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Education + Training

Developing graduate employability through a credit-bearing, curriculum-embedded internship: an education–industry partnership case from Japan

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Shinji Noguchi, Jiao Li, Aoi Sugiyama, Ikuma Hori, Jieyu Zhao, Mizuho Munakata, Yoshitomo Yamasaki and Frances Chikanda
(Information about the authors can be found at the end of this article.)

Abstract

Purpose – To examine how a credit-bearing, curriculum-embedded graduate internship in Japan develops graduate employability and how reflection translates specialised academic knowledge into professional judgement.

Design/methodology/approach – A qualitative case study of a year-long graduate course at a university in Japan in which postgraduate students worked with industry and public-sector partners on digital transformation challenges. Questionnaires were completed by 16 students, seven instructors and four partner organisations, combining Likert items and open-ended responses; these were analysed using reflexive thematic analysis, supported by descriptive statistics used to contextualise the qualitative findings.

Findings – Students reported gains in career relevance, problem-solving and cross-disciplinary communication. Four themes emerged: authentic data work strengthened analytical capability; reflection translated specialised knowledge into professional judgement; interdisciplinary collaboration fostered boundary-crossing communication; and tensions between innovation and feasibility, autonomy and scaffolding, and academic and partner expectations became productive sites of learning.

Research limitations/implications – The study examines a single programme at one university using self-report data, so findings are analytically rather than statistically generalisable; comparative and longitudinal research is needed.

Practical implications – The case identifies four transferable design principles for graduate work-integrated learning and education–industry partnerships: curricular embedding, structured reflection, scoped authentic ambiguity and explicit interdisciplinary facilitation.

Originality/value – A rare empirical account of a year-long, curriculum-embedded graduate internship in Japan, reframing graduate employability as the development of professional judgement through structured reflection rather than the accumulation of discrete skills.

Keywords Graduate employability, Work-integrated learning, Internships, Curriculum design, Education–industry partnership, Transition to work, Professional identity

Paper type Research article

1. Introduction

The development of graduate employability has become a defining concern for higher education, yet it poses a distinctive challenge. Graduate students already hold advanced disciplinary knowledge; their difficulty is less about acquiring basic workplace skills than about translating that specialised knowledge into professional capability – mobilising it in

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unfamiliar organisational settings, communicating it to non-specialists and exercising judgement under real constraints. How graduate education can be designed to develop this capability – and in particular how it helps students turn specialised knowledge into professional judgement – is the practical problem this study addresses.

Universities' primary mission remains the advancement and transmission of disciplinary knowledge. Increasingly, however, they are also expected to help students apply that knowledge across contexts, communicate with diverse stakeholders and navigate uncertain labour-market conditions. Rather than displacing this core purpose, the employability agenda has been pursued as an additional dimension of graduate education, for example, through internships and other work-integrated opportunities that complement disciplinary study (Tomlinson, 2017; Yorke, 2006). Work-integrated learning (WIL) has therefore become a prominent pedagogical response because it connects academic study with authentic work-related activity and gives students opportunities to test, refine and communicate their knowledge in professional settings (Billett, 2009; Ferns *et al.*, 2025; Jackson, 2015).

Within this literature, internships remain one of the most visible forms of WIL. Research consistently shows that well-designed internships can enhance technical capability, teamwork, communication, confidence and career readiness (Jackson and Dean, 2023; Smith, 2012; Wilton, 2012). At the same time, recent scholarship has widened the scope of WIL beyond conventional placements to include consultancies, projects and transdisciplinary partnerships with external organisations (Ferns *et al.*, 2025; Jackson *et al.*, 2025). This broader framing is useful for graduate education, where students may already hold advanced disciplinary expertise and may benefit from WIL formats that involve complex problem framing, knowledge translation and stakeholder negotiation rather than only task execution. A recent systematic review of employability interventions in higher education further confirms that practical-experience interventions, including internships and other forms of WIL, deliver the greatest gains in graduate employability and that strong communication between higher education institutions and employer partners is pivotal to their effectiveness (Barachino *et al.*, 2025). Education–industry partnership is therefore not a peripheral feature of effective WIL but a constitutive one: recent mixed-methods evidence, although situated in vocational education, indicates that deeper, institutionalised industry collaboration is associated with more responsive, co-developed curricula and stronger employment outcomes (Zhang, 2026).

Despite this growing interest, the empirical base remains uneven. Much of the WIL literature is still centred on undergraduate students and on Anglophone contexts such as Australia, Canada and the United Kingdom. Recent work has started to examine postgraduate participation in WIL and has shown that graduate engagement remains comparatively underexplored (Jackson, 2025). Less is known about how credit-bearing internships operate in research-intensive graduate programmes, how students convert specialised academic knowledge into workplace-relevant capability and how these processes unfold in non-Anglophone higher education systems.

Japan provides an especially important context for addressing this gap. As Kameno (2023) argues, internships in Japan have expanded rapidly, yet they are often short in duration and frequently positioned at the intersection of education and recruitment. Compared with long-established cooperative education models in North America or sandwich courses in the United Kingdom, Japanese internships have commonly been extra-curricular, compressed and closely entangled with hiring logics (Kameno, 2023). This makes credit-bearing, extended and assessed internships in graduate education analytically significant. Such programmes may reveal not only whether WIL "works", but also how its educational purposes are negotiated within a national context where internships have often served multiple and sometimes competing functions.

The graduate context adds another layer of complexity. In Japanese research universities, graduate students commonly organise their studies through laboratory or supervisor-based research communities, and many also navigate the highly structured new-graduate job-hunting process known as shukatsu (Tanuma, 2026; Zheng and Deng, 2025). In the case examined

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here, participation in the internship course required the consent of students' supervisors, and student and instructor responses repeatedly referred to the challenge of balancing project work with laboratory research and job hunting. These pressures make graduate WIL more than a simple extension of undergraduate internship models.

This study examines a credit-bearing internship programme at a university in Japan in which graduate students from diverse disciplines collaborated with partner organisations on digital transformation (DX) challenges. The article addresses one central question: how does a credit-bearing, curriculum-embedded graduate internship develop graduate employability, and specifically how does reflection translate students' specialised academic knowledge into professional judgement? In pursuing this question, we also attend to the programme design features and tensions that shape this process.

The article makes three contributions. Empirically, it offers a rare case of graduate-level, credit-bearing WIL from Japan. Conceptually, it argues that the key outcome of this programme was not the accumulation of discrete employability skills but the emergence of professional judgement through reflection on real constraints. Practically, it identifies design features that may travel beyond Japan, while also specifying which findings are tied to the Japanese internship and graduate education context.

2. Literature review

2.1 Work-integrated learning and graduate employability in international context

WIL is widely understood as a curriculum-based approach that integrates academic learning with authentic work-related experience and external stakeholder engagement (Billett, 2009; Jackson, 2015). Definitions vary, but there is broad agreement that WIL involves intentional educational design, meaningful engagement with workplaces or communities, and the integration of theory and practice through assessment and reflection. Its rapid international growth reflects mounting pressure on universities to demonstrate graduate outcomes. The analytically important question, however, is not whether WIL is associated with positive outcomes, but by what mechanisms it develops employability – and answering it requires a clearer account of what employability is.

Conceptions of employability have moved progressively away from narrow skills inventories. Yorke (2006) defined employability as a combination of achievements, understandings and personal attributes that make graduates more likely to gain employment and succeed in their occupations, and Tomlinson (2017) extended this by theorising employability as a set of graduate capitals – human, social, cultural, identity and psychological resources that graduates accumulate and convert into labour-market advantage. The graduate capital model is a clear advance on skills checklists because it treats employability as relational and resource-based rather than as a fixed list of competencies. Yet it remains a largely possessional account: employability is still framed as something graduates have and can bank. Holmes (2013) argues that such possessional perspectives must be set alongside positional and processual ones – employability is also shaped by students' social positioning and, crucially, emerges as a process in which graduates construct and lay claim to a viable professional identity that others come to affirm (Holmes, 2013). On this view, the decisive question for WIL is not only which capitals students accumulate, but how they learn to mobilise, translate and enact knowledge and identity in specific settings. It is at the level of process that the mechanisms linking WIL to employability must be located.

Research on internships and other forms of WIL has repeatedly reported gains in communication, teamwork, self-management and problem-solving (Smith, 2012; Wilton, 2012). Read through a processual lens, however, these outcomes are neither automatic nor uniform. Jackson and Dean (2023) show that different WIL forms make markedly different contributions to skill and employability outcomes (Jackson and Dean, 2023), and recent scholarship emphasises the growing diversity of WIL models, including consultancies and transdisciplinary partnerships that engage students with complex, externally owned problems

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(Ferns *et al.*, 2025; Jackson *et al.*, 2025). What such designs appear to add is not simply more practice, but occasions for students to apply and reframe knowledge under real constraints and to negotiate meaning with external stakeholders – the very processes through which possessed knowledge becomes enacted capability. The value of WIL, in other words, lies in how it works, not merely in that it works.

These processes take a distinctive form in graduate education. Graduate students typically enter WIL already holding advanced disciplinary expertise, so their task is less one of basic workplace socialisation than of mobilising and translating specialised knowledge in unfamiliar organisational settings. Yet postgraduate WIL remains comparatively under-researched: Jackson (2025) notes that taught-postgraduate participation varies markedly across disciplines and has attracted far less attention than the undergraduate case (Jackson, 2025). Graduate students also occupy an ambiguous position, expected to contribute expert knowledge while confronting greater role ambiguity, stronger research commitments and more complex career decisions. Understanding how employability develops for these students therefore requires attention to the specific processes – of knowledge translation, stakeholder negotiation and identity positioning – through which their expertise is remade for professional use.

2.2 Reflection, professional identity and professional judgement

If employability at graduate level develops through processes of translation and positioning, reflection is the mechanism that drives them. Experiential learning theory offers the classic account: Kolb (1984), building on Dewey and Lewin, conceptualises learning as a cycle in which concrete experience is transformed into knowledge through reflective observation, abstract conceptualisation and active experimentation (Kolb, 1984). The model rightly places reflection at the centre of learning from experience and remains foundational for WIL. It has, however, attracted sustained criticism. Commentators argue that Kolb's cycle is overly individualist and cognitivist, that its neat sequential form misrepresents the messiness of real learning and that it neglects the emotional, social and power-laden conditions under which reflection actually takes place (Miettinen, 2000; Vince, 1998). Vince (1998) in particular shows how anxiety, relationships and institutional power shape what can and cannot be reflected upon. For WIL, these critiques imply that reflection cannot be treated as a tidy solo cognitive loop; it is a situated, relational and often uncomfortable process embedded in real organisational relationships.

Understood this way, reflection does more than consolidate skills; it is how students renegotiate what their knowledge means and who they are becoming professionally. Studies of professional identity in higher education show that employability involves making sense of oneself in relation to a profession, its values and its expectations (Trede *et al.*, 2012). Jackson (2017) found that WIL supports pre-professional identity development precisely when students appraise and reflect on what they have observed, what they can contribute and where they still need to grow (Jackson, 2017). Reflection is thus simultaneously cognitive and relational: it involves reviewing what happened and positioning oneself in relation to disciplinary knowledge, workplace norms and future possibilities. This connects directly to the processual view of employability set out above (Holmes, 2013): reflection is the means through which the process of becoming employable – claiming, and having others affirm, a credible professional identity – is actually enacted.

We draw these threads together through the concept of professional judgement, which we use as an interpretive link between experiential learning and professional identity. By professional judgement we mean the situated capacity to decide what counts as a defensible, feasible and contextually appropriate course of action. Judgement is the outcome of reflection under real constraint: it is what develops when students must weigh evidence, feasibility, cost, audience and responsibility rather than simply apply a technique. For graduate students this is especially demanding, because they do not enter WIL as blank slates. They already possess

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specialised knowledge but must learn to translate it into forms that are meaningful to partner organisations, realistic within resource constraints and persuasive to nonspecialists – and it is reflection, feedback and dialogue that make this translation possible. Framing the outcome of graduate WIL as professional judgement, rather than as an enlarged inventory of skills, foregrounds the processes this study examines and specifies the mechanism – reflection on authentic constraint – that connects specialised knowledge to graduate employability.

2.3 The Japanese internship context and the research gap

The Japanese context sharpens the significance of these issues. Kameno (2023) shows that although official discourse often presents internships in Japan as educational experiences, in practice they have frequently been used for employment and recruitment purposes (Kameno, 2023). The same study also notes that many internships remain short in duration, even as participation expands. For international readers, this is important because it means that a year-long, credit-bearing internship embedded in a graduate curriculum is not simply a routine Japanese equivalent of a North American co-op placement or a British sandwich year. It is, rather, a comparatively distinctive educational design within the Japanese system.

Graduate education in Japan also carries specific structural conditions. Laboratory affiliation and supervisor guidance remain central to many students' academic lives, and satisfaction with the laboratory environment is closely tied to graduate students' well-being and sense of progress (Zheng and Deng, 2025). At the same time, shukatsu can impose substantial temporal and emotional demands because students engage in synchronised job-hunting activities while still enrolled (Tanuma, 2026). In the present case, these broader conditions were visible in both the formal structure of the course, which required supervisor consent, and in participants' own accounts of balancing research, internship tasks and job hunting.

Recent non-Anglophone evidence underscores the value of such context-sensitive accounts: a Vietnamese mixed-methods study, for example, identifies persistent areas for improvement across internship learning outcomes, internship support and internship assessment from the perspectives of multiple stakeholders (Thi Ngoc Ha and Dakich, 2022). Similarly, an emerging-market study using interpretive structural modelling shows that whether a university internship translates into employment depends on the interplay of multiple institutional, individual and labour-market factors rather than on participation alone (Alawamleh and Mahadin, 2022). Such evidence reinforces the need to examine not simply whether internships work, but how and under what conditions they develop employability.

Taken together, these factors reveal a clear gap in the literature. We need context-sensitive studies of credit-bearing internships in graduate education that move beyond confirming that WIL is broadly beneficial. Specifically, we need to understand how students learn under conditions of advanced specialisation, interdisciplinary collaboration and real organisational constraint, and how these processes operate in national systems where internships have historically been shaped by recruitment as much as education. Such conditions, together with the social and cultural pressures of laboratory life and shukatsu, are not readily captured by standardised instruments or decontextualised survey measures; they are experienced, interpreted and negotiated by participants *in situ*, and their meaning is bound up with the specific institutional and cultural setting in which they arise. Understanding how employability develops here therefore calls for a qualitative, interpretive approach that attends to participants' own accounts, to the tensions they navigate and to the contextual particulars that give those tensions meaning. A single, in-depth case study is well suited to this aim, because it examines the phenomenon in its real-life context and from multiple stakeholder perspectives (Stake, 1995; Yin, 2018). This study therefore addresses the gap through a qualitative case study of one graduate internship programme in Japan.

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3. Method

3.1 Research design

This study adopted a qualitative case study design (Stake, 1995; Yin, 2018). The case was a single graduate-level course at a university in Japan, examined over one academic year (2025). Consistent with a case study logic, we drew on multiple sources of evidence about this single bounded case – student, instructor and partner-organisation responses together with programme documents – which allowed us to triangulate participants' perceptions across stakeholders. The primary analysis was qualitative; a small set of Likert-scale items was used descriptively to contextualise the thematic analysis, not to make causal claims or population-level inferences. A case study was appropriate because the internship programme involved multiple stakeholders, evolving project conditions and context-specific organisational arrangements that would be difficult to capture through decontextualised survey analysis alone. The aim was analytical rather than statistical generalisation: to develop an in-depth account of how employability development was experienced and interpreted in a particular graduate WIL setting.

3.2 Programme context

The course was a graduate common subject titled "Practical Exercise for DX Problem Solving (Collaborative Internship) 2025". The course was offered as a 2-credit exercise class in an interdisciplinary career-management and internship category. The stated aim was to connect the specialised knowledge and problem-identification skills that students had acquired in graduate school with social implementation by working with regional companies and organisations on DX-related challenges. The course specified matching with partner organisations in May, acquisition of foundational DX knowledge, internship activity from June to October, a final presentation to each partner organisation in November and, where requested, a joint presentation in December. Assessment was based on the final presentation and a post-internship report (Table 1).

The programme was usually delivered in hybrid mode (71.4%), with the remainder conducted mainly online (28.6%). Projects typically ran from late spring or early summer to December, although one continued into March. Partner organisations included private companies, local government and regional organisations in sectors such as transport, tourism, hospitality, media and public administration. Students worked either individually or in small groups, most commonly groups of three.

Table 1. Key features of the internship course

Dimension	Description
Institutional position	Graduate common course, interdisciplinary, 2 credits, taught in Japanese
Pedagogical model	Credit-bearing collaborative internship focused on digital transformation (DX) challenges posed by companies and public-sector organisations
Project structure	Students worked individually or in small groups, most commonly groups of three, with partner organisations and supervising instructors
Timing	Orientation and matching in spring; project work mainly from June to October; partner presentations in November and a joint presentation in December when applicable
Mode of delivery	Mostly hybrid (71.4% of instructor responses), with the remainder mainly online; site visits were added when necessary
Assessment and reflection	Assessment was based on final presentations and a post-internship report. Repeated meetings with instructors, DX advisers and partner organisations created structured opportunities for feedback and reflection
Graduate-study constraints	Participation required supervisor consent, indicating that internship work had to be negotiated alongside laboratory research and, for some students, job hunting

Source(s): Authors' own work

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An internal report written by one supervising instructor illustrates the level of engagement that some projects involved. In that case, one student worked with a travel company from June to December, met the company approximately every two weeks, designed a 25-item user survey and analysed 1,870 responses to generate customer-loyalty recommendations. We use this report only as an illustrative programme document, not as evidence representative of all teams.

3.3 Participants and data sources

The study drew on three sources of data (Table 2). The student questionnaire included ten 5-point Likert items and three open-ended questions that asked respondents to identify the most valuable learning, the most difficult aspect of the project and suggestions for improving the programme. The instructor questionnaire included Likert-scale items on project design, autonomy, collaboration and support, followed by open-ended questions about skill development, changes in student behaviour, effective practices, challenges and improvements. The partner-organisation questionnaire included items on student contribution, usefulness of outputs, professionalism and satisfaction, plus open-ended comments on project value and future improvement.

3.4 Data analysis

The analysis proceeded in two stages, with priority given to the qualitative data. First, the Likert-scale items were summarised using simple descriptive statistics (means and the percentage of respondents selecting 4 or 5). Consistent with the qualitative case study design, these figures were not used to test hypotheses or to support population-level inference; they served only to identify broad patterns in the cohort and to contextualise the qualitative findings.

Second, and as the primary analysis, we conducted a reflexive thematic analysis of the open-ended questionnaire responses and programme documents (Braun and Clarke, 2006, 2021). The open-ended responses were collected through anonymous online questionnaires and analysed in full: all sixteen student, seven instructor and four partner-organisation responses were read repeatedly for familiarisation before coding began. The first author then coded the entire dataset manually, without qualitative data analysis software, staying close to participants' own wording and attending to reported learning, perceived changes, difficulties and improvement suggestions. These codes were collated and clustered into candidate themes, which were interpreted in light of the study's conceptual interests in employability, reflection, professional identity and professional judgement. The analysis was therefore abductive rather than purely inductive or deductive: coding remained data-near, while the movement from codes to themes was theoretically informed. This is consistent with reflexive thematic analysis, which treats coding as an active, situated and theory-informed practice rather than a

Table 2. Overview of data sources

Dimension	*n*	Content	Analytic role
Student questionnaire	16	Ten 5-point Likert items and three open-ended questions on learning, difficulty and programme improvement	Primary evidence on perceived learning outcomes and reflective sense-making
Instructor questionnaire	7	Likert items and open-ended questions on student development, project design, challenges and improvement	Triangulation of observed student change and programme design issues
Partner-organisation questionnaire	4	Likert items and open-ended comments on student contribution, usefulness of outputs, professionalism and collaboration	External perspective on the value and feasibility of student work

Source(s): Authors' own work

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purely data-driven or purely theory-driven procedure (Braun and Clarke, 2021; Timmermans and Tavory, 2012).

Four themes were developed. Consistent with reflexive thematic analysis, we did not seek inter-coder reliability or a single "correct" coding, as these are not the aims of this approach (Braun and Clarke, 2021). The first author led the coding and the development of themes; the co-authors then reviewed the codes and candidate themes and provided feedback, which was used to confirm that each theme was clearly bounded and adequately supported by the data. We actively sought and retained disconfirming and critical cases – for example, students who reported low motivation or disengagement, and instructors who noted that some students faded out of their projects – so that the themes represent the range of the data rather than only confirmatory accounts. Coding decisions, candidate themes and their successive revisions were documented and retained as an audit trail (see Section 3.6).

The internal programme reports were used throughout to enrich contextual understanding and to check whether participants' accounts were consistent with the formal programme structure. Triangulation across four data sources – students, instructors, partner organisations and programme documents – allowed each theme to be examined from multiple vantage points and strengthened the credibility of the analysis. Illustrative quotations reported in the Findings were selected to represent patterns recurring across the dataset, and were checked against the full set of responses to ensure they were typical rather than exceptional.

3.5 Ethics and reflexivity

Following a formal institutional determination at Hokkaido University, ethical review was deemed unnecessary for this study. The study focused exclusively on educational evaluation and graduate employability and fell outside the scope of Japan's Ethical Guidelines for Life Science and Medical Research Involving Human Subjects and the corresponding institutional regulations.

Participation in the questionnaires was voluntary and responses were anonymised prior to analysis. Students were informed that their responses would not affect course grades. Several authors were involved in teaching or supervising the programme. To reduce the risk of overly favourable interpretation, analysis drew on de-identified stakeholder responses, included perspectives from external partner organisations and involved discussion across authors from different disciplinary backgrounds. The quotations selected for reporting were also checked against the dataset to ensure they were illustrative rather than exceptional.

3.6 Trustworthiness and rigour

Because this is a qualitative case study, we assessed quality against criteria appropriate to interpretive research rather than the assumptions of statistical inference (Lincoln and Guba, 1985; Yin, 2018).

Credibility (addressing construct and internal validity) was pursued through triangulation across four independent data sources – students, instructors, partner organisations and programme documents – so that interpretations rested on convergent rather than single-source evidence. Selected quotations were checked against the full dataset to ensure they were illustrative rather than exceptional, and analytic decisions were debated among authors from different disciplinary backgrounds to surface and challenge individual readings.

Transferability (analytic rather than statistical generalisation) is supported by thick description of the programme context, participants and data sources (Sections 3.2, 3.3 and Tables 1 and 2), enabling readers to judge which findings might apply to their own settings. We are explicit that generalisation here is to theoretical propositions, not to populations (Yin, 2018).

Dependability and confirmability were addressed by documenting the two-stage descriptive and thematic procedure set out above in a form others could follow, and by retaining an audit trail of codes, candidate themes and their successive revisions.

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On *data saturation*, we did not seek or claim saturation, because saturation is not an appropriate criterion for the reflexive thematic analysis we adopt: this approach treats coding as an open-ended, interpretive and theoretically informed practice rather than a process that is "complete" when no new codes appear (Braun and Clarke, 2021). Instead, we judged the adequacy of the dataset in terms of its *information power* (Malterud *et al.*, 2016): the study's focused aim, the specificity of the case and participants, and the use of multiple stakeholder perspectives together provided sufficiently rich material to address the research question for this bounded case.

4. Findings

The reflexive thematic analysis produced four themes, each grounded in convergent evidence across students, instructors and partner organisations. The survey items provide descriptive context for these themes rather than a test of them. As Table 3 shows, students responded most positively to career relevance, problem-solving improvement, overall satisfaction and the helpfulness of support from teachers and partner mentors; instructors rated student autonomy and the learning value of digital tools and DX elements highly; and partner organisations rated students' contribution, the usefulness of outputs and overall satisfaction uniformly highly. These figures are read as contextual indicators, not as evidence of causal impact. The thematic analysis below explains how participants made sense of these outcomes and where they perceived tensions and limitations, noting where each theme was corroborated across all three stakeholder groups.

4.1 Authentic work with real data strengthened technical and analytical capability

A first theme concerned the value of authentic problem-solving with real data. Students repeatedly described the programme as different from classroom exercises because it required them to work with messy, incomplete or organisation-specific materials rather than with tidy examples prepared for teaching. This was visible in the quantitative data: three-quarters of student respondents reported strong gains in problem-solving, and more than half reported stronger understanding of DX. At the same time, fewer than half strongly agreed that they had become able to apply graduate-school knowledge to practical problems, suggesting that transfer was not automatic but had to be actively negotiated.

The open-ended responses help explain this pattern. One student wrote that "the appropriate use of data increased the persuasiveness of our proposed measures", while another commented that the project revealed how "in a corporate setting, data cleansing becomes the

Table 3. Selected descriptive indicators from student, instructor and partner questionnaires

Stakeholder	Item	Mean (1–5)	% Selecting 4 or 5
Students	Problem-solving improved	4.12	75.0
Students	Teamwork improved	3.63	62.5
Students	Communication across disciplines improved	3.69	56.3
Students	Experience useful for future career	4.31	81.3
Students	Support from teachers and mentors was helpful	3.88	68.8
Students	Overall learning experience was satisfactory	4.06	75.0
Instructors	Students were encouraged to proceed autonomously	4.57	100.0
Instructors	Collaboration with partner organisations was smooth	4.00	85.7
Instructors	DX tools/elements promoted student learning	4.43	100.0
Partner organisations	Students made a meaningful contribution	5.00	100.0
Partner organisations	Student outputs were useful or applicable	4.75	100.0

Source(s): Authors' own work

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main task". These comments indicate that students were not simply applying pre-existing analytical techniques. They were learning how evidence works under practical conditions, including the less glamorous but professionally important work of preparing and interpreting data.

Instructor responses reinforced this point. One instructor observed that students improved in "preparing appropriate data and arguments while anticipating the partner's needs". Another noted that students became better at "explaining analytical results in relation to the business context". These accounts suggest that the analytical gains reported by students involved a shift from method-centred work to context-sensitive analysis.

Partner-organisation responses also underscored the value of this external perspective. One partner wrote that the students proposed analytical viewpoints "from a third-party perspective", creating insights that the organisation itself had not previously noticed. Another partner commented that seeing artificial intelligence engaged in concrete work tasks opened "new possibilities" for business operations. These responses show that the educational value of the internship was not confined to students; it also depended on reciprocal engagement with organisational problems that were real enough to matter to partners.

An illustrative internal programme report from one team adds further texture. In that project, a student designed a 25-item survey for a regional travel company and analysed 1,870 user responses to differentiate high-loyalty and low-loyalty customers. Although this was only one team, it demonstrates that the course could generate substantive analytical work that extended well beyond a short workplace observation. Overall, the findings suggest that authentic data work helped students develop technical and analytical capability, but that such development took the form of reworking specialised knowledge rather than simply transferring it unchanged into practice. Read together, the student, instructor and partner accounts converge: all three groups located the value of the internship in authentic engagement with real, often messy data rather than in tidy classroom tasks.

4.2 Reflection and feedback converted specialised knowledge into professional judgement

The second theme directly addresses the reflection component of the central research question. Reflection emerged as the mechanism through which experience was turned into professional judgement. The course structure itself created multiple occasions for reflection: students met repeatedly with partner organisations and instructors, gave final presentations and submitted a post-internship report as part of the assessment. In the survey data, most students agreed that support from teachers and partner mentors was helpful, and a large majority reported that the experience would be useful for their future careers (Table 3); it was the open-ended accounts, however, that revealed how this support reshaped their thinking.

What students described as valuable learning was often not a discrete skill but a reframing of what constitutes a good solution. One student wrote that the project taught them to think about "what methods are needed to make a solution implementable in the real world". Another stated that it was important not merely to propose an idea, but to consider "whether it is feasible". A third wrote that the most difficult part of the project was "constructing a cost structure" because they lacked business knowledge. Such comments show students reflecting not only on technical adequacy, but also on feasibility, audience and implementation.

This reflective movement was also relational. One student explained that they learned to present while "anticipating what the other side wanted". Another wrote that feedback from teachers, advisers and company staff made the internship "practical learning" because it exposed them to comments from a social and professional standpoint. These responses suggest that reflection was mediated through dialogue with people who embodied different expectations of knowledge, evidence and relevance.

Instructors observed comparable shifts. One instructor noted that students became more able to infer "what the company was asking for". Another commented that, although some students were initially hesitant, they later began asking sharper questions and taking greater

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responsibility for presentation preparation. Partner organisations similarly linked the programme's value to discussion and feedback. One partner stated that the longer project period, compared with the previous year, enabled "careful discussion". Another wrote that the ideas generated by students of the same generation were educational not only for the organisation but also for its advertising agency.

These findings suggest that the main reflective outcome of the internship was the development of professional judgement. Students became more aware that professional work requires balancing evidence, originality, stakeholder expectations and implementation conditions. Reflection did not simply reinforce confidence. It also exposed gaps in knowledge, such as limited business understanding, and made students more realistic about what it takes to move from analytical insight to actionable proposal. In this sense, reflection functioned as a bridge between specialised academic knowledge and professional practice. This reading is triangulated: students, instructors and partners independently linked the programme's value to feedback, discussion and the movement from ideas to feasible proposals.

4.3 Interdisciplinary collaboration fostered boundary-crossing communication and agency

A third theme concerned interdisciplinary collaboration. The course brought together students from a wide range of graduate programmes, including public policy, media and communication, engineering, agriculture, health sciences, law, economics and science. This diversity mattered because partner organisations' DX problems were not easily reducible to a single disciplinary frame.

Students reported positive, though not uniformly overwhelming, gains in teamwork, cross-disciplinary communication and confidence in leading discussion (Table 3). Their open-ended responses indicate that these gains arose from the need to coordinate different forms of expertise. One student wrote that task management helped them learn how to move a team project forward and how to identify causes of problems during meetings. Another, an international student, described communication and teamwork as especially valuable learning. These comments suggest that interdisciplinary teamwork was experienced not simply as cooperation, but as a demanding process of translating knowledge and organising collective work.

Instructor responses provided further evidence of this developmental process. One instructor wrote that, at the beginning, students often did not know each other's expertise and therefore found role division difficult. Over time, however, communication enabled them to understand one another's strengths, clarify responsibilities and develop trust. Another instructor observed that students who were initially reluctant to speak during online meetings later became more active, with a leader emerging naturally and guiding the team. These responses indicate that agency developed through interaction rather than being present from the outset.

The partner-organisation data also suggest that interdisciplinary communication was visible externally. Partners rated students highly for responsibility and professionalism and repeatedly referred to the value of fresh viewpoints. One partner commented that students' proposals influenced a wide range of project participants, including administrative staff, because they combined data collection, analysis and policy-oriented thinking. Another partner noted that frequent meetings with motivated students strengthened collaboration.

Taken together, these findings suggest that interdisciplinary composition was not simply a background feature of the programme. It was a central mechanism through which students developed boundary-crossing capability: the ability to explain specialised expertise to non-specialists, to interpret problems that cut across domains and to take initiative in collective work. This is especially significant in graduate education, where students are often deeply socialised into disciplinary norms and may have had fewer prior opportunities to work

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across epistemic boundaries. Again, the three data sources converge, with instructors and partners corroborating students' accounts of boundary-crossing communication and emergent agency.

4.4 The central tensions of graduate WIL: innovation, feasibility and coordination

The fourth theme concerns tensions that ran across the dataset. These tensions were not marginal problems; they were constitutive of the learning process. The pattern resonates with non-Anglophone evidence elsewhere: for example, Thi Ngoc Ha and Dakich (2022) identify tensions in internship learning outcomes, support and assessment as recurring sites for improvement across stakeholder perspectives (Thi Ngoc Ha and Dakich, 2022).

The first tension was between innovation and feasibility. Students frequently described the difficulty of moving from interesting ideas to implementable proposals. One respondent wrote that the project goal was vague, making it hard to define the problem clearly. Another said that the most difficult task was achieving both feasibility and originality. A third reported that, while they had prior experience analysing data in graduate school, turning that analysis into a viable proposal required business understanding they did not yet possess. These comments show that the challenge was not simply generating ideas, but generating ideas that could survive organisational realities.

The second tension was between autonomy and scaffolding. Instructor questionnaire data strongly affirmed that students were encouraged to proceed autonomously, and this autonomy was clearly valued. Yet the same dataset also revealed repeated calls for more structure. Students asked for clearer definitions of DX, more examples of similar cases, more advice from a wider range of people and better opportunities for mid-course presentations. Instructors likewise reflected on the difficulty of judging how much control they should exercise. One wrote that it was challenging to decide "how far the teacher should be involved in supporting problem solving". Another noted that the framework and process had remained too unclear in the early stages of the project. These comments suggest that effective graduate WIL requires guided ambiguity rather than either complete openness or excessive prescription.

The third tension was between academic schedules and partner expectations. Several students referred to the burden of producing materials weekly while also managing laboratory research and job hunting. Instructors similarly reported that students' research commitments made it difficult to secure sufficient time for the internship, and one response described how less-engaged students eventually faded out or withdrew. Partner organisations, meanwhile, requested clearer leadership on scheduling and less time-consuming administrative procedures. One partner suggested that it should be made explicit whether the university or the organisation is responsible for leading the timetable. Another noted that a single-student project seemed especially demanding and might have been easier with at least two students.

A related issue was workload recognition. Because the course carried only two credits, some students and instructors suggested that the formal credit allocation understated the time required. Others proposed stronger pre-learning or more interim review opportunities so that students would not spend too much of the project period clarifying goals. These comments reinforce the point that the tensions identified here were not accidental implementation problems. They were tied to the basic challenge of inserting substantial WIL activity into research-intensive graduate study.

Overall, the programme's value did not lie in eliminating these tensions. Rather, learning often occurred through students' attempts to navigate them. However, the data also make clear that such tensions require careful programme design if they are to remain productive rather than merely exhausting. These tensions surfaced across students and instructors alike, and partners echoed the coordination and scheduling difficulties, indicating that they were structural features of the programme rather than isolated complaints.

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5. Discussion

5.1 Beyond skill acquisition: graduate employability as professional judgement and identity work

This study supports the broad WIL literature in showing that credit-bearing internships can enhance graduate students' technical and transferable capabilities. Students reported gains in problem-solving, teamwork, communication and career relevance, while instructors and partner organisations offered convergent evidence that students became more proactive and professionally engaged. Yet the more distinctive contribution of this case lies elsewhere. The findings suggest that graduate employability in WIL is not best understood as the accumulation of discrete skills alone. It is better understood as the development of professional judgement through reflection on practice.

This interpretation is supported by the lower student rating for the direct application of graduate-school knowledge (43.8% positive) compared with much higher ratings for problem-solving and career relevance. The internship did not simply allow students to "use" existing knowledge. Instead, it required them to interrogate what counts as relevant knowledge under organisational constraints. This is where reflection mattered. Students learned to consider feasibility, cost, implementation, audience and responsibility, thereby reworking specialised expertise into forms that could function in practice.

These findings carry several theoretical implications. First, they refine how graduate employability is theorised. Dominant accounts frame it either as a set of skills and attributes (Yorke, 2006) or as forms of graduate capital that individuals accumulate and deploy (Tomlinson, 2017). Our analysis suggests that, at graduate level, what matters is less the possession of discrete skills or capitals than the capacity to exercise professional judgement – to determine what counts as a defensible, feasible and contextually appropriate course of action when specialised knowledge meets organisational constraint. Professional judgement is not one more item to add to a list of capitals; it is the integrative, situated capability through which such resources are mobilised. This reframes employability as something enacted in context rather than simply possessed.

Second, the study extends experiential learning theory while addressing a known limitation. Seen through the lens of experiential learning, the shifts we observed illustrate the importance of reflective observation and re-conceptualisation (Boud *et al.*, 1985; Kolb, 1984); yet Kolb's cycle has been criticised for underplaying the social, relational and power-laden conditions in which reflection takes place (Miettinen, 2000). Our case supports and specifies this critique: reflection developed judgement precisely because it was relational and dialogic – mediated through feedback from instructors and partners, and prompted by the friction between analytically attractive ideas and organisational feasibility – rather than being a solitary cognitive cycle. This links experiential learning to work on professional identity in WIL: Trede *et al.* (2012) argue that higher education needs stronger connections between workplace learning and professional identity development, and Jackson (2017) highlights reflection as crucial to that process. We extend these arguments to graduate students who are not novices: because they already hold advanced expertise, their development involved renegotiating that expertise across disciplinary and organisational boundaries rather than forming a professional self from scratch. Professional judgement thus serves as a conceptual bridge between experiential learning and professional identity – what emerges is not only a stronger sense of readiness, but a more realistic sense of what it means to exercise judgement in professional contexts.

Finally, the analysis reframes the tensions observed in graduate WIL as theoretically productive rather than as implementation failures. The tensions between innovation and feasibility, autonomy and scaffolding, and academic and partner expectations were the very conditions under which judgement was exercised and learned. This suggests that theory should treat such tensions as constitutive features of WIL to be designed for, not as noise to be removed.

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5.2 Why the Japanese context matters, and what travels beyond it

The Japanese setting is central to this argument, but it does not confine the article's relevance. Some aspects of the case are clearly context-specific. First, the programme studied here was unusual within a national internship environment where short, recruitment-oriented experiences remain common (Kameno, 2023). Second, the course had to operate alongside laboratory-based graduate study and the pressures of shukatsu, both of which shaped student time, motivation and availability. Third, the course relied heavily on hybrid coordination with regional organisations rather than on a block-placement model.

At the same time, the case speaks directly to international debates in WIL. Recent international scholarship emphasises the growing diversity of WIL forms and the importance of careful curriculum design, reflection and stakeholder partnership (Ferns *et al.*, 2025; Jackson *et al.*, 2025). The present study reinforces those arguments, but does so through a graduate-level case in which students were not novices to higher learning, only to cross-sector application. The findings therefore show how WIL can function when students already possess specialised knowledge but must learn to communicate, adapt and make judgements across disciplinary and organisational boundaries.

The transferability of the findings is therefore selective rather than universal. What is most clearly transferable beyond Japan is the importance of four design principles: curricular embedding, structured reflection, scoped but authentic ambiguity, and explicit support for interdisciplinary collaboration. What is more context-bound is the specific way these principles interact with Japan's internship ecology, recruitment culture and graduate laboratory structure. Making this distinction explicit matters because it avoids two opposite errors: treating the case as merely local, and treating it as universally generalisable.

5.3 Implications for programme design and management

Several practical implications follow from the analysis for educators, curriculum designers, programme leaders and partner organisations seeking to develop graduate employability through credit-bearing internships. The four design principles articulated here – curricular embedding, structured reflection, scoped authentic ambiguity and explicit interdisciplinary facilitation – build on existing evidence that practical-experience interventions and structured employer collaboration are central to effective employability development (Barachino *et al.*, 2025; O'Regan *et al.*, 2023). First, graduate WIL benefits from stronger front-end design. Students valued authentic problems, but vague goals often produced confusion rather than productive uncertainty. Pre-WIL alignment between universities and partner organisations should therefore specify realistic project scope, anticipated data access, modes of communication and what a feasible final output looks like.

Second, reflection should be designed as a core pedagogical mechanism rather than treated as a final add-on. In this programme, feedback meetings, final presentations and reflective reports helped students convert experience into professional judgement. These opportunities could be strengthened further through scheduled mid-point review sessions, cross-team presentations and explicit reflective prompts focused on feasibility, stakeholder expectations and knowledge translation.

Third, workload and timing need to be calibrated to the realities of graduate study. Because students were balancing laboratory research, thesis-related work and job hunting, an ostensibly small-credit internship could still become highly demanding. Formal credit allocation, milestone planning and supervisor communication should therefore be aligned more closely with actual workload. In contexts like Japan, where graduate research communities and job-hunting cycles strongly shape student time, this calibration is especially important.

Fourth, interdisciplinary teams require facilitation. Students did not automatically know how to mobilise one another's expertise. Early activities that map disciplinary strengths, clarify roles and establish shared language may help students move more quickly from

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uncertainty to productive collaboration. This point is relevant well beyond Japan, especially for WIL models that address complex societal or digital-transformation problems.

Finally, the case carries specific implications for managers in partner organisations and for those coordinating education–industry partnerships. First, partner organisations gain most when they treat student teams not as short-term labour but as a source of external, cross-disciplinary perspective: framing projects around genuine but appropriately scoped problems allowed students to surface insights the organisations had not previously noticed. Second, managers should invest early in clarifying ownership of scheduling, data access and administrative procedures, since partners identified unclear leadership over timetables and time-consuming coordination as the main barriers to value. Third, assigning a stable organisational contact and maintaining a regular meeting rhythm – rather than ad hoc engagement – was associated with richer discussion and stronger outputs. For managers weighing the return on hosting graduate interns, the value lies less in immediate deliverables than in access to boundary-crossing analysis and in cultivating graduates who understand the organisation's context; realising that value depends on committing coordination capacity up front.

5.4 Limitations and future research

This study has several limitations that qualify its findings. First, the analysis draws primarily on questionnaire data, Likert items and open-ended written responses, rather than on interviews or observation, which limited our ability to probe participants' reasoning in depth or to trace how their judgement developed in real time. Second, the data were collected after the programme, so accounts are retrospective and subject to recall and post-hoc rationalisation, and the absence of a baseline means we cannot document change directly. Third, several members of the research team taught or supervised the programme, which may have encouraged favourable self-presentation by respondents and favourable interpretation by analysts; we mitigated, but cannot fully eliminate, this through de-identification, the inclusion of external partner perspectives and cross-author discussion. Fourth, respondents were drawn only from participating teams and the partner sample in particular was small (four organisations), so more critical or disengaged perspectives – including those of students who withdrew – are likely under-represented. We distinguish these design- and data-specific limitations from the analytic (rather than statistical) generalisation that is a deliberate feature of case study research.

The study is also limited by the uneven granularity of its documentary evidence. The results of the questionnaire were available only from those teams that participated in the survey; therefore, the data were used illustratively rather than representatively. Future research could address this limitation by collecting systematic reflective journals, meeting observations or artefacts from multiple teams across a full programme cycle.

Comparative work would also be valuable. Similar graduate-level WIL programmes in other Japanese institutions, or cross-national comparisons with postgraduate WIL in Australia, Canada or Europe, could help clarify which tensions are widely shared and which are shaped by particular national systems. Longitudinal follow-up with graduates and partner organisations would also help examine whether the professional judgement described here endures beyond the course itself.

6. Conclusion

This article examined a credit-bearing graduate internship programme in Japan and asked how it develops graduate employability – specifically, how reflection translates students' specialised knowledge into professional judgement – while attending to the programme design features and tensions that shape this process. The central finding was a shift in what the

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internship developed: from the accumulation of discrete skills to the emergence of professional judgement.

That shift occurred because students were required to work on authentic organisational problems, communicate across disciplinary boundaries and reflect on the gap between analytically attractive ideas and professionally feasible proposals. Reflection and feedback were central to this process, enabling students to rethink their own expertise, limitations and responsibilities. In this sense, employability development in graduate WIL involved professional identity work as much as skill acquisition.

The Japanese context matters because it highlights the significance of a curricular, extended internship in a system where internships have often been short, extra-curricular and recruitment-linked. Yet the case also speaks to broader international concerns in higher education. As universities seek to build more meaningful forms of WIL, the key lesson is not simply to provide students with access to workplaces. It is to create structured, credit-bearing experiences in which students can test specialised knowledge, receive feedback, confront real constraints and learn how to exercise judgement in collaboration with others.

Author contributions

Shinji Noguchi served as the program instructor and led all aspects of the research. He was responsible for conceptualizing and designing the study to evaluate the program's effectiveness. He led the development and administration of the survey instruments, performed data collection and analysis, conducted the literature review and prepared the original draft of the manuscript. *Jiao Li*, *Aoi Sugiyama*, *Ikuma Hori*, *Jieyu Zhao*, *Mizuho Munakata* and *Yoshitomo Yamasaki* served as program instructors, facilitated survey distribution and contributed to the critical discussion and refinement of the manuscript. *Frances Chikanda* contributed to the critical review of the manuscript based on teaching experience and provided a comparative perspective on similar international programmes outside Japan.

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References

Alawamleh, M. and Mahadin, B.K. (2022), "Will university internship secure you a job?: interplaying factors from an emerging market perspective", *Education + Training*, Vol. 64 No. 4, pp. 491-515, doi: 10.1108/ET-03-2021-0093.

Barachino, H., Timmermans, A., Venhorst, V.A. and van Dijk, J. (2025), "Operationalization of graduate employability interventions in higher education – a systematic review", *Education + Training*, Vol. 67 No. 10, pp. 89-110, doi: 10.1108/ET-10-2024-0463.

Billett, S. (2009), "Realising the educational worth of integrating work experiences in higher education", *Studies in Higher Education*, Vol. 34 No. 7, pp. 827-843, doi: 10.1080/03075070802706561.

Boud, D., Keogh, R. and Walker, D. (1985), *Reflection: Turning Experience into Learning*, Routledge, London, doi: 10.4324/9781315059051.

Braun, V. and Clarke, V. (2006), "Using thematic analysis in psychology", *Qualitative Research in Psychology*, Vol. 3 No. 2, pp. 77-101, doi: 10.1191/1478088706qp063oa.

Braun, V. and Clarke, V. (2021), "To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales", *Qualitative Research in Sport, Exercise and Health*, Vol. 13 No. 2, pp. 201-216, doi: 10.1080/2159676X.2019.1704846.

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Ferns, S.J., Zegwaard, K.E., Pretti, T.J. and Rowe, A.D. (2025), "Defining and designing work-integrated learning curriculum", *Higher Education Research and Development*, Vol. 44 No. 2, pp. 371-385, doi: 10.1080/07294360.2024.2399072.

Holmes, L. (2013), "Competing perspectives on graduate employability: possession, position or process?", *Studies in Higher Education*, Vol. 38 No. 4, pp. 538-554, doi: 10.1080/03075079.2011.587140.

Jackson, D. (2015), "Employability skill development in work-integrated learning: barriers and best practice", *Studies in Higher Education*, Vol. 40 No. 2, pp. 350-367, doi: 10.1080/03075079.2013.842221.

Jackson, D. (2017), "Developing pre-professional identity in undergraduates through work-integrated learning", *Higher Education*, Vol. 74 No. 5, pp. 833-853, doi: 10.1007/s10734-016-0080-2.

Jackson, D. (2025), "A deep dive into taught postgraduates' participation in work-integrated learning", *Higher Education Research and Development*, Vol. 44 No. 7, pp. 1701-1719, doi: 10.1080/07294360.2025.2525118.

Jackson, D. and Dean, B.A. (2023), "The contribution of different types of work-integrated learning to graduate employability", *Higher Education Research and Development*, Vol. 42 No. 1, pp. 93-110, doi: 10.1080/07294360.2022.2048638.

Jackson, D., Lambert, C. and Coetzee, S. (2025), "Transdisciplinary work-integrated learning's contribution to societal transition: a scoping review", *Higher Education Research and Development*, Vol. 44 No. 6, pp. 1480-1496, doi: 10.1080/07294360.2025.2514509.

Kameno, J. (2023), "Is Japanese internship for the purpose of education or recruitment?: a study of its historical background, and recent changes and future challenges", *Japan Labor Issues*, Vol. 7 No. 41, pp. 19-34.

Kolb, D.A. (1984), *Experiential Learning: Experience as the Source of Learning and Development*, Prentice-Hall, Englewood Cliffs, NJ.

Lincoln, Y.S. and Guba, E.G. (1985), *Naturalistic Inquiry*, SAGE Publications, Beverly Hills, CA.

Malterud, K., Siersma, V.D. and Guassora, A.D. (2016), "Sample size in qualitative interview studies: guided by information power", *Qualitative Health Research*, Vol. 26 No. 13, pp. 1753-1760, doi: 10.1177/1049732315617444.

Miettinen, R. (2000), "The concept of experiential learning and John Dewey's theory of reflective thought and action", *International Journal of Lifelong Education*, Vol. 19 No. 1, pp. 54-72, doi: 10.1080/026013700293458.

O'Regan, M., Carthy, A., McGuinness, C. and Owende, P. (2023), "Employer collaboration in developing graduate employability: a pilot study in Ireland", *Education + Training*, Vol. 65 No. 10, pp. 1-13, doi: 10.1108/ET-03-2022-0081.

Smith, C. (2012), "Evaluating the quality of work-integrated learning curricula: a comprehensive framework", *Higher Education Research and Development*, Vol. 31 No. 2, pp. 247-262, doi: 10.1080/07294360.2011.558072.

Stake, R.E. (1995), *The Art of Case Study Research*, SAGE Publications, Thousand Oaks, CA.

Tanuma, S. (2026), "Overcoming shūkatsu allergy: use of anthropological and sociological works on job hunting at a university class in Japan", *Journal of Contemporary East Asia Studies*, Vol. 14 No. 1, pp. 83-98, doi: 10.1080/24761028.2026.2636380.

Thi Ngoc Ha, N. and Dakich, E. (2022), "Student internship experiences: areas for improvement and student choices of internship practices", *Education + Training*, Vol. 64 No. 4, pp. 516-532, doi: 10.1108/ET-09-2021-0337.

Timmermans, S. and Tavory, I. (2012), "Theory construction in qualitative research: from grounded theory to abductive analysis", *Sociological Theory*, Vol. 30 No. 3, pp. 167-186, doi: 10.1177/0735275112457914.

Tomlinson, M. (2017), "Forms of graduate capital and their relationship to graduate employability", *Education + Training*, Vol. 59 No. 4, pp. 338-352, doi: 10.1108/ET-05-2016-0090.

Downloaded from www.emerald.com/et/article-pdf/68/10/291/11955937/et-05-2026-0602en.pdf by Harvard University user on 06 November 2026

Trede, F., Macklin, R. and Bridges, D. (2012), "Professional identity development: a review of the higher education literature", *Studies in Higher Education*, Vol. 37 No. 3, pp. 365-384, doi: 10.1080/03075079.2010.521237.

Vince, R. (1998), "Behind and beyond Kolb's learning cycle", *Journal of Management Education*, Vol. 22 No. 3, pp. 304-319, doi: 10.1177/105256299802200304.

Wilton, N. (2012), "The impact of work placements on skills development and career outcomes for business and management graduates", *Studies in Higher Education*, Vol. 37 No. 5, pp. 603-620, doi: 10.1080/03075079.2010.532548.

Yin, R.K. (2018), *Case Study Research and Applications: Design and Methods*, 6th ed., SAGE Publications, Thousand Oaks, CA.

Yorke, M. (2006), *Employability in Higher Education: What It Is – What It Is Not , Learning and Employability Series One*, The Higher Education Academy, York.

Zhang, Y. (2026), "Strategic industry partnerships drive reform in vocational curriculum development", *Education + Training*, Vol. 68 No. 9, pp. 1-11, doi: 10.1108/ET-06-2025-0442.

Zheng, L. and Deng, W. (2025), "Does graduate students' satisfaction with research laboratory affect their anxiety? Findings from a cross-sectional study at a Japanese university", *Frontiers in Psychology*, Vol. 16, 1473555, doi: 10.3389/fpsyg.2025.1473555.

Author Affiliations

Shinji Noguchi, Institute for Integrated Innovations, Hokkaido University, Sapporo, Japan; John A. Paulson School of Engineering and Applied Sciences, Harvard University, Cambridge, Massachusetts, USA and Faculty of Advanced Life Science, Hokkaido University, Sapporo, Japan

Jiao Li, Institute for Integrated Innovations, Hokkaido University, Sapporo, Japan; Faculty of Media and Communication, Hokkaido University, Sapporo, Japan and Faculty of Administrative Studies, Prefectural University of Kumamoto, Kumamoto, Japan

Aoi Sugiyama, Institute for Integrated Innovations, Hokkaido University, Sapporo, Japan and Faculty of Advanced Life Science, Hokkaido University, Sapporo, Japan

Ikuma Hori and Jieyu Zhao, Institute for Integrated Innovations, Hokkaido University, Sapporo, Japan Faculty of Health Sciences, Hokkaido University, Sapporo, Japan

Mizuho Munakata, Institute for Integrated Innovations, Hokkaido University, Sapporo, Japan and Faculty of Science, Hokkaido University, Sapporo, Japan

Yoshitomo Yamasaki, Institute for Integrated Innovations, Hokkaido University, Sapporo, Japan and Research Faculty of Agriculture, Hokkaido University, Sapporo, Japan

Frances Chikanda, Institute for Integrated Innovations, Hokkaido University, Sapporo, Japan; Faculty of Engineering, Hokkaido University, Sapporo, Japan and Disaster Risk Management, World Bank, Abuja, Nigeria

Corresponding author
Shinji Noguchi can be contacted at: shinji_noguchi@seas.harvard.edu

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