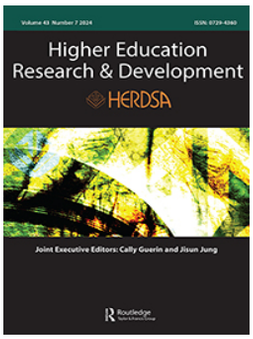

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Academics' practices and perceptions of career development learning in the curriculum

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ABSTRACT

Career development learning (CDL) equips students with the skills, knowledge and resources to navigate their careers amidst dynamic work and learning environments. While CDL is known to be facilitated by central careers services in higher education institutions, embedding CDL activities within the curriculum is purported to be an effective approach to generate meaningful reflections that prepare students for their future lives. This study examined academics' perceptions and applications of CDL to understand the extent to which CDL is currently practiced in the curriculum. At one institution, interviews were conducted with 55 academics teaching across 101 subjects and in various disciplines. Findings demonstrate that most CDL is delivered informally or in isolation without a structured framework, highlighting the need to improve purposeful integration of CDL in the curriculum. Recommendations point to greater adoption of strategic institution-wide approaches to CDL, which ultimately impact students' employability choices, career decision-making, and preparation for the workforce.

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Career development learning; employability; graduate outcomes

Introduction

The nature of work has become more flexible and complex, with reports suggesting individuals can expect up to eighteen jobs and six separate careers across their professional lives (Foundation for Young Australians [FYA], 2020). Increasing rates of casualisation, COVID-related health and work pressures, and susceptibility to periods of unemployment impact the experiences of current graduates of higher education (HE) degrees (O'Keeffe et al., 2022). In recent years, universities have faced heightened competition as students increasingly expect tangible employability outcomes from their educational investment, such as securing promising early careers upon graduation (Amiet et al., 2021; Parutis & Howson, 2020). Consequently, equipping graduates with the skills to navigate and manage careers amidst this uncertainty is emerging as an important marker of successful HE systems and institutions (Dean et al., 2022).

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Career development learning (CDL) is an approach that advances students' knowledge, skills and self-management of careers and can be a reflective tool for self-understanding and life-long learning (Watts, 2006). CDL covers several activity types, including growing awareness and understanding of career pathways, networking to explore different career options, reflecting on practical industry experiences known as work-integrated learning (WIL) (Dean et al., 2012), and developing career action plans (Watts, 2006). Research shows a distinct connection between CDL, employability and positive graduate outcomes (Ho et al., 2022; Jackson, 2018; Jackson & Dean, 2022, 2023). This enables students to identify and articulate their skills, leading to stronger self-efficacy and preparedness to navigate the future, higher employability, and increased likeliness to secure employment upon graduation (Bridgstock, 2009).

Given the importance of CDL in shaping graduate outcomes, recent research advocates for teaching academics to play a more active role in facilitating CDL alongside discipline-related content in the curriculum (Amiet et al., 2021; Bennett et al., 2016; Dean et al., 2022). Academics are central to student employability, yet many face challenges in designing career-based activities into a crowded curriculum or feel ill-equipped for the task (Bennett et al., 2016; Dean et al., 2022). To date, research has primarily focused on academics' experiences of CDL within discrete degree programmes. These studies have predominately utilised qualitative methodologies, highlighting the need for more comprehensive empirical investigations to capture a holistic understanding of CDL (Amiet et al., 2021; Bennett et al., 2016).

This study aims to explore and quantify the extent to which distinct, common CDL strategies are integrated within the curriculum, across disciplines and year levels, at one institution. Qualitative and quantitative data were sought to clarify what CDL strategies are being purposefully embedded into the curriculum and academics' perceptions of employing CDL. To address this aim, this paper first provides an overview of the literature and a reflexive process to identify prominent CDL strategies. Next, the mixed-methods approach is introduced to gather and examine both qualitative and quantitative data through interviews conducted with teaching academics. The findings and discussion highlight the importance of integrating CDL meaningfully. The paper closes with insights and recommendations for educators and institutional policymakers.

CDL in curriculum

While many HE institutions use career services to support students in building career knowledge, a growing consensus suggests CDL has an important place within curricula (Amiet et al., 2021). These CDL strategies, however, often reflect a piecemeal approach that is not fully embedded in the curriculum (Amiet et al., 2021; Artess et al., 2017; Bridgstock et al., 2019). Notably, the CDL literature is growing, underscoring several ways to deliver CDL in practice, including: structured reflection during WIL; developing career awareness; generating career possibilities; and, planning and pursuing job opportunities.

Structured reflection in work integrated learning (WIL)

Literature demonstrates interconnectedness between WIL pedagogies and CDL activities (Dacre Pool & Sewell, 2007; Jackson, 2018; Watts, 2006). WIL offers students real-world

work-based learning aligned with their discipline studies. Through well-structured WIL opportunities and the practice of critical reflection, students can derive meaning and gain a deeper understanding of their experiences. Watts (2006) highlights the importance of reflection as a fundamental aspect of CDL, enabling students to apply their learning to make informed decisions about their careers. Literature recommends a structured approach to supporting reflection in WIL rather than tacit or informal methods (Bridgstock & Jackson, 2019; Dean et al., 2012; Fraser et al., 2022).

Developing career awareness

According to Bridgstock and Jackson (2019), CDL provides individuals with valuable opportunities to develop an awareness of various factors that can significantly impact their career choices and satisfaction. Self-awareness includes recognising personal values, interests, personality and skills (Bridgstock, 2009; Watts, 2006), which collectively contribute to an adaptable 'career identity' (Artess et al., 2017). Watts (2006) further emphasises the importance of knowing individual strengths and weaknesses (e.g., skill gaps, goal setting and personal values) as crucial considerations in career planning. To facilitate identity construction, implementing an action-based career development plan that incorporates personal career goals and includes guidance from relevant disciplines is recomended (Artess et al., 2017; Dacre Pool & Sewell, 2007; Watts, 2006). This approach may help students align their motivations, interests, and competencies with their desired career identity (e.g., Letts, 2019). However, issues surrounding identity formation may arise due to the under-utilisation of career development resources or a lack of clarity in their plans for achieving career goals (Holland, 1996).

When combined with understanding the contemporary work environment, self-awareness and career identity become powerful components of employability, enabling individuals to navigate their unique career paths effectively (Jackson, 2017). Students need to comprehend the intricacies of the world of work, including recognising the ongoing changes and skill requirements expected by employers, to successfully navigate their careers (FYA, 2020). Developing career competence requires an awareness of other influential factors, such as familial influences, peers, geography and relevant political landscapes (Campbell & Price, 2016; Watts, 2006). Awareness of self and context is increasingly important amid escalating workforce complexity, particularly within the global economy undergoing Industry 4.0 (Oosthuizen, 2019). Graduates are expected to understand, learn, adapt and articulate their skills in line with industry needs (FYA, 2020; Oosthuizen, 2019) which requires heightened adaptability to navigate evolving work contexts and manage careers effectively (Artess et al., 2017; Bridgstock 2009).

Generating career possibilities and opportunities

CDL literature includes strategies that engage students in examining and understanding employment landscapes to enable informed decisions about work and learning (Amiet et al., 2021; Artess et al., 2017; Bridgstock, 2009). Career literacy, as defined by Bennett and Robertson (2015, p.13), encompasses an 'awareness of industry structures and potential roles' in conjunction with the 'ability and confidence to locate one's self within them'. This ability is crucial in determining graduates' employability outcomes.

The FYA (2020) emphasises the importance of resilience and adaptability, as students may need to pivot and explore multiple career paths that use relevant transferable skills. Career literacy also plays a significant role in fostering resilience. Bridgstock (2009) refers to this resilience as 'career building skills', which students develop by actively researching job market gaps and identifying the employability criteria sought by potential employers.

Planning and pursuing job opportunities

Some of the most well-known aspects of CDL revolve around practical strategies necessary for planning and pursuing work. It is vital that graduates can successfully navigate recruitment processes and create competitive and relevant job applications (Bridgstock, 2009; Watts, 2006). Dacre Pool and Sewell (2007, p. 1) refer to this as developing a student's 'employability assets'. Students need the opportunity to build a professional profile and forge connections with diverse networks to improve their prospects of securing favourable employment outcomes (Jackson, 2018). Therefore, a key element of CDL involves equipping students with the skills necessary to implement informed decisions about career paths. Artess et al. (2017) discuss the significance of this, explaining that students possessing practical career skills are better equipped to navigate their chosen career paths, align their choices with their goals, and feel confident in their decision-making.

Prominent CDL strategies

To investigate the extent to which CDL is being taught within subjects by academics, we recognised the need for compiling a list of well-known, high-impact CDL strategies, which would enable us to assess their implementation in practice. Drawing on key CDL literature (Bridgstock, 2009; Dacre Pool & Sewell, 2007; Watts, 2006) and aligned to the four domains above, we identified eight common strategies adopted by HE institutions to incorporate CDL across curricular. These eight strategies were derived through three stages: first, we examined the literature for specific, common CDL strategies; second, expertise was sought from career advisors who work alongside academics to embed CDL for practice advice; and third, we employed iterative reflexive analysis (Srivastava & Hopwood, 2009) to move between the literature and field-based understandings to negotiate the most prominent strategies through continuous meaning-making collectively. Through this dialogic deliberation, the following eight strategies were prioritised:

1. **Reflecting on an experience** and/or the subject through structured, critical processes to translate learnings into career possibilities
2. **Fostering an awareness of self** through articulating insights on personal values, professional identity, interests, personality and skills
3. **Recognition of the changing world of work** and what that means for the discipline, future work roles and related careers
4. **Appreciation for diverse impacts on career** such as peers, family, politics, technology, globalisation and sustainability
5. **Researching possible future career options** aligned to personal interests, preferences and priorities

6. **Exploring relevant employment markets**, **recruitment processes and skills** prioritised by employers
7. **Developing job search strategies/tools,** including networking, resume building, interview skills and generating an online professional profile
8. **Writing a career plan** for next steps and career decision-making

These eight strategies are not inclusive of all CDL practices; however, defining prominent strategies was necessary to meet the research aims to identify and scope practice and guide the collection of information. Therefore, this research proposed two questions: (i) to what extent do academics integrate the eight prominent CDL strategies in the curriculum? and (ii) how do academics perceive CDL within their curriculum?

Methodology

This study adopted mixed methods research (Johnson & Onweugbuzie, 2004), employing a cross-sectional design with an ex post facto design and collecting qualitative and quantitative data through interviews. A cross-sectional design provides a snapshot of diverse viewpoints at a specific time, while an ex post facto design enables the exploration of naturally occurring relationships, enriching the understanding of how CDL is perceived and implemented within academic contexts. The strength of this approach lies in its ability to amalgamate varied perspectives, offering a comprehensive view of CDL in practice by quantifying who is using which strategies, and expanding on this through qualitative perception data. Our two research questions align to collecting these forms of data. The first question enquires 'to what extent', highlighting our quantitative approach, and requiring an assessment of whether (yes, no, implicit) CDL activities take place. The second research question investigates 'how', which opens the narrative to qualitative responses.

Site and participants

Johnson and Onweugbuzie (2004) emphasise that mixed methods research involves integrating qualitative and quantitative data into a single study. The delineation of a single study is vital for converging evidence and integrating data across diverse methods within a single study. Therefore, this study selected a single site to employ mixed methods research, where participants work at one institution under the same teaching, learning, strategic and policy environment. The site is a regional university in Australia, where participants are subject coordinators or persons responsible for designing and delivering subject content. This place or site homogeneity enabled the researchers to examine the convergence and divergence of experience and perspectives in detail. The research was conducted under ethics approval from the Human Research Ethics Committee (HREC, 2019/123).

Purposive sampling was selected to ensure participants had the insight and understanding of the phenomenon and homogeneity in teaching within the same teaching, policy and governance environment. A mix of vocational and non-vocational disciplines was selected for sampling to ensure diversity across degrees with and without close ties to a profession or vocation. This research formed part of a wider institutional project on

WIL and employability, and therefore, senior academic administrators nominated a cross-section of disciplines for investigation. One-hundred and thirty-four subjects across disciplines and year levels were selected, with coordinators of these subjects emailed and invited to participate in an interview. Fifty-five academics, teaching across 101 subjects, volunteered to participate in a thirty-minute interview. The subjects were representative of a broad range of discipline areas: Engineering (n = 27), Nutrition & Dietetics (n = 23), Arts & Social Sciences (n = 17), Medical Physics (n = 15), Geography (n = 11), and Business (n = 8). With the exception of Business, all subjects were from undergraduate degrees and most subject coordinators drew on one or more subjects for the data collection.

Interview strategy

The interview was structured around two phases. In the first phase, quantitative data was elicited to measure the extent to which academics use any of the prominent eight CDL strategies. First, academics were provided with a description of the eight CDL strategies. Then, they were asked to provide a 'yes' or 'no' response as to whether they included them in each subject they taught. In the pilot data collection stage, we found the 'yes' and 'no' dichotomy did not capture academics' description of practice. For example, one participant said, '*It's [purposeful reflection] explicit in the sense that the students do get feedback, but I wouldn't go as far as to call it something fancy like structured reflections*' (Participant 05). Therefore, we revised the available response options for the CDL strategy item to: 1) Yes, it is *explicitly* included; 2) Yes, it is *implicitly* included; or 3) No, it is not included. In the second phase, semi-structured questions were posed to elicit insight into their responses to the CDL strategies and other perceptions of CDL in their teaching. Each interview was recorded and subsequently transcribed.

Analysis

In the first phase, quantitative data were analysed through descriptive statistics to examine patterns across disciplines and year levels. The analysis involved predefined collection mechanisms and conventional protocols, which were reviewed and summarised holistically. The resultant data were cross-checked, cleaned, collated and recorded in Microsoft Word© and Excel© documents. The quantitative data, captured in Excel©, were sorted in two stages; firstly, a holistic sorting was conducted across all 101 subjects using three quantitative responses for each subject. In the second phase, we followed Braun and Clarke's (2021) reflexive approach to thematic analysis, which moves through stages of familiarisation, inductive coding and generation of themes. Importantly, reflexive thematic analysis enables the generation of open and organic codes (inductive) rather than a distinct code book, where themes are distilled through iterative development (Braun & Clarke, 2021). This approach ensured the participant's voice was foregrounded. Three research team members first familiarised themselves by reviewing and re-reading the transcripts and, where necessary, listening to the audio recordings and writing some initial memos. Next, they independently performed inductive coding on a section of data, generating codes from the text. Sematic codes were obtained, allowing for codes to be derived directly from discourse (Braun & Clarke, 2021). These codes

were deliberated and negotiated across the course of the collaborative analysis, which led to the development of iterative themes.

Findings

The quantitative data provide a snapshot of where the eight identified strategies occurred in the 101 subjects. This was contextualised by the qualitative data, which revealed academics held clear associations with CDL, with key themes evident regarding the academics' perception and application of CDL.

CDL strategies employed in curriculum

All eight CDL strategies were integrated by at least 26 subjects within the sample (n = 101). The most used strategy identified was '2. Fostering an awareness of self' at 71.3% explicit or implicit inclusion (n = 72), whereas the least commonly used was '7. Developing job search strategies/tools' at 25.7% explicit or implicit inclusion (n = 26). While awareness-related activities (i.e., strategies one to four) were relatively common among the surveyed subjects, more practical activities such as specific career knowledge or resources (i.e., strategies five to eight) were comparatively uncommon. Figure 1 shows specifically where CDL strategies are explicitly, implicitly or not included across the total of 101 subjects investigated.

When examined by discipline, most CDL strategies were similarly rated across all six disciplines. However, some distinctive patterns emerged regarding the preferred CDL strategy within each discipline, as illustrated in Table 1. The findings revealed that Medical Physics, Geography and Business all employed '5. Exploring, researching or generating possible future career options' compared to other disciplines surveyed. In addition, '1. Structuring purposeful reflection of the WIL' was the most employed strategy for Business and Engineering, and yet the least employed for Medical Physics. These

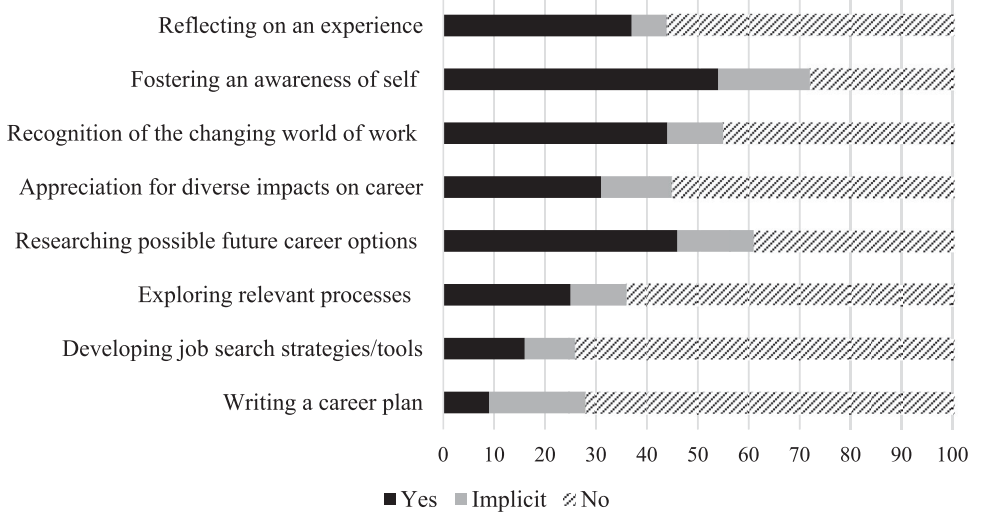

Figure 1. Percentage of subjects engaged in CDL strategies across all years (n = 101).

Table 1. Percentage of subjects engaged in CDL strategies by discipline area (n = 101).

		Engineering %(n = 27)	Nutrition/ Dietetics %(n = 23)	Arts/ Social Sciences %(n = 17)	Medical Physics %(n = 15)	Geography %(n = 11)	Business %(n = 8)
1	Reflecting on an experience	40.7(n = 11)	34.8(n = 8)	23.5(n = 4)	46.7(n = 7)	54.5(n = 6)	100.0(n = 8)
2	Fostering an awareness of self	33.3(n = 9)	73.9(n = 17)	82.4(n = 14)	93.3(n = 14)	90.9(n = 10)	100.0(n = 8)
3	Recognition of the changing world of work	22.2(n = 6)	60.9(n = 14)	58.8(n = 10)	60.0(n = 9)	81.8(n = 9)	87.5(n = 7)
4	Appreciation for diverse impacts on career	22.2(n = 6)	43.5(n = 8)	58.8(n = 10)	60.0(n = 9)	27.3(n = 3)	87.5(n = 7)
5	Researching possible future career options	37.0(n = 10)	60.9(n = 14)	52.9(n = 9)	80.0(n = 12)	81.8(n = 9)	87.5(n = 7)
6	Exploring relevant employment markets	18.5(n = 5)	34.8(n = 8)	35.3(n = 6)	60.0(n = 9)	45.5(n = 5)	37.5(n = 3)
7	Developing job search strategies/ tools	11.1(n = 3)	30.4(n = 7)	11.8(n = 2)	53.3(n = 8)	18.2(n = 2)	50.0(n = 4)
8	Writing a career plan	25.9(n = 7)	21.7(n = 5)	17.6(n = 3)	46.7(n = 7)	36.4(n = 4)	25.0(n = 2)

results suggest that the discipline context may also impact the selection and utilisation of CDL activities within the curriculum.

Findings also showed differences in CDL strategies by year level of subject. CDL strategies were predominantly reported as either implicitly or explicitly included in postgraduate subjects, followed closely by 3rd and 4th-year subjects (see Figure 2).

For instance, 71.9% of the postgraduate subjects surveyed contained CDL strategies, compared with only 27.5% of first year subjects. These findings demonstrated an increase in the reporting of CDL strategies relative to year level. However, it is noted that the postgraduate dataset was comprised entirely of Business subjects. Therefore, the effects of discipline context on any year-level patterns observed cannot be discounted.

Within each year level, distinct patterns in the types of CDL strategies utilised were observed. As outlined in Table 2, it was found that practical activities related to specific career knowledge or resources (i.e., strategies five to eight) were more

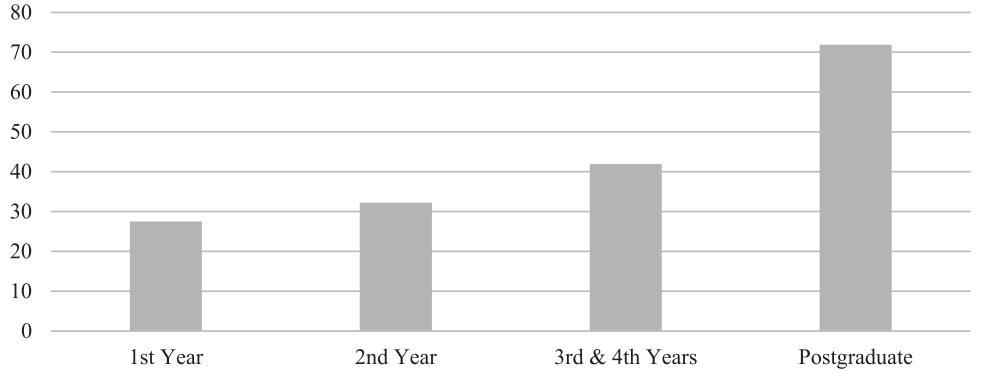

Figure 2. Percentage of subjects engaged in CDL strategies by year level (n = 101).

Table 2. Comparison of percentage of subjects engaged in CDL strategy by year level.

		1st Year %(n = 20)	2nd Year %(n = 33)	3rd & 4th Years %(n = 40)	Postgraduate %(n = 8)
1	Reflecting on an experience	15.0(n = 3)	27.3(n = 9)	60.0(n = 24)	100(n = 8)
2	Fostering an awareness of self	50.0(n = 10)	51.5(n = 17)	60.0(n = 24)	100(n = 8)
3	Recognition of the changing world of work	50.0(n = 10)	48.5(n = 16)	35.0(n = 14)	87.5(n = 7)
4	Appreciation for diverse impacts on career	30.0(n = 6)	36.4(n = 12)	30.0(n = 12)	87.5(n = 7)
5	Researching possible future career options	40.0(n = 8)	36.4(n = 12)	55.0(n = 22)	87.5(n = 7)
6	Exploring relevant employment markets	15.0(n = 3)	18.2(n = 6)	42.5(n = 17)	37.5(n = 3)
7	Developing job search strategies/tools	10.0(n = 2)	15.2(n = 5)	22.5(n = 9)	50.0(n = 4)
8	Writing a career plan	10.0(n = 2)	24.2(n = 8)	30.0(n = 12)	25.0(n = 2)

common in 3rd, 4th and postgraduate subjects. For example, '6. Exploring relevant employment markets, recruitment processes and skills' was more commonly reported in 3rd and 4th year subjects than either 1st or 2nd year subjects.

Qualitative data: a variety of perceptions of CDL

Four key themes of academic perceptions of CDL were ascertained from the data: 1) academics' unfamiliarity with the term 'Career Development Learning'; 2) academics' existing attempts to embed CDL strategies within their curriculum; 3) academics' receptivity to the notion of CDL, and; 4) academics refer to Careers Services.

Academics' unfamiliarity with CDL

While the majority of academics understood the distinction of activities that integrate career or the workplace into their teaching, a small number confirmed they were unfamiliar with the specific term or definition of CDL. One academic said, '*I don't have a sort of formal policy-based understanding in terms of what the university is thinking about*' (Participant 54). Another felt the term needed clarification, '*Because it's such a diffused term for me. It could mean so many different things you know*' (Participant 02). These critical points highlight gaps in participants' understandings in the CDL space. Some academics felt there was an 'overlap' or 'confusion' between the terms WIL and CDL.

Academics' existing attempts to embed CDL

While reviewing the eight CDL strategies, academics provided varying responses regarding their practice, with several offering strong examples while others searched for examples that they thought could be represented as CDL. One academic said that while they included CDL, the explicit links were '*tenuous*' (Participant 44). Some academics found it difficult to contextualise the CDL strategies and made an educated guess based on the description of each, often leading them off track from CDL concepts, '*When you say developing awareness of the self, I … interpret that as developing … set skills like presentation skills … where they are developing an awareness*' (Participant 18). Another academic explicitly acknowledged how they connect their learning and practice to the workplace by reiterating to students, '*This is going to happen in whatever workplace you go to, that you're going to bring something unique to this space that's based on what you're interested in, what your knowledge is, what your skills are*' (Participant 08). The majority of academics however, made an attempt at verbalising activities from their practice where they teach through CDL.

Academics' receptivity to CDL

The analysis showed that the interview sparked interest and ideas relating to CDL in the curriculum. Several academics found the interview itself was a catalyst for them to think about embedding more CDL into their subjects. For example, one academic said, '*This is something which we should do, and we're not doing it for some reason. I definitely recognise that we should do that*' (Participant 48). Similarly, another participant acknowledged that researching future career options was not covered in the subjects, '*I think we could do better in this*' (Participant 04). A participant recognised some of their existing activities were linked to CDL and felt they could make this more explicit in their subject, '*… it has been really helpful for me to reflect on how we can do this, so that is really useful*' (Participant 44).

Academics refer to careers services

To a lesser extent, several academics that didn't articulate engaging in CDL activities, although aware of the concept, referred to the university's careers department as better equipped to address these strategies with the students: '*We don't develop a plan. We talk about having a plan, and we refer them to the career services*' (Participant 36), and '*it's probably more the central careers' role*' (Participant 42). Another participant reflected on embedding CDL more formally but through an external expert, '*I think we'll dedicate a tutorial … Careers Development will put that together*' (Participant 39).

Qualitative data: a variety of applications of CDL

A second set of themes were derived from the qualitative analysis, highlighting how academics applied CDL in practice, mostly through informal and non-assessed methods. Academics established rich and valuable connections to the CDL strategies. Four themes included: 1) academics' associations between teaching and CDL; 2) academics' use of personal career stories; 3) academics' student consultations, and; 4) academics' purposeful CDL in curriculum.

Academics' associations between teaching & CDL

Many academics made important links to CDL in their teaching, establishing explicit associations to guide students. An example of this was how often informal guided discussions encouraged students to reflect on and prioritise their future career plans, '*Well I am a sharer, so they probably hear through me [what] impacts on careers*' (Participant 40). One participant discussed how they approached employability skills with students, *'I … reiterate to them the reasons that they need these different skills … it's not just about getting through their degree, but they will be able to transfer them to future careers'* (Participant 19).

In a third-year lab subject, one participant acknowledged that the nature of the subject meant there was little to no CDL either formally or informally embedded in the subject. However, during the interview, the participant made explicit links to CDL with the students:

> we can't teach you everything you're going to need to know, but we're trying to give you the key elements of a foundation so that you can develop those things yourself later on, and you can engage in lifelong learning. (Participant 02)

Academics' use of personal career stories

Several participants raised how they either purposefully planned or spontaneously shared their own career experiences and knowledge with students. In one subject, the academic brings their career narrative into the classroom and states, '*then I talk about my own experiences, putting myself in a vulnerable position that I had gone through. For example, I tell them about my experience when I came here to get a professional related job*' (Participant 36). Another academic acknowledged the changing world of work by sharing their own career journey, '*I take them on a little bit of the history of, and then align that with the history of my career. Take them on the journey of my career as well, alongside the history of the field*' (Participant 41).

Academics' student consultations

During the interviews, several academics mentioned offering CDL and personalised advice to students outside the formal curriculum, including providing one-on-one consultations to students who sought guidance. Although not intentionally designed by the academics, this practice aligns with several of the eight CDL strategies, such as students building networks (strategy seven) and exploring and generating possible future career options (strategy five). One participant said:

> It often happens that individual students will seek one-on-one consultation and they'll come and have a chat to me about - where can this take me, what can I do with this, what options do I have if I'm interested in this? (Participant 26)

Another participant mentioned providing unstructured advice when students proactively sought feedback, saying, '*a few of the students actually gave me their CVs to give feedback*' (Participant 43).

Academics' purposeful CDL in curriculum

Few academics mentioned the purposeful design of CDL assessments or activities in their subjects, although the qualitative data show this practice was uncommon. Where there was purposeful design, it was often in collaboration with the universities' careers service. In explaining the inclusion of CDL, one participant said, '*the careers unit used to come in and do a talk about careers, focusing on the changing world of work relative to future careers*' (Participant 39).

Discussion

Data revealed a diverse range of CDL perspectives and practices. While often informal or not assessed, it is evident that important career-related conversations take place, with academics dedicating time and creating space in their teaching to facilitate students' career development. However, it was also apparent that some of the eight CDL strategies were either overlooked or addressed superficially in many subjects. While the quantitative data analysis in Figure 1 shows CDL is being addressed to some extent in subjects, overall, there appears to be an unstructured or unplanned approach. Interestingly, participants expressed a stronger connection to the '2. Fostering awareness of self' was the highest-scoring strategy with 71.3% of subjects covering this topic either explicitly or implicitly. This finding is not unexpected, as it is reasonable and acknowledged that

academics guide students in making sense of their studies and applying newfound knowledge to their own contexts (Dacre Pool & Sewell, 2007).

CDL strategies in curriculum

Although existing literature underscores the importance of practical job-seeking and career-planning skills in CDL (Bridgstock & Jackson, 2019; Watts, 2006), writing a career plan and developing job search strategies are the most under-represented strategies. These two CDL strategies carry important implications for students' future career development, particularly in terms of their ability to transition from university studies into the labour market and make informed decisions about their future (FYA, 2020; Watts, 2006).

The quantitative findings revealed important information based on the year of study, highlighting that there is more balanced coverage of CDL in the third and fourth-year subjects. This could be attributed to several factors, such as students nearing the end of their degree and academics being more inclined to support transitions for final year students. Additionally, capstone subjects typically provide a higher degree of WIL in third-year, fourth-year and postgraduate subjects. Jackson (2018) asserts that WIL is structured and formal in the curriculum and includes assessment, reflection and activities designed to shape future careers, including values alignment and goal setting. The analysed data does not reveal this level of detail, underscoring the importance of exploring these aspects in future studies.

Academics' perceptions & applications of curricular CDL

Many academics have valuable CDL information that they willingly share with students both in classroom settings and informal contexts. Of interest were the numerous anecdotal and informal activities and connections mentioned by participants. Whether drawing from their own career experiences, their deep understanding of the industry sector related to the subject, or a combination of both, their knowledge is critical in providing relatable stories for students. When delivered in the curriculum by subject experts, these stories are powerful tools to build students' career literacy and practical strategies for career development (Bridgstock, 2009). These concepts find support in the literature, as highlighted by Amiet et al. (2021), who uses the term 'unintentional curriculum' (p. 7) to describe this practice, emphasising its significance as an integral element of CDL.

However, the findings suggest that none of the subjects include all eight strategies of CDL, either formally or implicitly. This outcome is not surprising considering that the interviewed academics teach discipline-specific subjects where the integration of CDL strategies is not explicitly aligned to subject learning outcomes. Across the sector, many academics feel pressured to 'squeeze in' new elements into an already crowded curriculum (Bridgstock & Jackson, 2019), and CDL is no exception. Implementing all eight CDL strategies in every subject would likely result in an excessive and unbalanced volume of materials. Thus, it is understandable that such an approach would not be practical in the subjects discussed.

The findings underscore a limited practice of formalising CDL strategies. While many academics recognised the importance of CDL and expressed their intention to

incorporate it into their subjects, such integration was often articulated in interviews as informal or noted in the mapping as 'implicit'. A small percentage (4.9%) formalised CDL activities into assessment. While the informal nature of CDL brings rich and relevant stories, it relies on the individual academic remembering to address it, making it easily overlooked when not embedded with subject learning outcomes and assessment criteria. These insights highlight the importance of Bridgstock and Jackson's (2019) recommendations for including structured pedagogical practices, including assessment of critical elements of CDL, as this provides students relevance and context for students to apply in their future endeavours.

Additionally, the findings suggest that the nature and structure of the interviews provided an opportunity for participants to reflect on and discuss their application and understanding of CDL strategies. Despite their unfamiliarity with the term 'CDL', many academics attempted to make links to their teaching practice when reviewing CDL strategy descriptions for the first time. When asked to recall or explain how they addressed CDL, some academics felt inspired and recognised the opportunity to focus on existing or new CDL activities more explicitly. These insights illustrate the power of conversations about CDL to elicit connections and change in practice (Amiet et al., 2021). It also suggests that creating opportunities and providing appropriate CDL resources for academics to collaborate, connect and engage in conversations with career experts could provide beneficial learning experiences.

Looking holistically, the findings reveal an absence of a comprehensive approach to scaffolding CDL within degree programmes. Scaffolding important skills across a degree is common practice and is emerging for distinct pedagogies such as WIL (Dean et al., 2020). To shape students' burgeoning professional identities and knowledge of career pathways, universities would benefit from reassessing CDL within individual subjects towards embracing a more comprehensive whole-of-degree framework. Taking a whole-of-degree approach, however, doesn't mean integrating CDL into every subject or unit, as this would be unnecessary and inappropriate, but instead looking across the course for key touchpoints for integration. Notably, participants in this study reported that some subjects were not the right place to formally address CDL. Key locations for CDL strategies are in capstone or final subjects, and in those subjects that are delivered through WIL or other industry-led experiences. However, CDL best serves students when integrated across the learning journey, including early in the degree, to enable students to build skills and knowledge. Early integration would also assist students and academic staff to make the distinction between CDL and WIL, where there is sometimes confusion between the two practices.

A comprehensive approach to employability and CDL, including embedding CDL in the curriculum, is key (Amiet et al., 2021; Bridgstock et al., 2019; Bridgstock & Jackson, 2019). Planned CDL experiences builds self-awareness, opportunity awareness, decision-making, and practical career transition skills (Watts, 2006). Institutional clarity is essential, necessitating a shared definition of CDL, a clear delineation of academics' roles and the university's careers service, and explicit integration of CDL into the curriculum. An institution-led approach with operational leadership, such as support by faculty teaching committees, is necessary to promote engagement among academics, students, careers practitioners, and curriculum designers.

Limitations

This study was conducted at a single university, which means participants' perceptions and applications of CDL were influenced by the specific institutional context they share. Future research could expand on this by investigating the perceptions and practices of academics across a broader cross-section of disciplines, institutions and countries to delve into a deeper understanding across contexts and cultures. It is important to note that although the sample size consisted of 101 subjects, it does not represent all subjects or disciplines. The collected data may be biased due to the academics' subjective interpretations of each CDL strategy, as no supporting context or definition was provided. Furthermore, the study did not consider the potential inclusion of all capstone subjects for each degree or discipline, which often focuses on transitioning to the workforce and incorporating more CDL. Additionally, postgraduate data accounted for only 7.9% (n = 8) of the dataset, and all came from the same Faculty, coordinated by two academics. Finally, it is recognised that academic perceptions relating to the labour market were not included in this study and it would be interesting to see future research in this area.

Recommendations

Given research suggests that formal scaffolding of CDL benefits students in understanding and navigating the labour market (Bridgstock & Jackson, 2019; Dean et al., 2022), this study emphasises the importance of adopting a comprehensive and integrated approach to CDL in HE institutions. There is a need for a comprehensive framework that incorporates CDL strategies at appropriate times and relevant contexts throughout degree programmes. To enhance positive outcomes for graduates, it is essential to provide professional development opportunities for academics to enhance their understanding of CDL concepts, benefits and activities and how to leverage these benefits and implement this content as part of the curriculum. These tools and knowledge would enable explicit inclusion of CDL in pedagogy and curriculum, allowing academics to make deliberate connections to CDL beyond informal or spontaneous references. Access to career specialists, ideally those who specialise in a discipline, would provide support to academics to design CDL in synergy with their subject matter, students, and context. Further, establishing an institution-wide community of practice where academics can engage in professional dialogue would serve as a valuable extension and support network.

Conclusion

This study explored how academics perceive and apply CDL strategies in the curriculum. This paper has highlighted that while academics recognise the importance of CDL for students' future success, the deliberate inclusion of CDL is predominately informal or unstructured. CDL is a complex area, and it is crucial to equip students with the necessary skills to navigate their future career paths. To effectively prepare students for the workforce, it is essential to provide scaffolded CDL opportunities. CDL offers a valuable tool for students to identify opportunities, understand themselves, make informed decisions, and evaluate how well those opportunities align with their future goals. Recommendations include enhancing academics' understanding of CDL and its associated

strategies, and enabling more explicit connections between subject content and the world of work. The findings reinforce existing calls for institutional approaches to CDL to enable a holistic approach to enhancing employability.

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