ageing?

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C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

30

REFERENCES

Boulton-Lewis, G. M. (2010). Education and learning for the elderly: Why, how, and what? *Educational Gerontology*, 36: 213–228.

Davey, J., & Pearman, G. (2021, 25 June). More older New Zealanders are starting businesses – and they're motivated by more than just money. *The Conversation*.

Erikson, E. (1994). *Identity and the life cycle*. W. W. Norton & Company.

Fallon C.K., Karlawish J. (2019). Is the WHO definition of health aging well? Frameworks for "Health" after three score and ten. *American Journal of Public Health*, 109, 1104–1106.

Frankl, V. E. (1997). *Man's search for ultimate meaning*. Insight Books/Plenum Press.

Jarvis, P. (1987). Adult learning in the social context. Kroom Helm

Kolb, D. A. (1984). Experiential learning. Englewood Cliffs, NJ: Prentice Hall.

Laal, M., Laal, A., & Aliramaei, A. (2014). Continuing education; lifelong learning. *Procedia-social and behavioral sciences, 116*, 4052-4056.

Lewis, N. A. (2020). Purpose in life as a guiding framework for goal engagement and motivation. *Social and Personality Psychology Compass*, 14(10), 1–11. https://doi.org/10.1111/spc3.12567

Lawton, M. P., Moss, M. S., Winter, L., & Hoffman, C. (2002). Motivation in later life: Personal projects and well-being. *Psychology and Aging*, 17(4), 539–547. https://doi.org/10.1037/0882-7974.17.4.539

Manuti, A., Pastore, S., Scardigno, A. F., Giancaspro, M. L., & Morciano, D. (2015). Formal and informal learning in the workplace: A research review. *International journal of training and development*, *19*(1), 1-17.

Massey University (2018). *Maximising workforce participation for older New Zealanders*. https://www.massey.ac.nz/massey/learning/departments/school-of-psychology/research/hart/older-nz-workers/older-nz-workers_home.cfm

Ministry of Social Development. (2025). *Who can get NZ Super*. https://www.workandincome.govt.nz/eligibility/seniors/superannuation/who-can-get-it/index.html

Morning Report (2022, 28 April). *Government launches plan to support working after retirement age.* https://www.rnz.co.nz/national/programmes/morningreport/audio/2018839772/government-launches-plan-to-support-working-after-retirement-age

Paoletti, I. (2024). *Creating new meanings for old age: Plans and projects after eighty*. Palgrave Macmillan. https://doi.org/10.1007/978-981-97-5041-2

Plácido, A. I., Herdeiro, M. T., & Roque, F. (2022). Health and Wellbeing in Aging. *International Journal of Environmental Research and Public Health*, 19(14), 8835. https://doi.org/10.3390/ijerph19148835

Public Service Association (2022). Our voice to matau reo – Submission on the Older Workers Employment Action Plan.

Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, 99-104.

Tatauranga Aotearoa Stats NZ (2022). One million people aged 65+ by 2028. https://www.stats.govt.nz/news/one-million-people-aged-65-by-2028/

Te Tari Kaumātua – Office for Seniors (2021). *Better Later Life He Oranga Kaumātua Action Plan 2021 to 2024 - He Mahere Hohenga 2021 ki 2024*. https://www.officeforseniors.govt.nz/assets/documents/our-work/better-later-life/Action-Plan/Better-Later-Life-Action-Plan-2021-to-2024.pdf

Te Tari Kaumātua – Office for Seniors (2019). Better Later Life He Oranga Kaumātua 2019 to 2034 A strategy for making the future better for New Zealanders as we age He rautaki kia oranga kaumātua ō rā ki te ao. https://www.officeforseniors.govt.nz/assets/documents/our-work/better-later-life/Better-Later-Life-Strategy/Better-Later-Life-He-Oranga-Kaumatua-2019-to-2034.pdf

The Office for Seniors – Te Tari Kaumatua (2022). *Older Workers Employment Action Plan – He Mahere Mahi Whakawhiwhi Mahi mō te hunga Pakeke*. Author, Ministry of Social Development, New Zealand Government.

Wadensten. B. (2007). The theory of gerotranscendence as applied to gerontological nursing – Part1. *International Journal of Older People Nursing*, 2(4), 239-314

World Health Organisation (2021). *Health Promotion Glossary of terms 2021*. https://iris.who.int/bitstream/handle/10665/350161/9789240038349-eng.pdf?sequence=1

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C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

31

The mātai moana project: Learning collaborative and participatory methods through an inclusive design process

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INTRODUCTION

A complex array of social, environmental and political changes is transforming contemporary societies. While these changes offer opportunities for innovation, they also threaten to expand segregation (Dadashpoor & Keshavarzi, 2024). Within this divisive and apathetic context, universities can expand their social responsibility through action (Dancis et al., 2023). They can explore ways of relating to their social context by facilitating participatory projects (Sengupta et al., 2020) while establishing links with socially engaged practice (Smith et al., 2025). Practice in architectural disciplines is evolving towards more inclusive ways of understanding design (Lamirande, 2020). Interdisciplinary collaboration and the integration of users in decision-making are transforming practice (Luck, 2018). They are also helping designers to inclusively address the challenges that contemporary societies face (Leino & Puumala, 2021).

These new ways of practicing are being integrated into tertiary education (Tuhkala & Ari, 2021), where new pedagogical models incorporate stakeholder perspectives and encourage community engagement (Dhadphale & Wicks, 2022). Community-based projects expand teaching and learning, enabling the experience of practice-based education through the development of participatory projects (Medved and Ursic, 2021). Design-based university-community partnerships offer the opportunity to bring theory to practice through Participatory Action Research (De Oliveira, 2023), as participation and collaboration become the research drivers (Jacobs, 2018). Students can experience Work-Integrated Learning (Zegwaard et al., 2023), develop skills relevant to practice (Meroni & Selloni, 2022) and frame professional identities underpinned by civic engagement (Koekkoek et al., 2021) whilst helping communities understand and improve their conditions (Compare et al., 2022). Collaborative and participatory methods, or new professional roles can be learned through the experience of a participatory project (Martinez-Almoyna, 2019).

The Landscape Architecture programme of Te Herenga Waka/Victoria University of Wellington (VUW) has been developing over the last years a methodology that facilitates service learning, demonstrating to be adaptable to different types of partners, projects, design objectives and university courses (Martinez-Almoyna, 2023). This paper explains the application of this methodology in a project that proposes the transformation of Mātai Moana (Mount Crawford, Wellington) into a new Ecosanctuary and Heritage Reserve, working alongside the local community and mana whenua (Indigenous people who have historic and territorial rights over the land).

METHODS

The methodology that informed the Mātai Moana project is based on four principles: a) connect teaching with research through external engagement; b) work at local and community levels; c) develop projects within a Participatory Action Research framework; and d) understand design and participation as tools

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Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

32

for transformation. The methodology was applied over time in different projects. Differences among them were related to the community group (organisation, cohesiveness, size, division), type of project (definition, size, length, land ownership), design objectives (concept, implementation), and resources (university course, funding, external support).

The Mātai Moana project [HE-000330] was large, complex, and initially undefined. It was shaped through the design process, as the local community group was unstructured, highly diverse, and in need of agreement. The design process, entirely funded by VUW and community resources, contributed to finding a point of encounter between different interests. A postgraduate design course in landscape architecture was used to facilitate a participatory project with members of the local community and mana whenua. A series of lectures, seminars, workshops and reviews supported the design of different Master Plans for the whole area, as well as a wide range of site interventions. The design process was divided into four stages: Diagnosis, Dreaming, Developing, and Defining. The university course spanned through the first three stages. The course was also divided into three assignments, one for each stage. Each assignment was evenly weighted. As part of a five-year programme, this fourth-year design course had fifteen students, a lecturer and a tutor.

Diagnosis

This first stage was focused on understanding and interpreting the physical, social, and cultural context of the site. It was divided into two parts:

Collective analysis

Considering student preferences, a research topic was assigned to each of them. Topics were previously decided when preparing the project's brief. Individually or in groups (depending on the complexity of the topic), students collected, processed and drew useful information to be shared with the whole class. Research methods combined desktop analysis and fieldwork. Two site visits were organised with local stewards (Figure 1). The research was discussed as part of thematic seminars. The produced information was stored in a shared database.

Intentioned analysis and initial design strategies

A series of thematic lectures and seminars with local experts were organised. Students worked in groups. The information collectively gathered was processed and combined in a personal manner. Strong attention to collecting relevant inspirational precedents was given during this stage. These were stored and shared with the whole class as part of a collective resource. The goal was to produce an intentioned analysis and initial design strategies. Final reviews with representatives of different community groups and mana whenua were organised.

Dreaming

This stage was based on participation and collaboration, with a strong engagement component. Students continued working in groups. Seminars with local experts and three design workshops, thought to be informal and inclusive, were organised. Each workshop was thematic, with a Māori value underpinning and guiding the design-based discussions (Figure 1). Considering the inputs received, students produced a series of designs for the whole area and key sites. The ending goal was to dream while considering feasibility. Final reviews with representatives from different community groups and mana whenua were organised (Figure 1).

Developing

The final designs were collaboratively produced in groups. Designs were based on site knowledge, mātauranga Māori and community aspirations. Communication with non-technical audiences was a key factor in this design stage. The final designs were presented to the community and publicly exhibited. The exhibition of the developed designs was thought to be graphically inclusive, avoiding too technical information to facilitate engagement and collection of feedback (Figure 2). The exhibition toured through four different venues to disseminate the work done, facilitate engagement with the project and collect feedback.

Defining

The fourth and final stage was developed once the university course was over. The itinerant exhibition, a project website, and four more design workshops were used to collect feedback on the students' designs. The first two workshops were restricted to individuals previously involved with the project, while the final two workshops were limited to members of mana whenua. A final consensus design was generated from the students' designs and the feedback received. It cohesively represented community aspirations, aimed to inform land protection and the gradual transformation of the site through community-driven interventions.

FIGURE 1: Images of a site visit with local experts (left), a participatory design workshop with members of the local community (centre), and an interim design review with members of mana whenua (right).

RESULTS

The main findings extracted from the first three stages of the project were collectiveness, participation, and communication.

Collectiveness

The collective focus of the *diagnosis* stage was highly successful, as it changed how analysis work tends to unfold in design courses. Commonly, students work independently and analyse a wide range of topics without deeply focusing on any. As a result, the findings of the analyses tend to be quite shallow and the graphic outputs are similar. Motivation is usually not high, as analyses tend to be seen as a formality before designing. During reviews there is some knowledge sharing among the class, but students tend to repeat similar information. Instead, by working collectively, each student was highly motivated researching a preferred topic, which facilitated the generation of relevant findings on a wide range of subjects. At the same time, working on a clear task as part of teamwork contributed to increasing students' motivation and the quality of the outputs. Collective work also changed and

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Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

34

improved the final reviews. Reviews were transformed into seminars on interrelated topics, where students shared specific information with the whole class. This facilitated dialogue and discussions between students instead of the regular monologues between students and teachers. Finally, the outputs were shared and used during the design process.

Participation

The participatory focus of the *dreaming* stage transformed how concept designs tend to be generated in regular studio-based design courses. By incorporating the local community, the collective of the previous stage evolved into a large and fluid group that expanded the class and opened the classroom. Participatory design workshops and reviews were framed as opportunities to engage with non-technical audiences and establish a dialogue based on horizontality and knowledge sharing. During workshops, students were requested to ask questions instead of displaying their design ideas to seek validation. The goal was to extract and incorporate knowledge into design from persons who have a personal attachment and understanding of the site. The integration of mātauranga Māori in the workshops also facilitated a change in how design discussions tend to be established. The segmented spheres of Western knowledge (social, ecological and cultural) were transformed into fluid and interconnected territories, where natural systems, human constructs, and intangible heritage were connected.

Communication

The fact that the project was based on participation, engaged with a diverse array of community members, and aimed to have a real impact at a city level, made communication of the final designs an essential component of the project. The main learning objective of the *defining* stage was to communicate complex and technical information to non-technical audiences. This implied changing the way technical information was explained and graphic conventions used. Three-dimensional graphics were maximized and the connection between drawings and text was reinforced, grouping the graphic and written information under design ideas through headings (ideas) and short paragraphs (Figure 2). The final outputs were divided into three different formats: the exhibition panels (which followed a template to guarantee consistency), slides for the website (which synthesised the key ideas), and a short video for both the exhibition and the website. Physical models were also used to complement drawings at the exhibition and facilitate communication. Māori language was used for the motto of each concept, and mātauranga Māori was utilised to frame the key design ideas.

FIGURE 2: Images of the final exhibition. Debate after the design presentations with students, politicians and members of the local community and mana whenua (left); itinerant exhibition displayed on standard event tables (centre); and detail of one of the students' panels (right).

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

35

CONCLUSIONS

The Mātai Moana project demonstrates that design-based partnerships are useful instruments to collectively generate ideas, where students can begin to develop skills relevant to practice, whilst helping communities understand and improve their conditions. Collaborative and interdisciplinary work, participatory design methods, or new professional roles such as design facilitator, mediator or educator, can be learned through the experience of a participatory project. Students learn through experience new ways of collaborating with their peers, as well as new ways of engaging with a complex and diverse community through design. This involves learning new ways of relating to non-technical audiences based on horizontal dialogue and knowledge sharing compared to the traditional verticality anchored on technical knowledge.

REFERENCES

Compare, C., Albanesi, C., & Pieri, C. (2022). Community-University Partnership in Service-Learning: voicing the community side. *Journal of Higher Education Outreach and Engagement*, *26*(2).

Dancis, J. S., Coleman, B. R., & Ellison, E. R. (2023). Participatory action research as pedagogy: Stay messy. *Journal of Participatory Research Methods*, *4*(2).

Dadashpoor, H., & Keshavarzi, S. (2024). Defining urban segregation: A qualitative meta-synthesis. *Cities*, *149*, 104947.

De Oliveira, B. (2023). Participatory action research as a research approach: Advantages, limitations and criticisms. *Qualitative Research Journal*, 23(3), 287-297.

Dhadphale, T., & Wicks, B. (2022). Participatory stakeholder engagement in design studio education. *International Journal of Art & Design Education*, *41*(4), 589-602.

Jacobs, S. D. (2018). A history and analysis of the evolution of action and participatory action research. *The Canadian Journal of Action Research*, 19(3), 34-52.

Koekkoek, A., Van Ham, M., & Kleinhans, R. (2021). Unraveling university-community engagement: A literature review. *Journal of Higher Education Outreach and Engagement*, *25*(1).

Lamirande, M. (2022). Aspects of Designing Inclusively from Practitioner Perspectives. *Architecture*, *2*(3), 497-517.

Leino, H., & Puumala, E. (2021). What can co-creation do for the citizens? Applying co-creation for the promotion of participation in cities. *Environment and Planning C: Politics and Space*, *39*(4), 781-799.

Luck, R. (2018). Participatory design in architectural practice: Changing practices in future making in uncertain times. *Design Studies*, *59*, 139-157.

Martínez-Almoyna, C. (2019). Earning skills and experiencing collective values through design-based university-community partnerships. In *AMPS proceedings series 17.2* (Vol. 17, 38-49).

Martínez-Almoyna, C. (2023). Experiencing service learning in design-based partnerships through collective practice. *Jornadas sobre Innovación Docente en Arquitectura: JIDA: Jornades sobre Innovació Docent en Arquitectura: JIDA*, (11), 529-540.

Medved, P., & Ursic, M. (2021). The Benefits of University Collaboration Within University–Community Partnerships in Europe. *Journal of Higher Education Outreach and Engagement*, *25*(2).

Meroni, A., & Selloni, D. (2022). The Rise of Co-design Processes for Urban Commons. In *Service Design for Urban Commons* (pp. 11-22). Cham: Springer International Publishing.

Sengupta, E., Blessinger, P., & Mahoney, C. (2020). Introduction to civil society and Social Responsibility in higher education: International Perspectives on University–Community Partnerships. In *University–community partnerships for promoting social responsibility in higher education* (pp. 3-14). Emerald Publishing Limited.

Smith, R. C., Loi, D., Winschiers-Theophilus, H., Huybrechts, L., & Simonsen, J. (Eds.). (2025). *Routledge International Handbook of Contemporary Participatory Design*. Taylor & Francis.

Tuhkala, A. (2021). A systematic literature review of participatory design studies involving teachers. *European Journal of Education*, *56*(4), 641-659.

Zegwaard, K. E., Pretti, T. J., Rowe, A. D., & Ferns, S. J. (2023). Defining work-integrated learning. In *The Routledge international handbook of work-integrated learning* (pp. 29-48). Routledge.

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Eastern Institute of Technology, Napier, 15-16 April, 2025

36

Collaborative aesthetic play: Insights for facilitating work-integrated learning

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INTRODUCTION

This paper introduces Collaborative Aesthetic Play (CAP) as a tentative framework to support both relational and textural aspects of facilitating experiential work-integrated learning (WIL). In this context, WIL refers to undergraduate and postgraduate work-based learning within Capable, Otago Polytechnic. Ākonga are experienced practitioners navigating complex, entrenched real-world issues. Their self-determined learning, grounded in heutagogy (Mann et al., 2017), is a process that is messy, multidimensional, transdisciplinary, and co-created (Costley & Fulton, 2018). Research confirms facilitation in these spaces as inherently relational, focused on supporting learning as a "partnership or facilitative" model (Lester & Costley, 2010, p. 566).

PLAY AND WIL

Society often sees play and work as opposites. However, Brown & Vaughan (2009) argue that play and work are mutually supportive and that we cannot thrive without the other. Play is a state of mind used to organise our ideas (Dewey, 1933) which can bring about a sense of newness and excitement to a role, thus transforming our work practices (Brown & Vaughan, 2009). Dewey's learning through experience (1938) underpins WIL (Zegwaard et al., 2023). Latta's aesthetic play (2013) draws on Dewey's aesthetic experience within the everyday processes of living and play, where we are involved in "discoveries and unfolding processes" (2013, p. 109) a movement of thinking for sense making. This is "playful and serious at the same time" (Dewey, 1933, p. 286). Such serious play we propose aligns well with learning journeys in WIL. Here we explore Latta's aesthetic play qualities and features (Table 1) in practice through a collaborative creative project focused on "thinking with care" (de la Bellacasa, 2019). Learnings that emerge are drawn together to propose a CAP framework to enhance WIL facilitation.

AESTHETIC PLAY IN PRACTICE

Building on previous research (Myers & Mitchell, 2024) we set about exploring Latta's Aesthetic Play qualities and features (Box 1) in practice. We wanted to experience how her qualities could help shape and sustain our learning and understand how her features articulating the nuances of learning available experience, could help us deepen our own.

BOX 1 Eight qualities and features of aesthetic play (Myers & Mitchell, 2024).

Eight qualities of aesthetic play (Macintyre Latta, 2002, pp. 5-7):

1. Attentive – close observation and time to dwell with and in learning situations resulting in greater deliberation and thoughtful responses.

2. Personal Involvement – knowledge grows from and is a reflection of lived experience, therefore there are multiple ways the world can be know and learning can be approached.

3. Emotional commitment – discovery as an attitude or way of being that acts as a catalyst to learning.

4. Felt Freedom – the need for space and freedom, so the learner is free to choose the way I which to engage in learning.

5. Dialogical – dialogue with self and others are crucial and become the link to sense-making.

6. Inquiry guided – providing resources that support many possibilities and are a springboard to unanticipated ones.

7. Projective – exposing learners to new ways of thinking and working.

8. Self consciousness – relations between self and subject matter are continually addressed fostering a greater sense of self as a learner and thinker.

Eight features of aesthetic play (Latta, 2013, pp. 107-8):

1. Force of the possible, navigates necessary movement for new and enlarged ways to see and engage the world.

2. Elemental to being human, inherent curiosities, suggestions, and found order as holding the resources for learning.

3. Embracing place, values, respects and converses with the particulars inhering place.

4. Needing other(s) fosters understanding of self as constituted in relation to other(s).

5. Spatial/ temporal negotiation, mindfulness of present circumstances alongside speculative sensibilities.

6. Interdependent with imagination, instilling embodied understandings.

7. Attunement to process fosters trust in the contingent ground of meaning making itself.

8. Acquiring self-understandings in relation to wider contexts and citizenry.

THINKING WITH CARE

We draw on our professional backgrounds, Ruth as artist and Carleen as early child educator and home sewer to collaborate on a creative project exploring how to think with care. This questioning, selected as useful new learning for us both, explores Haraway's (2016) notion of 'thinking with' as a relational way of being and learning with the world. We take on de La Bellacasa (2017) positioning of care as both

ambivalent and necessary, requiring an ongoing questioning of 'what is care here?'. Below is a reflection on our process, including key learnings.

Play as Process

Ruth brings to work patterns from her drawing with the beach, for colleagues to play with. Carleen starts to explore dress designs. A process of collaborative aesthetic play was underway – involving curiosity, attunement to process, personal involvement, embodied understandings, space, time, place, felt freedom, dialogue, attentiveness and force of the possible. Blurring workspace with play became a guide for how to care for place, other and self.

Learning to Learn Together

We explore thinking with care, sustainability, collaboration and design. We share resources, explorations, drawings and research and find ways of working together. We are vulnerable with each other, and need space and time to learn individually and together, with felt freedom to share our learning. Attentiveness, dialogue, and commitment are key as we explore thinking with care. This learning is citizenly and worldly, self-understandings inform processes that rework and revalue time and labour, reinforcing relational and ethical practices, prompting our wider questioning, what is care here?

Attunement to Process

We pay close attention to emerging processes informing our learning and decision making. We try things out, learn alongside, and find the learning resources we need available here. We allow each other time to dwell in making, share stories to deepen understanding and recognise space and place of learning as ongoing, communal and collective.

Learning together leads to process insights. We dwell in emergence, have complex conversations, and think worldly. We support movement of thinking and pay nuanced attention. Our collaboration was generative, including insights:

- Struggles with print led to carving patterns into fabric.
- Attention to 'waste', turned holes from carving into new patterns (Braungart & McDonough, 2009)
- Care Labels emerge to communicate interconnectedness of human and ecological concerns.

Stuckness

At points we navigate overwhelm and stuckness, much like Latta's fog of pea soup (2013) as we search for understanding or ways forward. Our questioning can be paralysing (Rieder, 2024). Returning to play guides us, allowing new learnings to emerge. We recognise we cannot do this alone, and that the qualities of our relationship offer courage and nourishment. We learn more about collaboration, trusting each other's decision making, and building upon ideas. This fosters deeper learning, such as exploring what happens when we can't think with care.

Aesthetic Play + Collaboration, CAP emerges

As we share artefacts and learnings with our peers, we recognise thinking with care is embedded in our collaboration – care of self, each other, decision making, care beyond people, process and how we assist

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Eastern Institute of Technology, Napier, 15-16 April, 2025

39

each other to communicate, take responsibility for thinking with care, and bring our ideas together to a wider public. We suggest thinking with care collaboratively proposes a shift in perspective that values relational and ethical decision making, a critical process of learning together that has potential for working into complex problems.

IMPLICATIONS FOR WORK-INTEGRATED LEARNING

Our experience with CAP was transformative. By challenging ourselves to think more broadly and care more deeply, both for each other and for our world, we gained insights into complex problems and the practice of learning together.

Four Key Insights for Facilitation

Learning to learn together

In WIL, both the learner and academic mentor engage in a reciprocal learning process, navigating the complexities of learning to learn together. Embracing a co-learning approach where expertise flows in both directions, fostering a more equal partnership where knowledge is exchanged rather than transferred.

Holding complexity within experience

WIL learners navigate unique complexities as they balance their professional expertise with academic inquiry. As mature learners already established in their fields, they must embrace the dual identity of both practitioner and scholar, recognising the value of their lived experience while engaging with new theoretical perspectives. Holding onto these complexities allows learners to deepen their understanding, bridge theory and practice, and create meaningful contributions to both their workplace and academic discourse.
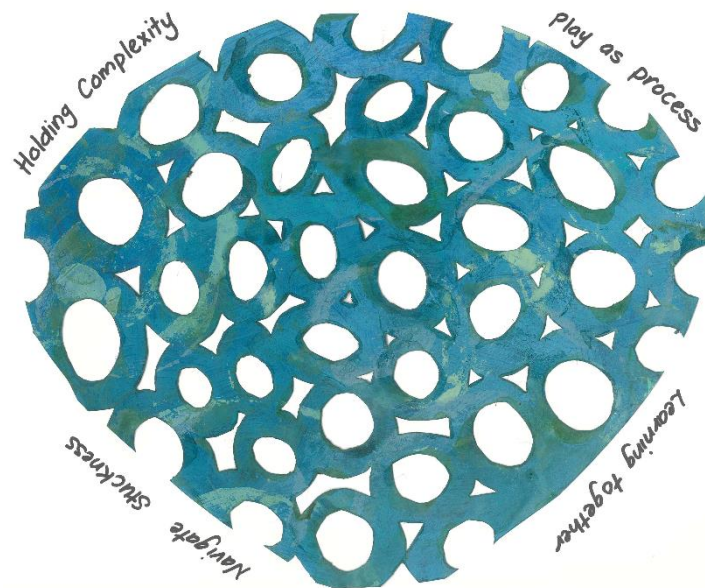
Navigating stuckness

Stuckness is an inevitable part of the learning journey for work-integrated learners, emerging at different points as they navigate the complexities of reflecting on experience and integrating knowledge. These moments of fog and uncertainty are not signs of failure but integral to the academic process, signalling deep thinking is happening.

Emphasizing play as process over outcome

Play as a process in WIL offers a powerful way for learners to explore, reflect, and create meaning from their experiences. By engaging in play, learners can experiment with ideas, test new ways of thinking, and reframe challenges in a low-risk, creative space. Embracing play as a form of heutagogy empowers learners to navigate their study journey with flexibility, creativity, and confidence.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

40

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FIGURE 1: CAP Tentative Framework

The CAP framework offers guidance on fostering relational depth within learner-facilitator interactions while enriching the experiential learning process. We propose that CAP offers a nuanced framework for guiding WIL facilitation, particularly by fostering collaborative, relational, and textural conversations that support transformative WIL journeys.

How to Apply CAP Framework for WIL Facilitation

    Navigate stuckness:

For WIL learners, stuckness should be recognized and celebrated as a valuable part of the learning process. Facilitators can engage learners in open, attentive dialogue that acknowledges uncertainty and creates space for reflective thinking, helping learners to navigate challenges with courage. Encouraging speculation, provisional thinking, and shared exploration fosters movement of thinking and sense making. Thus, reframing stuckness as an opportunity for growth and new possibilities.

    Learning together:

In WIL, we propose 'learning to learn together' by fostering a collaborative and mutual learning environment built on trust, respect, and openness. By showing up with honesty and care, both facilitators and learners create space for vulnerability, recognising that learning is a shared journey rather than a one-directional process. Embracing humility, acknowledging that no one holds all the answers, allows for co-inquiry, where both parties contribute their knowledge and lived experiences with generosity.

    Holding complexity:

For WIL learners, rather than seeking to simplify or resolve complexity too quickly, facilitators can encourage learners to stay immersed in their process, engaging with their materials, revisiting insights, and allowing ideas to unfold over time. Through ongoing conversations, where facilitator and learner

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Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

41

come together and step apart, thinking has room to percolate, connections can emerge, and understanding deepens. By embracing the messiness of learning and shining a light on different aspects at different times, facilitators help learners navigate complexity with openness, curiosity, and a holistic perspective.

Play as process:

In WIL, facilitators can support learners in playing with their ideas by emphasizing process over outcome, encouraging curiosity, and valuing iteration in research. Just as play with tangible objects can spark creativity, playing with ideas, experimenting, reshaping, and revisiting, keeps learners engaged, motivated, and open to emergent thinking. This process can be both solitary, as learners explore and formulate ideas independently, and collaborative, as they share, refine, and build upon their thinking with others. By fostering an environment where research is approached with curiosity and enjoyment, facilitators help learners see play as a vital tool for sense-making and professional practice.

CONCLUSION

The Collaborative Aesthetic Play framework is grounded in the principles of co-learning, playfulness, and relational depth. CAP supports learners to engage with the inevitable complexities, uncertainties, and emotional terrain of transforming experience into knowledge. By attending to moments of stuckness, honouring learners as subject matter experts, and creating space for curiosity, CAP challenges traditional power dynamics and reframes facilitation as a shared, aesthetic process of meaning-making. It encourages facilitators and learners to move together through cycles of reflection, experimentation, and deep conversation, where knowledge is co-created. As a collaborative facilitation framework, CAP invites a playful, caring way of engaging with the WIL journey, one that values both rigour and relationality, and supports transformative learning in real-world contexts.

REFERENCES

Braungart, M., & McDonough, W. (2009). *Cradle to cradle*. Random House.

Brown, S., & Vaughan, C. (2009). *Play: How it shapes the brain, opens the imagination, and invigorates the soul*. Penguin.

de La Bellacasa, M. P. (2017). *Matters of care: Speculative ethics in more than human worlds* (Vol. 41). U of Minnesota Press.

Costley, C., & Fulton, J. (2018). *Methodologies for practice research: Approaches for professional doctorates*. Sage.

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to educative process*. D.C. Heath and Company.

Dewey, J. (2024). *Experience and education.* The Macmillan company.

Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Duke University Press.

Latta, M. M. (2013). Curricular conversations: Play is the (missing) thing. Routledge.

Lester, S., & Costley, C. (2010). Work-based learning at higher education level: Value, practice and critique. *Studies in Higher Education*, *35*(5), 561-575.

Mann, S., Ker, G., Eden-Mann, P., & O'Brien, R. (2017). Designing for heutagogy: An independent learning pathway approach. Scope: *Contemporary Research Topics (Flexible Learning), 2*, 59–70.

Macintyre Latta, M. A. (2002). Seeking fragility's presence: The power of aesthetic play in

Myers, R., & Mitchell, C. (2024). What can we learn from aesthetic play for facilitating work integrated learning?. In *Work-Integrated Learning New Zealand 2024 Refereed Conference Proceedings* (Vol. 9, No. 10).

Rieder, T. (2024). *Catastrophe Ethics: How to Choose Well in a World of Tough Choices*. Penguin.

Zegwaard, K., & Pretti, T. J. (Eds.). (2023). *The Routledge international handbook of work-integrated learning* (Third edition.). Routledge.

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Eastern Institute of Technology, Napier, 15-16 April, 2025

42

AI-driven evaluation in work-integrated learning: Automating insights from internship deliverables

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INTRODUCTION

To sustainably develop long-term internships, it is essential to conduct appropriate evaluation analyses from three perspectives: students, companies, and universities. As highlighted in a previous study (Pann Yu Mon, 2024), titled "Comparison between Students' Self-Assessment and Supervisors' Assessment on Long-Term Internship Program", traditional evaluations have primarily relied on subjective self-assessments and host company feedback, these methods often suffer from biases and inconsistencies, particularly in ICT-related fields, where students tend to rate themselves highly, while host companies provide comparatively lower scores. Until now, data collection and analysis have relied on the method of subjective responses to each questionnaire question, but the arbitrariness of the respondents, the introduction of noise such as preconceived notions and impression manipulation is unavoidable, and the need to collect data that objectively shows the actual situation is increasing.

To address this, in addition to final deliverables such as presentation materials and posters, we focused on documents and daily reports generated during the training process. By leveraging generative AI, we devised a method to objectively evaluate the training process. Specifically, we conducted an experiment in which a document recording the state of the training, excluding personal and confidential information, was converted into a PDF file, and the process of the training was analysed by AI using appropriate prompt engineering, and replaced with a subjective questionnaire. This study analyses and discusses the differences between traditional subjective methods and AI-driven evaluations, providing insights into a sustainable and objective approach to internship assessments.

OBJECTIVE OF THE STUDY

This study aims to develop a reliable, objective, and scalable AI-driven evaluation framework for Work-Integrated Learning (WIL) programs. Traditional internship assessments often suffer from biases in student self-assessments and inconsistencies in host organization evaluations, leading to unreliable performance measurements. To address these issues, this research proposes an AI-based scoring system that evaluates student performance using standardized rubrics and daily reports, ensuring a fair, data-driven, and consistent assessment process.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

43

LITERATURE REVIEW

Traditional Work-Integrated Learning (WIL) evaluation practices have long relied on supervisor feedback and student self-assessments. While these methods offer firsthand insights, they are often affected by subjectivity, leading to inconsistencies in how student performance is measured. This challenge becomes particularly apparent in fields like information and communication technology (ICT), where technical tasks may be assessed differently depending on the evaluator's expectations or familiarity with the subject matter. Furthermore, students may unintentionally overestimate their abilities, while supervisors may prioritize different competencies, creating a gap in perception that limits the reliability of outcomes.

Nisbet et al. (2016) demonstrated that self-assessments often do not align with evaluations made by industry professionals, highlighting the potential for misjudgement in skill acquisition and performance. Ferns and Zegwaard (2014) also addressed the difficulty in measuring soft skills—such as communication, teamwork, and adaptability—through subjective evaluations alone, stressing the need for more consistent and scalable assessment tools.

Recent advances in generative AI provide promising alternatives for addressing these challenges. AI technologies can process large volumes of structured and unstructured data, extract patterns, and provide insights without the inherent bias present in human evaluations. Hsieh and Fu (2023) explored how AI can be used to analyse educational documents, while Yan et al. (2023) demonstrated its utility in transforming narrative logs into performance metrics.

This study builds on this growing body of research by applying generative AI to the analysis of internship reports, with the goal of enhancing fairness, consistency, and sustainability in WIL evaluations.

FRAMEWORK OF STUDY

The Work-Integrated Learning (WIL) internship program at Kaishi Professional University is structured into two stages, providing students with practical industry experience. The second-year internship consists of 150 hours of work-based learning, allowing students to gain foundational industry exposure and develop essential workplace skills. In contrast, the third-year internship extends to 450 hours, offering a more in-depth and immersive experience where students take on more complex tasks and responsibilities within their host organizations. A detailed explanation of the internship program structure and assessment methods can be found in previous research (Pann Yu Mon, 2022, 2023).

Daily Report Description

A total of 43 internship documents, each containing multiple daily entries, were collected and used as the dataset for this study. These reports were systematically recorded by students throughout their internship period. Students were required to complete the daily report at the end of each workday, and each entry was reviewed and commented on daily by the internship supervisor from the host organization. This structure ensured consistency, timely feedback, and accurate monitoring of student activities.

Each daily report consisted of four standardized categories:
- **Goals:** The student's objective for the day
- **Work Tasks:** A detailed account of tasks performed during the day

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

44

WILNZ
Work-Integrated Learning New Zealand
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- **Reflections and Challenges:** Observations and difficulties encountered
- **Supervisor's Comments:** Daily feedback provided by the internship supervisor

The daily reporting system was designed to promote regular reflection and communication between students, faculty, and host organizations. All reports were submitted electronically。

AI Model Configuration and Prompt Engineering

This study employed a transformer-based language model (ChatGPT) to analyse daily reports while ensuring objectivity and data privacy. The uploaded PDF files used for AI evaluation do not contain personal data, student names, host company details, or any other sensitive information. Our approach focused on designing prompts that accurately guide AI in identifying and scoring key performance indicators (KPIs) while maintaining confidentiality. The evaluation framework includes:

1. Rubric Categories
2. A structured description of the 12 evaluation competencies (e.g., Technical Skills, Time Management) with predefined scoring criteria (-4 to 4).
3. Evaluation Instructions
4. Clear directives for AI to analyse text-based evidence from daily reports, ensuring alignment with the rubric criteria while maintaining assessment consistency.
5. Confidentiality Assurance
6. Since the uploaded reports are pre-processed to exclude sensitive data, the AI system evaluates only the content relevant to internship performance, ensuring a privacy-compliant and unbiased assessment process.

By leveraging structured prompt engineering and ensuring that only anonymized reports are analysed, this AI-driven evaluation method provides a fair, scalable, and objective alternative to traditional assessment approaches.

Ethics Considerations

Ethical approval for this study was obtained through the internal ethics committee at Kaishi Professional University. All student participants and host organizations were informed about the use of anonymized data for research purposes and provided consent prior to data collection. The study strictly followed data protection protocols to ensure that personal and institutional privacy was maintained throughout the AI-driven analysis process.

ASSESSMENT RESULTS

This study analyses internship deliverables from 43 second-year students, specifically daily reports, which were used as the primary source for AI evaluation. The evaluation framework applies consistently across both levels, allowing for comparisons between different training durations and student performance.

To further examine the alignment between AI and human assessments, a cosine similarity analysis was conducted on evaluation results across 22 host companies. Cosine similarity measures the cosine of the angle between two vectors, indicating how similar two sets of scores are.

WILNZ
Work-Integrated Learning New Zealand
Tuia te ako, tuia te mahi, tuia te ara whaihua e

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

45

The formula used in this study is:

$$\text{Cosine Similarity} = \frac{\sum_{i=1}^{n} A_i B_i}{\sqrt{\sum_{i=1}^{n} A_i^2} \times \sqrt{\sum_{i=1}^{n} B_i^2}}$$

Where:

A_i represents the AI-generated score for category i.

B_i represents the host evaluation score for category i.

$N = 12$ the number of competency categories used in evaluation.

Using this formula, the cosine similarity was computed for each host company to assess how closely AI-generated scores align with human evaluations.
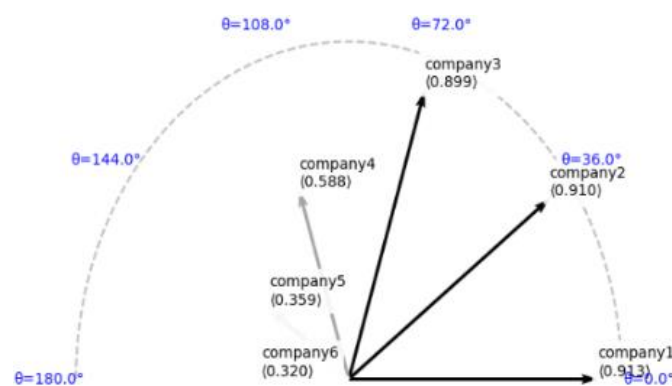
FIGURE 1: Cosine Similarity Vector Graph

Figure 1 shows the alignment between AI-generated evaluations and human assessments. Green vectors indicate strong agreement, while red vectors highlight discrepancies due to subjective biases or incomplete reports. Longer vectors represent higher similarity, reinforcing the need for structured reporting to improve AI evaluation accuracy. This analysis quantifies how closely AI-generated scores match human assessments, revealing three key patterns:

1. High Similarity Scores (Strong AI-Human Agreement)
1. Several organizations exhibited strong alignment, indicating that AI assessments closely matched supervisor evaluations. This suggests that students' daily reports were sufficiently detailed, allowing AI to generate evaluations that accurately reflect their performance.
2. Low Similarity Scores (Noticeable Discrepancies)

A few organizations demonstrated lower similarity scores, indicating a significant gap between AI and human evaluations. The primary reasons for this misalignment could be:

- Insufficiently detailed daily reports, leading to lower AI-generated scores despite positive human feedback.
- Subjective bias in human evaluations, where supervisors assigned higher scores based on qualitative factors not explicitly documented in reports.

Despite these discrepancies, the overall correlation between AI evaluations and host organization assessments supports the reliability of this AI-driven approach. These findings emphasize the

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

46

importance of comprehensive and structured daily reporting, ensuring that AI assessments fully capture student contributions.

Ensuring that students document their work thoroughly allows the AI system to better capture their actual contributions, bridging the gap between AI and human evaluations. While AI-driven assessments have proven reliable, future improvements in reporting structure and AI processing techniques could further enhance fairness, accuracy, and consistency in internship evaluations.

CONCLUSION AND FUTURE WORK

This study demonstrates that AI-driven evaluations can provide a reliable and objective alternative to traditional subjective assessments in Work-Integrated Learning (WIL) programs. By applying a structured rubric and leveraging generative AI for analysing daily reports, we successfully reduced biases commonly found in student self-assessments and host company evaluations. The AI-generated scores closely align with host organization assessments, validating the effectiveness of this approach in ensuring consistent and transparent internship evaluations. Furthermore, the findings highlight the importance of **comprehensive daily reporting**, as discrepancies in AI and human assessments often stem from incomplete or insufficient documentation by students.

This AI-driven evaluation framework benefits all stakeholders in WIL programs.
- For students, structured AI evaluations encourage thorough documentation of daily tasks, fostering self-reflection and performance improvement. Maintaining detailed records enhances their ability to demonstrate learning outcomes effectively.
- For host organizations, AI-generated evaluations provide a benchmark for assessing student performance, promoting more accurate and objective scoring in future internship evaluations. Organizations will be more mindful of their assessments, knowing they are compared against AI-analysed reports.
- For academic institutions, systematically recorded daily reports offer verifiable evidence of student engagement, enabling curriculum enhancement and syllabus upgrades. These records serve as references for future students and contribute to further research on optimizing internship evaluation methodologies.

Future work will focus on refining AI prompt engineering to improve scoring accuracy, expanding datasets for validation, and developing an AI-assisted feedback system to provide real-time evaluation insights for students. Additionally, exploring the adaptability of this framework across various disciplines and internship structures will further enhance its scalability and impact.

REFERENCES

Ferns, S. J., & Zegwaard, K. E. (2014). Critical assessment issues in work-integrated learning. *Asia-Pacific Journal of Cooperative Education, 15*(3), 179-188.

Hsieh, P., & Fu, L. (2023). Leveraging generative AI for data-driven evaluations: Implications for workplace learning. *Journal of Educational Technology, 40*(3), 217-233.

Mon, P. Y. (2022). Implementation of cooperative and work-integrated education at "Professional University" in Japan: Case studies of Faculty of Information, Kaishi Professional University. Refereed Proceedings of the 4th WACE International Research Symposium on Cooperative and Work-Integrated Education, Kanazawa Institute of Technology, Japan.

Mon, P. Y. (2023). A comprehensive evaluation of an internship program: A 360-degree review involving students, host organization supervisors, and faculty members. The Eurasia Proceedings of Educational & Social Sciences (EPESS), 23, 72-78. ISSN: 2587-1730.

Mon, P. Y. (2024). Comparison between students' self-assessment and supervisors' assessment on long-term internship program. In Work-Integrated Learning New Zealand 2024 refereed conference proceedings, 18–23.

WILNZ
Work-Integrated Learning New Zealand
Tuia te ako, tuia te mahi, tuia te ara whaihua e

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

47

Nisbet, P., Healy, M., & Rees, C. (2016). Discrepancies in self-assessment and supervisor evaluations in work-integrated learning: A review of contributing factors. *Journal of Cooperative Education and Internships, 48*(1), 55-71.

Yan, X., Zhang, W., & Liu, Y. (2023). AI-powered assessment in education: A systematic review of generative models for evaluation. Computers & Education, 185, 104572. https://doi.org/10.1016/j.compedu.2023.104572

WILNZ
Work-Integrated Learning New Zealand
Tuia te ako, tuia te mahi, tuia te ara whaihua e

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

48

Resistance is futile: To bolt on or embed AI, that is the question

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INTRODUCTION

Artificial Intelligence (AI) is reshaping the enterprise, offering significant opportunities alongside inherent risks. The debate between integrating AI as a 'bolt-on' solution versus embedding it within enterprise socio-technical systems is an important strategic concern. This short paper explores the disruptive nature of AI, some benefits and risks, and how businesses must align its adoption with human values, ethics, and agency and capability development. While 'bolt-on' AI provides quick technological advantages with lower upfront costs, it often fails to align with long-term organisational sustainability. Embedding AI processes and practices through continuous work-integrated and work-based learning to evolve professional practice, ensures deep integration of AI's principles, ethics, and values but demands higher investment in training and leadership alignment. By investing in work-based learning and work-integrated learning, organisations can cultivate an AI-literate workforce, ensuring that AI serves as an augmentation rather than a replacement of human capabilities. Ultimately, the decision to bolt on or embed AI is a question of long-term strategic vision, ethical societal responsibility, and organisational resilience.

BACKGROUND AND CONTEXT

Modern AI traces back to pioneering work by MacCarthy, Rosenblatt, and Widrow and Hoff in the 1950s and 1960s (Engelbrecht, 2007). In the 1980s and early 1990s, the rise of neural networks revitalised AI, shifting the focus from predefined rules to data-driven learning (Aggarwal, 2018). Backpropagation enabled neural networks to learn iteratively, departing from symbolic AI (Cath et al., 2018; Díaz-Rodríguez et al., 2023; Morley et al., 2020; Pollard, 2024). Advances in graphics processor technology and storage further propelled deep learning, culminating in large language models (LLMs) and ubiquitous Generative Pre-trained Transformers (GPTs). As professionals we now face the reality of AI being seen as a competitive edge in the enterprise. How does business respond and what does that mean for Work-Integrated Learning (WIL) and Work-Based Learning (WBL)?

MOTIVATION FOR THIS SHORT STUDY

As learning facilitators at Otago Polytechnic CapableNZ (OP), we navigate a unique professional space. We support work-based learners while maintaining our own industry engagement and researching learning facilitation, arguably applicable to WIL approaches and WBL. Working across disciplines and fields, we encounter diverse work practices and procedures. Academically, we uphold rigour, cultural appropriateness, and ethical standards (Andrew, 2024). The rapid rise of modern technologies under Industry 4.0 (The Second Machine Age is also known as The Fourth Industrial Revolution, a concept introduced by Germany at the Hannover Fair in 2011) is changing the landscape constantly, and modern

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

49

AI emerged as one of the most disruptive elements of this revolution (*How to Survive the AI Revolution*, 2022; Roodt & Koen, 2020; Selenko et al., 2022; Shneiderman, 2020).

How might we deal with this rapidly unfolding reality, what is the appropriate way to respond to the challenges to support our learners? With our work in human agency development (Henry et al., 2024), capability frameworks and models (Harrison, 2021), agile teaching methods (Taylor et al., 2024) and considering human centred design and innovation (Simon, 1988) under complexity and ethical imperatives (Nicolescu, 2014; Woermann & Cilliers, 2012), it was clear that we had to develop a framework to bring these aspects into the fold of leadership (Donohoo et al., 2018; Rodgers, 2010) and organisational decision making.

Similarly, it aligns with Jacoby et al. (2024) pointing out the need for AI assisted environments for remote WIL. Their multi-national study focused on leveraging AI to improve WIL opportunities for remote and nontraditional learners, particularly in indigenous communities. As learning mentors and facilitators, we fully agree with the stance of Popenici that it is time to re-introduce imagination into higher education and "demonstrate respect for students' agency and embrace a pedagogy of compassion" (2022, p. 195).

METHODOLOGY

A brief scan of current literature on the adoption and use of AI related technologies yielded interesting results. At a high level several themes emerged:

- Ethics and human values in AI adoption and use
- Human agency and empowerment by AI
- Leadership towards innovation in the AI age

Our research and practice clearly connect to these issues. For example, how an organisation adopts change directly affects our learners, their projects, professional practice, and personal agency. Similarly, the use of AI tools in our organisation raised questions about academic integrity and the way we model use of these technologies for our learners. We had to consider our internal policy developments and potential conflicts with learner organisations' policies.

Our approach was to review the literature and build a basic framework from our insights, guided by the question: how might we adopt AI technologies in our practice with a human-centred focus? In the next section we unpack the themes and give concise arguments around adoption of AI in the enterprise.

DISCUSSION

Ethics

AI's broad impact demands careful ethical scrutiny (Popenici, 2022). With long-term effects unclear, regulation is challenging. Ethical principles like beneficence must be upheld, ensuring AI genuinely serves people's interests (Floridi & Cowls, 2022). When integrating AI into learning and enterprise contexts, protecting human values, learning modes, and personal agency is vital. Explicability—encompassing intelligibility (understanding AI's decisions) and accountability (assigning responsibility)—remains central. Europe's regulatory initiatives aim to establish trustworthy AI standards for societal benefit.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

50

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A key concern is potential exploitation of vulnerable groups, including individuals with cognitive disabilities. Trust is crucial for AI adoption and sustainable business practice; without a strong ethical foundation, public confidence may erode, limiting AI's benefits (Shneiderman, 2020; Smuha, 2021). Global frameworks, including the IEEE's ethical AI guidelines, outline principles for responsible development (Floridi et al., 2018).

AGENCY

AI affects personal agency in complex ways, particularly in the workplace. While AI can enhance human skills and efficiency, it can also replace certain jobs, reducing workers' sense of control and ownership, resulting in a diminishing sense of worth (Krzywdzinski et al., 2023). To address this, workplaces should support continuous learning so employees can adapt to new roles created by AI.

The broader impact of AI on personal agency includes ethical concerns about fairness and inclusion. Workplace culture shapes how AI is used. In transparent and collaborative environments, AI is more likely to complement human workers and enhance their value and contribution, while respecting cultural (Adie et al., 2024). In hierarchical workplaces, AI may primarily cut costs and streamline operations, which can lead to different outcomes.

Leadership plays a key role in managing these cultural differences. Leaders who understand their employees' values and engage with diverse perspectives can ensure AI is integrated ethically and inclusively. This means implementing AI systems that respect and support human agency rather than undermining it.

LEADERSHIP AND INNOVATION

Leadership style significantly shapes AI adoption in organisations, influencing short-term results and long-term sustainability. Transformational and servant leadership promote innovation by inspiring employees with a compelling vision for the future, fostering adaptability crucial for AI integration where continuous learning is required. They prioritise employees' growth and well-being, creating a supportive environment where staff feel valued and empowered to explore AI's potential.

Transactional leadership, which focuses on routine tasks and performance-based rewards, may be less effective for AI adoption. While it ensures efficiency, it might not support the creative thinking necessary for AI-driven change. It may preference the use of AI over the richness of the human contribution (Cath et al., 2018).

Group dynamics also play a significant role in AI adoption. A culture of collaboration and continuous learning helps teams see how AI can augment rather than replace human effort. Leaders who invest in training and interdisciplinary teamwork stimulate innovation while aligning AI use with ethical and organisational aims (Cortés Ricart, 2025). Meanwhile, a supportive environment encourages employees to refine their AI skills, driving impactful solutions.

Enterprise innovation depends on how AI is embedded in sociotechnical systems or introduced as an external tool. Embedded AI augments human capabilities, fostering collaboration, innovation, and the development of professional soft skills (Hurst et al., 2021). Simply bolting on AI often automates tasks, diminishing human roles and directing benefits to technology owners.

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

51

The literature affirms leadership as key to AI-driven innovation. Effective leaders understand the technical and ethical dimensions of AI, promoting a culture of experimentation and learning. A human-centric approach—where technology preserves dignity and agency—remains pivotal (*How to Survive the A.I. Revolution*, 2022). WIL and WBL programmes should address skill mismatches and competence gaps to sustain ethical AI practice (Nixdorf et al., 2021).

BOLT ON OR EMBED

The literature distinguishes between 'bolted-on' AI and AI embedded through training and organisational integration. Bolted-on AI is quick to deploy and cheaper initially, allowing businesses to test AI solutions without major restructuring. However, it often operates in isolation, creating data silos and limited employee engagement, ultimately hindering efficiency and raising long-term costs (Floridi et al., 2018).
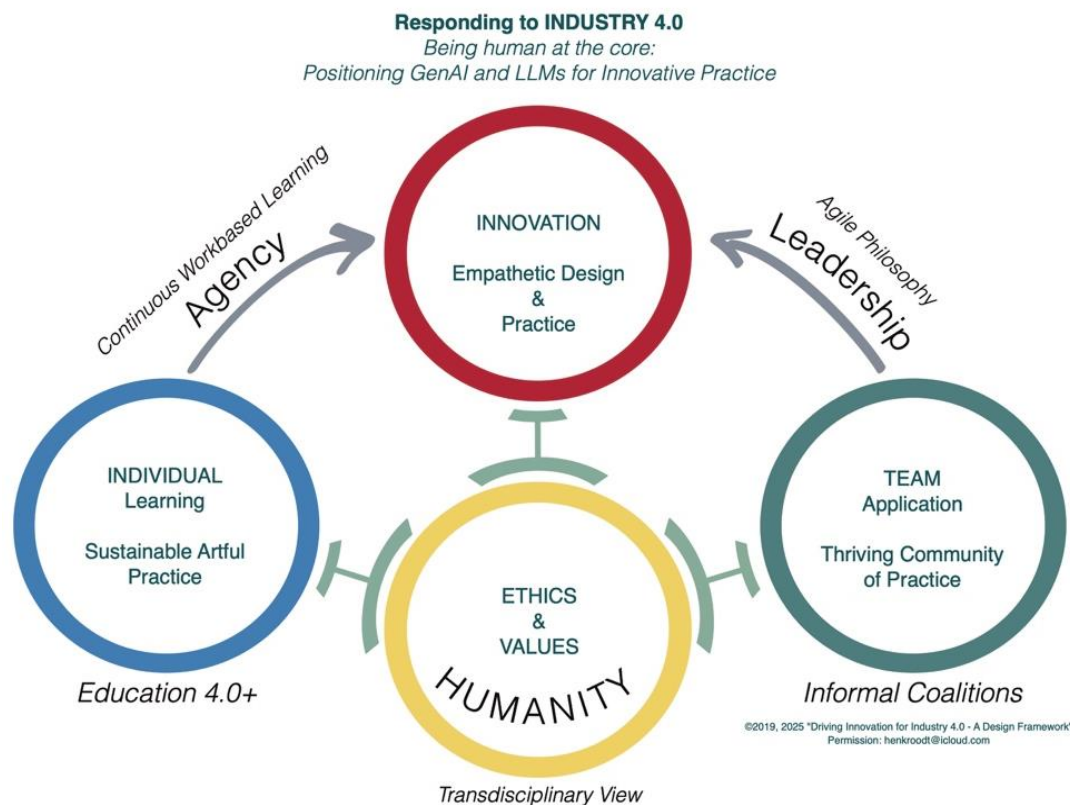
In contrast, embedding AI into core business processes offers deeper, sustained benefits. Proper training and adoption integrate AI into daily operations, boosting productivity, decision-making, and return on investment. Employees become adept at using AI tools, increasing engagement and effectiveness. Despite higher upfront costs and significant organisational changes, this approach yields more enduring gains (Brynjolfsson, 2022).

Key considerations include how well AI integrates with existing systems, employee adoption, and long-term security and scalability. Embedded AI aligns better with business goals but demands substantial leadership commitment and resources (*AI in Business*, 2023). Ultimately, the choice hinges on the organisation's objectives, resources, and readiness for AI. Although bolted-on AI delivers instant results, the structured adoption of AI often secures more sustainable outcomes. Our learning delivery should thus favour socio-technical content, ensuring ethical decision-making and fostering enterprise-wide innovation.

A FRAMEWORK FOR FURTHER EXPLORATION

Our work in this area is in an early stage, even though it builds on several streams of current research and experience. The holistic framework for AI augmentation in higher education emerging from the work so far is shown in Figure 1 below. The framework acts as our 'discussion anchor' for our professional practice research. A recent question arose about whether embedding AI in workflows encourages more individualised activities—such as acting as a personal soundboard (Hurst et al., 2021) —rather than supporting the nuanced, informal discussions that shape professional practice. Could AI use inadvertently stifle human interaction in navigating these complexities?

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C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

52

FIGURE 1: Framework for developing AI augmentation in higher education.

CONCLUSION

Our research indicated that ad hoc adoption offers quick gains but risks fragmentation and misuse. Strong leadership ensures ethical AI integration through frameworks that uphold fairness, transparency, and accountability. Ultimately, structured adoption enables sustainable, ethical, and innovative AI use.

Given AI's widespread adoption in vocational and professional fields, WIL and WBL learning approaches must embed AI in practice development. Our research will continue to focus on addressing digital inequality, coping with technology advances, and embedding AI tools in ways that are intuitive for non-technical users. We believe cyclical, iterative models (Harrison and Roodt, 2022), as used in Capable NZ programmes, can guide this. Following a structured approach will deepen understanding, support continuous learning, and foster confident AI experimentation.

REFERENCES

Adie, B. U., Tate, M., & Valentine, E. (2024). Digital leadership in the public sector: A scoping review and outlook. *International Review of Public Administration*, *29*(1), 42–58. https://doi.org/10.1080/12294659.2024.2323847

Aggarwal, C. C. (2018). *Neural Networks and Deep Learning: A Textbook*. Springer International Publishing AG.

AI in Business: Opportunities, Risks, and Benefits. (2023, August 8). https://startnearshoring.com/knowledge/ai-in-business-benefits-risks-opportunities/

Andrew, M. (2024). Features of Good Mentoring: Insights From Professional Practice Doctorate Mentors. *Scope: Contemporary Research Topics (Work-Based Learning)*, *6*, 16–24. https://doi.org/10.34074/scop.6006007

Brynjolfsson, E. (2022). The Turing Trap: The Promise & Peril of Human-Like Artificial Intelligence. *Daedalus*, *151*(2), 272–287. https://doi.org/10.1162/daed_a_01915

C. Dannenberg, P. Lucas and K. E. Zegwaard (Eds.)
Work-Integrated Learning New Zealand 2025 Refereed Conference Proceedings
Eastern Institute of Technology, Napier, 15-16 April, 2025

53

Cath, C., Wachter, S., Mittelstadt, B., Taddeo, M., & Floridi, L. (2018). Artificial Intelligence and the 'Good Society': The US, EU, and UK approach. *Science and Engineering Ethics*, 24(2), 505–528. https://doi.org/10.1007/s11948-017-9901-7

Cortés Ricart, M. (2025, January 2). Advantages and challenges of AI in companies. *Beyond by Esade*. https://www.esade.edu/beyond/en/advantages-and-challenges-of-ai-in-companies/

Díaz-Rodríguez, N., Del Ser, J., Coeckelbergh, M., López de Prado, M., Herrera-Viedma, E., & Herrera, F. (2023). Connecting the dots in trustworthy Artificial Intelligence: From AI principles, ethics, and key requirements to responsible AI systems and regulation. *Information Fusion*, 99, 101896. https://doi.org/10.1016/j.inffus.2023.101896

Donohoo, J., Hattie, J., & Eells, R. (2018). The power of collective efficacy. *Educational Leadership*, 75(6), 40–44.

Engelbrecht, A. P. (2007). *Computational intelligence: An introduction* (2nd ed.). John Wiley & Sons.

Floridi, L., & Cowls, J. (2022). A Unified Framework of Five Principles for AI in Society. In *Machine Learning and the City* (pp. 535–545). John Wiley & Sons, Ltd. https://doi.org/10.1002/9781119815075.ch45

Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., Madelin, R., Pagallo, U., Rossi, F., Schafer, B., Valcke, P., & Vayena, E. (2018). AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations. *Minds and Machines*, 28(4), 689–707. https://doi.org/10.1007/s11023-018-9482-5

Harrison, J. G. (2021). *A developmental framework of practice for vocational and professional roles* [Doctor of Philosophy, Victoria University]. https://vuir.vu.edu.au/42717/1/HARRISON_Jame-thesis_nosignature.pdf

Harrison, J., & Roodt, H. (2022). *The legacy of John Dewey: His contribution to cyclical and iterative processes and its potential for addressing contemporary problems celebrating the work of John Dewey*.

Henry, S., Smith, E., Grant, G., Roodt, J. H., Anketell, L., Bjerre Tange, N., & Iskov, T. (2024). Unveiling the Unforeseen: Researchers' learning from a collaboration examining learner agency in vocational education across Canada, Denmark and New Zealand. *Journal of Innovation in Polytechnic Education*, 6(1).

How to Survive the A.I. Revolution. (2022, October 6). Stanford Graduate School of Business. https://www.gsb.stanford.edu/insights/how-survive-artificial-intelligence-revolution

Hurst, D. C., Clapperton, R., Dixon, R. J., & Morpurgo, M. T. (2021). Why a Virtual Co-Op?: A Case Study on an Artificially-Intelligent Work Integration Simulation. In *Developments in Virtual Learning Environments and the Global Workplace* (pp. 289–309). IGI Global Scientific Publishing. https://doi.org/10.4018/978-1-7998-7331-0.ch015

Jacoby, D., Savage, S., & Coady, Y. (2024). Remote Possibilities: Where There Is a WIL, Is There a Way? AI Education for Remote Learners in a New Era of Work-Integrated-Learning. *Proceedings of the AAAI Symposium Series*, 3(1), Article 1. https://doi.org/10.1609/aaaiss.v3i1.31261

Krzywdzinski, M., Gerst, D., & Butollo, F. (2023). Promoting human-centred AI in the workplace. Trade unions and their strategies for regulating the use of AI in Germany. *Transfer: European Review of Labour and Research*, 29(1), 53–70. https://doi.org/10.1177/10242589221142273

Morley, J., Floridi, L., Kinsey, L., & Elhalal, A. (2020). From What to How: An Initial Review of Publicly Available AI Ethics Tools, Methods and Research to Translate Principles into Practices. *Science and Engineering Ethics*, 26(4), 2141–2168. https://doi.org/10.1007/s11948-019-00165-5

Nicolescu, B. (2014). Methodology of Transdisciplinarity. *World Futures*, 70(3–4), 186–199. https://doi.org/10.1080/02604027.2014.934631

Nixdorf, S., Ansari, F., & Sihn, W. (2021). Work-Based Learning in Smart Manufacturing: Current State and Future Perspectives. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3858379

Pollard, E. (2024). Back to the Future: Everything You Wish You'd Asked Derrida About ChatGPT When You Had the Chance! *Cultural Studies Critical Methodologies*, 24(4), 232–239. https://doi.org/10.1177/15327086241232722

Popenici, S. (2022). Artificial Intelligence and Learning Futures: Critical Narratives of Technology and Imagination in Higher Education (1st ed.). Routledge. https://doi.org/10.4324/9781003266563

Rodgers, C. (2010). Coalitions, conversations and complexity - the challenge of change in the public sector. *International Journal of Leadership in Public Services*, 6(4), 31–37. https://doi.org/10.5042/ijlps.2010.0635

Roodt, J. H., & Koen, H. (2020). A Review of Hurdles to Adopting Industry 4.0 in Developing Countries. *INCOSE International Symposium*, 30(1), 1079–1092. https://doi.org/10.1002/j.2334-5837.2020.00773.x

Selenko, E., Bankins, S., Shoss, M., Warburton, J., & Restubog, S. L. D. (2022). Artificial Intelligence and the Future of Work: A Functional-Identity Perspective. *Current Directions in Psychological Science*, 31(3), 272–279. https://doi.org/10.1177/09637214221091823

Shneiderman, B. (2020). Bridging the Gap Between Ethics and Practice: Guidelines for Reliable, Safe, and Trustworthy Human-centered AI Systems. *ACM Transactions on Interactive Intelligent Systems*, 10(4), 1–31. https://doi.org/10.1145/3419764

Simon, H. A. (1988). The Science of Design: Creating the Artificial. *Design Issues*, 4(1/2), 67–82.

Smuha, N. A. (2021). From a 'race to AI' to a 'race to AI regulation': Regulatory competition for artificial intelligence. *Law, Innovation and Technology*, 13(1), 57–84. https://doi.org/10.1080/17579961.2021.1898300

Taylor, J., Andrew, M., & Woodward, D. (2024). Adapting to Change: Pedagogical Insights From Chinese Transnational Programmes in Chengdu and Dalian. *Scope: Contemporary Research Topics (Work-Based Learning)*, 6, 62–70. https://doi.org/10.34074/scop.6006001

Woermann, M., & Cilliers, P. (2012). The ethics of complexity and the complexity of ethics. *South African Journal of Philosophy*, 31(2), 447–463.

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54