

Reframing Professional Identity: Professional Development Framework for Learning/Educational Designers

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Abstract

This paper develops the conversation focused on what professional competencies and skills learning design professionals (LDs) have or need to develop to meet contemporary learning design professional demands in organisations and learning institutions. In this paper, we used the lens of lifelong learning theory and skill analytics approach to develop a professional framework for learning design professionals. As people transition into thirdspace professional spaces like educational or learning design, a professional development framework can act as a reflective tool to support workplace learning and identity framing to look backward and forward to achieve personal and professional goals. A framework like this can potentially guide and support learning design teams and individuals to reflect on what skills they possess and identify gaps to plan how to address skill gaps through professional development, workplace learning and networking opportunities.

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Introduction

There is an increased demand for learning designers across a range of industries and learning institutions (Heggart & Dickson-Deane, 2021). Such demand is driven by an increased call for technology-enhanced learning and a shift to more online learning during and after the COVID-19 crisis (Bellaby et al., 2020; Hains-Wesson & Rahman, 2023). Moreover, with this increased shift to online learning and teaching, there is a need to support educators in reducing their workload (Houlden & Veletsianos, 2019), offering pedagogical support, and uplifting their digital capabilities. Equally, the growing need for continuous workforce upskilling and professional development/workplace learning in organisations is linked with a demand for micro-credential development in vocational education training and higher education institutions.

Background

In universities and industries, learning design (LD) is now fundamental to supporting professional development, teaching staff in the development of courses or programs, advising on and supporting curriculum design, constructive alignment of courses and subjects and appropriate learning technology support. This is primarily because teaching staff, at least at universities, are usually discipline experts, e.g. in engineering, maths, nursing, business, etc., but may not have any formal educational or teaching qualification (White, 2019), whereas learning designers generally do have some formal training in pedagogy. So, partnering with these staff makes sense from an institutional perspective (Könings et al., 2020). Further, learning designers are often involved in the production of learning media, interactive learning resource development, selfdirected re-usable learning resources, nurturing community of practice, developing and facilitating professional development for teaching staff, training, and project management, among other teaching and learning support activities (Bird, 2004; MacLean & Scott, 2011; Mitchell et al., 2017; Obexer & Giardina, 2016). In a nutshell, learning design (LD) professionals are positioned to bridge pedagogical and technology gaps and facilitate online learning opportunities (Obexer & Giardina, 2016), leveraging the educational technologies available in organisations/institutions. This means LDs should possess a mix of skills and knowledge to design meaningful learning opportunities and resources and provide educational advice responsive to institutional needs, goals and requirements.

LDs are sometimes interchangeably referred to as instructional designers, educational designers and learning experience designers across different organisations/institutions, industries, and countries, with instructional design prominently used in North America (Sage & Sankey, 2021). Previous research distinguished the differences between the roles of learning designers, learning technologists and academic developers- in the context of academic institutions (Mitchell et al., 2017). However, the positions share overlapping responsibilities, with some variation in scope, curriculum planning, institutional strategies, and educational development. In this paper, we have focused on learning and educational developers and used the term to refer to professionals undertaking learning and educational design roles in various institutions and industries.

While there is increasing demand for LDs, there is no defined or clear pathway to the learning design profession, given the individuals' transition into the role with a mix of formal and informal

pathways (Nichols & Meuleman, 2017; Sage & Sankey, 2021). Sage and Sankey (2021) projected a growth of 12.9% in learning design jobs in Australia with the increased demand for online learning. Perhaps such trends have informed universities to offer learning design postgraduate programmes to respond to market needs. However, studies have suggested individuals transition to learning designer roles through informal pathways depending on their previous professional experience, on-the-job training, and professional development (Nichols & Meuleman, 2017; Sage & Sankey, 2021). Therefore, experience, workplace professional learning and development are integral to a learning designer's career advancement and professional development.

In this paper, we take a skills analytics approach to develop a learning design professional development framework. The framework mirrors the competencies and skills learning designers or aspiring learning designers need to develop or possess to fit into the current job market or meet growing learning design demands in organisations/institutions and industries.

Research Objectives

This study aims to (i) extend the learning designers' competency framework by highlighting skills individuals may need to develop to fit into the current and future learning designers' profession (ii) provide insights for LDs to reflect and spot skill gaps to plan for future professional development opportunities (iii) inform potential/aspiring LD career starters, changers or advancers what sort of skills they need to develop/hone as they plan to transition into LD roles (iv) identify key competencies and indicative skills, organisations and institutions are looking for in potential learning designers.

Research Problem and Questions

Early research identified a shortfall in learning designers' training and professional development opportunities (MacLean & Scott, 2011). While the learning designers are embedded in the universities' teaching and learning support structures, in some cases, they are perceived as administrative staff without credible knowledge to provide meaningful learning advice or support teaching staff (Xie et al., 2021; Halupa, 2019). Such perceptions are likely to create tension between educators and learning designers (Miller & Stein, 2016). To minimise such tensions, LD engagement in continuous professional learning and development opportunities is vital to shaping their professional practice and identity. In addition, some of the LD job descriptions are broad or generic, thus hard to operationalise because individuals cannot determine their responsibilities. Hence, individuals cannot understand what skills are needed to be developed in each competency of their profession if they are not well articulated in job profiles. For example, human resource competencies or capability frameworks are developed to guide and improve individuals' performance in organisations. However, such professional frameworks are very general and, therefore, not accessible for individuals to act on or plan to develop the required skills specific to their professional practices. Finally, in positioning the LDs' career in the future workforce, they need to be responsive to emerging professional skills to fit such changes. Therefore, this study attempts to answer the following two questions:

- 1. What competencies and skills do learning designers need to develop to succeed in the profession (based on the organisational needs as expressed in the job description and requirements)?
- 2. How can individuals identify skill gaps to plan for professional learning and development opportunities?

Literature review

Pathways to learning design roles are categorised into two: formal and informal learning pathways.

Formal Pathway to Learning Design

In this paper, we define formal learning as time-bound didactic activities with a set curriculum, learning objectives, and assessment activities (Malcolm et al., 2003). Examples of formal learning include graduate certificate courses in learning design, online micro-credentials or postgraduate qualifications with a formal certificate upon successful completion. Other formal pathways encompass undergraduate or postgraduate degrees in education focusing on e-learning, primary or secondary teaching degrees or a PhD in Education (Sage & Sankey, 2021).

E-learning and learning design formal programs focus on equipping individuals with the skills and knowledge required to become learning designers. These courses typically cover topics such as educational theories, learning design principles, educational technology applications, online quality enhancement standards and related issues. Analysis of the course learning objectives and outlines of learning design programmes offered by some Australian universities (e.g. University of Technology Sydney, University of New England, Victoria University, Deakin University) reveals a shared focus on developing an awareness of evidence-based practices. This emphasis includes ethical and inclusive teaching and learning, evaluation, assessment, feedback practices, and the use of artificial intelligence (AI) in higher education contexts. Such focus in curriculum suggests that learning designers need to possess diverse skills and knowledge to succeed at their jobs. Furthermore, this also suggests learning designers also require practical skills in multimedia design and the use of AI tools and analytics, among others.

Informal Pathway to Learning Design

Research indicates that individuals often transition to learning design roles without formal qualifications in learning design qualification (Nichols & Meuleman, 2017; Sage & Sankey, 2021). Arguably, informal transitioners include previous job experience in education-related fields, teaching and training or mentorship (Sage & Sankey, 2021), on-the-job learning (Gray et al., 2015) and self-reflection (Nichols & Meuleman, 2017).

Individuals who follow informal pathways to the learning design profession are intrinsically motivated to acquire useful knowledge and skills required to solve specific learning design problems. This self-directed learning occurs outside formal institutions and is often unstructured, experiential, and driven by individual learning goals (Shum et al., 2022).

Within the workplace, informal learning can take various forms. For instance, this could include interacting with colleagues, seeking mentorship, and collaborating with experienced colleagues (Littlejohn et al., 2016). Additionally, individuals read articles, view videos, attend workshops and share knowledge to advance their skills and practice. Informal learning for LDs can also happen in the learning design communities of practice (CoP) and special interest groups (SIG) at national and international levels. In the Australian context, examples of these include the Learning Design SIG, the TELedvisors SIG run through the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE), the Australasian Association of Learning Designers, and the Higher Education Futures. These communities play a crucial role in fostering awareness of best practices (Michos & Hernandez-Leo, 2018).

Life-Long Learning

The future workforce and employment landscape are undergoing significant transformations in today's rapidly evolving information, artificial intelligence, and data-driven society. Individuals are challenged to develop and enhance their skill base continuously, acquire new skills tailored to emerging career demands, and reskill to pursue advancement or transition into new fields. This has necessitated higher education practices need to shift from the traditional sage on-the-stage mode to online, flexible, blended and micro-credential offerings. Learning designers play a crucial role in this transition, designing and supporting these offerings - and such change in the job also demands learning of new skills, requiring learning designers to learn new skills continually.

Furthermore, new LDs enter the field through informal pathways, lacking experience or awareness of expectations (Nichols & Meuleman, 2017). Therefore, the LDs require lifelong learning to acquire the necessary skills and experience to support learning design processes in learning institutions and organisations. In this paper, we define lifelong learning as developing skills and knowledge beyond formal education. London (2021, p. 3) argues that "people will need continually to enhance their knowledge and skills in order to address immediate problems and participate in the process of continuous vocational and professional development." For learning designers, lifelong learning encompasses developmental activities that improve their capabilities to accomplish ever-evolving professional demands and expectations. Considering the dynamic nature of the profession, it is not a luxury but a necessity for learning designers.

Kozlowski and Farr (1998) stress the importance of staying current with technical skills and knowledge through various professional development activities to foster innovation, adapt to change, and achieve effective performance. They further note individual characteristics (individual motivation and previous experience) and contextual factors (workplace culture) significantly impact learning. The workplace can support learning by providing opportunities and resources at individual, team and organisational levels. Individual learning can happen through inquiry and dialogue, while team learning occurs, for example, through teamwork, communities of practice (CoP) and action learning. Organisations can foster learning by creating systems that encourage participation, capture learning and connect it to the working environment. For learning designers, lifelong learning at a personal level might involve pursuing a postgraduate diploma or certificate,

now offered by several universities in Australia. Learning at a team level, for instance, can happen by becoming a member of a professional network, SIGs or CoPs.

Sessa and London (2015) identify three kinds of lifelong learning: adaptive, generative and transformative. Adaptive learning is reactive to immediate needs and opportunities, whereas generative learning involves proactive initiatives and experimentation with new behaviours, skills and knowledge. Transformative learning entails reconstructing meaning and changing modes of operation in a fundamental and meaningful way. While adaptive learning can occur under contextual pressure, generative and transformative learning require self-directedness and self-efficacy. We argue that learning design professionals engage in all three types of learning, not just adaptive, to effectively address the ever-evolving field of educational technology.

Method

In this study, we used a qualitative research approach, applying skill analytic techniques. The skills analytics method is used to map skills into curriculum, careers and jobs (Kitto et al., 2020). This approach uses natural language processing (NLP) techniques and applications using proprietary skills ontologies (Kitto et al., 2020). In this study, we used similar techniques by manually and qualitatively analysing learning design job advertisement descriptions and selection criteria to develop the professional competency framework. Further, we extracted indicative skills that industries and institutions are looking for in LD professionals.

Table 1:

Role	Number of ads.	Industry/Category
Lood/principal digital loorping designer	4	Industry: 0
Lead/principal digital learning designer	1	HE: 1
Conjer learning designer		Industry: 0
Senior learning designer	2	HE: 2
		Industry: 35
Learning designer	45	HE: 10
• • · · · · · · ·	<u>.</u>	Industry: 2
Assistant learning designers	2	HE: 0

Summary of Job Advertisements Analysed

This involved searching popular job advertisement websites Seek.com.au, Indeed.com.au and Times Higher Education for the period of October-December 2021 and retrieved 100 LDs job advertisements (Table 1). All these learning design jobs were advertised in Australian universities and institutions. While we collected 100 advertisements, only 50 advertisements were analysed.

We limited our analysis to 50 advertisements after reaching thematic analysis saturation, with no new themes emerging from the data set (Thorogood & Green, 2018). The learning design job advertisements were coded in NVivo to develop a broader learning design competency framework and extract some indicative skills needed for each competency in Australia (refer to Appendix 1 and 2).

Data Analysis

In this paper, we used NVivo to analyse the data sets collected from the 50 job advertisements. MacLean and Scott's (2011) work devised a broader learning design competency framework. In that study, they reviewed journals, reports, and professional association websites in Europe to identify some of the key competencies LDs need. However, in their approach, they did not develop broader competence or identify specific skills for each competence and over time, the learning designer's role has morphed post-COVID, requiring individuals to have a range of skills that are responsive to emerging learning design and teaching needs particularly for online learning. Again, Kang and Ritzhaupt (2015) analysed job descriptions of educational technology positions in American contexts, categorising the competencies into three domains: knowledge, abilities, and skills. Our study extends MacLean and Scott's (2011), and Kang and Ritzhaupt's (2015) work applying the skills analytics approach to develop a generic professional competency and identify specific skills to showcase how to potentially operationalise such broad competency areas.

Procedure

We used a thematic data analysis process applying an inductive approach to generate themes and sub-themes (Braun & Clarke, 2006). The thematic analysis generated the broader competencies and skills the learning designers are asked to demonstrate in their application for the advertised jobs. In the first step, we read and removed the duplications. Then, similar codes were combined to generate themes, sub-themes, and skills. The differences in coding were discussed among the researchers, and eight themes were generated, which are presented in Figure 1 below. Such a process was vital to move us from broader competency to specific skills based on current job advertisements to develop a professional framework that reflects Australia's LDs contexts.

Finding and Discussions

The analysis of learning design job descriptions advertised in academic institutions, learning design consultancies and industries, using a skills analytics approach, resulted in developing the LD professional development framework. The results broadly identified eight core competencies and associated skills that could be used to demonstrate professional competency. In doing so, this could be used to inform and design generative and transformative learning opportunities for learning design professionals to meet the demands of their profession. The competencies comprised learning design and pedagogy, leadership, project management, educational technologies capabilities, communication, innovation and technology governance, partnerships, engagement, and research knowledge. These competencies and skills point to potential professional development that could be undertaken through either informal or deliberate

planned/formal learning opportunities to re-skill and upskill to fit the learning designer's emerging needs. As part of this analysis, we extracted specific skills that individuals could develop in each core competency area. It is important to note the skills in each competency are indicative and not categorical, and some other skills can potentially be developed across multiple competency areas. The process of developing the framework is illustrated in Appendix 1 and 2 and presents how one moves from competencies to skills, as seen through the lens created by analysing those elements associated with job advertisements. Despite, the analysed jobs focused on learning design and educational development, the framework is applicable to other thirdspace professional roles that sit in the nexus of learning and teaching support/technology-enhanced learning space. Thus, the framework is not limited to learning or educational development context rather can potentially inform other related roles in the space. Further, while the job profiles analysed were Australian-focused, the framework can be operationalised or useful to individuals, institutions and organisations that relate to or share similar contexts.

This framework can potentially define what competencies organisations value and hence define the potential trajectories for personal and professional development. In this sense, the framework offers a lens through which individuals can reflect on their professional competency, skills, career, and focus areas to develop in response to changing professional needs. This is well characterised in Krumboltz (2009) happenstance learning theory that learning opportunities are planned and unplanned with learning outcomes resulting "to skills, interests, knowledge, beliefs, preferences, sensitivities, emotions, and future actions" (p. 135). Therefore, the above framework provides analytical opportunities and reference points for scoping professional development opportunities. It also provides structure and description of identified competencies, guiding individuals to relevant organisational and professional priorities.

The application of this framework can guide learning designers' professional development and assist in identifying existing competencies and skills gaps to take up formal and informal learning opportunities to shape their professional identity. It also provides a means for individuals to identify professional networks to join and engage in to build necessary professional skills. For individuals to operationalise the framework, there is first a need to self-assess to determine the skill set they possess in each competency, spot gaps, and plan how to fill the gaps in identified areas through formal or informal learning opportunities. The following discussions summarise how each competency can shape learning design profession identity forming and guide practice and then provide an example of how this has been framed in the job ads that were analysed for this research:

Learning design professional development framework Against generic competencies

Indicative skills: Indicative skills: Interpersonal skills, report writing, oral presentation, relationship building, blogging, social media, blog writing, editing, proofreading, critical thinking, media production, interpersonal skills, data visualisations, blogging, Infographics skills, preparing reports, training material, blog posts, effective communication,	Professional competency Effectively scope and understand educational technologies requirements and governance Indicative skills: Vendor engagement, data privacy, privacy protection, vendor relationship, due diligence, due diligence review, Intellectual property, intellectual property, management, legal compliance, data governance, risk mitigations, knowledge	Professional competency Demonstrate ability to effectively use of educational technologies Indicative skills: IT troubleshooting, media production, data visualisation, collaboration tools, learning analytics, LMS use, LTIs and APIs, collaborative tools, discussion tools, data analysis tools, visualisation tools, content authoring tools, content accessibility,
Interpersonal skills, report writing, oral presentation, relationship building, blogging, social media, blog writing, editing, proofreading, critical thinking, media production, interpersonal skills, data visualisations, blogging, Infographics skills, preparing reports, training material, blog posts,	Vendor engagement, data privacy, privacy protection, vendor relationship, due diligence, due diligence review, Intellectual property, intellectual property management, legal compliance, data governance, risk	IT troubleshooting, media production, data visualisation, collaboration tools, learning analytics, LMS use, LTIs and APIs, collaborative tools, discussion tools, data analysis tools, visualisation tools, content authoring tools, content accessibility,
strategic communication, newsletters, negotiation, writing	management, copyright, use of wikis, institutional knowledge management, ethics, risk management,	graphic design, Interactive learning material development, copyright, information literacy, Artificial Intelligence (AI) tool prompting, ethical use of AI tools
Research knowledge	Leadership Professional competency Demonstrate excellent skills	Project management
Professional competency Research informed decision n learning design and nterventions	in the management of resources, decision making and projects Indicative skills: Planning, decision-making, mentoring, crisis	Professional competency Demonstrate strong project management skills to deliver project outcomes within set timeframes
Indicative skills: Basic research, proposal preparation, proposal writing, surveys, data analysis, interviews, qualitative methods, quantitative methods, publication planning, research publication, data analysis, literature review, systematic literature review, ethics application, research process, research collaboration, interdisciplinary research, scholarship in teaching and learning poliny capabacia	management, strategic planning, risk management, supervisory skills, thought leadership, team building, workforce planning, people management, risk management framework, employee recruitment, leadership development, creative problem solving, budgeting, budget management, contract preparation, cash flow management, goal setting, prioritising tasks, financial management, management reporting, innovative,	Indicative skills: Curriculum project planning and development skills, project design, project management, meeting deadlines, scheduling, grant application, course development management, budgeting, budget management, project life cycle, project documentation, project evaluation and monitoring, project management software, risk management
	Research knowledge Professional competency Research informed decision in learning design and interventions Indicative skills: Basic research, proposal preparation, proposal writing, surveys, data analysis, interviews, qualitative methods, publication planning, research publication, data analysis, literature review, ethics application, research process, research collaboration, interdisciplinary research,	knowledge management, ethics, risk management,

Figure 1:

Summary of the competency and the indicative skills that learning designers need to develop in their professional development or advancement.

Pedagogy and Learning Design

For individuals to develop enhanced learning experiences with a focus on the learner, and to support educators to design authentic online learning, active learning and blended learning opportunities, understanding of learning principles, theories and learning design models is important. While learning designers might transition into the learning design profession from different pathways (Bird, 2004; Sage & Sankey, 2021), without prior teaching or learning design background, knowledge and a good grasp of pedagogical principles and learning theories are seen as essential. Such knowledge informs learning design choices and practices that are further enhanced when applying frameworks like, instructional design models (Merrill, 2002), the conversational framework (Laurillard, 2002), and even the Technology-Enhanced Learning Accreditation Standards (TELAS) framework (ASCILITE, 2022). Essentially this means learning designers are expected to be adaptive and diverse in drawing from a range of frameworks, models, principles and theories to design and produce optimal learning experiences for learners across a range of contexts (Gray et al., 2015). For instance, it is important to apply and draw on proven learning design models like Analysis Design Develop Implement Evaluate (ADDIE), Aims Storyboard Populate Implement Release Evaluate (ASPIRE) model and learning taxonomies such as Bloom's taxonomy and Structure of the Observed Learning Outcome (SOLO) model while designing learning. Such models and processes are core to developing constructively aligned assessments, reusable learning resources, courses and curriculum that support learners achieve intended learning outcomes.

Example statements from the advertisements

A deep understanding of adult learners and application of social constructivist approaches in an online environment.

Solid understanding of adult learning principles and how to apply them in design.

Designing and developing learning courses and learning interventions using advanced instructional design capability, incorporating Adult Learning Principles, Adult Learning Styles (Visual, Kinesthetic, Auditory), Scenario Simulation, Process Simulation, Customer Role Plays and other contemporary knowledge transfer techniques.

Strong understanding of adult learning principles and learning assessment/evaluation methods. Adult learning expertise.

Understanding how people learn to build the most effective and therefore optimal course delivery.

Apply advanced adult learning theories into practical, application-based learning solutions. Possess expert knowledge and experience around blended and online learning and teaching.

Digital Capabilities and Educational Technology Use

In learning institutions, learning designers' work is, to a great extent since COVID, now supporting the creation of online and hybrid learning and teaching (Zhang & Yu, 2023). It follows then, that the ability to use a range of digital and educational technologies confidently and creatively is essential. Such skills are core to the role given learning designers who are involved in the

development of learning resources in industries and learning institutions. In most institutions, learning designers by default deliver, or are required to provide professional development to support teaching staff on how to use the LMS and aligned educational tools or introducing new tools to improve students' learning experiences. Our analysis indicated that learning designers need to possess capabilities in use of interactive content authoring tools, development of SCORM packages, media/learning resource development, LMS and use of graphic design tools. In other words, learning designers should have or develop digital fluencies as are illustrated in the JISC digital literacy model https://www.jisc.ac.uk/guides/developing-digital-literacies# or other digital competency frameworks.

Example statements from the advertisements

Expert in the use of rapid authoring tools including animation. Likely to include, Articulate Storyline RISE.

Experience in using content authoring software to produce eLearning modules that are SCORM compliant that would be administered via our learning management system. e.g. iSpringSuit, Captivate or equivalent is desirable.

Storyline experience or similar instructional design tool experience and retail experience are highly desirable.

Proficiency in Microsoft Office and other office productivity tools, with the aptitude to learn new software and systems.

Well-developed computer skills including Microsoft Word, Excel, and Outlook, as well as an understanding and experience in the use of databases and/or HRIS.

Experience with learning management platforms such as Moodle and Open Learning, or the capacity to learn quickly.

Strong working knowledge of Articulate 360, Camtasia, Adobe CC (Premiere, After Effects, Illustrator, Photoshop, Audition) or equivalent.

Demonstrated technical knowledge and experience in building and troubleshooting in Learning Management Systems, preferably Brightspace.

Video editing and video production skills will be needed from time to time.

Create content and graphics, shoot and edit video and audio.

Visualise your work and communicate it clearly to others, from conception through to delivery. The ability to develop simple, clear, and effective visual

Innovation and Technology Governance

Organisations particularly higher learning institutions have a large learning technology ecosystem consisting of many interrelated technologies, such as an LMS, productivity tools, repositories, media streaming capacity and ePortfolio (Sankey, 2021) mostly provided by different vendors. The use of such IT infrastructure needs institutional guidance to protect the organisation/institution from any possible risks. Researchers have examined drivers of implementing IT governance in organisations and best practices (De Haes & Van Grembergen, 2006). While in this domain we did not find comprehensive statements in the selection criteria, the few criteria highlighted use of new technologies and innovation. These new technologies include use of Artificial Intelligence

(AI) applications and as we know such tools are not free of risks to the users and institutions. Such risks include privacy, data privacy breaches, intellectual property, academic integrity, ethical concerns, and copyright related issues. The learning design teams use and manage such educational technologies and resources. Therefore, technology governance knowledge is crucial to reduce any risks to the institutions and users of technologies and inspire innovative use.

The learning designers and teams are sometimes involved in scoping for educational technologies and determine if they meet the institutional policies. This means learning designers need to develop skills to conduct requirement analysis to determine if the prospective educational technologies are fit for institutional purposes and develop guidelines for users to support users. In this case the learning designers work closely or collaboratively with institutional information technologies units to achieve these goals. As the learning designers use and develop resources in institutions or play a key role in adoption or inform the institutions on the emerging trends in use of new technologies, they also need to develop skills to assess the risks and implications to the users and institutions. In summary, learning designers play important roles to inform and inspire best practices in using such emerging tools.

Example statements from the advertisements

Provide thought leadership in emerging digital learning trends to drive concrete design and learning experience implications.

Play a leading role in adopting innovations in online learning, identifying and implementing new technologies, and developing education designs to improve learning outcomes that enhance the student learning experience.

Capacity to interact with and critically evaluate new and emerging learning technologies

Leadership

Leadership is not a domain for one individual or senior group but is a distributed responsibility that individuals need to develop to accomplish work-related projects and responsibilities (Gronn, 2000). Learning designers work in teams and with clients (content matter experts). This itself requires LDs to provide leadership to manage a range of projects, mentor others and manage resources. The analysis of the data reveals that LDs should possess or provide leadership in managing projects, colleagues, and key accountabilities, understand policies related to compliance with quality assurance standards, be critical thinkers, and manage conflict and problem-solving issues. Leadership researchers have noted that "Successful leadership depends on the quality of attention and intention that the leader brings to any situation" (Scharmer, 2007, p.1). This means learning designers need to develop leadership skills to enhance their own and team performance, build good relationships with clients and foster a collaborative culture in their organisation or teams.

Example statements from the advertisements

Provide leadership and expert advice in digital learning design and pedagogy across a variety of programs, courses as well as stakeholders.

You speak frankly with your teammates and know that accountability, both yours and theirs, underpin success individually and as a team.

Take personal accountability for achieving the highest quality outcomes through understanding the [university] context, self-reflection, and aspiring to and striving for excellence.

Contribute to and foster a culture that values trust, collaboration, inclusivity, courage and empathy.

Manage and prioritise team responsibilities and workloads to meet quality and time targets.

The role manages complex; difficult or challenging matters/issues/tasks on a regular basis; These matters are often impacted by internal/external factors (technical; policies and procedures; industrial; funding; academic).

Possess highly developed analytical and problem-solving skills with the ability to proactively encourage and seek more efficient outcomes.

Support the National Training Manager, Training Compliance Manager and other team members with technical, strategic and best practice strategies to maximise outcome and maintain compliance.

You have experience in mentoring, motivating and leading others.

Communication Skills

As learning design involves interacting, negotiating, building and sustaining relationships with academics and other internal/external stakeholders, it is important that they have good communication skills. Similarly, ability to communicate in the forms of giving and receiving information and direction, skills to effectively engage the stakeholders in both written and verbal ways were identified as important communication skills. This finding conforms to the findings of the previous studies, with York and Ertmer (2016) maintaining that learning designers need to communicate well in negotiating, asking questions and seeking further information. They further argue that LDs should be able to communicate in plain language avoiding jargons. The ability to speak the language effectively (for example effective communication and avoiding jargon) was a recurrent theme in the findings as seen in the example statements below. These findings therefore suggest that any formal or informal learning opportunities should stress on developing future LDs' communication. Courses on LD should aim to develop communication skills as in Heggart & Dickson-Deane (2021). Organisation or individuals should put effort into developing oral and written communication skills.

Example statements from the advertisements

The position holder gives and receives information and direction from the Manager, Digital Learning Design and the Director.

Highly developed interpersonal and communication skills will be critical, as a key component of this position is to work with colleagues to build staff and student capacity, expertise and

confidence in digital teaching and learning and providing support and advice on innovative, consistent and sustainable teaching and learning practices.

Have excellent communication skills that will allow you to effectively engage our stakeholders and influence course and unit alignment with evidenced-based best-practice approaches and learning models.

Exceptional verbal and written communication skills, and interpersonal skills.

Exceptional communication skills – written and verbal.

You pride yourself on your command of the English language. You prefer to speak plainly so others understand you, as opposed to using industry jargon.

Experience in maintaining productive stakeholder relationships, with well-developed negotiation, conflict resolution, relationship building and influencing skills.

Demonstrated excellent communication skills and proven ability to secure the cooperation and engagement of a wide range of people within a complex environment.

Partnerships and Engagement

Most of the skills extracted in this competency emphasise the importance of professional networking and collaboration. LDs are in constant interaction and engagement with stakeholders e.g. in higher learning institutions with teaching staff, researchers, and external professional organisations in the process of designing new learning design projects or organising professional development opportunities i.e. seminars/ workshops. In many cases this is with other professional bodies like Australasian Society for Computers in Learning in Tertiary Education (ASCILITE), Australian Council on Open, Distance and E-Learning (ACODE) and other professional communities of practice. Such organisations are primarily created to provide professional development opportunities, provide mentorship opportunities and foster a community of practice. In this way, novice members can potentially learn from experienced ones through conferences, webinars and workshops in the community.

Furthermore, effective partnerships and engagement also require LDs to 'speak the language of clients' (York & Ertmer, 2016). This necessitates individuals to develop teamwork/collaboration (Lowell & Moore, 2020), and interpersonal and communications skills to interact with stakeholders effectively (Heggart & Dickson-Deane, 2021). Moreover, careful negotiation of professional relationships among the individuals, management of any potential conflicts, negotiation of terms /rules of engagement, and meeting stakeholders' expectations are important. Such identified essential skills support an individual's ability to build professional relationships to effectively collaborate, deliver and achieve collectively planned projects or goals.

Example statements from the advertisements

Work closely with other stream leads in the Office of Digital Education, to drive and implement continuous evidence-based strategies that enhance and improve the digital learning experience.

Collaborate with other Instructional Designers and Engagement specialists to ensure all developed content and S+ Engagement aligns with training and brand message.

Develop strong relationships with internal and external stakeholders to create learning activities and resources.

Work collaboratively in team initiatives contributing to projects and cooperate with wider team members with the commitment to achieve team goals and objectives via open communication, knowledge sharing and brainstorming sessions.

Proactive engagement with subject matter experts, lecturers and other stakeholders will facilitate the design and development of high-quality products and services.

Work in close collaboration with academic and teaching staff to develop innovative online multimedia resources.

Develop effective and cooperative relationships to support and enable a productive and positive learning environment.

Research Knowledge

The findings also revealed research knowledge and the ability to conduct research as a required competency for the learning design professionals. The LDs were asked to demonstrate strong research and analytical skills to make evidence-based learning design decisions. However, this is an interesting proposition now that many LD roles are not now academic roles as they once were, having been progressively professionalised over the last 20 years (McNally, et.al., 2022). Nevertheless, this has not diminished the importance of this function for the LD.

The advertisements, as in the example below, stated explicitly that the LD candidates must be able to conduct research, others implied that they should have research and analytical skills. Further, some advertisements require LDs to possess the ability to conduct needs/audience analysis or engage the audience to establish optimal training approaches and resources. Similarly, the advertisements mentioned LDs need to have problem-solving and analytical skills to identify business problems and offer solutions. All these activities require the LD to be able to conduct research and analyse data. Such findings, therefore, suggest that the LDs should possess competencies for gathering data and analysing them to identify problems or gaps to be able to offer/develop solutions. As not all LDs may have research skills or experience in conducting research independently, it is important they develop research and analytical skills. Any generative or transformative lifelong learning opportunities (Sessa & London, 2015) led by LDs themselves or supported by the institutions should, therefore, focus on developing or enhancing research and analytical skills.

Example statements from the advertisements

Research and data analysis to develop and implement best practice strategies across our training delivery.

Must be organised, able to research and analyse information in order to make appropriate decisions.

Consult and conduct needs analysis.

Research processes, procedures with relation to our application and translate these into clear and concise end user documentation.

Strong analytical skills with desire to deliver to a high-quality standard.

Undertake research.

The ability to research and analyse data; sourcing solutions and new ways to present content.

Project Management

The other recurrent theme in our data analysis was project management as most advertisements identified it being one of the key responsibilities. Some of the responsibilities under project management were to oversee projects, including developing and managing projects, setting up milestones, and working in agile environments to meet competing deadlines while focusing on details and efficiency. They were also expected to provide effective and timely reports. Studies note that LDs are required to manage projects (York & Ertmer, 2016), which Bellaby et al. (2020) observe is beyond the traditional roles they assumed. In their study, Bellaby et al (2020) also found that the LDs were being asked to develop and deliver on projects quicker than usual. Recognising this evolving need, degrees in learning design have introduced courses aimed at enhancing project management skills (Heggart & Dickson-Deane, 2021). However, traditional teacher education degrees do not necessarily have project management components in their curriculum. Thus, some LDs may lack project management skills and experiences, and those that follow indirect pathways to the learning design profession may find themselves underprepared for this role.

This clearly points to the need for LDs to learn project management approaches, tools, phases or processes and such learning can be undertaken individually or supported by the institution in the form of adaptive, generative and transformative learning (Sessa & London, 2015). Given how rapidly the learning design as a field is evolving (Bellaby et al., 2020), it is imperative that the learning process must be more proactive than reactive, therefore follow a degenerative or transformative learning approach to prepare the LDs for the evolving role.

Example statements from the advertisements

Oversee all digital design projects.

Project Management, training and change management experience and ability to deliver solutions to the business in time.

Experience leading large L&D initiatives/projects with demonstrated impact.

You have 2+ years' experience as a project manager in the e-learning industry (experience in project managing other forms of media production is also valid, particularly digital).

Project management across multiple courses.

Robust project management experience.

Balancing schedule and resources to deliver each product to an agreed standard across a set of milestones.

Working within a structured program or project management delivery Strong project management skills, including the ability to think creatively and devise practical solutions to complex problems, assess and manage risks, and deliver project outcomes within set timeframes.

Conclusions

This study provides an essential professional learning design framework to support learning design professionals in framing and developing professional identity. The LD profession is situated in what has become known as 'third space' professionals (McNally, et.al., 2022) with other professionals lacking clarity of what such a role or profession entails. The proposed professional framework provides opportunity for the LD to reshape identity and reflect on skill gaps to help in planning for re-skilling or upskilling as part of professional development in their own contexts.

Thus, this study contributes to the discussion of what professional competencies are essential for learning designers. This is demonstrated by moving from general competency to specific skills to support LD teams and individuals to operationalise LD competencies. While LD teams have performance review mechanisms, the framework provides a lens through which individuals can understand and contextualise broader competencies that reflect on what skills they possess and identify any skill gaps they may have. This can also support career changers to have a broader picture of what learning designers do or expected skill set to fit into the role of learning design.

The skills analytics approach, by way of analysing skills in selection criteria and identifying competencies, provides an indicative guide on what skills LDs teams and individuals. This way, individuals can plan to develop or acquire needed skills through a mix of formal and informal pathways in their own organisational contexts and needs. The study potentially informs LDs curriculum developers and new LDs teams on what competencies LDs need to develop, how to operationalise such LD PD frameworks, and what skills individuals need to have or develop.

The findings provide diagnostic opportunities for individuals (career advancers/new learning designers) to conduct skills self-assessments to determine what skills they possess, identify skills gaps and plan for professional development upskilling either through a formal or informal pathway. Additionally, it provides insights on what skills new learning designers and teams need to develop and potentially informs LD curriculum developers on the key focus areas in response to the current industry LD skill needs.

Conflict of Interest

The author(s) disclose that they have no actual or perceived conflicts of interest. The authors disclose that they have not received any funding for this manuscript beyond resourcing for academic time at their respective university.

References

- Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) (2022). https://ascilite.org/about-ascilite/
- Bellaby, A., Sankey, M., & Albert, L. (2020). Rising to the occasion: Exploring the changing emphasis on educational design during COVID-19. In S. Gregory, S. Warburton, & M. Parkes (Eds.), Australasian Society for Computers in Learning in Tertiary Education, Armidale University of New England Virtual Conference 30 November – 1 December 2020: ASCILITE's first virtual conference (pp. 145-155). ASCILITE.
- Bird, J. (2004). Professional navel gazing: Flexible learning professionals into the future. In R. Atkinson, C. McBeath, D. Jonas-Dwyer & R. Phillips (Eds.), *Beyond the comfort zone: Proceedings of the 21st ASCILITE Conference* (pp. 123-133). ASCILITE. <u>http://www.ascilite.org.au/conferences/perth04/procs/bird.html</u>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. <u>https://doi.org/10.1191/1478088706qp063oa</u>
- De Haes, S., & Van Grembergen, W. (2006, January). Information technology governance best practices in Belgian organisations. *Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06),* (pp. 195b-195b). IEEE.
- Gray, C. M., Dagli, C., Demiral-Uzan, M., Ergulec, F., Tan, V., Altuwaijri, A. A., Boling, E. (2015). Judgment and instructional design: How ID practitioners work in practice. *Performance Improvement Quarterly, 28*(3), 25–49. <u>https://doi.org/10.1002/piq.2119</u>
- Gronn, P. (2000). Distributed properties: A new architecture for leadership. *Educational Management & Administration*, *28*(3), 317-338.
- Hains-Wesson, R. & Rahman, N. (2023, March 8). Third space key to learning and teaching achievement. *Campus Morning Mail*. <u>https://tinyurl.com/third-space</u>
- Halupa, C. (2019). Differentiation of roles: Instructional designers and faculty in the creation of online courses. *International Journal of Higher Education*, *8*(1), 55–68.
- Heggart, K., & Dickson-Deane, C. (2022). What should learning designers learn? *Journal of Computing in Higher Education*, 34(2), 281-296. <u>https://doi.org/10.1007/s12528-021-09286-y</u>
- Houlden, S., & Veletsianos, G. (2019). A posthumanist critique of flexible online learning and its "anytime anyplace" claims. *British Journal of Educational Technology*, *50*(3), 1005–1018. <u>https://doi.org/10.1111/bjet.12779</u>
- Kang, Y., & Ritzhaupt, A. D. (2015). A job announcement analysis of educational technology professional positions: Knowledge, skills, and abilities. *Journal of Educational Technology Systems*, 43(3), 231-256. <u>https://doi.org/10.1177/0047239515570572</u>
- Kitto, K., Sarathy, N., Gromov, A., Liu, M., Musial, K., & Shum, S. B. (2020). Towards skills-based curriculum analytics: can we automate the recognition of prior learning?. *Proceedings of the Tenth International Conference on Learning Analytics & Knowledge* (171–180).
- Könings, K.D., Mordang, S., Smeenk, F., Stassen, L., & Ramani, S. (2021) Learner involvement in the co-creation of teaching and learning: *AMEE Guide No. 138, Medical Teacher, 43*(8), 924-936. <u>https://doi.org/10.1080/0142159X.2020.1838464</u>
- Kozlowski, S. W., & Farr, J. L. (1988). An integrative model of updating and performance. *Human Performance, 1*(1), 5-29.
- Krumboltz, J. D. (2009). The happenstance learning theory. *Journal of Career Assessment*, *17*(2), 135-154. <u>https://doi.org/10.1177/1069072708328861</u>

- Laurillard, D. (2002). *Rethinking university teaching: A conversational framework for the effective use of learning technologies.* Routledge.
- Littlejohn, A., Hood, N., Milligan, C., & Mustain, P. (2016). Learning in MOOCs: Motivations and self-regulated learning in MOOCs. *The Internet and Higher Education, 29*, 40-48. https://doi.org/10.1016/j.iheduc.2015.12.003
- London, M. (2021). Lifelong learning: introduction. In, M. London (Eds), *The Oxford handbook of lifelong learning* (pp. 1–12). Oxford University Press.
- Lowell, V. L., & Moore, R. L. (2020). Developing practical knowledge and skills of online instructional design students through authentic learning and real-world activities. *TechTrends*, 64(4), 581-590. <u>https://doi.org/10.1007/s11528-020-00518-z</u>
- MacLean, P., & Scott, B. (2011). Competencies for learning design: A review of the literature and a proposed framework. *British Journal of Educational Technology*, *42*(4), 557–572.
- Malcolm, J., Hodkinson, P. and Colley, H. (2003). The interrelationships between informal and formal learning. *Journal of Workplace Learning*,15 (7/8) 313–318. <u>https://doi.org/10.1108/13665620310504783</u>
- McNally, C., Haggart, K., Kelly, O., Arumugam, P. & Murray, F. (2022, December 4-7). Navigating the third space: the online community mentoring program [Conference Presentation]. 39th International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education, ASCILITE 2022, Sydney, NSW, Australia. <u>https://doi.org/10.14742/apubs.2022.246</u>
- Merrill, M.D. (2002). First principles of instruction. *Educational Technology Research and Development, 50,* 43–59. <u>https://doi.org/10.1007/BF02505024</u>
- Michos, K., & Hernández-Leo, D. (2018). Supporting awareness in communities of learning design practice. *Computers in Human Behavior*, 85, 255-270. https://doi.org/10.1016/j.chb.2018.04.008
- Miller, S. & Stein. G. (2016, February 8). Finding our voice: Instructional designers in higher education. *Educause Review*. <u>https://er.educause.edu/articles/2016/2/finding-our-voice-instructional-designers-in-higher-education</u>
- Mitchell, K., Simpson, C., & Adach, C. (2017). What's in a name. The ambiguity and complexity of technology enhanced learning roles. In H. Partridge, K. Davis, & J. Thomas. (Eds.), *Me*, *Us*, *IT! Proceedings ASCILITE2017: 34th International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education* (pp. 147-151). ASCILITE.
- Nichols, M., & Meuleman, N. (2017). Reflections of a new educational designer. *Journal of Open, Flexible and Distance Learning, 21*(2), 31-43.
- Obexer, R., & Giardina, N. (2016). What is a Learning Designer? Support roles and structures for collaborative E-Learning implementation. In *Digitale Medien: Zusammenarbeit in der Bildung* (pp. 137-146).

https://www.pedocs.de/volltexte/2018/15787/pdf/MidW_71_Obexer_Giardina_What_is_a_Le arning_Designer.pdf

Sage, J., & Sankey, M. (2021). Managing career transitions into post-secondary learning designer jobs: An Australasian perspective. In S. Gregory, S. Warburton, & M. Schier (Eds.), *Back to the Future – ASCILITE '21. Proceedings ASCILITE 2021 in Armidale* (pp. 22–31). <u>https://doi.org/10.14742/ascilite2021.0103</u>

- Sankey, M. (2021). Learning Technologies. In L. Hunt & D. Chalmers (Eds), *University teaching in focus: A learning-centred approach* (2nd ed., pp. 179–198). Routledge.
- Scharmer, C. O. (2007). Addressing the blind spot of our time: An executive summary of the new book by Otto Scharmer Theory U: Leading from the Future as It Emerges. *The Social Technology of Presencing*. <u>https://gudrunmiller.de/wp-content/uploads/2015/11/Adressing-the-blind-spot.pdf</u>
- Sessa, V. I., & London, M. (2015). Continuous learning in organizations: Individual, group, and organizational perspectives. Psychology Press.
- Shum, S. B., Littlejohn, A., Kitto, K., & Crick, R. (2022). Framing professional learning analytics as reframing oneself. *IEEE Transactions on Learning Technologies*, *15*(5), 634–649. <u>https://doi.org/10.1109/TLT.2022.3190055</u>
- Thorogood, N., & Green, J. (2018). Qualitative methods for health research. In J. Green, & N. Thorgood (Eds), *Qualitative Methods for Health Research (*pp. 1–440). Sage.
- White, S. (2019). Teacher educators for new times? Redefining an important occupational group,JournalofEducationforTeaching,45(2),200–213.https://doi.org/10.1080/02607476.2018.1548174
- Xie, J., Gulinna, L. A., & Rice, M. (2021). Instructional designers' perceptions of their roles in Emergency Remote Teaching. *Distance Education*, 42(1), 70-87. <u>https://doi.org/10.1080/01587919.2020.1869526</u>
- York, C. S., & Ertmer, P. A. (2016). Examining instructional design principles applied by experienced designers in practice. *Performance Improvement Quarterly, 29*(2), 169-192. https://doi.org/10.1002/piq.21220
- Zhang, J., & Yu, S. (2023). Reconceptualising digital pedagogy during the COVID-19 pandemic: A qualitative inquiry into distance teaching in China. *Innovations in Education and Teaching International, 60*(2), 174–184. <u>https://doi/org/10.1080/14703297.2021.2000473</u>

Appendix 1

Step 1 of coding: in	n developing broader competencies

Theme	Example selection criteria
Communication skills	The position holder gives and receives information and direction from the Manager, Digital Learning Design and the Director. Highly developed interpersonal and communication skills will be critical, as a key component of this position is to work with colleagues to build staff and student capacity, expertise and confidence in digital teaching and learning and providing support and advice on innovative, consistent and sustainable teaching and learning practices. Have excellent communication skills that will allow you to effectively engage our stakeholders and influence course and unit alignment with evidenced-based best-practice approaches and learning models. Exceptional verbal and written communication skills, and interpersonal skills. Exceptional communication skills – written and verbal. You pride yourself on your command of the English language. You prefer to speak plainly so others understand you, as opposed to using industry jargon. Experience in maintaining productive stakeholder relationships, with well- developed negotiation, conflict resolution, relationship building and influencing skills. Demonstrated excellent communication skills and proven ability to secure the cooperation and engagement of a wide range of people within a complex environment.
Educational technologies use/Digital capabilities	 Expert in the use of rapid authoring tools including animation. Likely to include, Articulate Storyline RISE. Experience in using content authoring software to produce eLearning modules that are SCORM compliant that would be administered via our learning management system. eg. iSpringSuit, Captivate or equivalent is desirable. Storyline experience or similar instructional design tool experience and retail experience are highly desirable. Proficiency in Microsoft Office and other office productivity tools, with the aptitude to learn new software and systems. Well-developed computer skills including Microsoft Word, Excel, and Outlook, as well as an understanding and experience in the use of databases and/or HRIS. Experience with learning management platforms such as Moodle and Open Learning, or the capacity to learn quickly. Strong working knowledge of Articulate 360, Camtasia, Adobe CC (Premiere, After Effects, Illustrator, Photoshop, Audition) or equivalent. Demonstrated technical knowledge and experience in building and troubleshooting in Learning Management Systems, preferably Brightspace.
Leadership skills	Provide leadership and expert advice in digital learning design and pedagogy across a variety of programs, courses as well as stakeholders. You speak frankly with your teammates and know that accountability, both yours and theirs, underpin success individually and as a team.

	Take personal accountability for achieving the highest quality outcomes through understanding the [university] context, self-reflection, and aspiring to and striving for excellence. Contribute to and foster a culture that values trust, collaboration, inclusivity, courage and empathy. Manage and prioritise team responsibilities and workloads to meet quality and time targets. The role manages complex; difficult or challenging matters/issues/tasks on a regular basis; These matters are often impacted by internal/external factors (technical; policies and procedures; industrial; funding; academic). Possess highly developed analytical and problem-solving skills with the ability to proactively encourage and seek more efficient outcomes. Support the National Training Manager, Training Compliance Manager and other team members with technical, strategic and best practice strategies to maximise outcome and maintain compliance. You have experience in mentoring, motivating and leading others.
Partnerships and engagement	Work closely with other stream leads in the Office of Digital Education, to drive and implement continuous evidence based strategies that enhance and improve the digital learning experience. Collaborate with other Instructional Designers and Engagement Specialist to ensure all developed content and S+ Engagement aligns with training and brand message. Develop strong relationships with internal and external stakeholders to create learning activities and resources. Work collaboratively in team initiatives contributing to projects and cooperate with wider team members with the commitment to achieve team goals and objectives via open communication, knowledge sharing and brainstorming sessions. Proactive engagement with subject matter experts, lecturers and other stakeholders will facilitate the design and development of high-quality products and services. Work in close collaboration with academic and teaching staff to develop innovative online multimedia resources.
Pedagogy and learning design	A deep understanding of adult learners and application of social constructivist approaches in an online environment. A strong grasp of pedagogical principles. Solid understanding of adult learning principles and how to apply them in design. Designing and developing learning courses and learning interventions using advanced instructional design capability, incorporating Adult Learning Principles, Adult Learning Styles (Visual, Kinesthetic, Auditory), Scenario Simulation, Process Simulation, Customer Role Plays and other contemporary knowledge transfer techniques. Strong understanding of adult learning principles and learning assessment/evaluation methods. Adult learning expertise.

	Understanding how people learn to build the most effective and therefore optimal course delivery. Apply advanced adult learning theories into practical, application-based learning solutions.
Research knowledge	Research and data analysis to develop and implement best practice strategies across our training delivery. Must be organised, able to research and analyse information in order to make appropriate decisions. Consult and conduct needs analysis. Research processes, procedures with relation to our application and translate these into clear and concise end user documentation. Strong analytical skills with desire to deliver to a high-quality standard. Undertake research. The ability to research and analyse data; sourcing solutions and new ways to present content.
Technology governance	Provide thought leadership in emerging digital learning trends to drive concrete design and learning experience implications. Play a leading role in adopting innovations in online learning, identifying, and implementing new technologies, and developing education designs to improve learning outcomes that enhance the student learning experience. Capacity to interact with and critically evaluate new and emerging learning technologies

Appendix 2

Step 2 of coding: extracting sub-themes with counts to macro skills as identified in the data

Themes	Sub-themes	Counts	Knowledge and Skills
Leadership	Accountability	2	Taking accountability, valuing accountability through self-reflection, aspiring, striving for excellence
	Commitment to inclusivity and ethical practice	2	Committing to cultural diversity and ethical practice principles, knowledge of equal employment opportunity and workplace health and safety
	Communication Negotiation Writing, editing & proofreading	12 3 6	Oral and written communication skill, communicate policies, procedure, initiatives and directions with stakeholders in, coordinate joint activities, skills to disseminate information and direction to the team. Well-developed negotiation and influencing skills, creative writing skills, professional writing, editing and proofreading skills; high quality editorial, quality assurance and learning design measures to deliver high-quality content
	Managing team Conflict resolution Providing support Problem solving skills	1 1 1 4	Skills to manage team and prioritise responsibilities and workloads, skills to foster a team that values trust, collaboration, courage, empathy and inclusivity, conflict resolution skills
	Mentorship	7	Skills to coach, mentor, motivate and upskill others, delegate tasks, support the trainers in the continuous improvement of the training materials, assist the leadership team in onboarding and induction, facilitate instructors how to structure and develop their subject knowledge for online learning;
	Compliance & QA	16	Skills to align training resources and training to the compliance regulations, brands, standards and external regulators (e.g. AQTF, VET regulators and ASQA); skills to conduct mapping of training packages to AQF and RTO Standards
	Confidence	1	Confidence and courage in achieving the values of the institution
	Critical thinking	3	Critical thinking skills to make recommendations; to meet changing demands; and provide business

			aligned solutions; determined implement resolutions to complex issues
Learning Design	Constructive alignment	5	Skills and knowledge curriculum design, writing learning objectives and outcomes, content requirements and doing course mapping
	Workshop/training design & facilitation	13	Skills and knowledge to plan, analyse, design and deliver training packages training courses to key stakeholders (academics, business patterns, staff) face-to-face, online or asynchronously
	Instructional design	14	Instructional design skills including audience analysis, needs analysis, development of scope, design specification, performance-based objectives, assessment and curriculum development
	Learning resource development, review and refine	21	Skills to create, design, develop, test and implement effective, innovative student focussed online learning and on-going digital education content and resources for technology enhanced learning experiences for use by staff and students online and in classroom; designing and developing digital products at scale and pace; Develop digital learning offering to lead digital transition; continuously improving the learning content; abilities to convert complex technical concepts into simple, practical and approachable course materials; skills to develop and deliver education technology focussed event and workshop content; develop and deliver institutional showcases of [exemplar] learning and teaching practice.
	Learning solutions & tools	16	Skills to adopt innovation in online learning by identifying and implementing new technologies; keeping abreast to new technologies and acumen for technological innovation; designing online learning solutions and solid support model and tools for learner programs; skills to design and build capabilities focussed learning solutions on the tools; using a range of tools
	Learning theories	17	Knowledge of pedagogical principles including adult learning, e-learning and social constructivist learning principles and their application; understanding of learning assessment and evaluation methods; ability to decide on the most suitable modes of instruction and writing and structuring content to bolster student retention

	Knowledge of LD principles	10	Knowledge of learning/education design principles (relevant to the higher education sector), strategies and theories and the ability to apply those concepts for student-centred learning experiences; abilities to implement learning management site design principles for enhanced student learning experiences
	Subject matter specialisation / Industry knowledge	9	Knowledge of different disciplines, including hospitality, retail, event, leisure, sakes, marketing or customer service industry; specialisation in academic integrity, English language support and employability; experience from a teaching or training background.
	Learning and development experience and skills	18	Experience in organisational training and development;
Project management	Managing/Supervisin g project	21	Oversee digital design projects; plan work activity, prioritise time and resources; meet project timelines by working collaboratively; skills to prioritise and multitask
	Co-design	3	Experience in collaborative learning design and associated processes; skills to work with clients through co-design processes
	Design thinking	1	Experienced in design thinking practices
	Detail oriented	3	Strong attention to detail and work accurately
	Project coordination	2	Strong planning and organising skills to effectively work tasks and projects to ensure priorities; coordinate design projects to achieve project objectives
	Reporting	3	Reporting on key developments in a creative, clear, consistent and accessible ways
	Time management	7	High level time management skills, prioritisation of multiple tasks simultaneously and adhering to critical deadlines
Research skills		9	Strong research and analytical skills to develop and implement best practice strategies in the training package and to develop sourcing solutions; identify local and divisional training need; identify gaps or limitation to develop skill and refresher courses;

Supporting business	Operation (just in time support) Growth	56	Ability to provide operational support to academic staff by giving advice and recommendations Ability to monitor quality fo learning to ensure solutions to meet business needs; using business knowledge to help drive business improvements
Technological knowledge & skills		21	Skills to use HTML, Java Script, Adobe Photoshop and Illustrator, Articulate (360, Storyline and Rise) SCORM, LMSes (Moodle, Canvas, Blackboard, Axcelerate, Open Learning, Brightspace), Vyond, Adobe Suite, SAP LITMOS, Warehouse Management System, Captivate, Lectora, Microsoft Office Suite, HRIS, authoring tools (RAT) Coding Skills (HTML and CSS)