

**Strategically Leveraging Learning Technologies for Sustained Employee Engagement and
Performance in Professional Service Firms**

by

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Abstract

Organizations increasingly adopt learning technologies to strengthen employee development and performance. Yet, more than 70% of organizations struggle to realize the expected value from these technologies, despite rapid advancements in artificial intelligence (AI) and digital learning platforms. This research explored the evolution of learning technology, organizational learning, and the application of a learning platform. The qualitative study examined the implementation of an AI-powered learning experience platform within a global professional service firm to identify factors that influence optimal utilization and strategies for maximizing organizational value. Guided by Clark and Estes' (2008) knowledge, motivation, organization (KMO) framework, the study explored how knowledge, motivation, and organizational support interact to shape adoption behaviors and learning outcomes. Fifteen semi-structured interviews with leaders across multiple levels provided rich insights into their experiences, beliefs, and strategies related to technology-enabled learning. Framework analysis and researcher reflection elucidated the importance of aligning human capability, technological design, and organizational systems. While effective technology integration provides the infrastructure for scalable, personalized learning, its success depends on cultivating a learning culture, leadership endorsement, and psychological safety that encourage experimentation and continuous improvement. The findings underscore that AI-enhanced learning systems can accelerate capability building and performance with the support of strong organizational commitment and adaptive leadership. The study contributes practical and theoretical insights into how professional service firms can leverage learning technologies strategically to experiment, encourage, and excel.

Keywords: Learning technology adoption, organizational learning, artificial intelligence, leadership and culture, professional service firms

Dedication

To my daughter Qinyuan (Zoe),

不积跬步，无以至千里；不积小流，无以成江海 《荀子·劝学》

Without taking small steps, one can never travel a thousand miles;

without gathering small streams, one can never form a mighty river.

— Xunzi (*Encouraging Learning*, ca. 313–238 BCE)

May you always possess the curiosity and perseverance that inspire you each day.

May you forever remember to build progress one step at a time.

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List of Abbreviations

AI	Artificial intelligence
API	Application programming interface
AR	Augmented reality
CAI	Computer-assisted instruction
CAQDAS	Computer-assisted qualitative data analysis software
CPD	Continuous professional development
HR	Human resources
IRB	Institutional review board
ITR	Interviewee transcript review
KM	Knowledge management
KMO	Knowledge, motivation, and organizational influences
L&D	Learning and development
LMS	Learning management system
LXP	Learning experience platform
ROI	Return on investment
TAM	Technology acceptance model
USC	University of Southern California's
VR	Virtual reality
xAPI	Experience API

Chapter One: Introduction to the Study

Learning is a critical driver of organizational adaptability and competitiveness in the face of technological advancement and market volatility that characterize the current business landscape (Azadegan et al., 2019; Eroglu & Gurol, 2021; Siciliano, 2017). Despite significant investments in learning technologies, organizations struggle to optimize these tools to achieve their business objectives effectively. According to Fosway's Digital Learning Reality report (2023), nearly 50% of organizations find their learning platforms unsuitable for their workforce, and the number increases to 60% in the 2024 report (Danzel, 2024; Fosway Group, 2024). The limited use of advanced features, technical integration issues (Keržič et al., 2021), and misalignment between learning tools and business goals (Giannakos et al., 2022) exacerbate the underutilization. The barriers contribute to low engagement, reduced adoption rates, and increased employee turnover (Delone & McLean, 2003). In this context, 68% of employees globally report feeling disengaged (The Human Capital Institute, 2019), further underscoring the disconnect between learning technologies and the needs of the workforce (The Human Capital Institute, 2019). Additionally, when learning technologies fail to align with employees' actual requirements, training programs become redundant or irrelevant (Kapo et al., 2024), diminishing their overall effectiveness. These challenges collectively highlight the inefficacy of leveraging learning technologies to support individual growth and serve business goals.

With the rapid advancement of learning technology and artificial intelligence (AI), organizations find their learning ecosystems, such as learning experience platforms, learning management systems, and AI-powered coaching tools, to be underwhelming (Giannakos et al., 2022; Kapo et al., 2024; Keržič et al., 2021). Addressing this problem is essential, as aligning learning technologies with business objectives is key to delivering business outcomes and

cultivating an engaged workforce (Giannakos et al., 2022, 2021; Li, 2024). Technavio's market analysis (2023) forecasts the corporate e-learning market's value to surpass \$200 billion, with projected growth exceeding \$150 billion by 2028. Organizations that fail to optimize learning and development technologies risk decreased productivity, higher employee turnover, and a stagnant organizational culture (Giannakos et al., 2022; Leuhery, 2024). This study aims to understand how a global professional service firm can strategically implement learning technologies to optimize knowledge transfer, employee engagement, and performance improvement, ensuring alignment with operational needs and strategic business objectives.

Context and Background of the Problem

ABC (a pseudonym), a professional services firm, relies on its people to deliver high-quality work and stay competitive in the market.¹ To equip its people, the most valuable asset, with future-fit skills and capabilities, learning technology is emerging as a popular application to drive learning efficiency, scale productivity, and have a positive impact. Targeting a continuous learning and innovation culture, ABC upgrades its learning experience platform to uplift employee engagement, improve client service quality, and ensure its workforce remains at the forefront in a rapidly changing market. Compared to the legacy system, adopting the new AI-powered platform effectively becomes an organization-wide change initiative to enhance workforce capabilities, increase employee engagement, and improve performance, aligning with business objectives.

Organizational learning is critical to creating value from its workforce and intangible assets (Giannakos et al., 2022). Research shows that organizations are increasingly adopting

¹ Information derived from organizational websites/documents not cited to protect anonymity.

learning technologies to enhance knowledge flow and support their workforce's upskilling and reskilling. These technologies enable employees to learn asynchronously and collaborate digitally, addressing the constraints of traditional training methods (Giannakos et al., 2022). However, organizational learning does not occur smoothly due to various barriers and breakdowns (Engeström et al., 2007). Research remains limited in understanding how learning and development (L&D) technologies directly support organizational learning and long-term performance. While studies have explored the role of digital learning tools, few have examined how well these tools align with business objectives and contribute to measurable outcomes such as knowledge retention and skill application (Popova-Nowak & Cseh, 2015). Research on the integration of learning analytics and AI for personalized learning remains scarce (Bernacki et al., 2021), despite the growing importance of data-driven decision-making across industries (Long & Siemens, 2011). Similarly, the impact of social and collaborative learning tools on organizational knowledge transfer is under-researched and warrants further attention (Garavan et al., 2020; Qi & Chau, 2016).

Empirical work has yet to clarify how organizations can strategically implement learning technologies to optimize knowledge transfer and performance improvement while ensuring alignment with their operational needs (El Kadiri et al., 2016; Giannakos et al., 2022). More research should focus on exploring industry-specific applications, employee engagement factors, and data-driven methods to measure the long-term impact of learning technologies on organizational success (Long & Siemens, 2011). The suboptimal use of learning technology in the workplace hinders the realization of technology value, learner engagement, and learning effectiveness. In this study, implementing the new learning experience platform presents a

valuable opportunity to review and identify the challenges and opportunities of applying learning technologies in future enterprises to achieve success.

Organizational Goal

At ABC, launching the new learning experience platform is part of the firm's skills strategy, which connects learning with role-based skills development. The goal is to achieve a higher adoption rate (>85%) than the existing platform by introducing personalized learning recommendations tailored to individual skills, along with an integrated AI-powered coaching bot. The skills strategy advocates for continuous learning and supports employees' skill development with a human-centered and tech-empowered approach. Beyond the adoption rate, engaging with the new learning platform also supports organizational culture transformation, creating greater clarity for career progression based on skill expectations and boosting individuals' agency to grow, as well as organizations' strategic workforce planning. Upon the successful implementation of the platform, employee engagement and learning integration into workflow become part of the career progression experiences in the firm.

The successful outcome is to achieve coherent and effective learning experiences throughout the entire employee life cycle, from recruitment and onboarding to talent development, retention, and alumni management. This outcome is crucial for the firm, as it aims to democratize learning, ensuring that employees across all businesses have equitable access to growth and career development opportunities. The learning platform enables the outcome by facilitating self-driven learning with flexibility and social learning with collaboration.

Description of Stakeholder Groups

The learning platform is related to several stakeholder groups at various levels. Senior business leaders and partners can benefit from engaging with the platform to understand their

business capabilities and potential gaps in meeting market demand, and identify ways to stay ahead of client demand with agility. The human resources team, dedicated to attracting, developing, and retaining the firm's most valuable asset, people, can use the platform to identify learning behavior patterns and make data-based decisions. Team leaders typically manage dual roles as drivers and facilitators of change (Austin, 2016) to ensure successful execution. Their roles are fundamental to the success of any change, including the launch of learning technology (Berger, 2014). They can be role models who courageously embrace new technology and catalysts for transparent communication between senior executives and broader employee groups. The employees also represent an important stakeholder group, as they are the targeted audience for the learning platform to serve. How they interact and engage with the platform essentially represents the utilization and demonstrates the platform's impact.

Stakeholder Group for the Study

Aligning with the organizational goal, the study will consider the impact on the various stakeholders discussed in the previous section. For practical reasons, the organizational leader group is the focus of the evaluation and analysis. Organizational leaders can be both learners ready to upskill (Bensimon & Neumann, 1993) and leaders who understand the rationale behind the change, influencing their followers to achieve a common business goal (Northouse, 2022). Because organizational leaders normally have more power and control than their team members, the nature of the leadership gives them a better opportunity to influence others (Bunderson & Reagans, 2011; Northouse, 2022). Meanwhile, organizational leaders, especially at the middle level, are also members of their leader's team, so the positionality enables them to represent the employees with empathy and relatedness. Unless the organizational leaders are fully appreciative and understand the change, the launch of the learning platform could be another technology

initiative that merely ticks the box. Without a widely adopted and accessible learning platform, team leaders lose an important tool for personal growth and a mechanism to accelerate the team's capability to achieve business goals.

Stakeholder Performance Goals

ABC aims to position itself as a leading professional services firm within the next three to five years. To achieve this vision, the organization has defined its mission and performance goal (see Table 1) as strategic anchors for growth and capability building. Organizational leaders are responsible for cultivating a workplace that integrates technological advancement with human potential, enabling employees to learn, adapt, and contribute to the firm's sustained success.

Table 1

Organizational Mission, Organizational Performance Goal, and Stakeholder Goal

Organizational mission
The organizational mission is to bring together people, business, technology, and ideas to build trust in society and solve important problems.
Organizational performance goal
By 2028, the organization aims to become a leading professional services firm, distinguished by its commitment to providing employees with 100% on-demand access to learning resources, empowering them to achieve their full potential.
Stakeholder goal
The stakeholder goal is to build a supportive, innovative, and inclusive workplace by leveraging cutting-edge technologies to support skill development and career growth for all employees.

Purpose of the Project and Research Questions

The purpose of this study is to understand how organizations can strategically implement and adopt learning technologies to optimize knowledge transfer, enhance employee engagement, and improve performance, while ensuring alignment with operational needs and strategic business objectives. The study also aims to identify the influencing factors and organizational

strategies that support effective technology integration, leading to measurable outcomes. By applying the Clark and Estes gap analysis framework, this research investigates organizational leaders' perceptions, beliefs, and strategies concerning the integration of learning and development initiatives through technology. The goal is to surface actionable insights and propose evidence-based strategies to address performance gaps and enhance the use of learning technologies in professional service environments.

The following research questions guide the inquiry, aligning with the framework's emphasis on knowledge, motivation, and organizational factors:

1. What knowledge, motivation, and organizational factors influence organizational leaders' efforts to utilize learning technologies to enhance knowledge transfer, employee engagement, and performance in alignment with strategic business goals?
2. What opportunities related to knowledge, motivation, and organizational factors do organizational leaders perceive can enhance the adoption and impact of learning technologies to achieve measurable improvements in knowledge transfer, employee engagement, and performance aligned with strategic business goals?

Importance of the Study

Technological innovation represents a core external threat organizations face within evolving environments (Costanza et al., 2016; Meinhardt et al., 2018; Zhou et al., 2019). Recent research indicates that 26% of companies achieve measurable success from technologies such as AI and learning platforms, whereas 74% encounter challenges with scaling and implementation (BCG, 2024). Accenture (2024) reported that approximately 50% of digital transformation projects fail, primarily due to issues in change management or employee resistance. Poor

adoption rates result in reduced return on investment (ROI), performance gaps, and employee disengagement, negatively impacting learning initiatives (Gravity Global, 2024; KPMG, 2024).

ABC implements its new learning platform as part of its skills strategy, aimed at driving culture transformation and accelerating growth. According to McKinsey (2022), approximately 70% of digital transformation initiatives fail, and fewer than 30% of learning technologies lead to successful outcomes. The underutilization indicates a performance gap that discourages users from engaging in ongoing learning. Allied Market Research (2024) valued the corporate training market at \$361.5 billion in 2023 and projects it will reach \$805.6 billion by 2035. However, insufficient ROI data highlights that organizations struggle to fully realize the potential of their investments in learning technologies (Gravity Global, 2024; KPMG, 2024).

Overview of Theoretical Framework and Methodology

This study applies the Clark and Estes (2008) gap analysis framework to identify discrepancies between optimal and actual stakeholder performance in organizational contexts. The framework categorizes these discrepancies into knowledge, motivation, and organizational factors. By diagnosing influencing factors and uncovering opportunities across these categories, organizations can develop targeted interventions to drive improvements (Clark & Estes, 2008; Kirkpatrick & Kirkpatrick, 2018). The framework's multidimensional structure extends Davis' (1989) technology acceptance model (TAM), which focuses on perceived usefulness and ease of use as critical variables influencing the adoption of technology.

The study incorporated three core knowledge types to assess the depth and breadth of knowledge required for effective technology utilization: declarative knowledge of understanding what and why, procedural knowledge of how to perform tasks, and metacognitive ability to seek help, self-monitor, and regulate one's learning processes. This classification supports a detailed

analysis of learning requirements aligned with the Clark and Estes framework. As Alexander et al. (2009) emphasized, effective learning depends on the integration of these multiple knowledge levels.

The framework also elucidates motivational factors, including expectancy-value, self-efficacy, and goal attainment. Expectancy-value theory explains how individuals' beliefs about task value and expected success influence engagement (Wigfield & Eccles, 2000). Bandura (1997) highlighted the role of self-efficacy in influencing individuals' adoption of behaviors. Specific, challenging but attainable goals can stimulate action to develop and demonstrate competency as a motivational process (Chadwick & Raver, 2015; Elliot, 2006; Elliot et al., 2017; Schunk & Usher, 2019). These motivational factors intersect with TAM's emphasis on perceived usefulness, reinforcing their relevance in understanding stakeholder readiness and behavior (Davis, 1989). Additionally, the framework addresses organizational factors, including leadership support, access to resources, and a culture conducive to continuous learning. These elements correspond to Senge's (2006) concept of the learning organization, underscoring systemic thinking, shared vision, and capacity building as essential to enabling sustainable learning environments.

Guided by the pragmatist paradigm, this study employed a qualitative approach to evaluate ABC's implementation of a learning experience platform (LXP) and identify the factors influencing its effectiveness. The qualitative approach is appropriate for capturing the complexity of organizational dynamics and participants' subjective experiences (Creswell, 2009; Merriam & Tisdell, 2016). Data collection methods included semi-structured interviews with team leaders at multiple levels and document analysis. Semi-structured interviews facilitated flexible, open-ended discussions, encouraging participants to elaborate on their perceptions,

challenges, and strategies related to technology use (Dhanani & Connolly, 2015). Document analysis served as a secondary data source, offering baseline insights into the organizational context. These methods facilitated a deeper understanding of both behavioral and contextual dynamics. The pragmatist qualitative approach emphasized actionable insights from participants' experiences, informing practical solutions to organizational challenges (Burke, 2018).

The Clark and Estes's framework informed the structure of data collection and an interpretive lens for analysis. As Creswell (2009) recommended for exploratory qualitative research, integrating multiple data sources supported a comprehensive understanding of stakeholder perspectives. Through the interpretive lens, the inquiry discovered meaning within participants' perceived environments, reflecting Creswell's emphasis on capturing "personal, research-based, and action meanings" (2009, p. 176). Ultimately, the study intends to provide actionable, evidence-based recommendations that improve learning technology implementation and organizational performance.

Definition of Terms

The definitions clarify key terms used throughout this study. Each definition aligns with its origin from literature and contemporary usage in the professional service sector. The research applies both meanings interchangeably throughout the analysis.

Learning experience platform emphasizes learner-centered and flexible learning environments, enabling access to content from multiple sources (Howspace, 2019). Valamis (2024) explains LXP as a learning software aiming to provide a user experience similar to that of consumer software, emphasizing personalized learning and easy access to new learning opportunities. The study refers to LXP as a representative learning technology that ABC

implemented to improve knowledge transfer, employee engagement, and performance aligned with strategic business goals.

Learning technology refers to the application of technological processes and resources to enhance educational outcomes and facilitate learning experiences through digital platforms, multimedia, instructional design, and data-driven personalization (Martin et al., 2020; Siemens, 2013). The Association for Learning Technology (2024) defines learning technology as a comprehensive suite of technologies that support and improve the education process through communication and information tools.

Organization of the Study

This dissertation follows a traditional five-chapter structure. Chapter One introduces the study, outlining the background, problem statement, purpose, research questions, significance, theoretical framework, and methodology. Chapter Two reviews the relevant literature, including foundational theories, empirical constructs, and a conceptual framework that guides the study. Chapter Three describes the qualitative research methodology, including the research design, participant selection, data collection, analysis procedures, and ethical considerations. Chapter Four presents qualitative findings in correspondence with the research questions and discusses their implications for both practice and theory. Chapter Five summarizes key insights, offers recommendations, and identifies areas for future research, emphasizing practical and theoretical contributions to the field.

Chapter Two: Review of the Literature

Organizations increasingly invest in learning technologies to enhance workforce productivity and upskilling effectiveness (Leuhery, 2024). Despite the investments, professional service organizations continue to encounter suboptimal outcomes because of persistent challenges in adopting and fully integrating these technologies (Fosway Group, 2023, 2024; Giannakos et al., 2022; Leuhery, 2024). This literature review chapter explores the learning technologies' advancement and the factors affecting their adoption through four main sections. The first section examines the evolution of learning technologies over the last decade, highlighting the emergence and efficacy of learning experience platforms (LXPs) in integrating continuous learning into everyday organizational activities. The second section introduces Clark and Estes's (2008) gap analysis framework, highlighting how it systematically addresses knowledge, motivation, and organizational (KMO) factors. Third, the review delves deeper into KMO influences, focusing on knowledge types, motivational drivers, and organizational contexts within professional services. Lastly, the chapter synthesizes the literature into a conceptual framework, identifying performance gaps and targeted strategies to optimize the implementation of learning technologies in professional service organizations.

Learning Technology in Context

This section introduces the concept of learning technology in general, the emerging integrative learning experience platform, and the impact of organizational learning in professional service firms. Learning technology serves as an umbrella term encompassing a wide range of digital tools, platforms, and systems designed to support and enhance learning, instruction, and performance outcomes (Association for Learning Technology, 2024; Giannakos et al., 2022). These technologies offer feasible and scalable solutions tailored to meet learners'

unique needs and interests (Collins & Halverson, 2009). Within organizational contexts, learning technology supports knowledge delivery, facilitates learning, and drives performance by improving the flow of knowledge (Menolli et al., 2020). Effective learning technology establishes novel, flexible mechanisms that prioritize human interaction, placing the learner at the core of the experience (Giannakos et al., 2022).

Professional service firms specifically rely on highly educated professionals to deliver quality services and resolve complex problems unique to their clients (O'Higgins et al., 2021). The implementation of learning technology enables knowledge sharing, skill development, and innovation, all of which are critical components in building competitive advantage in professional service firms (Rehman et al., 2023). However, existing adoption models for learning technology often emphasize individual-level factors derived primarily from educational settings and lack sufficient empirical grounding in integrating these individual factors into broader organizational learning processes (Giannakos et al., 2022; Ifenthaler & Egloffstein, 2020; Popova-Nowak & Cseh, 2015). This review will thus explore the historical context and progression of learning technologies, as well as their broader impact on organizational learning.

Learning Technology Evolution

Learning technology progressed through distinct phases shaped by technological and educational developments. The evolution of learning technology spans several phases, each characterized by technological innovations and pedagogical approaches (Bond et al., 2019; Giannakos et al., 2022), from simple digital content delivery platforms to advanced, adaptive, AI-driven learning systems (Bond et al., 2019). Understanding these phases provides valuable context for assessing an organization's current state and future directions of learning technologies. This section outlines the historical evolution of learning technology, highlighting

key technological advancements and emerging trends, and analyzes their implications for organizational performance. The review examines how learning technologies have evolved, influenced by educational theories such as constructivism and socio-cultural learning (Alexander et al., 2009; Squire, 1987), as well as digital innovation and workplace transformation (Bond et al., 2019; Siemens, 2013). These advancements have expanded from basic computer-assisted instruction to adaptive, collaborative, and data-driven learning platforms. As a result, learning technologies have increasingly influenced how organizations support knowledge transfer, drive employee engagement, and improve performance outcomes aligned with strategic goals (Giannakos et al., 2022; Leuhery, 2024; Pranckūnienė & Girdzijauskienė, 2023).

Early Generation: Computer-Assisted Instruction (1980s–1990s)

The emergence of computers marked the introduction of foundational digital learning technologies focusing on standardized content delivery for basic skills development. Early forms of learning technologies centered on computer-assisted instruction (CAI) with static content aimed at efficiency and accessibility (Bitzer et al, 1965; Chambers & Sprecher, 1983; Saettler, 1990). In the initial phase, CAI emerged as the primary form of digital learning technology. These systems delivered content primarily through standalone computer terminals, emphasizing repetitive drill-and-practice methods (Ford & Weissbein, 2008). CAI focused on individual skill reinforcement, leveraging computers' ability to provide immediate feedback and consistent practice opportunities (Chambers & Sprecher, 1983). While CAI enhanced efficiency in delivering content, it has limitations in terms of interactivity, personalization, and user engagement.

Simply uploading training online does not guarantee its effectiveness as people learn better from well-designed content and thoughtfully structured delivery methods (Clark & Estes,

2008). Organizations primarily adopted CAI for foundational skill development in training environments such as corporate compliance, technical skills, and military training programs, mainly driven by cost-effectiveness and the ease of scaling standardized training programs (Kirkpatrick & Kirkpatrick, 2015). Although learning technologies could significantly reduce expenses, online training alone does not necessarily improve learning outcomes (Clark & Estes, 2008). Meanwhile, ease of use was relatively low since systems required specialized software, technical knowledge, and dedicated computer terminals, thus restricting widespread accessibility (Ford & Weissbein, 2008). While CAI marked a first step in digital learning, its limited interactivity and accessibility created gaps in engagement and outcomes. The next generation of learning technology leveraged the Internet to expand access and functionality.

Second Generation: E-Learning and Learning Management Systems (Late 1990s-2010s)

The rise of Internet technologies enabled the development of e-learning systems that expanded access and formalized digital training. While early-stage computer technologies supported one-way content delivery (Rossett, 2009), the widespread adoption of the internet and web-based technologies in the late 1990s and early 2000s led to the proliferation of e-learning platforms, enabling broader accessibility to educational content. Organizations leveraged learning management systems (LMS) to streamline training administration, track user completion, and ensure standardized course delivery across large employee populations (Bond et al., 2019). LMS adoption remains strong across corporate, educational, and governmental institutions due to its ability to centralize training resources, ensure compliance, and support structured learning programs (LinkedIn Learning, 2024; Nikolaroza, 2024; Welsh et al., 2003).

The ongoing evolution of LMS has enhanced functionalities, such as integration with AI-driven analytics, mobile compatibility, and interactive learning features, sustaining their

relevance within contemporary learning ecosystems (Fosway Group, 2024; Ramachandran et al., 2024; Technavio, 2023). Pedagogically, these developments reflect the growing influence of constructivist and socio-cultural learning theories, which advocate for learner interaction, collaborative knowledge construction, and contextualized learning experiences within structured digital environments (Al Abri et al., 2024; Alexander et al., 2009; Wenger-Trayner & Wenger-Trayner, 2020). However, learning remained largely instructor-led and institution-driven. Although LMSs began integrating elements of learner-centered design, the environments offered only modest opportunities for peer-to-peer knowledge construction or community-based learning (Siemens, 2013). These emerging functionalities also symbolized the transition toward the next era of learning technology (Wenger-Trayner & Wenger-Trayner, 2020). LMS helped formalize digital learning and expand access, but learning remained largely top-down and structured. The next phase introduced more social and collaborative learning approaches shaped by Web 2.0 technologies.

Emergence of Social and Collaborative Learning in Web 2.0 Era (Mid-2000s–Present)

In the mid-to-late 2000s, collaborative and interactive learning environments emerged under the Web 2.0 technologies. This period marked a fundamental shift from structured content delivery to learner-driven, dynamic e-learning experiences, incorporating social media, discussion forums, blogs, wikis, and user-generated content (Fosway Group, 2023). Unlike the more structured LMS environments, social learning platforms fully embodied the principles of constructivism and socio-cultural learning by empowering learners to engage in co-constructed knowledge, situated dialogue, and authentic participation in learning communities (Alexander et al., 2009; Matthews et al., 2011; Wenger-Trayner & Wenger-Trayner, 2020).

Organizations integrated the learning technologies into corporate training strategies to encourage knowledge sharing, teamwork, and real-time collaboration (Qi & Chau, 2016; Wenger-Trayner & Wenger-Trayner, 2020). The continuous adoption of social learning platforms enhanced peer-driven learning and built communities of practice (Li, 2024; Peng & Hwang, 2021). Ease of use improved significantly during this era, as these platforms leveraged web-based, user-friendly interfaces with intuitive navigation. However, challenges remained, particularly the necessity of active learner engagement and the lack of formally structured learning paths (Siemens, 2013). Nonetheless, the shift marked a clear pedagogical evolution, where learning became increasingly informal, social, and contextualized, aligning with knowledge construction and sharing in real-world environments (Matthews et al., 2011; Wenger-Trayner & Wenger-Trayner, 2020). Building on the informal and collaborative experiences that mirrored real-world knowledge sharing, adaptive systems introduced learning experience platforms to personalize learning further.

The Current Era: Adaptive Systems and Learning Experience Platforms (2015–Present)

The current era of learning technology emphasizes personalized, data-driven, and socially interactive learning experiences. The advanced adaptive systems and the widespread adoption of learning experience platforms (LXP) enabled the characteristics of the contemporary learning experiences (Giannakos et al., 2022). LXP leverages artificial intelligence (AI), machine learning, and data analytics to provide highly personalized learning experiences seamlessly integrated into employees' daily tasks (Howspace, 2019). From a pedagogical standpoint, LXP advances constructivist and socio-cultural learning by actively engaging learners to personalize their learning pathways or playlists, participate in authentic social interactions, and collaboratively construct knowledge within their work environments (Al Abri et al., 2024;

McLoughlin & Oliver, 2000). In contrast to traditional LMS, LXP delivers tailored content linking with individual learners' skills, preferences, and performance data, facilitates social learning interactions, and encourages learners to create and share their content. This learner-centric approach enhances engagement, boosts knowledge retention, and ensures relevance by embedding learning into individuals' daily workflows (Andreev, 2021).

Organizations, particularly those in professional services, technology sectors, and large enterprises, are increasingly adopting LXP to support continuous learning, career progression, and just-in-time learning solutions (Fosway Group, 2024; Li, 2024). The LXP solutions address the urgent need for workforce reskilling and upskilling driven by rapid technological changes (Kapo et al., 2024). Nonetheless, adopting these sophisticated systems introduces notable implementation challenges, such as organizational resistance due to technological complexity, heightened concerns around data privacy and security, and the requirement for advanced analytical capabilities and robust data governance (Giannakos et al., 2022; Ifenthaler & Egloffstein, 2020; Li, 2024). The shift to adaptive systems and LXPs brought personalized and integrated learning experiences. This development set the foundation for widespread adoption across organizations seeking scalable and learner-driven solutions.

Learning Experience Platform Adoption

LXP represents a shift toward scalable and personalized learning in line with evolving workplace needs. Following the evolutions in technology and pedagogical application, LXP has emerged as a contemporary technology, fundamentally shifting organizational learning paradigms from structured, course-centric learning to learner-driven, continuous, and personalized experiences (Andreev, 2021; Howspace, 2019; Ifenthaler & Egloffstein, 2020). LXP is a learning software designed to create personalized learning opportunities by curating,

recommending, and delivering learning content with the support of AI (Pranckūnienė & Girdzijauskienė, 2023). Andreev (2021) reinforced the definition by highlighting LXP as a consumer-grade learning solution to help individuals discover new learning opportunities. The LXP market continues to grow with adoption across large enterprises and professional services, driven by demand for scalable and personalized learning (Fosway Group, 2023; Li, 2024).

Two primary drivers underpin the emergence and rapid adoption of LXPs. First, technological advancements, particularly AI, machine learning, and cloud computing, enable LXP to offer personalized and real-time learning recommendations with relevancy, transforming learning experiences, and enhancing learner engagement (Ifenthaler & Egloffstein, 2020; Romero & Ventura, 2024). Advanced data transmission standards like experience application programming interface API (xAPI) support strategic analyses of learning effectiveness and inform data-driven decision-making (Romero & Ventura, 2024). Moreover, immersive technologies such as virtual reality (VR) and augmented reality (AR) enrich experiential learning, making interactive, hands-on training practical and scalable (Martin et al., 2020). In addition, the widespread availability of high-speed internet, ubiquitous social media, and cloud-based services has amplified demands for intuitive, just-in-time learning solutions delivered via accessible, software-as-a-service platforms (Andreev, 2021; Fosway Group, 2023; Li et al., 2020).

Second, the evolving learner expectations contribute to the rising demand for LXPs. A traditional LMS can no longer fully satisfy modern learners' preferences for just-in-time, personalized, and relevant learning experiences. Since the early 2020s, the workforce has increasingly sought consumer-grade learning experiences akin to platforms such as Netflix or YouTube, appreciating LXP's capabilities in delivering curated and personalized content

(Cornerstone OnDemand, 2023; Fosway Group, 2023). As a result, LXP functions simultaneously as both products and services, aligning closely with workplace learning needs, integrating with various technologies and systems to scale personalized learning, bringing learning closer to where the needs are, and connecting it to performance improvement (Delianidi et al., 2025).

LXP is gaining traction in organizations that seek to embed learning into daily workflows, fostering continuous learning cultures and innovation (Edmondson, 2008; Gurol, 2021). Organizations adopting LXP aim to seamlessly integrate learning into employees' daily tasks, promoting ongoing skill development and supporting a culture of continuous innovation (Leuhery, 2024). Integration with enterprise applications, such as human resources (HR) management systems and productivity tools, facilitates seamless data flow and analysis, thereby minimizing manual intervention and administrative burdens. Furthermore, LXP's capabilities to capture, analyze, and leverage learning behavior data enable organizations to measure learning effectiveness, assess return on investment, and proactively adapt to the ever-changing needs of workforce development (Martin et al., 2020; Romero & Ventura, 2024).

For individual learners, LXP supports personalized learning through intelligent content recommendations, real-time feedback, and intuitive navigation (Howspace, 2019; Pranckūnienė & Girdzijauskienė, 2023). Personalized learning actively engages learners by enabling them to tailor their learning paths according to their unique skills, interests, and professional development opportunities, which significantly enhances employee engagement, skill development, and long-term retention (Delianidi et al., 2025; Martin et al., 2020). A defining strength of LXPs is their user-friendly design, leveraging AI-driven recommendations, clear

dashboards, and mobile-friendly interfaces, providing ubiquitous and accessible learning experiences (Fosway Group, 2023).

Despite clear benefits and growing popularity, LXP faces considerable implementation challenges. The challenges include complexities in data integration, inconsistent levels of employee engagement, and difficulties in aligning strategically within the broader organizational learning initiatives (Giannakos et al., 2022; Ifenthaler & Egloffstein, 2020). Additionally, ambiguity and overlapping functionalities between LXP and LMS platforms can create confusion, potentially affecting stakeholders' acceptance and perceived usefulness of LXP (Andreev, 2021; Fosway Group, 2023).

However, the outlook for LXP remains promising, driven by advancements in data analytics, adaptive learning functionalities, and deeper integration with emerging technologies such as AI, VR, and AR, which further enable proactive learning interventions. From a learning outcome perspective, LXP enhances effectiveness by providing personalized, timely, and context-aware content, facilitating retention, skill transfer, and learner motivation (Hasan, 2023; Li, 2024). These systems enable organizations to respond dynamically to reskilling demands by offering agile, on-demand learning in connection with the evolving job needs and industry expectations. Moreover, the integration of AI into LXP enables real-time adaptation and automated training solutions, making upskilling initiatives more intelligent, relevant, and efficient (Ramachandran et al., 2024). As a result, LXP supports individual growth and amplifies organizational capability by aligning learning with performance metrics and strategic priorities (Giannakos et al., 2022; Howspace, 2019). To implement LXP, organizations need to manage both technological advancements and cultural shifts to transition towards learner-centered and continuously adaptive learning environments (Andreev, 2021; Fosway Group, 2023; Gurol,

2021). Although Learning Experience Platforms (LXPs) have emerged as strategic tools for enabling scalable and personalized learning, their effectiveness depends on addressing adoption barriers and ensuring alignment with the organization's learning culture and strategic priorities.

Organizational Learning

Developing knowledge and capabilities across the workforce is a strategic goal of organizational learning. Organizational learning is a critical element in enhancing workforce value and achieving competitive advantage (Giannakos et al., 2022). Organizational learning involves a strategic process of creating, retaining, and transferring knowledge as a key learning outcome, which enables organizations to sustain competitiveness and achieve their primary business objectives (Argote & Hora, 2017). The effective integration of learning technologies facilitates sustainable and scalable organizational learning environments, particularly essential in knowledge-intensive sectors such as consulting, legal, accounting, and software development firms (Menolli et al., 2020). In professional service firms, continuous and systematic organizational learning, supported by advanced technological tools, is vital for remaining competitive and responsive to market dynamics (O'Higgins et al., 2021; Rehman et al., 2023).

Organizational learning, powered by advanced learning technologies, aligns closely with strategic business goals but also experiences challenges in technology adoption. System-enabled learning identifies and addresses employees' learning needs corresponding to the organizational competencies (Menolli et al., 2020). Structured knowledge networks and repositories connect knowledge management activities with core business operations to support strategic outcomes (Argote & Hora, 2017). Despite these advancements, professional service firms continue to face ongoing challenges, including resistance to change, measuring learning outcomes, and balancing structured learning activities with operational and client work demands (Argote & Hora, 2017;

Cameron & Green, 2024). Employees frequently exhibit hesitation in adopting new learning technologies due to comfort with existing practices or concerns regarding the perceived threats to their established competencies (Argote & Hora, 2017; Cameron & Green, 2024; Muo, 2014). Moreover, continuously updating and curating knowledge repositories to maintain workforce relevance amid rapidly evolving markets and technologies requires significant resources and sustained organizational commitment (Chatterjee et al., 2023).

Research on corporate training suggests organizational learning, on average, only accounts for 10% ROI (Clark & Estes, 2008; Human Capital Institute, 2019). Quantifying the tangible impact of learning initiatives also remains a persistent challenge, regarding an explicit demonstration of ROI or correlation with key business performance indicators (Argote & Hora, 2017; Schön, 2017). The difficulty in balancing the allocation of sufficient time for structured learning with maintaining productivity and billable commitments compounds the complexity in service-oriented environments, potentially limiting the scope and depth of learning initiatives (Argote & Hora, 2017; O'Higgins et al., 2021). Organizational learning requires striking a balance between technological adoption and practical business demands. The interplay between technology adoption and business demands adds a layer of complexity to organizational learning within professional service firms.

Organizational Learning in Professional Service Firms

Organizational learning in professional service firms emphasizes collaborative knowledge-sharing to support continuous development and client-focused outcomes. Over the past decade, organizational learning in professional service firms has shifted from an individual skill-focused approach to collective learning strategies, recognizing that collaborative knowledge sharing enhances organizational performance and adaptability (Argote & Hora, 2017; Chen &

Zheng, 2022). Within this context, systematic knowledge management (KM) practices structure and facilitate learning by capturing both explicit and tacit knowledge, thereby facilitating the efficient dissemination and reuse of knowledge assets (Argote & Hora, 2017; Chatterjee et al., 2023). Meanwhile, professional service firms prioritize continuous learning and skill development initiatives as part of their continuous professional development (CPD) programs, responding to the evolving market conditions, client needs, and regulatory frameworks (Cameron & Green, 2024).

The organizational learning in professional service firms has developed distinct characteristics, including a robust culture of knowledge sharing that promotes transparency, continuous dialogue, and innovation (Argote & Hora, 2017; Serrat, 2017). The transition from individual-oriented learning to collaborative, team-based structures, such as communities of practice, cross-functional teams, and social learning networks, further enhances shared expertise, collective problem-solving, and innovation capabilities (Menolli et al., 2020; Wenger-Trayner & Wenger-Trayner, 2020). A client-centric mindset encourages the development of tailored learning strategies, ensuring that organizational knowledge remains relevant and directly beneficial to clients (Argote & Hora, 2017; Serrat, 2017). To deliver quality client services, firms are increasingly leveraging advanced learning technologies to provide personalized, efficient, and impactful learning experiences, thereby maintaining a competitive workforce (Menolli et al., 2020). In the meantime, structured reflective practices among professionals on prior learning and experiences cultivate deep learning to enhance decision-making capabilities and generate valuable insights that contribute to organizational learning (Argote & Hora, 2017; Schön, 2017).

Overall, organizational learning in professional service firms represents a complex but strategically essential domain (Argote & Hora, 2017; Giannakos et al., 2022). Implementing

organizational learning strategies with the support of learning technologies equips firms with the agility, knowledge, and capabilities necessary to sustain competitive advantages and achieve business objectives (Leuhery, 2024; Menolli et al., 2020). Realizing the full potential of organizational learning requires systematic management of resistance to change, alignment between learning strategies and business goals, relevant knowledge management, and balanced integration of learning technologies within the operational frameworks (Cameron & Green, 2024; Chatterjee et al., 2023; Clark & Estes, 2008; Edmondson, 2008; Schön, 2017; Senge, 2006; Wenger-Trayner & Wenger-Trayner, 2020). Organizational learning in professional service firms aligns collaborative practices with business goals, setting the stage for using the structured Clark and Estes framework to identify and close performance gaps.

Clark and Estes Gap Analysis Framework

This study examines the factors that influence and drive the success of learning technologies in supporting knowledge transfer, performance improvement, employee engagement, and sustained organizational impact. The Clark and Estes's gap analysis framework offers a systematic model for identifying barriers and opportunities for adopting learning technologies (Clark & Estes, 2008). The study applies the gap analysis framework to identify influencing factors and recommend strategies for effectively integrating learning technologies that enhance business outcomes and align with strategic goals. To evaluate organizational leaders' perceptions regarding the utilization and effectiveness of learning technologies in meeting business objectives, the Clark and Estes framework provides a structured, goal-oriented method to systematically identify performance gaps across three key dimensions: knowledge, motivation, and organizational support (Chatterjee et al., 2023; Menolli et al., 2020). This targeted approach enables future intervention programs to address organizational needs while

improving both individual and organizational performance (Argote & Hora, 2017; Leuhery, 2024).

The Clark and Estes framework addresses the performance challenges associated with learning technology adoption within professional service firms by diagnosing discrepancies between desired and actual performance. The discrepancies are across three essential elements: knowledge, motivation, and organizational support. Knowledge encompasses the necessary information, skills, and cognitive processes stakeholders must possess to perform effectively (Anderson, 2016; Clark & Estes, 2008; Giannakos et al., 2022). There are three categories of knowledge, i.e., declarative knowledge, the knowledge of facts; procedural knowledge, the knowledge of how to do something; and metacognitive knowledge, which involves self-reflection regarding one's learning and thought processes (Anderson, 2016; Flavell, 1979; Schraw & Moshman, 1995). Motivation refers to stakeholders' willingness to engage with tasks, their persistence, and the mental effort they commit to achieving set objectives (Bandura, 1997; Clark & Estes, 2008; Wigfield & Eccles, 2000). This element encompasses motivational constructs, including self-efficacy, expectancy value theory, and intrinsic or extrinsic goal orientations (Bandura, 1997; Wigfield & Eccles, 2000). Organizational influences entail environmental factors, including policies, processes, leadership support, resource availability, and cultural norms, that either enable or hinder performance (Senge, 2006; Wenger-Trayner & Wenger-Trayner, 2020). By systematically applying this three-dimensional analysis, organizations can identify performance gaps, develop targeted recommendations, and assess the effectiveness of interventions. The subsequent sections provide an in-depth literature review exploring the interplay of these three dimensions and their collective impact on the successful adoption and performance of learning technologies within organizations.

Stakeholder Knowledge, Motivation, and Organizational Influences

Understanding stakeholder performance starts with examining the factors that shape how individuals and organizations engage with learning technologies. This section applies the KMO framework to review the primary drivers of performance and how the drivers shape the adoption and impact of learning technology in professional service firms. Knowledge, motivation, and organizational influences collectively shape performance, much like fuel, engine, and road conditions work together to guide a vehicle toward its destination (Clark & Estes, 2008). The KMO model provides a structured method for systematically analyzing discrepancies between current and desired performance, illuminating specific areas for improvement (Chatterjee et al., 2023; Clark & Estes, 2008). The section begins by examining the declarative, procedural, and metacognitive knowledge that underpins the effective adoption of learning technology in knowledge-intensive organizations. Subsequently, it delves into motivational factors, specifically self-efficacy, perceived value, and goal orientation, and their role in influencing individual engagement and persistence (Bandura, 1997; Wigfield & Eccles, 2000). Ultimately, the broad organizational context underscores how key elements of culture, leadership, and change management practices can both facilitate and impede the successful implementation and ongoing utilization of learning technologies (Cameron & Green, 2024; Senge, 2006; Wenger-Trayner & Wenger-Trayner, 2020). The following overview analyzes each element of the KMO framework, beginning with the role of knowledge in shaping effective learning technology adoption.

Knowledge Influences

Understanding the types of knowledge that influence individual performance helps explain how organizations build and sustain learning technology adoption. Individuals' knowledge, skills, and abilities support the organization in creating a competitive edge on the

market (Costanza et al., 2016; Garavan et al., 2020; Gurol, 2021). In an organization, enhancing knowledge and skills is essential for job performance, particularly when individuals lack the ability to accomplish their performance goals or foresee future challenges that require novel problem-solving (Clark & Estes, 2008). Knowledge is no longer just an abstract and traditional psychological process of perception, thinking, and learning, but also the substantial content of what is perceived, desired, and acquired as an asset, which requires knowledge management as an imperative for an organization's performance (Serrat, 2017). This section will focus on the three knowledge types, i.e., declarative, procedural, and metacognitive, to understand their influence, application, and implications for an organization. The discussion begins with declarative knowledge to understand its role in building foundational understanding and clarity in using learning technology.

Declarative Knowledge

Declarative knowledge refers to an individual's understanding of facts, concepts, and principles related to a particular domain or technology (Anderson, 2016). Regarding learning technologies, declarative knowledge encompasses understanding what the technology is, what it can do, and why it matters within the broader strategic context of the organization. This foundational layer of knowledge shapes stakeholders' initial perceptions, readiness to adopt, and ability to make informed decisions throughout the technology implementation process (Clark & Estes, 2008).

Mechanisms of Influence. Declarative knowledge informs the initial stages of learning technology identification, particularly during the needs analysis and strategic alignment phases. It helps stakeholders interpret organizational learning gaps in relation to the capabilities of the technology, supporting more purposeful planning (Clark & Estes, 2008). According to Goodhue

and Thompson (1995), stakeholders who possess robust declarative knowledge about a technology's purpose and expected benefits are more likely to support its strategic alignment with organizational objectives, reducing early resistance and fostering proactive engagement. Understanding the function and potential of technology facilitates better task-technology fit, which in turn supports more successful adoption outcomes (Giannakos et al., 2022; Goodhue & Thompson, 1995).

During the technology selection and customization stage, declarative knowledge of the platform capabilities, limitations, and customization opportunities informs the decision-making (Welsh et al., 2003). At this stage, declarative knowledge enables leaders and implementation teams to evaluate learning platforms, compare their features, and align them with strategic learning goals. Declarative knowledge, as an interpretive process (Anderson, 2016), lays the groundwork for clarity, preventing misalignment and establishing a common language for successful implementation. Declarative knowledge forms the foundation for understanding the purpose and functions of learning technologies, enabling users to navigate platforms effectively and align them with organizational performance goals (Anderson, 2016; Clark & Estes, 2008; Squire, 1987).

Indicators of Effective Application. Effective application of declarative knowledge occurs when employees engage with the platform purposefully and consistently. Employees who understand why to adopt the platform and how it supports their performance goals are more willing to explore its features, use them strategically, and apply their learning to real work situations (Peng & Hwang, 2021; Roumell, 2019). For example, employees who understand the business rationale behind an LXP may actively seek content tailored to their job-specific needs or developmental goals, leading to more intentional learning behavior and practical knowledge

application. The clarity in purpose results in focused and meaningful interactions with learning technologies, supporting employees to transfer knowledge to workplace tasks.

Effective application indicators also include intentional and strategic utilization of technological features, relating technology use to defined organizational objectives, and a noticeable reduction in misuse or inefficient use of technology. Siemens (2013) provides evidence that explicit declarative knowledge about the purpose of learning platforms increases stakeholders' meaningful engagement and contributes to targeted improvements in performance management. When declarative knowledge is well-positioned, the technology acceptance process is smoother, and learning outcomes better serve operational needs (Clark & Estes, 2008; Krathwohl, 2002; Venkatesh & Davis, 2000). Additional indicators can be fewer usage errors, better alignment between content consumption and performance goals, and reduced onboarding time for new users (Giannakos et al., 2022; Ifenthaler & Egloffstein, 2020; Kirkpatrick & Kirkpatrick, 2018).

Implications for Organizational Practice. A well-informed workforce is more likely to adopt technology with clarity, intent, and long-term engagement (Clark & Estes, 2008; Giannakos et al., 2022). Leaders and learning designers should reinforce key messages through change communication strategies, performance coaching, and strategic messaging aligned with organizational values and goals (Lewis, 2011; Schein & Schein, 2016; Simoes & Esposito, 2014). As part of managerial practice, user training could focus on why adopting learning technology matters and what it does for users. A clear and effective communication strategy can help cultivate declarative knowledge that is timely and relevant to the technology's purpose and functionality (Daly, 2023), which benefits the implementation process throughout, particularly during the needs analysis and strategic alignment stages. Helping stakeholders understand the

why behind learning technology adoption facilitates effective usage and engages practices to meet organizational performance goals (Daly, 2023; Lewis, 2011; Schein & Schein, 2016).

Building declarative knowledge across the workforce supports meaningful adoption by connecting learning technology to purpose and goals. The following section examines procedural knowledge and its role in influencing the use of learning technology and the organizational outcomes.

Procedural Knowledge

Procedural knowledge supports the application of skills needed to use learning technology in daily work. Procedural knowledge represents the ability to perform actions or apply skills through learned sequences of steps. It emphasizes how-to rather than what-is, distinguishing itself from declarative knowledge by its behavioral control and performance focus (Anderson, 2016; Squire, 1987). Within the context of learning technology, procedural knowledge underpins a user's capability to navigate platforms, engage with content, complete modules, and apply digital tools in role-specific contexts. Stakeholders can therefore proficiently and efficiently utilize tools within their daily routines, directly driving the operational effectiveness of technological applications. Procedural knowledge transforms conceptual understanding into action, enabling the use of technology in the service of performance improvement (Clark & Estes, 2008; Krautter et al., 2015; Martin et al., 2020). The acquisition and mastery of procedural knowledge influence how quickly and successfully new technologies integrate into organizational practices (Jongbloed et al., 2024; Welsh et al., 2003).

Mechanisms of Influence. Procedural knowledge shapes the adoption through its influence on onboarding, platform configuration, content development, and ongoing system use. During early-stage implementation, stakeholders require opportunities to apply new tools

through guided practice. Martin et al. (2020) stated that hands-on training contributes to higher engagement and faster adoption. As instructional teams configure platforms or develop content, procedural understanding ensures the correct use of technical tools and their integration with organizational objectives. Krautter et al. (2015) posited that structured procedural instruction improves procedural performance and recall with instructional steps driving skills execution.

Proficiency in procedural routines also stabilizes platform rollout and minimizes disruption. Employees confident in using the system report fewer workflow interruptions and demonstrate higher consistency in digital engagement (Welsh et al., 2003). As procedural knowledge strengthens, technology transitions more smoothly into routine practice and supports operational continuity.

Indicators of Effective Application. Indicators of procedural knowledge reflect how users interact with the platform. When procedural fluency is present, users can independently locate relevant training, navigate pathways, and apply learning modules with minimal oversight (Clark & Estes, 2008). Martin et al. (2020) linked these behaviors with higher retention and performance transfer.

Additional indicators include reduced support requests, consistency in tool use, completion of assigned learning activities, and integration of the platform into collaborative workstreams. Krautter et al. (2015) reported that structured procedural training improves operational fluency and accelerates performance outcomes across functions. Employees with established procedural habits contribute to workflow reliability and cross-functional collaboration.

Despite increasing digital demands, employees can remain underprepared. Derenzis et al. (2023) observed that while 92% of jobs require digital capability, 30% of workers lack

foundational digital skills. This gap underlines the need for intentional procedural knowledge development across the workforce.

Implications for Organizational Practice. To enhance procedural knowledge, organizations should embed structured practice into upskilling strategies. Walkthroughs, job aids, simulation tasks, and sandbox environments support skill transfer and reinforce task alignment (Gaan, 2012; Leuhery, 2024). Procedural learning also benefits from peer demonstration and microlearning embedded in day-to-day workflows.

In professional service settings, where digital tools intersect with time-sensitive and client-facing responsibilities, procedural fluency reduces friction and improves learning efficiency (Clark & Estes, 2008; Rehman et al., 2023). Leaders responsible for implementation should ensure procedural scaffolds are in place from rollout through scale. Sustained investment in procedural knowledge directly supports operational adoption and long-term platform utilization (Clark & Estes, 2008; Giannakos et al., 2022; Ifenthaler & Egloffstein, 2020). The next section focuses on self-reflection and its role in helping individuals monitor, adapt, and sustain learning technology use.

Self-Reflection/Metacognitive Knowledge

Metacognitive knowledge enables individuals to reflect on their learning processes, adapt strategies, and sustain performance improvements when using learning technology.

Metacognitive knowledge involves awareness and management of one's cognitive processes, including strategies for planning, monitoring, and evaluating reciprocal relationships to personal learning and performance (Flavell, 1979; Schraw & Moshman, 1995). In the realm of learning technology, metacognitive knowledge enables stakeholders to reflect on the use of technology, adjust the integration approaches, and strategically measure impact for optimal results (Jain et

al., 2023). This reflective capability sustained and adapted the use of learning technology to continuously support evolving organizational goals and challenges (Hacker et al., 2019).

Mechanisms of Influence. Metacognitive knowledge exerts its influence especially during the later stages of learning technology implementation, including monitoring, support, and evaluation. Stakeholders with strong metacognitive abilities are more likely to reflect on their learning progress, assess the effectiveness of their strategies, and make necessary adjustments to improve outcomes (Jain et al., 2023; Lanaj et al., 2019). This reflective process ensures that learning technologies such as LXP are not only performing as expected but are also continuously improving the user experiences based on individual and organizational learning needs.

Additionally, metacognitive knowledge supports learners in navigating ambiguity and change by critically evaluating content relevance and aligning learning activities with workplace challenges. Bandura (1997) highlighted that self-efficacy-driven reflection contributes to proactive behavior, which is particularly valuable in dynamic or high-performance environments. Organizations that cultivate metacognitive capabilities among employees are more likely to sustain long-term engagement with learning technologies and achieve more substantial returns on their digital learning investments (Faller et al., 2020; Hacker et al., 2019).

Indicators of Effective Application. Users with strong metacognitive skills demonstrate deeper engagement with platform features such as dashboards, adaptive content, and self-monitoring tools, all of which support transfer of learning into job-specific outcomes (Jain et al., 2023). For instance, users may begin with system-recommended content and then refine their learning paths based on self-assessment data, feedback, and adapted project needs (Jain et al., 2023). Adequate metacognitive knowledge enhances employees' ability to set personalized

learning goals, evaluate the relevance of learning content, and adjust their interaction with the learning platform accordingly (Jain et al., 2023; Lanaj et al., 2019; Schraw & Moshman, 1995).

The users with metacognitive knowledge exhibit higher autonomy, persistence, and agility, as the necessary traits for effective performance in digital environments (Lanaj et al., 2019). The users' ability to connect learning experiences to work tasks improves decision-making, problem-solving, and innovation. These behaviors also demonstrate an internalization of learning goals and the capacity to self-regulated learning and performance improvements (Bandura, 1997). Metacognitive knowledge, therefore, functions as a foundational mechanism for sustaining learning effectiveness across the organization.

Implications for Organizational Practice. To support the application of metacognitive knowledge, organizations should intentionally embed reflective learning practices into technology-enabled learning strategies. Reflective learning includes integrating feedback loops, self-assessment tools, learning journals, and progress tracking mechanisms into learning platforms (Faller et al., 2020; Hacker et al., 2019). When incorporated into an LXP, these features promote employees' self-reflection and adapt the learning strategy based on personal performance goals.

Leadership and learning teams also play a key role in modelling metacognitive practices by fostering dialogue about learning goals, offering coaching for self-directed learning, and sharing examples of reflective practice (Lanaj et al., 2019; Medina et al., 2017; Schön, 2017). Learning professionals can design structured reflection prompts, interactive goal-setting tools, and post-module debrief features into learning platforms to help employees evaluate and adjust the learning approaches based on usage data and performance insights (Faller et al., 2020). These practices reinforce a learning culture that uses technology not only for content delivery but as a

strategic enabler to improve performance through reflection and adaptation (Bandura, 1997; Faller et al., 2020; Hacker et al., 2019). Metacognitive knowledge highlights how individuals manage their learning by maximizing the value and impact of learning technologies. The reflective nature of metacognitive knowledge, in conjunction with declarative and procedural knowledge (see Table 2), illustrates how different types of knowledge influence the application of learning technology.

Table 2

Knowledge Influences

Assumed knowledge influence	Knowledge type
People leaders need to understand what the learning technology does and why the organization adopts it.	Declarative
People leaders need to know how to utilize the learning technology to achieve performance goals.	Procedural
People leaders need to be reflective on their learning and leverage the suitable learning technology to create impact.	Metacognitive

Motivational Influences

Motivation drives the effort individuals invest in adopting and applying learning technology. Referring to Clark and Estes's car analogy (2008), with knowledge being the fuel, motivation serves as an engine to generate the motion. Research defines motivation as a cognitive and behavioral process that activates, guides, and sustains goal-oriented effort (Cloney, 2014; McInerney, 2019; Schunk & Usher, 2019). Environmental and internal drives shape motivation, fulfilling the basic psychological needs of autonomy, competence, and relatedness (Evans, 2015; Tracy, 2013). Motivation initiates self-regulation as a primary contributor to individual performance (Burke, 2018). At the workplace, motivated employees would choose a

task, start it on time, persist once starting, and invest adequate mental effort (Clark & Estes, 2008). Therefore, motivation also underlies the reasons why individuals engage in certain behaviors (Peng & Hwang, 2021) and what drives effective work (Clark & Estes, 2008).

In the context of learning technology, motivation contributes to the effectiveness of learning at the workplace and the adoption of the technology (Noe et al., 2010; Yi et al., 2006). Motivation arises when employees perceive a learning platform as useful, supporting their personal goals, and fostering autonomy, skill development, and social connection (Evans, 2015; Tracy, 2013). The motivation constructs collectively influence whether individuals choose to engage, persist through challenges, and transfer learning into performance outcomes. The interrelated motivation constructs under the categories of expectancy value, self-efficacy, and goal attainment discern how beliefs about success, the value of learning, confidence in usage, and goal orientation contribute to the optimal usage of learning technology.

Expectancy Value

Expectancy-value theory explains how individuals' beliefs in success and the importance they place on their work shape motivation. Work is a means to achieve outcomes (Eccles & Wigfield, 2002, 2020; Wigfield & Eccles, 2000). Employees work to seek the intrinsic benefits of work and the higher aspirations, including the pursuit of personal mastery, which transcend basic need fulfillment (Senge, 2006). Expectancy-value theory illustrates how individuals' motivation is under the influence of the beliefs about their competence and the value they assign to a task (Eccles & Wigfield, 2002, 2020; Elliot et al., 2017; Wigfield & Eccles, 2000). Expectancy value is a long-standing perspective on motivation and one of the prominent constructs to explain how motivation influences an individual's choice, persistence, and performance (Wigfield & Eccles, 2000). In the expectancy-value model of achievement

performance and choice (Eccles & Wigfield, 2020), expectancies and values are the two assumed influencing factors of achievement choices, and they also predict performance, persistence, and effort. The expectancy-value theory focuses on the expectations for both outcome and success (Bandura, 1997), based on individuals' belief in their present ability and expectancies for the future (Wigfield & Eccles, 2000). The model includes four value constructs: attainment value as the importance of accomplishing a given task; intrinsic value of the enjoyment from conducting the task; utility value emerging when a task aligns with the individual's plan or engages extrinsic reasons; and cost following the assessment of the effort taken to complete the tasks and the emotional cost from missing other activities (Eccles & Wigfield, 2002, 2020).

In the context of workplace learning, Pintrich (2003) emphasizes that expectancy-value beliefs are foundational to self-regulated learning, influencing how employees set performance goals, monitor their progress, and adjust their effort in response to task demands, such as when engaging with technology-enabled learning environments. Employees and team leaders in professional service firms, in particular, can relate to the expectancy-value theory, as their performance is dependent upon both capability development and service delivery. Bandura (1997) elucidated the two motivational influencing factors as whether individuals believe their effort will lead to successful outcomes (expectancy) and whether they perceive those outcomes as worthwhile (value). The contextual factors, such as perceived task value, accountability, and expected success, shape engagement with learning activities, including the use of learning technologies (Eccles & Wigfield, 2002, 2020).

To adopt learning technology effectively, according to the technology acceptance model (Venkatesh & Davis, 2000), individuals choose to use a system based on two beliefs: perceived usefulness and perceived ease of use. The two beliefs are subjectively interconnected, under

which, with other factors being equal, the easier the system appear to be, the more useful it becomes to the user (Peng & Hwang, 2021; Venkatesh & Davis, 2000). The perceived usefulness can extend to the expectancy values that employee believes can enhance their job performance by using the system. (Venkatesh & Davis, 2000). Perceived ease of use can be a direct determinant of perceived usefulness; similarly, the perceived effectiveness positively influences the motivation to adopt learning technology (Peng & Hwang, 2021). The determinants of perceived usefulness, in line with the expectancy value, construct the usage intention (Eccles & Wigfield, 2002). Empirical evidence suggested that perceived usefulness predicts an individual's intention to adopt technology in professional contexts, and ease of use influences perceived usefulness, indicating that the reduction of effort supports the utility of a system (Peng & Hwang, 2021; Venkatesh & Davis, 2000; Yi et al., 2006). One example could be if the learning experience platform fails to provide employees with the relevant results after the content search, it will negatively affect the user acceptance, as employees experience difficulty attributing gains in their job performance to the use of the system.

Through the lens of Clark and Estes's gap analysis framework, a lack of engagement with learning technologies often stems from low expectancy beliefs or limited perceived value. Individuals may possess the knowledge of how to use a tool, but still fail to act if they do not believe it will help them succeed or produce meaningful outcomes. By examining motivation through the expectancy–value lens, leaders and instructional designers can better identify strategic barriers and design more effective interventions aligned with learner perceptions and organizational performance goals that initiate, direct, and sustain goal-oriented action (McInerney, 2019). Understanding these beliefs helps identify opportunities for adoption and

fosters self-efficacy, which in turn influences confidence and sustained effort in using learning technology.

Self-Efficacy

Self-efficacy reflects individuals' confidence in their ability to learn, perform, and succeed in engaging with learning technology. Bandura (1997) stated that self-efficacy is a predictor of behavior, persistence, and learning outcomes, representing the beliefs about individuals' capabilities in growth and performance. Self-efficacy forms motivation and affects individuals' task choices, effort, persistence, and ultimately achievements (Schunk & Usher, 2019). Self-efficacy engages learning as social cognitive research identified that individuals' self-efficacy beliefs are closely connected with their capabilities to self-regulate during the processes of goal setting, self-monitoring, and self-judgement (Elliot et al., 2017). Four primary sources cultivate self-efficacy: enactive mastery through actual performance, vicarious modelling through observing others, verbal persuasion through social encouragement, and emotional arousal through physiological and affective states, including anxiety and stress. (Bandura, 1997; Phipps & Davis, 2023). Cultural dimensions such as individualism and collectivism can influence how individuals perceive their ability to contribute to group outcomes, suggesting that both personal capability and sociocultural context can shape efficacy beliefs (Bandura, 1997; Schunk & Usher, 2019; Eccles & Wigfield, 2020).

Employees' self-efficacy contributes to the effectiveness of learning initiatives at the workplace. Based on the research of the traditional instructional design system and organizational behavior theories, learning is largely the responsibility of the learner (Noe et al., 2010). While online learning offers flexibility for learners to choose when, where, what, and how to learn (Keller, 2010), another aspect is whether employees learn more effectively by leveraging

learning technology. Self-efficacy in this circumstance catalyzes active choices, persistence, and effort. As an expressive antecedent construct, self-efficacy drives the individuals' usage intention as an inherent motivational factor for self-regulation (Peng & Hwang, 2021).

For highly skilled professionals in a professional service setting, the concept of self-efficacy shows the extent to which individuals reflect confidence in using the system and achieving desired results with agility (Yi et al., 2006). Self-efficacy influences the perceived ease of use, perceived behavioral control, and associated constructs, such as subjective norm, which represents social influences, and results in demonstrability within the cognitive instrumental process (Venkatesh & Davis, 2000). Social influence and perceived behavioral control also contribute to the intention to use a technology by exploiting a social network to enhance the subjective norm and facilitate acceptance (Peng & Hwang, 2021; Venkatesh & Davis, 2000; Wigfield & Eccles, 2000). If the tangible results are apparent or relate to the user, the technology adoption is more likely to succeed. Highly innovative employees and leaders can serve as early adopters and change agents, influencing the diffusion of technology (Lewis, 2011; Rehman et al., 2023). While self-efficacy explains confidence and control, goal orientation, as the next influencing factor, clarifies how individuals direct their effort and focus on performance and mastery.

Goal Orientation

Goal orientation shapes how individuals direct their effort, whether toward mastering new skills or achieving performance targets. Goals are what people consciously attempt to attain, involving a symbolic and self-regulatory process to instigate and sustain actions, as an important motivational process with effects dependent on their properties, specificity, proximity, and difficulty (Schunk & Usher, 2019). Goals that are specific, proximal, challenging but attainable

are more effective than those that are diffuse, delayed, or easy (Elliot et al., 2017). According to Bandura (1989), the stronger individuals perceive their self-efficacy, the higher the goals are set, and the firmer the commitment becomes; thus, challenging goals boost motivation and performance attainment. The goals that people set for themselves direct their behavior and serve as a self-regulatory strategy (Bandura, 1989). The model of achievement goals distinguishes between mastery goals, which focus on developing competence and achieving task mastery, and performance goals, which demonstrate competence relative to others (Chadwick & Raver, 2015; Elliot, 2006; Elliot et al., 2017). Elliot's (2006) hierarchical model of approach-avoidance motivation defines the goal as the cognitive representation of a future object that individuals are committed to either approach or avoid. Although the same goal can serve both approach and avoidance motivation, avoidance motivation often limits achievement to merely avoiding failure, rather than encouraging experimentation and striving for success (Elliot, 2006).

At the organizational level, various types of goal attainment impact the learning processes and outcomes. The mastery goal orientation supports deeper learning behaviors, including knowledge sharing, feedback seeking, and embracing mistakes as learning opportunities. In contrast, performance goal orientation may restrict learning to avoid errors or maintain appearances (Chadwick & Raver, 2015). However, without specific performance goals, employees may focus on tasks that only help advance their career growth instead of helping achieve the organization's business objectives (Clark & Estes, 2008). Hence, mastery goals serve learning, and performance goals connect with organizational objectives. Goals should be flexible enough to reflect changing business conditions and specific enough to provide day-to-day guidance.

In the context of learning technology adoption, advocating for a mastery orientation can enhance platform exploration, innovation, and resilient learning behaviors, particularly in environments that face frequent change (Chadwick & Raver, 2015). Employees will continue to rely on the match between their job goals and the outcome of system usage as a basis for the ongoing usefulness perception (Venkatesh & Davis, 2000). Overall, challenging yet achievable goals are motivating, and there is a demand for both mastery goals, which emphasize learning and experimentation, and performance goals that support evolving organizational objectives (Clark & Estes, 2008). To achieve learning technology adoption at workplaces, designing goals that activate approach motivations (e.g., mastery, achievement, growth) rather than avoidance (e.g., fear of failing) encourages experimentation, engagement, and iterative learning outcomes (Elliot, 2006). Understanding how goal orientation drives engagement, alongside expectancy value and self-efficacy (see Table 3), completes the exploration of motivational influences and transitions to the organizational factors that can support or hinder learning technology adoption.

Table 3

Motivation Influences

Assumed motivation influence	Motivation type
Employees need to believe that engaging with the learning technology is valuable and that they are likely to succeed in using it to achieve performance goals (Wigfield & Eccles, 2000).	Expectancy value
Employees need to feel confident in their ability to use the learning technology effectively to meet performance expectations (Bandura, 1997).	Self-efficacy
Employees need to pursue specific and challenging goals to derive value from their engagement with the learning technology.	Goal attainment

Organizational Influences

Organizational influences frame the environment in which individuals operate, affecting how they adopt and sustain the use of learning technologies. Clark and Estes (2008) demonstrated the final cause of the performance gap as the lack of efficient and effective work processes and material resources. Alongside knowledge and motivation, organizational influences determine whether stakeholders can successfully perform their roles and achieve organizational goals. Organizational influences refer to the conditions within the work environment that enable or inhibit stakeholder performance by providing necessary or limited context, resources, and opportunities (Schunk & Usher, 2019). Gallimore and Goldenberg (2001) categorized the influences into two main areas: cultural models and cultural settings. In an organizational context, cultural models refer to the shared beliefs, values, and assumptions that guide behavior, including perspectives on culture and leadership. Cultural settings, in contrast, are the actual situations and structured processes, such as systems and change management practices, which enact the cultural models (Gallimore & Goldenberg, 2001). This review examined the constructs under the interconnected cultural model and setting, i.e. culture, leadership, and change processes, given their crucial roles in shaping stakeholder performance and outcomes, and their intentional and contextual impact on structures, systems, and resources (Burke, 2018; Chadwick & Raver, 2015; Costanza et al., 2016; Schein & Schein, 2016).

In large-scale transformations, factors such as mission, strategy, leadership, and culture often play a more significant role than structural or systemic adjustments (Burke, 2018). Organizational culture encompasses shared beliefs, values, and practices that provide meaning, stability, and direction, facilitating adaptation to internal and external challenges (Schein & Schein, 2016). Leadership, fundamentally a communication-driven process aimed at goal

achievement, influences the creation and evolution of culture, as well as the management of change (Berger, 2014; Cunningham et al., 2020; Daly, 2023; Schein & Schein, 2016). The change process itself, described as analogous to commissioning a new play that renews organizational faith and commitment, maintains organizational vitality (Bolman & Deal, 2021).

These three influences interplay within the organizational environment. Culture provides the foundational context for behavior and adaptation, leadership shapes and guides cultural norms and practices, and the change process both drives and responds to the evolving organizational needs (Berger, 2014; Schein & Schein, 2016). Effective leadership fosters a culture of continuous learning, open communication, and empowerment, all of which facilitate successful change initiatives (Berger, 2014; Costanza et al., 2016). Additionally, leveraging organizational culture strategically allows organizations to navigate dynamic environments and changes more effectively (Costanza et al., 2016; Schein, 2010).

The implementation of learning technologies exemplifies how these organizational influences interact in an organization-wide change initiative. When introducing new technologies, the existing organizational culture and leadership support impact the adoption process, while the changes brought about by the technology influence team dynamics and cultural adaptation (Burke, 2018; Hacker et al., 2019). Understanding the alignment between leadership characteristics and desired cultural attributes, as cultural models, lays the groundwork for the organizational change process within a cultural setting. Thus, a systematic examination of these organizational influences supports a clearer understanding of stakeholder performance relating to long-term organizational success (Burke, 2018; Chadwick & Raver, 2015). Among the influences, culture shapes beliefs, behaviors, and readiness for change as a key factor in understanding organizational dynamics.

Culture

Organizational culture influences how people think, act, and respond to change, shaping the perception and adoption of learning technologies. One common definition of culture is the shared values, beliefs, and implicit assumptions that guide the behaviors, rituals, and actions of members within an organization (Costanza et al., 2016; Schein, 2010; Schein & Schein, 2016). Culture represents a combination of assumptions, values, and beliefs rather than an isolated element of work (Schein & Schein, 2016). An organization can have different cultures at different stages, with its culture acting both as a driving force for performance and exhibiting characteristics difficult to pinpoint or alter, as most cultural knowledge operates at an automated and unconscious level (Clark & Estes, 2008). Additionally, culture is a learned phenomenon for organizations, much like personality and character are for individuals, which share and define the collective group identity (Schein & Schein, 2016). Organizational culture influences all aspects of an organization, including its primary purpose, internal operations, and external environment (Schein & Schein, 2016). Consequently, culture also shapes how employees perceive organizational practices, systems, and new initiatives (Costanza et al., 2016). For instance, excessive reliance on technology might lead to operational disruptions (Hacker et al., 2019); however, fostering a culture of trust can mitigate these disruptions by encouraging mutual support and generating the benefit of the doubt when technology fails (Gaan, 2012). Based on trust, adaptive cultures inspire innovation and encourage employees to embrace new ways of working (Costanza et al., 2016).

Professional service firms typically cultivate a high-performance culture that motivates employees with individual growth and career advancement. Firms often invest in structured training programs to transform inexperienced graduates into skilled consultants, capable of

providing high-quality and competitive services to clients (Cappelli & Tavis, 2016).

Contemporary learning technologies empower this process, offering flexibility tailored to individual learning and broader workforce development goals. However, when facing the joint demands of talent development and technological advancement, organizations, with limited information and capacity to process complex problems, often tend to simplify the problems by developing structured programs to clarify strategies, goals, and policies (Bolman & Deal, 2021). Embedding flexibility into an organization's culture promotes a better understanding and responsiveness to complexity and emerging challenges through strategic decision-making (Caminiti, 2020). Framing and reframing prevailing circumstances help organizations better understand underlying issues, ask new questions, explore alternatives, and effectively align technology, tasks, and the environment (Bolman & Deal, 2021).

When introducing new learning technologies, organizational culture serves as a form of social influence, prompting individuals to adopt behaviors consistent with group norms in order to gain acceptance, membership, and achieve their goals (Daly, 2023; Venkatesh & Davis, 2000). Mandating technology usage may initially enhance adoption; however, its effectiveness declines over time, as employees' direct experiences with the system shape their long-term usage intentions. Transitioning from hierarchical structures toward networks of empowered, autonomous teams surfaced the limitations of mandates for sustained adoption (Grant, 2021). Performance cultures that emphasize rigid, binary metrics of success or failure can inadvertently lead to counterproductive behaviors (Clark & Estes, 2008). Under a performance culture, employees can adhere to best practices and engage in self-development, and the organization perceives outcomes at the transactional level. However, creating a learning zone prioritizing psychological safety, experimentation, and accountability builds a foundation for sustainable

high performance and a thriving learning organization (Grant, 2021). Gradually, perceptions of technology's usefulness shift from individual performance gains to team-based incentives and structures, turning adoption into a collective decision-making process (Chadwick & Raver, 2015; Noe et al., 2010; Wenger-Trayner & Wenger-Trayner, 2020).

Understanding culture's role as a powerful, while often unconscious, set of attributes underscores its criticality for organizational change (Lakos & Phipps, 2004). Culture impacts both individual and collective behavior. While various cultural models offer systematic insights into how values and assumptions shape organizational behavior, they often fall short in guiding actionable change strategies (Schein & Schein, 2016). The application depends on leaders' capability to influence organizational culture with a collective and shared mission (Lewis, 2011), as culture sets the context, leadership guides and reinforces the cultural norms for new learning technologies.

Leadership

Leadership steers organizations to adapt to change, role-models adoption behaviors, and guides the integration of learning technologies. Leadership involves vision creation, facilitating change, recognizing contributions, and curating development opportunities (Burke, 2018). Yukl and Gardner (2020) posited that leadership is a change-oriented process involving visioning, networking, and building relationships. Northouse (2022) described leadership as influence rather than dominance, elevating both leaders' and followers' motivation and moral standards. Bolman and Deal (2021) characterized leadership as a subtle process of mutual influence generating collaborative thought, feeling, and cooperative efforts toward shared goals and purposes. Transformational leaders specifically function as change agents who model exemplary behavior, articulate compelling visions, and instill organizational purpose into the life of the

organization, its culture, structures, and talent practices (Northouse, 2022). Authentic leadership, in the meantime, transcends authority by aligning organizational actions with followers' intrinsic motivations and aspirations (Northouse, 2022). Leaders' orientation toward power and achievement can also shape their performance and morale (Burke, 2018).

Power and status differences are prevalent in professional service sectors, which influence individuals' perceptions, motivations, and behaviors (O'Higgins et al., 2021; Rehman et al., 2023; Schein, 2016). Higher-status leaders typically show stronger agreement with organizational goals, having more access to resources and greater autonomy to act effectively toward goal achievement (Clark & Estes, 2008; Lewis, 2011; Schein & Schein, 2016). Staff are eager to advance their careers through high performance and continuous learning, with learning organizations emerging as a crucial context for individuals and leaders (Chadwick & Raver, 2015; Popova-Nowak & Cseh, 2015). Effective leadership in learning organizations prioritizes building organizational capabilities, utilizing creative tension between desired future states and current realities, thereby creating continuous intrinsic motivation (Senge, 2006). Unlike traditional problem-solving driven by extrinsic motivations, creative tension encourages generative learning for sustainable growth (Edmondson, 2008; Faller et al., 2020; Senge, 2006).

Implementing organizational changes, such as introducing new learning technologies, requires adaptive leadership to align policies, procedures, and systems effectively (Costanza et al., 2016). When managing changes, leadership makes a significant difference, starting with the successful introduction of change (Cameron & Green, 2024; Northouse, 2022). Along the way, leadership guides throughout organizational change phases. The phases include pre-launch, launch, post-launch, and sustainability, with an emphasis on communication competency as a key leadership skill (Berger, 2014; Daly, 2023). Leaders communicate organizational values

through consistent actions and attention to strategic priorities (Daly, 2023; Schein & Schein, 2016). Leadership, viewed as an interactive activity rather than a hierarchical position, requires more than charisma or tactful skills to achieve its intended goals; it taps into followers' values, experiences, and aspirations (Bolman & Deal, 2021). While management focuses on stability, leadership revolves around organizational transformations with setting directions, motivating followers through visionary communication, and collaboratively overcoming obstacles (Northouse, 2022). Transformational leadership particularly contributes to the environment by emphasizing personal and skill development over strictly competitive outcomes, acting as catalysts for change and driving change by articulating the strategies (Burke, 2018; Velasco & Sansone, 2019).

As new technological solutions continuously surface to support work, particularly in virtual settings, leadership must address the challenges related to technology adoption and integration (Hacker et al., 2019). Technological advances necessitate both digital proficiency and trust-building in virtual work environments, positioning them as essential leadership responsibilities (Hacker et al., 2019; Morrison & Milliken, 2000). Leaders profoundly influence employees through relational trust, compassion, and consistent demonstrations of integrity, reinforcing team motivation and engagement (Bolman & Deal, 2021; Dolamore et al., 2021; Venkatesh & Davis, 2000). While cultivating individual readiness, leaders provide scaffolding support for their workforces. For example, transformational leadership strategies adapt to evolving expectations, particularly emphasizing work-life balance preferences among younger generations (Lewis, 2011).

Leadership shapes workplace social and psychological dynamics, in addition to the economic and technical factors. The Hawthorne Effect refers to the phenomenon in which

individuals improve aspects of their behavior or performance simply because they are aware others are observing them (Adair, 1984). It suggests that people often perform better when they perceive that leaders genuinely care or pay attention, even when no substantive changes occur (Bolman & Deal, 2021; Clark & Estes, 2008). Effective leadership, therefore, extends beyond strategy, representing presence, recognition, and relational influence when introducing a new initiative. Symbolic elements and perceived integrity increase followers' trust in leaders' credibility and explanations (Bolman & Deal, 2021). Leaders' attitudes and behaviors guide the organizational adoption of new systems, setting expectations across hierarchical levels (Northouse, 2022; Venkatesh & Davis, 2000). As an internalization process, if a team leader exhibits a particular system as useful and advocates for its performance, the leader's behavior enforces an intention to use it under the expert or credibility power (Lewis, 2011; Venkatesh & Davis, 2000; Yi et al., 2006). Similarly, the senior leaders' attitude can influence the behavior of middle managers and send indicative cues to others below them. Contemporary transformational leaders often communicate in ways that inspire followers to place organizational and task-related priorities above personal interests (Northouse, 2022; Velasco & Sansone, 2019). However, the leadership approach shall always consider the followers' needs and respond to the unfolding dynamics within the organizational context (Dirani et al., 2020; Lewis, 2011).

In summary, existing literature indicates varied perspectives on leadership: a personal trait or natural ability, a skill or behavior pattern, and an ongoing dynamic relationship (Burke, 2018; Kezar, 2001; Northouse, 2022). Overall, leadership likely draws from all these perspectives, with each highlighting a unique facet of what leadership represents. Relating to the optimal use of learning technology in professional service firms, leaders play a crucial role as technology enablers, particularly during the transformational period (Dirani et al., 2020).

Leadership involves developing a clear vision for technology integration (Lewis, 2011). Leaders must ensure fair access to technologies and continuous learning opportunities, distributing leadership to harness collective organizational potential. When leaders exert the value through their behaviors and communication, demonstrate commitment, humility, and curiosity, the change happens (Daly, 2023; Lewis, 2011). With leadership shaping vision and trust, structured change processes support sustainable learning technology adoption.

Change Process

The change process drives the implementation of new learning technologies, responding to evolving organizational conditions. The change process refers to how transformations occur within organizations, ranging from planned to emergent, adaptive to generative, and proactive to responsive (Kezar, 2001). Effectively managing change remains crucial to organizational success (Clark & Estes, 2008). Different foci, structures, processes, and attitudes can modulate the change as a response to the external environment and internal setting, while change inherently involves creating new systems and demands strong leadership (Cameron & Green, 2024; Senge, 2006; Sharan et al., 2023). Organizational change processes typically progress through three stages: downsizing, aiming at cost reduction; re-engineering, to improve efficiency; and total quality management, seeking to achieve organizational excellence (Clark & Estes, 2008). From a social cognition perspective, change arises from cognitive dissonance, triggered by misalignments between values, actions, or outdated practices (Pintrich, 2003; Schunk & Usher, 2019). Organizations need to select the most suitable change process to achieve their objectives, as each change process necessitates a distinct combination of performance support tools, specific knowledge types, and motivational support to ensure success (Clark & Estes, 2008).

Professional service firms' high-performance cultures and hierarchical structures shape the change process corresponding to the organization's growth plan and fast-paced momentum. Within this context, once introducing the change, organizations need to establish appropriate policies, procedures, and systems to support and sustain the transformation, when leveraging their culture to recognize and respond to changes in a dynamic environment (Costanza et al., 2016). To advocate for changes, change agents shall understand how the identified culture, representing the shared beliefs, values, and assumptions, can either facilitate or impede new initiatives at both transactional and transformational levels (Burke, 2018; Schein & Schein, 2016). While transactional factors such as procedures are comparatively straightforward to implement, transformational factors covering mission, strategy, and culture influence long-term success and have the greatest impact on an organization's success in change (Burke, 2018).

Technological innovation, as an external environmental factor, can both threaten organizational existence and present opportunities, therefore triggering change (Costanza et al., 2016). Intelligent and targeted changes in the work environment can enhance motivation, while arbitrary changes rarely achieve the desired outcomes, as individuals interpret messages based on personal motivational orientations (Clark & Estes, 2008). When implementing new learning technologies, organizations must guide employees' perceptions regarding the tool's usefulness, impact, and related personal and collective benefits. The implementation team can frame the initiative as a structural enhancement through the structural lens; an upskilling opportunity through the human resource lens; power distribution through the political lens; or a matter of identity and meaning through the symbolic lens, to cultivate the understanding and enactment (Bolman & Deal, 2021; Kezar, 2001). Depending on the change objectives, various forms of support such as feedback, motivational incentives, and access to expert guidance can maintain

effective team dynamics and collaboration, avoiding social loafing, and ensuring team confidence (Clark & Estes, 2008).

Resistance to change can be an opportunity for engagement and resources rather than an obstacle (Burke, 2018; Muo, 2014). Resistance stems from individual uncertainty or organizational resource constraints, representing active engagement in need of strategic management rather than elimination (Burke, 2018). Managing resistance involves acknowledging who supports and who opposes change between power holders and powerless groups (Burke, 2018). Opposition to change comes predominantly from employees most directly affected. Individual resistance emerges due to fears of inadequacy, loss of power, or organizationally, due to resource constraints and threats to power structures (Ford et al., 2008; Muo, 2014; Piderit, 2000). Ironically, change agents themselves can impede an initiative when lacking ownership and doubt its efficacy (Velasco & Sansone, 2019). Circling back to professional service firms, individuals with lower power or status perceive change as less safe for adapting or being vulnerable, since power disadvantage prevents them from taking risks, while power advantages prompt a more positive response approach (Burke, 2018; Lewis, 2011). Successful change balances competing forces by attending to both the drivers and resisters of change (Bolman & Deal, 2021).

Hence, building the momentum of change requires a holistic effort from all levels so the conversion to new technology can be an intentional and widely supported process. Small wins help build momentum and a sense of progress, gradually fostering broader adoption over time (Clark & Estes, 2008; Dirani et al., 2020). Incremental successes support broader transformation through strategic alignment, clear communication, and motivational support (Clark & Estes, 2008; Ford et al., 2008). The early achievements, when connected to long-term plans and

supported with sufficient resources, can pave the way for a more extensive and sustained application of change (Costanza et al., 2016; Dirani et al., 2020).

Bolman and Deal (2021) highlighted the importance of vision, communication, and alignment in driving successful change. Drawing from multiple frames of structure, human resource, political, and symbolic, enhances an organization's ability to anticipate resistance, engage in an effective change process, and guide transformation efforts (Bolman & Deal, 2021; Kezar, 2001). An effective change process integrates a clear strategic vision, systems and structures, communication, executive sponsorship, and targeted support for stakeholder knowledge, skills, and motivation (Clark & Estes, 2008). The three organizational influences, culture, leadership, and change processes, create the conditions for transformation and enable learning technology adoption (see Table 4). Together, these elements define the broader environment within which the conceptual framework integrates the key influencing constructs.

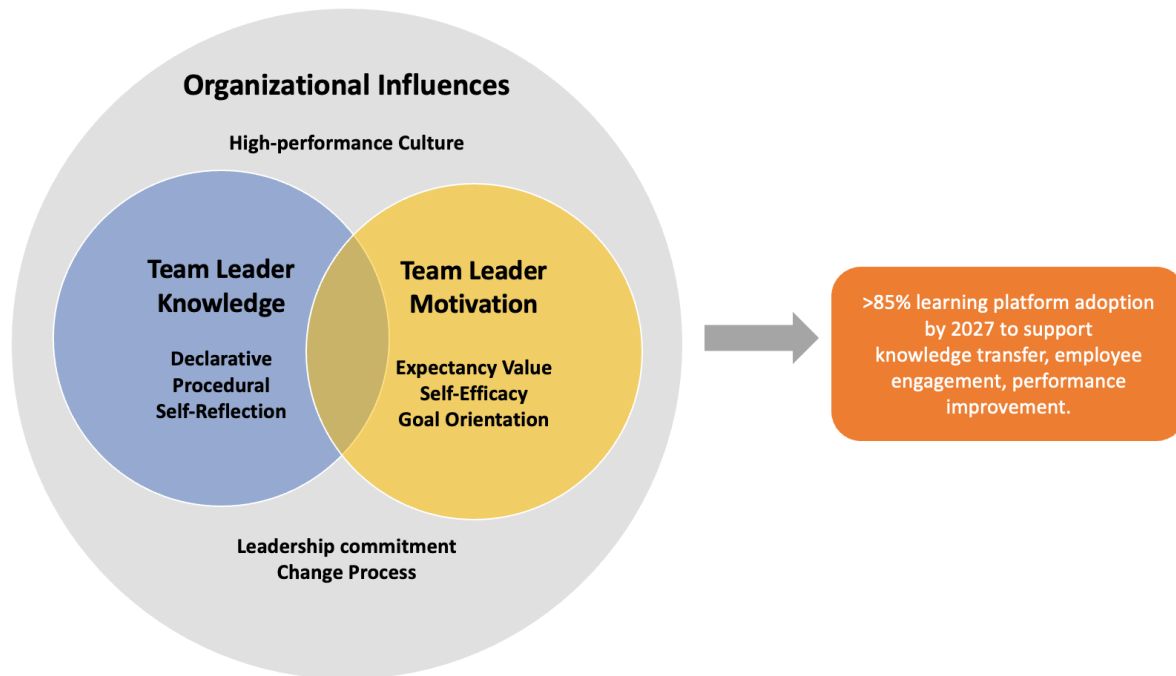
Table 4

Organizational Influences

Assumed organizational influence	Organizational category
The organization needs to leverage culture as a form of social influence, whereby individuals adopt behaviors aligned with group norms to gain acceptance and achieve goals (Daly, 2023; Venkatesh & Davis, 2000).	Cultural model and culture setting
The organization needs to support leadership in serving as enablers to ensure equitable access to technology and continuous learning opportunities, enabling the realization of collective potential (Dirani et al., 2020).	Cultural model
The organization needs to implement an appropriate change process, integrating performance support tools, relevant knowledge types, and motivational enablers to achieve strategic goals (Clark & Estes, 2008).	Cultural setting

Conceptual Framework

The conceptual framework connects the constructs of knowledge, motivation, and organizational influences to understand what enables or limits the adoption of learning technologies in a professional service firm. The Clark and Estes's KMO model provides a structured methodology for discovering the contributions and discrepancies of learning technology adoption in a professional service firm. By identifying the influence factors and driving forces, organizations can implement targeted interventions for sustainable improvements (Clark & Estes, 2008; Kirkpatrick & Kirkpatrick, 2018). This study aims to gain a deeper understanding of the root causes of learning technology adoption and explore future opportunities for effectively meeting performance goals. Under the context of implementing a new learning experience platform in a professional service firm, several constructs emerge from the review as relevant to the practice. Figure 1 outlines the concept of the constructs under the KMO model as a guide to evaluate the constructs' contribution to learning technology adoption in achieving organizational goals. Through this framework, the study offers actionable insights to strategically align learning technologies with business objectives and foster organizational success.

Figure 1*Conceptual Framework*

The stakeholder competency in learning technology adoption extends beyond role familiarity or access to the tools. The declarative knowledge of the fact and concept (Anderson, 2016), procedural knowledge of how to perform (Anderson, 2016; Squire, 1987), and self-reflection on when and why (Flavell, 1979; Schraw & Moshman, 1995) interconnect with each other and build a cognitive infrastructure for stakeholders to engage with learning technologies. The core competencies are both the expertise and the process to generate results, reflecting how individuals understand, apply, and regulate knowledge to support organizational goals (Chatterjee et al., 2023; Jain et al., 2023). In a professional service firm, knowledge sharing, learning, capturing, and storage are integral to its high-performance culture. Individuals' development relates to the evolving perception of the ecological environment and their relationship with it, alongside their increasing capacity to recognize, sustain, and modify the

environmental properties (Bronfenbrenner, 1996). Learning technology serves as a tool to develop knowledge, skills, and capability to interact with the environment, and the adoption of a new learning technology can be a learning journey in need of knowledge and motivation.

Motivation connects to the individuals' knowledge and skills demands, and the intent to exert effort towards learning new knowledge and taking an active role in adopting new tools. Expectancy value elucidates a sense of meaningfulness when individuals feel worthwhile and capable of giving and receiving something of value (Eccles & Wigfield, 2002, 2020). Self-efficacy allows individuals to step out of their comfort zone and take risks without fear of failure or errors, with a sense of safety (Bandura, 1997; Phipps & Davis, 2023). Goal orientation encourages individuals to devote physical and psychological energy and approach the learning process to achieve the goals of mastery and performance (Eccles & Wigfield, 2002, 2020; Elliot, 2006). While numerous models address general factors influencing technology adoption, limited research has examined the motivational drivers underlying technology acceptance decisions among highly skilled professionals, highlighting a gap in the literature (Noe et al., 2010; Venkatesh & Davis, 2000; Yi et al., 2006). In general, people learn and change behaviors based on what they see in social groups (Bandura, 1989, 1997; Schunk & Usher, 2019). Other theoretical paradigms posit that social norms and result demonstration play a significant role in affecting adoption decisions when people hold their peers' opinions and suggestions in high regard (Peng & Hwang, 2021; Schunk & Usher, 2019; Venkatesh & Davis, 2000). The perceived usefulness thereby has a positive effect on behavioral intention when both internalization and identification processes are in play in the acceptance of technology (Venkatesh & Davis, 2000; Yi et al., 2006).

The third group of constructs is culture, leadership, and the change process as organizational influences. According to Burke (2018), transformational factors such as mission, strategy, leadership, and culture have the greatest impact on an organization's performance. They form the work environment that influences learning and application of learning on the job (Noe et al., 2010). An organization's culture encompasses artifacts that reflect its espoused values and the underlying assumptions that drive observed behavior (Schein & Schein, 2016). Leadership is the process by which an individual influences a group of individuals to achieve a common goal, characterized by a combination of traits or qualities exhibited by specific individuals (Northouse, 2022). Leaders are communicating culture to employees, both consciously and unconsciously, while they can only manage what they intentionally convey (Schein & Schein, 2016). When changes occur, such as introducing new learning technologies, they can take place as a quick fix at the transactional level and cause unforeseen resistance and unacceptable disruption (Gill, 2002). However, conflict has both benefits and costs as it challenges the status quo and stimulates interest and curiosity (Bolman & Deal, 2021). Choosing an appropriate change process with the right type of organizational support, leadership, and management can steer the organization toward a clear vision, effective communication, and guide the transformation to achieve its organizational goals. By applying the KMO framework, this study identifies the interrelated factors influencing stakeholder performance and establishes a foundation for targeted and sustainable improvements in the adoption of learning technologies aligned with organizational goals.

Conclusion

Learning technology adoption evolves with the interplay of knowledge, motivation, and organizational influence. Research has shed light on the evolution of learning technologies,

reflecting a trajectory from simple, efficiency-driven instruction towards highly sophisticated systems that offer personalized, adaptive, and collaborative learning experiences. Each historical phase introduced new capabilities and addressed limitations of previous systems, progressively enhancing the integration of learning within organizational workflows. The learning experience platform, as a contemporary learning technology that follows recent technological advancements, integrates adaptive systems that utilize data analytics and AI to deliver personalized learning experiences, thereby enhancing engagement, effectiveness, and scalability (Giannakos et al., 2022; Ifenthaler & Egloffstein, 2020).

Beyond serving as a technological tool, learning technology enables organizational learning, transitioning from individual growth to collective development of knowledge, skills, and capability. For a knowledge-based organization in the professional services industry, its culture of knowledge sharing and collaborative innovation represents the evolving nature of organizational learning (Argote & Hora, 2017; Serrat, 2017). However, introducing new learning technology can experience resistance due to the lack of relevant knowledge, resources, and time. The Clark and Estes' gap analysis framework offers a systematic model for identifying barriers and opportunities in adopting learning technologies. By applying the KMO model, this study examines constructs related to users' knowledge readiness, motivational determinants, and the organization's systemic support. This conceptual framework provides a foundation for guiding future inquiries and practices in professional service firms.

Chapter Three: Methodology

This chapter illustrates the pragmatic inquiry approach to understanding the effectiveness of a learning experience platform in a global professional service firm. The Clark and Estes's gap analysis framework (Clark & Estes, 2008) guided the inquiry and data interpretation, supporting the study's objectives. Pragmatism serves as the philosophical worldview underpinning the research, emphasizing practical solutions to real-world issues (Creswell, 2009). Hacker et al. (2019) stated that pragmatists often blend deduction and induction through abductive methods, such as interviews, to ensure the research remains dynamic and adaptable. Adopting a qualitative approach grounded in pragmatism, this study employed semi-structured interviews and document analyses to examine the interplay of KMO influences on learning technology adoption. The following sections detail the research design, the researcher's role, sampling strategy, data collection and analysis methods, and reflections on credibility and trustworthiness.

Research Questions

The research examined organizational leaders' perceptions, beliefs, and strategies regarding the use of learning technologies as they strive to achieve various business objectives. The aim is to surface actionable insights and propose evidence-based strategies to address performance gaps and enhance the adoption of learning technology within professional service environments.

The following research questions guide the inquiry, aligning with the framework's emphasis on KMO factors:

1. What knowledge, motivation, and organizational factors influence organizational leaders' efforts to utilize learning technologies to enhance knowledge transfer, employee engagement, and performance in alignment with strategic business goals?

2. What opportunities related to knowledge, motivation, and organizational factors do organizational leaders perceive can enhance the adoption and impact of learning technologies to achieve measurable improvements in knowledge transfer, employee engagement, and performance aligned with strategic business goals?

Overview of Design

The qualitative study reviewed the implementation of a learning experience platform at ABC to identify the factors contributing to the platform's capabilities and effectiveness. The primary method of research for this study was a qualitative inquiry, conducting open-ended interviews with a pragmatic worldview. The decision on qualitative inquiry considered the type of insights needed to address the research question and the suitable way to collect the data. With the focus of the qualitative research on understanding the interviewees' experience, the researcher acted as the primary instrument for data collection and analysis, employing an inductive, subjective, and context-driven process (Creswell, 2009; Merriam & Tisdell, 2016). The design remained flexible and emergent, adapting to the changing conditions during the study (Merriam & Tisdell, 2016). A combination of semi-structured interviews with organizational leaders across multiple levels and document analysis as a secondary source of data formed the methodological foundation for this study. This approach generated insights through interpretive verbal and nonverbal techniques. Semi-structured interviews enabled deep exploration of observations and underlying motivations (Castillo-Montoya, 2016). I designed the interview protocol to conduct inquiry-based conversations that are congruent with the study's purpose and research questions, utilizing piloting and feedback for refinement.

Semi-structured interviews provided participants with the flexibility to expand on their experiences and generate insights (Dhanani & Connolly, 2015). Observational insights gathered

during the interview further enriched data collection, capturing both contextual and behavioral dimensions of the interactions (Merriam & Tisdell, 2016). Analyzing the organization's annual reports and other relevant documents, as secondary data, provided insight into the organizational context in which the learning platform operates. The analytics reviews captured enacted behaviors from artifacts such as strategies, policies, and action plans, corroborating findings across multiple sources of evidence. The qualitative method thereby addresses the research questions (see Table 5) to ensure methodological coherence and analytical rigor throughout the study.

Table 5

Data Sources

Research questions	Qualitative method
RQ1: What knowledge, motivation, and organizational factors influence organizational leaders' efforts to utilize learning technologies to enhance knowledge transfer, employee engagement, and performance in alignment with strategic business goals?	X
RQ2: What opportunities related to knowledge, motivation, and organizational factors do organizational leaders perceive can enhance the adoption and impact of learning technologies to achieve measurable improvements in knowledge transfer, employee engagement, and performance aligned with strategic business goals?	X

Research Setting

ABC is a professional service firm within a global network of firms, employing approximately 5,000 employees nationally and over 300,000 employees worldwide. The study examined the implementation of a new learning experience platform as the organization undergoes cultural transformation to become a leading industry player within the next 3 years.

Central to this transformation is the introduction of a new learning experience platform as the organization spearheads a skills program to cultivate a future-fit workforce. The AI-powered learning platform intends to provide structured and personalized learning and development experiences. Leadership plays a critical role in advocating for skill-based learning, providing resources, and establishing accountability to enhance performance.

The research focused on understanding the experiences, perspectives, and feedback of the organizational leaders across different levels. Leaders can play multiple roles, as designer, coach, and steward to guide organizational transformation (Burke, 2018; Northouse, 2022; Senge, 2006). Both middle-level managers and senior leaders contribute to helping employees look inwards and outwards to drive performance and growth (Buckingham & Coffman, 1999). Insights from organizational leaders, as both people leaders and individual performers, can systematically inform the research questions derived from their practices. Interviews can reveal insights not directly observable, including thoughts, intentions, interpretations, and feelings (Merriam & Tisdell, 2016). Leaders' interviews provided practical data to examine the factors influencing the adoption of the learning platform, and an analysis of the organization's strategies and policies established the contextual foundation for the study.

The Researcher

Throughout the study of learning technology adoption, my identity shaped access, interpretation, and responsibility of the research. As the primary instrument in data collection and analysis, the researcher's positionality involves the interplay of individual experiences within social and professional networks, which in turn influence the research process (Merriam & Tisdell, 2016; Rushton, 2023). My positionality encompassed being a female leader, a first-generation immigrant, a non-native English speaker, and a leader in digital learning. As a digital

learning leader, reviewing learning technology adoption, my insider status offered contextual access, but I may also infer risks, such as confirmation biases and over-familiarity. My identity and background affected who I could reach and how people responded to my questions during the interview. To address potential biases, I invited the interviewees to check and comment on their transcripts voluntarily. Interviewee transcript review (ITR) engaged interviewees to ensure data accuracy and helped balance power dynamics between interviewees and researcher, as a valuable approach to increase the research trustworthiness (Rowlands, 2021). Based on the interviewees' responses, I adopted reflexive practices, including positionality memos, to maintain self-awareness and reflection throughout the data collection process.

Navigating a global professional service firm, where gender and racial disparities persist (Patton, 2016), I remained aware of the challenges posed by my age, gender, and cultural heritage. My cross-cultural experiences have enhanced my sensitivity to cultural and gender dynamics, underscoring the importance of equitable access to technology and inclusive research design. During the research, my role involved assessing the utilization of technology, identifying root causes, and recommending practices to enhance the benefits of learning technology while minimizing biases. As a leader, I recognized my responsibility to close the performance gap and ensured that my biases did not perpetuate the problem. I was determined to find practical solutions, drawing on my diverse experiences to understand multifaceted realities and suggest optimal practices.

Data Sources

Qualitative research relies on words as data and uses various methods of collection and analysis to generate meaning and understanding (Creswell & Poth, 2018; Merriam & Tisdell, 2016). This study employed a qualitative approach, combining semi-structured interviews to

understand the interviewees' experiences and perceptions, and document analysis of public reports as a context to frame the interview process. The semi-structured interviews provided interviewees with the flexibility to elaborate on their thoughts through sequenced questions, thereby sharing new insights (Dhanani & Connolly, 2015). Secondary data included existing artifacts such as the firm's strategic plans, culture transformation objectives, and independence review. These artifacts provided contextual background for the interview conversations and supplemented the findings in addressing the research questions. The following section provides a detailed overview of the qualitative interview process and the secondary data approach, which support the analysis and interpretation of the findings.

Qualitative Interviews

The semi-structured interviews comprised 15 open-ended questions that aligned with the constructs in the conceptual framework derived from the literature review. Each interview spanned 45-60 minutes, allowing flexibility to probe, follow up, and explore emerging themes and new ideas. With qualitative research as a means for understanding the meaning individuals ascribe to a phenomenon and their perspectives (Creswell, 2009; Patton, 2016), the interviews aimed to capture the data of interviewees' thoughts, beliefs, and perceptions by referring to the interview protocol. To ensure data quality, the research interview shall be a structured and inquiry-based conversation that ties to the research question and serves the purpose of the study (Kvale & Brinkmann, 2015; Merriam & Tisdell, 2016). Hence, the open-ended interviews formed a flexible yet purposeful approach to capture the primary data that was meaningful for understanding the interviewees and learning their perspectives on the research questions.

Secondary Data

Secondary data, by definition, is the data produced, collected, or recorded for purposes other than the research (Johnston, 2017; Merriam & Tisdell, 2016). The integration of secondary data in qualitative inquiry offered methodological benefits, constructing a more nuanced understanding of practice-based realities and organizational narratives, particularly when analyzed in conjunction with stakeholder interviews (Merriam & Tisdell, 2016). The study encompassed the organization's existing public reports regarding the latest strategy and culture transformation, providing the context to frame the interview portal with questions that serve the purpose of the study and relate to the organization's evolving circumstances. The secondary data from the publicly available sources introduced a complementary layer of objectivity to the inherently subjective nature of qualitative inquiry. The transparency report included major learning and development programs, along with employees' interactions, to provide an update on the current status and identify potential gaps and patterns. The contextual information facilitated conversations with interviewees to address the research questions. The annual report and independence review provided data as part of the cultural setting, supplementing the interview data to form a systematic view through internal and external interpretation of how individuals engage with and leverage the learning experience platform to support performances and meet individual and organizational goals. Secondary data illuminated implicit assumptions or institutional logic that were not apparent in verbal communications with the interviewees.

Participants

A selective group of organizational leaders participated in the interviews through purposeful sampling. The purposeful sample reflects the average person, situation, or instance of the phenomenon of interest (Merriam & Tisdell, 2016). The recruitment process began with

leaders spearheading the learning experience platform within the organization as early adopters and then extended to recommended leaders to ensure response rate, utilizing the snowball or chain strategy. The intention was to include organizational leaders from both senior and middle levels, as well as cover both client-facing and support staff, to achieve diversity and inclusivity. The interviewees were the leaders who made critical decisions for the firm, driving changes to support the overall strategy, and served as an active group of stakeholders advocating for change with a lasting impact. Their perspectives on the new learning platform represented the feedback and insights from multiple levels and roles they held.

The study included 15 interviews to provide adequate coverage of the phenomenon and address the research purpose. I sent email invitations (see Appendix C) to the interviewees with an estimated time commitment and a brief description of the study as a heads-up. During the interview, interviewees could provide additional insights beyond the pre-set questions and recommend other leaders suitable to join the interviews. After each interview, interviewees could elect to receive their transcripts and offer additional insights or suggestions as follow-ups. Providing opportunities for post-interview input supports trustworthiness and transparency in qualitative research (Rowlands, 2021). This process engaged the interviewees in the research process, enhancing the accuracy and credibility of the data.

Instrumentation

The research employed semi-structured interviews to collect primary research data under the guidance of an interview protocol (see Appendix A). A well-structured interview protocol can help researchers receive robust data to address research questions, increasing the reliability and validity of interview data (Castillo-Montoya, 2016; Merriam & Tisdell, 2016). The interview protocol, serving as the study's primary research instrument, received review and approval from

the University of Southern California's (USC) Institutional Review Board (IRB) to guide this study. The protocol outlined topics for inquiry and suggested questions for the interview. There were 15 open-ended interview questions, each accompanied by transitional phrases, designed to engage the interviewees and build rapport, allowing the conversation to flow smoothly. The 45–60-minute interview duration allowed for probing into emerging themes and new topics that arise during the conversation. The recording was under the interviewees' permission, and the transcripts analysis applied both semantic and latent codes, for a layered interpretation of what participants expressed and the underlying beliefs or motivations shaping their perspectives. The dual coding strategies enhanced analytical depth, using multiple coding methods on the same data segments to illustrate the content and analyze the patterns of participant responses (Byrne, 2022; Miles et al., 2020). Purposeful sampling enabled the identification of critical factors influencing the phenomenon and supported alignment with business goals (Merriam & Tisdell, 2016). Interview questions addressed declarative, procedural, and metacognitive knowledge; motivational dynamics; and perceived organizational enablers and barriers. The study interpreted the findings through the KMO lens by linking interviewees' perceptions, beliefs, and behavioral changes to business objectives, identifying key influencing factors and potential opportunities for optimizing the performance of learning technology.

Data Collection Procedures

The data collection process commenced after approval from USC's IRB based on the outline of the methodology. Each interview lasted between 45 and 60 minutes, with the option to conduct it online using the organization's secure Teams meeting system or face-to-face, depending on the interviewees' location and availability. The invitation email to the interviewees set a schedule suitable for both me and the interviewee, with joining instructions. At the

beginning of the interview, I asked for permission to record the interview and explained the research purpose, confidentiality, and data retention practices. While conducting the interview, if recording was permissible, I only noted the key points to probe and follow up, so that I could give the interviewees my full attention to listen and observe during the interview. If interviewees were not comfortable with the recording, I would take notes by hand with their awareness and transcribe the data immediately afterwards. Interviewees could choose to receive their transcripts to verify accuracy, provide additional inputs, or follow up on topics of interest. After completing the data transcription, analysis, and interpretation, I will delete the video files.

A similar process took place for the secondary data collection. Taking an open-minded and purposeful approach, I reviewed the firm's public reports to retrieve contextual information with no personally identifiable data or sensitive information involved. I stored all data from interviews and document analysis on a password-protected computer, accessible only to me, and adhered to the local data retention policy. The organizational leadership team is supportive of the research approach, including interviews and document analysis.

Data Analysis

Data analysis in this study is an ongoing process involving continuous organization, reading, coding, and interpretation of qualitative data. Through descriptive and thematic procedures, data analysis systematically transforms data into meaningful findings in line with the research questions and the study's purpose (Creswell, 2009). To achieve analytical rigor and interpretive depth, this study adopted framework analysis complemented by my reflection, ensuring alignment with the conceptual framework and remaining open for emerging themes.

Framework Analysis

Framework analysis is a matrix-based method of qualitative data analysis designed for applied policy research and studies with specific research objectives, such as identifying implementation gaps or stakeholder influences (Ritchie & Spencer, 1994). It provided a transparent and systematic approach to managing textual data, particularly when working with pre-structured conceptual models, such as the KMO framework. The method involved familiarization, identifying a thematic framework, indexing, mapping, and interpretation, to make cross-case and within-case comparisons while maintaining alignment with theoretical constructs (Braun & Clarke, 2006; Gale et al., 2013). Merriam and Tisdell (2016) emphasized that applying a theoretical lens to a qualitative inquiry enabled researchers to identify meaningful patterns and ensured findings remained grounded in both the data and the research purpose. In this study, semi-structured interview data provided detailed insights into stakeholders' experiences and perceptions, and existing organizational documents offered context and clarification, further enriching the understanding and interpretation of the interview findings. I coded the interview transcripts in NVivo using both priori codes from the KMO framework and open codes that emerged from the interviews (see Appendix D). I segmented the qualitative data into predefined KMO categories by applying semantic and latent codes to the data, which grouped the data into emergent themes and constructs from the literature, such as procedural knowledge, expectancy-value theory, and organizational change, to refine and deepen the analysis. The dual coding process supported the identification of patterns and trends, linking analytical insights to the research questions and the broader purpose of this dissertation.

Reflection

Reflection serves as a complementary methodological approach to framework analysis, crucial for enhancing rigor, credibility, and interpretive quality (Faller et al., 2020). Given my dual role as both researcher and organizational insider, reflective practices were essential for examining how my positionality and potential biases may impact data interpretation and analysis. Engaging in consistent and intentional reflection strengthened transparency and supported the trustworthiness of qualitative findings, aligning with best practices recommended in qualitative research (Merriam & Tisdell, 2016). Reflective practice enhanced the depth and rigor of the analytical outcomes, enabling nuanced interpretations, clarifying emergent meanings, and resolving contradictions within the data (Lanaj et al., 2019; Schön, 2017). Throughout the data collection and analysis process, I maintained a reflexive memo to systematically document my observations, assumptions, reactions, and analytical decisions after each interview and analysis. Reflexive memos allowed me to track and critically evaluate how my perceptions, biases, and prior knowledge shaped the coding process, thematic development, and final interpretations.

Credibility and Trustworthiness

According to Merriam and Tisdell (2016), credibility and trustworthiness in qualitative studies are analogous to validity and reliability in quantitative studies. Given the subjective nature of qualitative studies, credibility and trustworthiness aim to support readers in feeling confident about the truth of the data and the trustworthiness of the results by providing information and rationale for the study's outcome and process (Ahmed, 2024; Connelly, 2016; Merriam & Tisdell, 2016). The study's conceptual framework and research question guided the focus of the inquiry and informed the design of data collection, analysis, and interpretation. As

the primary instrument in the qualitative research, researchers remained aware of how personal values, assumptions, and biases may influence the research process and findings (Merriam & Tisdell, 2016; Small & Calarco, 2022).

To ensure the quality and rigor of qualitative research, the strategy of reflexivity and follow-up with rich description was pertinent to the credibility and trustworthiness of the research. The reflexivity acknowledged and managed researchers' biases and assumptions with transparency (Ahmed, 2024; Connelly, 2016), contributing to ethical rigor and transparency in qualitative inquiry (Creswell, 2009). Continuous self-reflection and critical examination of my role and influence on the research helped identify potential biases stemming from my positionality, supporting efforts to intentionally mitigate them by approaching the data with neutrality. I endeavored to create a safe and open environment where interviewees felt comfortable sharing their authentic experiences and perspectives. When the interview process remained consistent, transparent, and unbiased, it enabled the generation of credible and transferable findings (Merriam & Tisdell, 2016). Follow-up interactions allowed for deeper exploration of interviewees' responses, providing opportunities to assess empirical claims with greater depth and contextual richness (Small & Calarco, 2022). Asking follow-up questions to probe emerging topics during interviews and sharing the interview transcripts enhanced the richness of the data, supporting the inclusion of diverse perspectives. In general, reflexivity and follow-up ensured the alignment of findings with research questions, demonstrated procedures with transparency, and supported the necessity of rich contextual descriptions for generalization and credibility (Creswell, 2009; Nowell et al., 2017; Yin, 2018). The study aimed to have the analysis results more accurately reflect the interviewees' experiences and opinions.

Ethics

Ethical practice in this study was an ongoing and reflective responsibility that acknowledged the interplay among my identity, organizational dynamics, and the perspectives of the interviewees. Through a pragmatic and equity-driven lens, the inquiry drew on the entanglement of how race, gender, and power structures influenced the equity of adopting learning technology. Promoting an inclusive and equitable deployment of learning technologies empowered all employees to advance their careers. Organizations can thereby maximize their return on investment by cultivating a capable and engaged workforce aligned with their strategic goals. While the study sought to generate actionable insights to address systemic inequities, I also acknowledged potential risks, such as misinterpreting the findings or unintended pressure on leaders to act prematurely. To uphold ethical integrity, I provided interviewees with plain-language briefings, honored their unconditional right to withdraw, and pseudonymized their data to ensure confidentiality and maintain their anonymity. I stored data securely and remained committed to destroying it after the study concludes. To ensure confidentiality, I re-checked the interviewees' quotations to avoid disclosing any personally identifiable information and removed all organizational identifiers.

Ethical practices establish the trustworthiness of the study (Merriam & Tisdell, 2016). Western-dominant literature often marginalizes the voices of underrepresented groups in discussions of organizational learning (Halverson & Graham, 2019; Hasan, 2023). This study intentionally foregrounded the perspectives of diverse employee groups to capture a more comprehensive and ethically grounded understanding. A reflexive memo and review of the interviewee transcript support transparency and reduce bias (Holmes, 2020). The plan is to share the findings through internal reports and anonymized academic presentations. By integrating my

positionality with a pragmatic approach, this research sought to uncover blind spots, inform equitable practices, and unlock the potential of learning technologies to enhance individual growth and organizational success.

Chapter Four: Findings

The purpose of this study is to understand how organizations can strategically implement and adopt learning technologies to optimize knowledge transfer, enhance employee engagement, and improve performance, ensuring alignment with operational needs and strategic business objectives. Clark and Estes's (2008) gap analysis framework underpins the inquiry, emphasizing knowledge, motivation, and organizational factors that shape leaders' efforts to leverage learning technology in a professional service context.

Two research questions direct the analysis:

1. What knowledge, motivation, and organizational factors influence organizational leaders' efforts to utilize learning technologies to enhance knowledge transfer, employee engagement, and performance in alignment with strategic business goals?
2. What opportunities related to knowledge, motivation, and organizational factors do organizational leaders perceive can enhance the adoption and impact of learning technologies to achieve measurable improvements in knowledge transfer, employee engagement, and performance aligned with strategic business goals?

To address the research questions, the study takes a qualitative approach that integrates content analysis of three publicly available organizational reports with semi-structured interviews with leaders at multiple organizational levels. The data collection methods investigate the organizational priorities and leaders' experiences with learning technology adoption. Thematic analysis applies the KMO framework to identify patterns, influencing factors, and potential opportunities relevant to optimizing the implementation of learning technology.

Throughout the process, the study applied systematic coding and engaged in continuous reflection to ensure a rigorous analysis. The findings in this chapter present the major themes that

emerged from both the document analysis and the interviews with leaders. These results provide a foundation for evidence-based recommendations that support the integration of learning technology and improved organizational outcomes.

Organizational and Theoretical Context

ABC pursues its mission to support the community by addressing significant issues and fostering trust in society. Alongside the mission, the organization strives to become a leading professional service firm by investing in workforce development and integrating advanced technology. Among the efforts, ABC introduced a new AI-powered learning experience platform to provide personalized learning opportunities for employees and advance its continuous learning strategy, centered on job-related skills development. The study focuses on the implementation and adoption of this learning experience platform, drawing on interviews with organizational leaders across various levels, from partners to managers. Before conducting these interviews, the study examined three publicly available reports on ABC's website to analyze the organization's values, practices, and policies related to knowledge management, employee engagement, and organizational support. This approach aligns the analysis with the KMO constructs presented in the literature review.

The document analysis process leveraged OpenAI's ChatGPT 4.1 to review the three reports and identify key themes relevant to the research questions. The analysis applied a thematic approach to summarize major themes and organize the findings in alignment with the KMO framework. Table 6 provides a synthesis of the three reports with evidence as context for the primary qualitative findings from the interview data (OpenAI, 2025).

Table 6*Summary of Key Themes from Document Analysis*

Domain	Key themes	Evidence	Reports
Knowledge	Formal learning and upskilling; leadership programs; digital literacy; peer support for technology use	“Over 200,000 hours of formal learning delivered”; “fluency labs for all staff on AI topics”; “Centre of Excellence for technology and learning”; “more than 250 internal technology champions”; “onboarding and how-to sessions for new platforms”; “internal chat platform with user guides”	Annual and Transparency
Motivation	Engagement linked to learning; recognition and reward; well-being and psychological safety	“Performance is linked to learning engagement through a balanced scorecard”; “recognition awards for innovation in technology use”; “well-being and psychological safety initiatives”; “peer mentoring for early adopters”; “employee engagement survey showed 72% positive responses”; “values of curiosity, collaboration, and challenge promoted across the firm”	Annual and Transparency
Organizational influences	Governance reform and accountability; DEI initiatives; transparent change management	“Independent chair appointed to the governance board”; “governance structure reformed”; “diversity, equity, and inclusion initiatives implemented”; “external monitor confirmed closure of most action items in change plan”; “transparency in reporting progress”; “change process externally reviewed and ongoing”	Annual, Transparency, and Action Plan

Note: All quotes in this table have been pseudonymized to protect the identity of the organization, in alignment with ethical research practice and dissertation requirements.

The three reports’ analysis supports the view that ABC is systematically tackling knowledge, motivation, and organizational influences in its reinvention strategy and cultural

transformation. The Annual Report outlines the firm's financial performance, governance priorities, and strategic initiatives, showing how the organization positions capability development and engagement as part of business transformation. The Transparency Report details the firm's governance reforms, cultural transformation, and accountability commitments under the Commitment to Change Action Plan, illustrating how culture and learning underpin the firm's reinvention efforts. The Action Plan independently assesses ABC's progress in implementing the governance, accountability, and culture actions recommended in the external review, outlining the organization's commitment to transparency and change.

Collectively, these reports provide an overview of the organization's strategic direction, cultural shifts, and leadership actions that influence learning technology adoption. As context for the study, the reports demonstrate organizational claims regarding cultural and learning reforms, and how strategic governance and accountability mechanisms underpin technology-enabled learning initiatives. ABC invests in AI upskilling, prioritizes employee engagement, and maintains transparency throughout the change process. By integrating formal learning, performance management, governance reform, and culture change, ABC aligns learning technology initiatives with strategic business goals. The reports provide supplementary data that enrich and corroborate the analysis of organizational leaders' perspectives and experiences. Analysis from the public reports, combined with external review, strengthens the rigor and credibility of the findings.

Participants

The study includes organizational leaders from various levels, backgrounds, and functions to capture inclusive and credible data. Organizational leaders typically play dual roles as both drivers and facilitators of change (Austin, 2016). The participants are leaders who make

critical decisions for the organization, driving changes to support the overall strategy, and serve as an active group of stakeholders advocating for change with a lasting impact. The leaders' roles remain central to the success of major initiatives (Berger, 2014). The implementation of learning technology is part of ABC's cultural transformation and change efforts to achieve its business goals. The leaders participating in the interviews spanned multiple organizational levels and functions (see Table 7). As role models, these leaders embrace new technology and act as catalysts for transparent communication between senior executives and broader employee groups. Their perspectives on the learning platform provide feedback and insights from multiple organizational levels and functions, informing the research questions. The study pseudonymizes all interview transcripts to protect participants' identities and considers demographic information only when it relates to the findings.

Table 7

Participants List

Pseudonym	Gender	Tenure at ABC	Grade	Function
Grace	F	<1	Director	Internal Supporting
Daniel	M	1-5	Managing Director	Client Facing
Sophia	F	6-10	Senior Manager	Internal Supporting
Lucas	M	6-10	Director	Internal Supporting
Harry	M	6-10	Manager	Both
Leo	M	6-10	Senior Manager	Both
Eleanor	F	10+	Senior Manager	Internal Supporting
Isabelle	F	10+	Senior Manager	Both
Maya	F	10+	Senior Manager	Internal Supporting
Olivia	F	10+	Director	Internal Supporting
James	M	10+	Senior Manager	Internal Supporting
Jim	M	10+	Senior Manager	Both

Pseudonym	Gender	Tenure at ABC	Grade	Function
George	M	10+	Partner	Client Facing
Patrick	M	10+	Partner	Client Facing
Michael	M	10+	Partner	Client Facing

Knowledge Findings

Knowledge about learning technology influences how individuals adopt and utilize it to enhance job performance. Within organizations, knowledge plays a critical role in enabling people to meet performance goals and anticipate future challenges (Clark & Estes, 2008). Knowledge encompasses both the abstract processes of perception, thinking, and learning, as well as the substantive content that learners desire and acquire (Serrat, 2017).

The research interviews focused on organizational leaders' perceptions of learning technologies in the workplace, their experiences with using these technologies, and their reflections on the effectiveness. The KMO framework and the research questions guided the development of the coding structure. Framework Analysis began with a priori codes but remained open to inductive codes that emerged during analysis (Creswell, 2009). NVivo, a computer-assisted qualitative data analysis software (CAQDAS), supported a systematic process and ensured data traceability (Elliot & Timulak, 2021). Three domains of knowledge anchored the analysis: declarative knowledge, procedural knowledge, and metacognitive knowledge. These findings reflect participants' perceptions, experiences, and values related to learning technology.

Declarative Knowledge

Organizational leaders were familiar with the learning technologies available to them, though their understanding of specific features and purposes varied. Declarative knowledge

establishes the foundation for clarity, readiness to adopt, and informed decision-making (Anderson, 2016; Clark & Estes, 2008). Awareness of platform functions and potential benefits contributes to positive adoption outcomes (Giannakos et al., 2022). Two primary themes emerged regarding ABC's learning experience platform: leaders' awareness of available learning platforms and their interpretations of platform transitions and purposes.

Awareness of the New Learning Platform and Options

All participants reported using the organization's internal learning platform to complete compliance training and were aware of additional options. However, knowledge of platform features and awareness of available tools varied, guiding how leaders approached and used learning technologies. Sophia remarked, "Do we need guides for the Platform A? No. ... We know to go to Platform A for learning." Eleanor described the new platform as "an evolution ... I used the system a lot, so I understand it." Leaders' existing knowledge of the platform serves as a starting point for further exploration and engagement. Lucas emphasized the importance of early exposure, suggesting that induction should ensure "people understand and experience it on day one, so they know it exists." For new users, alignment between the learning experience and performance goals serves as a key indicator of application (Ifenthaler & Egloffstein, 2020; Kirkpatrick & Kirkpatrick, 2018). Several participants highlighted the use of multiple platforms, both internal and external, to meet learning and job requirements. Isabelle explained, "I used a mix of things, most recently Platform C [an external learning portal]," and Harry also noted, "We have to use a lot of external platforms as well ... for product-specific training."

Compliance training emerged as a major driver of internal platform use. Maya viewed the platform as "serving me large often the mandatory learning ... from a compliance perspective, it's effective." Isabelle similarly noted, "I used it for all the mandatory stuff, and it was usually

the way my brain worked.” George reported, “When I go into Growth Centre ... I just kind of look at mandatory training due dates to make sure I’m not going to miss a date.” Patrick echoed this perception, stating the internal platform “was too associated for me with the compliance stuff ... my sense of this is that they are really a compliance mechanism.” Olivia added, “We’ve got some good robust systems in place to check that every 6 months or every 12 months we go through a process.” Overall, the findings suggest that leaders valued access to a range of internal and external learning technologies but perceived the internal platform primarily as a mechanism to satisfy regulatory requirements.

Understanding the Platform Evolution and Purpose

The transition to a new platform prompted varied perspectives on its role. Some leaders expressed enthusiasm, while others noted challenges. Eleanor observed, “Where we’ve come from Platform A to Platform B is a step up,” which aligned with Sophia’s comment, “We have some great tools here.” James described the system as “intuitive ... it’s got a lot there. Yet what gets in the way of us doing that sharing? What gets in the way of people ... tell me what I need to do?” Lucas highlighted the scale of investment, stating, “Transitioning to a new AI-powered learning platform is a huge investment ... part of that investment ... is also about training, helping people ... get ready to embrace the new tool.” The leaders’ recognition of the new platform contrasted with perceptions of the system as a simple “utility.”

Participants also emphasized the continuity of content across platforms. George noted “a lot of e-learns kind of using Platform B.” At the same time, Olivia explained, “All of our learning resources end up being loaded onto Platform A and now it’s Platform B. So, it’s on there sort of as a catalogue of material.” Several participants expressed optimism about the platform’s potential. Maya suggested, “We’d all be very capable of doing that, and we’d find

really great content, I'm sure." George stated, "People are smart enough; they'll learn it as they go." Research indicates that employees who understand why to adopt a technology and how it supports performance are more likely to engage with it strategically and transfer learning into outcomes with tangible impact (Perng & Hwang, 2021; Roumell, 2019). During the transition, organizational leaders did not limit themselves to the internal learning platform but also turned to external platforms provided by the firm. Isabelle described external offerings as "higher end and easier to navigate ... I've picked out a few [courses] that were really useful." Eleanor emphasized that external platforms are "really easy to use ... you're able to search for what content you're after. There's a wealth of content in that. So, I find those very valuable platforms." The external options, with their perceived ease of navigation and better alignment to immediate learning needs, reinforced leaders' willingness to integrate them into their professional practice.

These insights indicate that participants viewed the new internal platform as part of the firm's strategic approach while continuing to recognize the value of external platforms. Declarative knowledge in this context reflects both the awareness of internal compliance-driven functions and the recognition of external platforms as higher-quality, performance-enabling resources.

Procedural Knowledge

Applying learning technologies requires organizational leaders to have both the capacity and capability to navigate platforms, engage with content, and leverage digital tools in role-specific contexts. Procedural knowledge translates conceptual understanding into action, enabling the use of technology to support performance improvement (Krautter et al., 2022; Martin et al., 2020). Leaders' feedback about their use of learning platforms centered on navigation and search, integrated experiences, and guided support.

Navigation and Search

Participants emphasized the importance of efficient routines for locating content. Procedural knowledge allows users to identify relevant training, navigate platforms, and apply learning with minimal oversight (Clark & Estes, 2008). Michael commented, “It’s always clear on how to navigate [as] the user experience is intuitive.” Olivia explained, “What’s my mandatory, what’s my expected, what’s been assigned to me. I think all that sort of stuff is easier to find on the [new platform than the old one].” James shared a similar experience: “In terms of getting on the platform, in terms of searching ... in terms of accessing something ... you know what you’re looking for, it’s pretty easy to find.” These comments highlight the significant impact of effective navigation on utilization. Leaders emphasized that sustained utilization requires effective interactions supported by intuitive navigation.

At the same time, participants noted challenges when dealing with the volume of content and limitations of the search function. Daniel observed, “There’s so much choice in there as well. There are so many different things ... it can also get a little bit overwhelming.” Patrick pointed to issues with keyword-based searches, explaining, “I put in a sentence as I would on something like ChatGPT, and it just fed me gibberish because it was doing keyword search.” The low search efficiency exacerbates the problem of “overwhelming content.”

Integrated Experiences

Participants also described how their engagement with learning technologies intersected with work routines, device use, and individual preferences. Leaders highlighted the importance of flexible access, particularly given time-sensitive and client-facing responsibilities. Michael explained, “The only time I can fit in sort of optional learning is often while I’m in transit ... a mobile first because ... I can listen to the podcast in the car without looking at my [screen].”

Harry suggested, “[Just] making it accessible anywhere as opposed to I have to use my laptop.” Similarly, Lucas argued that “a successful implementation should ... make it available [on different devices].”

Another consistent theme concerned proactive and integrated interaction. Four participants referenced “Clippy,” a Microsoft Office assistant. Grace recalled that “in the past, with Clippy, things came to you. You didn’t have to go searching. It told you what was important and when you needed to act on it.” James added, “With Clippy, it felt like the system was doing some of the heavy lifting. Our platform is more reactive; you have to know what to search for.” George also agreed that “Platform B needs to be more like Clippy, where you’re getting those pushes, those nudges ... you’ve got something relevant to your role.” Patrick reinforced that “Clippy was more push. Platform B feels like a pull. I have to go in and find what I need. That’s not always realistic when people are busy.” Sophia emphasized the need for step-by-step application, noting, “I’d like to have the application up in my world systems and then actually following step by step and then trying to ... follow the bouncy ball.” Together, these perspectives illustrate that leaders are seeking experiences that align with their working styles. To enable integrated experiences, leaders also emphasized the need for support in developing proficiency with the new platform and adapting to emerging technologies.

Guided Support

Participants also emphasized the importance of procedural aids, including quick guides, short videos, peer support, and formal training. Isabelle observed that “it took us a good 6 months to get people using it because they didn’t know the URL, and even though it was in manage bookmarks and all of those things, when people are busy, they forget.” Daniel reflected that “our effective utilization just takes so much longer.” From a training perspective, Eleanor

recalled, “when we roll out new systems at ABC, we are given training whether it’s formal, informal ... guide, sometimes we do a video ... we’re always given the different opportunities.” However, Eleanor also suggested that for the new platform, “we didn’t really need to be running training sessions ... it’s pretty straightforward.” Despite Eleanor's comment, more than half of the participants perceived training and guided support as insufficient.

Beyond traditional workshops, participants emphasized various forms of alternative support. Job aids, walkthroughs, and simulation tasks can reinforce knowledge transfer (Leuhery, 2024). Patrick pointed to “peer demonstration and microlearning embedded in day-to-day workflows.” Olivia shared her reliance on peer networks: “the word of mouth that I use to filter ... [I] will just quickly message someone I know ... who ... is of an expert and say ... oh, no, you need to just tick that box.” Reflecting on her experience, she questioned “if I didn’t get it, how many other people don’t?” Pushing the challenge even further, Maya emphasized the importance of seamless experiences, stating,

I don’t really think about what the tool [platform] is. I just click a link and it takes me somewhere, and all I know is whether that’s a smooth experience or not ... is probably the only need to go in.

These findings underscore the importance of guided support in sustaining long-term utilization, consistent with prior research (Clark & Estes, 2008; Giannakos et al., 2022; Ifenthaler & Egloffstein, 2020). The leaders' insights also indicate the importance of reflecting on how individuals learn, suggesting that self-awareness and self-regulation influence the operational adoption and lead to the domain of metacognitive knowledge.

Metacognitive Knowledge

Metacognitive knowledge guides individuals in managing their learning by enabling them to reflect on their progress, strategies, and impact. From a learning-technology perspective, individuals with metacognitive knowledge reflect on their technology use, adapt their integration approaches, and monitor their impact to optimize results (Jain et al., 2023). This section analyzes three themes from the interviews with organizational leaders: learning preferences, learning progress, and views about the role learning technology should play.

Learning Preferences and Modality Choice

Organizational leaders described how they learn best, then selected formats, tools, and settings that fit their time, attention, and depth constraints. Michael stated, “I had good self-awareness of how I learn as a person.” Metacognitive awareness guided the planning of learning modes and sequencing. Participants have perceived learning preferences. Eight participants, out of a total of fifteen, shared their learning preferences, relevant modalities, and the observations of how others learn in Table 8. Harry and Michael provided specific examples of the modality options they chose. Sophia pointed out that all the individuals within her team approach learning differently. Grace, Lucas, and Jim insisted that learning technology offers modality options and opportunities to apply learning. Isabelle added that they also play a crucial role in engaging busy learners.

Table 8

Learning Preferences

Pseudonym	Quotation	Aspect highlighted
Olivia	“Some learners just cannot stand virtual learning. They’re just like, ‘It’s all too much for me.’ Yet there’s others who... prefer the virtual learning and prefer the access to recording so that they can go and look at it at	Observations of learning preferences

Pseudonym	Quotation	Aspect highlighted
	different times. We've got so many different learning personalities and types, it's very hard to say it's one size fits all."	
	"Sometimes it's relevant for me, but quite often it doesn't have quite the detailed content I'm after because I'm the content generator. So, yeah, if my team hasn't put it on there, it's generally not going to be available."	Preference for relevant
	"Use of curriculums and things like that to guide people through the work they need to do before they can come to one of our live sessions."	Integrated learning pathway
Harry	"Some people like being able to change the video speed... some team members prefer to listen for video a little bit slower, some for a bit quicker, like double speed, and then they can follow along with text."	Modality preference (video/text) and sense of control
	"The user interface being able to scale it to however works for you. [If] you're a visual learner or a text learner; you can read a transcript."	Modality option
Michael	"I get the most out of one-on-one tailored engagement... I can focus exactly on where my weaknesses are, rather than covering the ten things I already know."	Preference for tailored/coaching
	"I prefer listening to podcasts and I like very short, sharp executive summary overviews... and that's often enough for me to get to a knowledge test and perform well."	Modality preference (audio/summary)
Sophia	"As a team leader trying to develop a learning pattern within our team, everyone learns differently."	General preference for variety
	"I think we've got different forms of learning."	
Grace	"You're more open to trying a whole range of tech to see what kind of works for you from a style perspective."	General preference for variety
	"There is a tricky hybrid with learning technology... it really does depend on your preference."	Blended/hybrid preference
	"Give me something that then I can go and test and do immediately."	Integrated learning by doing
Lucas	"Part of that investment [in a new tool] is also about training, helping people, you know, get ready to embrace the new tool."	Integrated learning with adoption
Jim	"I need to be put on projects where I can be tested."	Integrated practice preference

Pseudonym	Quotation	Aspect highlighted
	“You can watch as many videos as you want, but until you do it on a project, you don’t really know.”	Blend of formal and experiential learning
Isabelle	“Manager training... everyone does and it’s good and it’s tailored and specific. But to encourage busy people to do extra training, the content needs to be good. It takes more than just ‘you have to do it.’”	Preference driven by quality and relevance

Participants consistently emphasized the value of modality variety and of aligning modes with individual preferences, demonstrating self-awareness and perceptions of how they learn. Selecting modalities based on such awareness reflects metacognitive planning and regulation of learning, which, within the KMO framework (Clark & Estes, 2008), supports efficient and self-directed engagement with learning technology. Building on their preferences, participants also described how learning progresses through application, experimentation, and feedback.

Learning Progress through Application, Experimentation, and Feedback Loops

Participants described setting intentions to apply learning immediately, experimenting in low-risk contexts, and leveraging coaching to refine approaches. Across interviews, leaders articulated how they pursue learning progression and surfaced potential challenges when leveraging emerging technologies. Grace and Sophia both emphasized the importance of learning through experimentation and hands-on experience. Grace called out, “Give me something that then I can go and test and do immediately,” and added, “If we created some little experiments ... I think people would lean in a little bit more to learning.”

Reflecting on development, Maya linked progress to feedback and coaching: “The development you need might not be through something you’re going to find on a platform. It’s probably more through coaching feedback.” Leaders expressed mixed views on coaching. Jim,

Michael, and Isabelle stressed human or peer coaching, while Michael and Sophia encouraged experimenting with AI coaching. Michael also cautioned about “risk of over reliance because that coach is so accessible and is available on demand for effectively free ... [and] a risk that we see people stop thinking critically.” Overall, iterative application with feedback supports metacognitive regulation, helping sustain performance gains from technology use and maintain alignment with business goals (Clark & Estes, 2008). The focus on learning progression led participants to consider the role learning technology should play.

Strategic Enabler to Drive Performance Rather Than Content Delivery

Participants expected learning technology to function as a performance infrastructure rather than a content repository. Approaches grounded in performance priorities encourage use of technology not only for delivery but as a strategic enabler that improves performance through reflection and adaptation (Bandura, 1997; Faller et al., 2020; Hacker et al., 2019). Jim emphasized that learning technology is an entry point: “You can watch as many videos as you want, but until you do it on a project, you don’t really know.” From a similar vantage point, Patrick positioned technology as an enabler of behavior change rather than course delivery, describing “more nudge, more visual, more virtual, more gamified potentially ... actually I think are really interesting in terms of how they’re beginning to change behavior.” Jim and Patrick's comments align with Clark and Estes’s (2008) KMO research, which suggests that knowledge must enable performance rather than solely facilitate information transfer.

Leaders framed the desired shift from compliance tool to performance enabler. Grace illustrated the gap between content access and strategic enablement as:

That everyone has to be AI-literate, and then they have to go to Google or go to Platform A and search for things ... they've got no clarity about how this helps me practically in my job.

Patrick added, “you’re not just passively receive information. Our most valuable learning is that experience, experiential moment around that.” Grace challenged, “How do we make it more experiential, less content?” She suggested that “the internal platform could potentially solve the problem by creating a targeted learning journey ... in a way that also helps matriculate the value of the platform.” Jim noted a similar orientation: “I’m thinking about learning technology less from the perspective of what’s facilitating the management and collection of ... the broader catalogue, but more about what’s enhancing the learning experience in the room,” while acknowledging it would still be “a stretch” to conclude that the platform already supports performance. Collectively, participants expressed strong expectations that learning technology should enhance experiential learning and facilitate performance improvement, which requires integration with projects, nudges, coaching, and behavior-change strategies.

Knowledge Findings Summary

Organizational leaders’ knowledge about learning technologies reflects what they believe the technologies are, how they use them, and how effective they perceive them to be in daily work. The interviews emerged themes across three domains: declarative knowledge, procedural knowledge, and metacognitive knowledge. Leaders’ insights illuminate both the factors influencing adoption and the opportunities to enhance usage.

Declarative knowledge centered on awareness. Because the internal platform hosts mandatory compliance training, awareness was widespread. Participants appreciated the advancements in the new platform; however, their understanding of its broader features remained

primarily tied to completing the required training. The availability of content was a notable positive highlight, with participants noting coverage across both internal and external platforms. Overall, the declarative knowledge findings indicated that leaders were aware of platform availability but primarily viewed internal systems as compliance tools, supplementing them with external platforms for professional development.

Procedural knowledge focused on utility. Leaders described the platform interface as intuitive and easy to locate mandatory training, but also identified challenges with search quality due to the volume of content and limitations of the function. Participants emphasized the importance of integration with daily work and busy schedules, including mobile accessibility and proactive nudges, as part of the user experience. Guided support also appeared as a central theme, with leaders highlighting the value of training, quick guides, peer support, and microlearning. While some found the new platform straightforward, others cited insufficient onboarding and support as barriers to adoption.

Metacognitive knowledge reflects how leaders plan, monitor, and evaluate their learning with technology. Participants expressed clear preferences for modalities with formats and pacing suited to their work demands. They emphasized immediate application, experimentation, and evaluation through feedback and coaching. Leaders further stressed that learning technologies should serve as strategic enablers of performance, rather than merely as a content repository, by embedding projects, opportunities for experiential learning, and providing support for behavior change.

In summary, the knowledge findings indicate that leaders were aware of and able to utilize learning technologies, whereas internal platforms were primarily for mandatory training. Sustained adoption depended on ease of navigation, integration into work routines, and adequate

guided support. Leaders demonstrated reflective practices that informed their preferences for learning approaches and expressed clear expectations that technology should enhance performance and facilitate experiential learning. Collectively, the findings suggest that organizational leaders are more ready to adopt and sustain learning technologies when they possess the knowledge, access, and appreciation of platforms that integrate into daily work as performance enablers.

Motivation Findings

Motivation drives individuals to choose, engage with, and apply learning technologies in the workplace. Internal and external factors influence motivation by fulfilling psychological needs for competence, relatedness, and autonomy (Evans, 2015). Within the context of learning technology, motivation plays a direct role in technology adoption and the effectiveness of workplace learning (Noe et al., 2010; Yi et al., 2006). Leaders at ABC described factors that helped or hindered their motivation to utilize the platform. The interviews surfaced the findings under three motivational dimensions: expectancy value, self-efficacy, and goal orientation.

Expectancy Value

Leaders emphasized the importance of learning and the value of learning technologies. As Grace stated, “I would prefer to [have] access to basic learning tech than no learning tech at all. ... So the impact is everything takes longer, it’s not as efficient.” Expectancy relates to the belief that effort will lead to successful outcomes, while value reflects the perceived importance of those outcomes (Bandura, 1997; Wigfield & Eccles, 2000). Interview data highlighted themes of perceived usefulness, the cost of time and effort, and autonomy in self-directed learning.

Usefulness and Attainment

Motivation increased when leaders perceived clear relevance and payoff from learning, such as role applicability, preferred learning approach, career progression, or visible recognition through badges and certification. More than two-thirds of participants linked the value of learning technologies to performance, career advancement, or personal goals. For example, Eleanor noted that just-in-time learning “would motivate me to look for something that I can [be] upskill.” At the same time, Olivia emphasized the importance of helping learners “see how that actually applies to them on the job and how that can be relevant to them.” Daniel described learning as “validation for where they’ve got to. ... Are you ready to go up to the next grade. ... Here’s what I’ve done. This is part of my personal plan.” This reflects the value of continuous learning for leaders who are keen to accelerate their careers. Such reflections align with research on professional service firms, which link career acceleration to continuous learning within high-performance cultures (Cappelli & Tavis, 2016).

Recognition of learning efforts through certification and badges further supported motivation by fostering persistence. Isabelle explained, “you get little, little tags or badges at the end ... good for the ego, good for your LinkedIn. As someone that’s not very good on LinkedIn, being able to put the odd badge up there is good.” The recognition also cultivates a sense of pride among the leaders, and the certification ensures the status and performance. Harry highlighted the role of accreditation in career development, noting, “part of my personal training is for one of my certifications. ... So that’s a motivator for me. ... maintain a ranking,” while also acknowledging the “gamification” embedded in such achievements. The leaders valued both the recognition that certification provides and the process of pursuing it. Their comments illustrate

how recognition affirms both performance and professional identity, reinforcing the motivational impact of succeeding at tasks that align with core values (Eccles & Wigfield, 2020).

At the same time, leaders stressed the importance of relevance and personalization in sustaining engagement. George observed that the platform “doesn’t feel like it’s tailored to me ... like just a system,” while Sophia asked for it to be “more relevant to what I or how I learn ... and it needs to remain relevant.” Lucas also stated that “employee engagement comes through relevance.” These perspectives highlight that when learning technology aligns with individual goals and experiences, leaders are more willing to invest time and effort in using them.

Effort Cost and Efficiency

Time and cognitive effort shape perceived ease of use and uptake. Lower friction in search and clicks, along with proactive guidance, motivates leaders to find, access, and complete learning on the platform. Several participants described a “time-poor” workforce, noting that “our population tells us that two clicks are ... too many.” Michael and Grace were explicit about their expectation for simplicity, with Michael commenting, “I want to know what I need to know in one sentence. I don’t want the 10-minute feature. ... Click through too many things, I will simply opt out of that.”

Leaders weigh the cost of time and effort against the benefits that the platform can bring to improve daily efficiency. Isabelle recognized the tension: “We don’t have much time ... we almost need that fine balance of being able to discover, but also just being nudged gently.” With well-designed nudges, learning technologies can play a proactive role at the point of need. As Grace put it, “just need a quick reminder about something and therefore that would be more efficient ... than me having to source something.” In the fast-paced cadence of professional service firms, leaders often struggle to balance structured learning with client work and

productivity demands (Argote & Hora, 2017). In Grace's view, organizational leaders usually show little tolerance for inefficiencies. Leaders adopt learning technology when they judge it useful and valuable, especially when it directly connects to growth and performance.

Autonomy: Leaders' Control Over Pacing and Sequency

Leaders reported stronger motivation when they controlled format, pace, and sequence. When learning fits time and attention constraints, leaders engage more readily. Prior research also links control over pacing and sequence with greater engagement and technology adoption (Jain et al., 2023; Lanaj et al., 2019). Participants described diverse strategies for managing their learning in Table 9, which supported their ways of working and learning.

Table 9

Learning Autonomy

Pseudonym	Quotation	Range of strategies controlling pacing and sequence
Isabelle	"Learning actually became ... listening to podcasts when I'm cooking the dinner or walking the dog."	Integrating learning into personal routines; choosing when to engage.
Michael	"I like very short, sharp executive summary overviews ... often enough for me to get to a knowledge test and perform well."	Prefers short bursts of content; controls depth and pacing.
Daniel	"You can make the choice ... I might want to do a couple of those, not just one ... it doesn't have to be linear."	Exercises non-linear sequencing and pathway ownership.
James	"They ... have this attitude that it's pushed to them versus they seek it themselves or they'll do it when they're less busy."	Chooses to engage when workload allows; timing autonomy.
Maya	"One day I'll click on it and the next day I won't ... depends on mental capacity at the moment ... relevance to my role."	Moment-to-moment decision to engage based on capacity.
Eleanor	"Quick learning out to our people in a quick way and when they need it."	Just-in-time, demand-driven pacing.

Pseudonym	Quotation	Range of strategies controlling pacing and sequence
Harry	“You’re going to get your badge if you come in for ... 30 minutes every week.”	Micro-commitment pacing with regular weekly cadence.
Patrick	“The gamification VR, you know, micro learning stuff ... where the person has a role in architecting it ... it is much more profound.”	Gamification and agency in shaping learning pathways.

These strategies align with literature that ties effectiveness to control over when, where, what, and how to learn (Keller, 2010; Noe et al., 2010; Yi et al., 2006). Autonomy is a key factor in increasing leaders’ adoption and sustained use of learning technologies. Leaders also extend autonomy beyond the platform. As an AI subject-matter expert, Michael reported frequent requests from people for “what they should read on AI” and observed “a significant growth in people using AI assistance as coaches to support them with making the right decisions in the moment.” In Michael’s view, curating content for learning and using tools for problem-solving or decision-making have increasingly converged. In his team, over 90% have curated a personalized AI coach for development, which signals an opportunity for learning technologies to extend flexibility and autonomy, allowing leaders to manage their own pacing while using the system. Greater control can also strengthen self-efficacy by increasing opportunities for mastery experiences and reducing the perceived risk of experimentation with new options.

Self-Efficacy

During the interviews, organizational leaders generally felt confident in their capability to learn, perform, and succeed with learning technologies. Online learning offers flexibility in choosing what and how to learn (Keller, 2010); yet a key question remains: do employees learn more effectively by leveraging these technologies? Bandura (1997) identified self-efficacy as a

predictor of learning outcomes and as a factor that shapes motivation and influences achievement (Schunk & Usher, 2019). This section examines three themes of self-efficacy in relation to leaders' capability in using learning technology: digital mastery, confidence in self-regulated learning, and social persuasion through peer influence.

Digital Mastery

Leaders broadly expressed positive beliefs about their ability to navigate, operate, and complete tasks on learning platforms. In the professional service sector, highly skilled professionals demonstrate self-efficacy with the extent of confidence in using the system to achieve desired results with agility (Yi et al., 2006). Eleanor's experience with external portals being "really easy platforms to use and you're able to search for ... what content you're after" illustrates this point, along with five other leaders who showed high confidence, often without fear of "breaking anything." George also aimed to uplift digital proficiency "to get resourced on jobs that I want to get on."

In contrast, two leaders offered differing perspectives based on their experiences. In the context of learning technologies, where digital proficiency and trust in technology often intersect, Patrick admitted he was "not as confident as I should be," linking his hesitation to concerns about social media. He described his exposure to technology's "context, impact, efficacy, and intent" as "very disjointed." Isabelle expressed a similar sentiment, saying she was "highly suspicious of the algorithms." Such suspicions of a platform's intent directly affect confidence and usage. Meanwhile, leaders' self-efficacy closely connected to their capability to self-regulate (Elliot et al., 2017). Self-regulation formed the second theme under self-efficacy.

Confidence in Self-Regulated Learning

Participants feel confident in managing their own learning journey. Confidence in self-regulated learning influences how employees set performance goals, monitor their progress, and adjust their effort in response to task demands, particularly when engaging with technology-enabled learning environments (Pintrich, 2003). Participants described how they planned and regulated learning based on self-reflection. Michael explained, “The reason I found [the suitable self-paced learning] and the reason I knew they’d be effective was because I already knew what learning styles work for me.” He also monitored and regulated learning through chosen tools: “I learned through small snippets of regular information. ... I subscribe to newsletters. ... I use AI to generate a weekly podcast of AI updates.” George emphasized ownership and agency in sequencing and progress: “You can make the choice. ... It doesn’t have to be linear. ... I think it would give people a bit more ownership of their own journey.”

Perceived behavioral control in self-regulated learning also includes commitment to self-learning and the adaptation of effort. To practice that, Julia advocated, “you’ve also got to put the hours in. You got to start exploring it and teaching yourself on how to use it.” Sophia added, “The individual must take it every opportunity they can to drive their own pathway.” In terms of approaching learning as a professional service staff, Harry summarized that “we’re not children that we have to be told you need to do. ... You have your own motivation.” Leaders exhibit self-driven growth, persistence, and agility, which are essential traits for effective performance in a digital environment (Lanaj et al., 2019). When tangible performance improvement becomes visible and relevant to leaders, technology adoption is more likely to succeed.

Social Persuasion and Peer Influence

Leaders value the modelling and recommendations from peers. Social persuasion, one of Bandura's (1997) four sources of self-efficacy, can strengthen confidence and reinforce self-belief. Professional service firms often rely on collective learning strategies and recognize that collaborative knowledge-sharing enhances adaptability and performance (Argote & Hora, 2017; Chen & Zheng, 2022). George described this dynamic as “it’s almost like you’re encouraging each other to learn together collectively.” Patrick echoed the influence of peers: “You are much more motivated by a friend recommended or ... a mentor kind of sends you something to look at.” The peer recommendations reinforce the willingness to engage. He emphasized that “human dimension is still fundamental ... in terms of driving learning,” as he followed peers’ leads and modelled their suggested practices. Peer influence also appeared in mutual support and observation. Olivia relied on “word of mouth ... to filter. I will just quickly message someone I know ... who is an expert,” which provided direct advice to resolve technical issues and strengthened her confidence with the system. Sophia described motivation through observing peers’ achievements: “We champion people ... they did XYZ and they did their own self-growth. By learning XYZ. ... That drives that, oh, maybe I can do that too and bring it in.” Peer success reassured leaders about the value of learning activities. For the same reason, Lucas endorsed the role of champion networks, which are groups of individuals who actively advocate for and support the adoption of new initiatives, describing himself as a “massive fan of champion networks on the right ... champions, formal and informal ... people who are really interested in the stuff with the right sponsorship.” In this professional service environment, peer recommendations, word of mouth, and encouragement created social norms that strengthened leaders’ confidence in engaging with learning technologies.

Goal Orientation

Goals instill a sense of purpose in leaders, enabling them to embrace their learning and adopt learning technologies. Goal orientation influences how individuals approach achievement or avoid adverse outcomes. Bandura (1989) noted that self-set goals direct behavior and serve as part of a self-regulatory strategy. In a high-performance and time-pressured environment, leaders often log into learning platforms for specific purposes, either to build capabilities or to meet mandatory learning requirements. This section will discuss the two goal-orientation themes: approach orientation and avoidance orientation.

Approach Orientation: Curiosity and Skills Development

Leaders emphasized curiosity, growth, and a willingness to take on challenges as primary drivers of engagement with learning technologies. Elliot (2006) defined approach motivation as commitment to a future object through experimentation and striving for success. Participants described curiosity as a growth driver and as openness to experimentation through continuous adaptation and learning. Lucas called curiosity a “kind of superpower because a curiosity around these tools, what they can do, how you can use them ... that’s a superpower really tactical.” He also advised others to “be curious, really stay focused on just exploring, kind of working out what works.” For individual learners, Grace suggested “when you are indeed a curious learner yourself, you seek out ways to improve your skills, get recommendations.” At the organizational level, ABC also values and promotes curiosity, collaboration, and challenge as part of the firm's strategy, according to its annual report. Curiosity underpins mastery goal orientation by encouraging exploration and engagement with new and uncertain tasks.

More than half of the participants spoke about valuing and developing skills through learning on both internal and external platforms. Jim believed that doing so would “help me be

more productive [and] create greater impact or outcomes,” while acknowledging that actual development depends on both content consumption and applied practices, i.e., “until you do it on a project, you don’t really know.” During the interviews, seven out of 15 participants reported already having set goals for themselves to learn about AI. Despite the desire to develop skills through experimentation and application, Harry noted that sometimes learning is “just being able to keep up with everything that’s happening.” Eleanor admitted that “I wouldn’t just, yeah, carve out ... half an hour or an hour in my day to just go and randomly search for learning.” Grace, however, insisted that “[curiosity] tapping into people’s inherent need for growth and development.” A mixture of mastery and performance orientations appeared among the leaders. They demonstrated a desire to grow and achieve, rather than remain stagnant or underperform.

Avoidance Orientation

Leaders interacted with the internal learning platform to avoid negative consequences from incomplete mandatory training, such as missed deadlines, penalties, and loss of bonuses. George tied motivation directly to the compliance gateway as “getting a compliance gateway to be able to get bonuses and ratings ... that probably is the reason. ... Why I would log on and check.” Isabelle and Maya both described compliance training as their primary use of the internal platform, with Maya noting, “from a compliance perspective, it’s effective.” Instead of approaching learning for growth, these interactions with the learning platform were mainly for compliance purposes and tied to regulatory requirements and organizational control mechanisms. Therefore, Patrick described the internal learning platform as “a compliance mechanism,” while Daniel pointed out the repetitive nature of the mandatory modules, “you’ve got to answer questions. ... You’ve got to watch the videos. ... I’ve done this every year for the last 20 years.” Patrick viewed such training as serving the organizational liability rather than learning.

Leaders also linked compliance training to explicit consequences. George underscored the role of compliance gateways tied to rewards and performance evaluation, “You don’t want to miss your training so that you’re impacted in a way that’s not beneficial to you.” Harry explained that “for our own career progression, there is ... no punishment for not doing it except ... the mandatory stuff where ... you're ineligible for a review,” which created pressure to complete training.

As compliance systems enforced completion effectively, they also fostered avoidance-oriented motivation. Leaders completed compliance modules to avoid penalties or reputational risk, not to pursue growth. The dynamics highlight the need for organizations to move beyond compliance-driven approaches and to nurture engagement through approach-oriented learning that emphasizes skill development, performance improvement, and long-term growth.

Motivation Findings Summary

Motivation drives whether and how leaders choose, engage with, and apply learning technologies. Similar to knowledge findings, motivation exerts multiple influences on how leaders adopt and use learning technologies. During interviews, leaders described the value they place on learning and the reasons they leverage technology. The analysis identified three motivational aspects, i.e., expectancy value, self-efficacy, and goal orientation, which impacted engagement in a high-performance, time-pressured context.

Leaders recognized the value of learning technologies and their connection to performance. They emphasized the importance of relevance and personalization to sustain engagement. Sensitivity to the cost of time and effort reflected leaders’ focus on efficiency. The effectiveness of learning technologies depends on the balance between the required effort and its

perceived value. When leaders had autonomy to manage their learning, they exercised creativity in curating content and applying the platform to solve problems.

Self-efficacy enables leaders to feel confident in exploring platforms and completing tasks. Most participants believed they had sufficient digital skills to navigate learning, while a few expressed cautions due to distrust of algorithms and concerns about platform intent. Leaders linked self-efficacy to self-regulated learning by monitoring progress, setting goals, and adjusting effort with self-awareness and discipline. Peer dynamics also shaped motivation. In line with collective learning norms in professional service firms, peer recommendations, champion networks, and peer modelling encouraged engagement. They strengthened confidence, reflecting Bandura's (1997) social persuasion as a source of self-efficacy. Leaders valued the human element as a trusted source of truth, reinforcing their confidence in using learning technologies.

Two types of goal orientation co-existed among the leaders. Approach-oriented goals, such as curiosity, growth, and skill development, guided leaders to explore tools, test applications, and pursue innovative approaches. Meanwhile, some leaders focused on specific task-related goals to keep pace with the changes. Conversely, avoidance-oriented goals drove platform use for compliance reasons, such as meeting deadlines, protecting ratings, and safeguarding bonuses. Leaders described the internal platform as effective for compliance but also repetitive and liability-focused, which ensured completion but constrained deeper learning.

Across the three motivation constructs, leaders were more willing to adopt learning technologies when learning was relevant, efficient, and under their control; when they felt confident in their digital skills; and when peer influence enhanced their capability. Their goal orientation illustrated whether they approached growth opportunities or avoided penalties from

non-compliance. Collectively, these findings highlight motivational factors that future design and implementation shall consider strengthening leaders' effective use of learning technologies.

Organizational Findings

Organizational influences, such as culture, leadership, and the change process, shape the work environment, which in turn influences the performance and growth of organizational leaders. The work environment provides context, resources, and opportunities that impact stakeholder performance (Schunk & Usher, 2019). The introduction and implementation of new learning technologies require support from the organizational culture and leadership, and the change process can influence the adoption and adaptation (Burke, 2018; Hacker et al., 2019). During the interviews, participants described the impact of the organizational dynamics on individual learning and how the three elements interplay within the organizational environment. The section will focus on analyzing the main themes emerging from the three organizational influences, i.e., culture, leadership, and change process.

Culture

Culture frames how leaders perceive and engage with learning technologies. When organizations introduce new learning technologies, culture exerts social influence, and individuals align their behaviors with group norms to gain acceptance and achieve goals (Venkatesh & Davis, 2000). Leaders described compliance-driven engagement, performance pressure, and collective learning as cultural factors that drive adoption and maintain the value of learning technologies.

Compliance-Driven Engagement Under Time Pressure

Organizational leaders often approach the learning platform to fulfill compliance requirements, balancing deadlines with limited time for skills or performance-related learning.

Of the 15 respondents, 12 reported logging in primarily to complete mandatory compliance training while managing a heavy workload. Isabelle stated that she “used it for all the mandatory stuff and it was usually the way my brain work[s].” Leo added that if training is “compulsory ... [I] have to go.” Sophia reflected that compliance reinforcement served as “a high motivator ... but that’s on the compliance side,” noting further that “there’s no accountability if you just [do] not [do] anything else but your compliance training. Firm tools ... are predominantly based on compliance and regulation learning as their core principle.” Grace recalled, “the only messages I sort of hear around training from the top are setting the right culture around the importance of mandatory training.”

Leaders also stressed time pressure as a barrier to broader engagement. They expressed that “we are all busy” and “everyone is time poor.” George observed that workload fluctuated seasonally, but training did not align with these cycles: “there’s obviously certain periods where you’re busy and certain periods where you’re not busy ... I’m not sure that we’ve ever really linked the two ... to training.” In that circumstance, Harry pointed to the benefit of “dedicated training time blocked into everyone’s calendars ... a consistent reinforcement from leadership ... make sure you get this done ... for you to actually sit down and then cover the time to conduct a learning.” Through mandating and enforcing compliant training across the firm, Michael saw an opportunity to use compliance as a lever for engagement: “get engagement because people are forced to be engaged. ... If the start of every mandatory training gave you the three pathways to choose from” as he thinks “those are the two right messages to send: flexible learning choices and take mandatory training seriously.” Around engagement, George echoed the importance of design, asking “how are we making sure that we develop it [training] in a way that carves out time and encourages people and rewards people for doing it? ... while there’s a lot of mandatory

training that we need to do.” Patrick described the previous system as “a compliance mechanism” that felt “too associated ... with the compliance stuff.” Although leaders acknowledged the role of compliance in driving usage, time constraints limit deeper learning and engagement.

High-Performance Norms and Competing Demands

The performance-driven environment of professional service firms and the presence of multiple competing priorities affected which learning initiatives received attention. Performance culture motivated employees to pursue growth and career advancement, while organizations emphasized delivering high-quality, competitive client services (Cappelli & Tavis, 2016). Under this context, organizational leaders described how this environment created pressure to deliver results while balancing multiple demands. The implication for learning technology could be what Grace described as “we are high performance. ... That’s what you need to do here. You need to win. ... If this tool or this learning helps me win, sure. If not ... maybe they’re not as engaged.” In terms of performance, Jim added, “What’s considered performance can be very different things. ... I think was measured mostly by successful deployments of things ... [and] ... how richly contextual what you’re delivering is.” He noted that contextual delivery becomes crucial in environments where multiple priorities compete for attention. James similarly reflected, “We do too much, there’s too much noise, there’s too much stuff. It becomes overwhelming. ... What’s priority?”

At the organizational level, leaders noted the difficulty of enforcing learning given the breadth of roles across the firm. Sophia explained that “it drives the accountability back to the individual. ... I’m looking at the performance here in the next 12 months.” Michael and Maya both held a promising prospect, which Michael pointed out that:

Across most of our workforce, they're already highly engaged in their own learning and development because they're ambitious people. ... They wouldn't be with the firm and stay with the firm if they didn't have that sort of sense of drive and internal ambition.

In that spirit, Michael noted "people discharging that ambition with the firm's learning technology beyond mandatory training." Maya echoed this view, describing the workforce as "6000 highly competitive, high performing people. ... They want to, not that we want to, encourage competition necessarily because ... our culture is too far that way, but our people want to ... they like to achieve". Under that context, Maya suggests "any way of recognizing ... that you are now proficient ... that's engaging." Therefore, despite the challenges of scaling learning across the organization, a shared sense of ambition and recognition can be a driving force for engagement at both individual and team levels.

Collective Learning as a Source of Momentum

Leaders consistently described how peer recommendations, networks, and shared accountability reinforced participation and confidence in learning. Shared experiences, peer nudges, and team networks helped sustain engagement. In Olivia's experiences, "there are so many opportunities out there ... I think it's those people who actually take them up are the ones that really succeed," highlighting the value of diversity and different mindsets. Isabelle shared the same sentiment, recognizing that alongside browsing courses with "a curious brain," peer recommendations also directed her to "some useful, potentially even courses ... that you could invest in yourself." Jim emphasized the value of networks and connections, saying, "If we're talking progression skills for progression, then they've likely done that by getting to know people, having conversations with them."

Leaders also highlighted the role of collective upskilling. George argued that “you should be upskilling everyone together.” Sophia admitted “we haven’t brought it all together”, and valuing collective learning, stating, “if you do it by yourself, you got no one then to lean on ... the more we champion people ... maybe I can do that too and bring it in.” Another example is the development champion network, which Olivia mentioned, “with such a big organization ... you just have to ... spend that extra effort and try ... you're not going to get everybody, but you ... pick up more and more people.” Lucas also advocated for champion networks, explaining that champions are “not necessarily senior leaders, but people who are really interested in the stuff with the right sponsorship.”

At the team level, leaders described how collective practices reinforced accountability. Daniel encouraged his team to reflect together: “What is it that you’ve got out of it that might want to share with the rest of the team ... yeah, incentivize them ... encouraging each other to learn together collectively.” Isabelle also fostered team-based learning: “We’re all learning together. We all come in at different levels. But ... we are all learning this together.” Leveraging the different expertise in her team, she facilitated skills sharing by circulating resources and debriefing with her team after courses: “I share leadership stuff and pure product management stuff. But also courses that we’re doing, and we can almost go on kind of a learning journey together.” She also encouraged the group to “debrief at the end of when we’re doing a course; build learning communities ... study together or recommend things.” In Isabelle's view, by doing so, “we’re all more accountable when we’re doing it with someone else.” Isabelle’s example illustrates how collective learning practices can reinforce accountability and encourage participation. The team-based collaboration and accountability underscore the role of leadership in nurturing shared development.

Leadership

Leadership guides organizational change, models desired behaviors, and influences the adoption of learning technologies. Leaders also play a central role in directing how teams engage with learning. Leaders draw on credibility and expertise (Lewis, 2011; Venkatesh & Davis, 2000; Yi et al., 2006) to reinforce their advocacy and intention. During organizational change, such as the launch of new learning technologies, team leaders influence motivation through coaching, visible endorsement, and ongoing support. Senior leaders' attitudes meanwhile serve as an indicator for those at other levels of the organization.

Team Leaders' Role in Coaching, Guidance, and Follow-Up

Team leaders supported development by giving direction, career advice, and ongoing regular check-ins. Team leaders' support can be powerful for both the team and the wider community. To bring her team up to speed with new systems, Eleanor shared her approach as “to learn and understand the system ... getting my hands dirty just like they are ... allowing them to have that time, ... carve out where it's an hour, half an hour, to be able to do that learning.” To be supportive, Sophia described her practice as “I would make myself accountable in the work that I do ... having those career pathway discussions, those development plans, and working through the individual in a variety of things.” She suggested that team leaders grant team members permission to allocate time for learning, making it part of a development plan and team routines. “Part of your weekly call or monthly call or whatever you have, [check in] what's the thing you learned this week?” She recalled having “really good team leaders” herself and emphasized that “it needs to be driven from the top down ... needs to be sold by our leadership groups.”

In addition to making time available, leaders also reflected on the importance of follow-through. Daniel wanted to “make sure they're using that time [effectively] ... you'd hope people

would be driven enough to utilize it ... self-reflection holding each other, to account.” He observed gaps between surface-level completion checks and deeper coaching:

We’re not good at ... what are we doing as leaders in terms of follow-up to understand and see how they’ve taken that on board [should be] how would they apply that? ... doing that as a distinct purpose type activity. [Instead] we might ask why haven’t you done your training yet? Do you have any questions? ... that’s probably about where it stops.

George reflected on his own practice as a team leader, “I’m curious. I read a lot, I do my own self-research, but we probably don’t do a lot in terms of encouraging or talking about it with our teams.” In Patrick’s team, the concern centered on the fading role of apprenticeship and limited agency for learners. He described performance discussions as reducing space for developmental dialogue, and his conversation was to create “a need and an expectation around what that looks like ... the kind of performance conversation blurs out the genuine feedback and the learning opportunity around that.” When performance conversations focus primarily on ratings and outcomes, they overshadow authentic feedback and reduce the opportunity for meaningful learning.

Team leaders’ roles can be broad and complex to define. Their responsibilities, therefore, also extended to documenting and reinforcing progress. Olivia suggested that leaders “document what they’ve done ... gives team leaders a good team leader scope to say ... what are the gaps and how can I fill those gaps and help them get them to the next level.” Circling back to the learning technology, Isabelle believed team leaders carried responsibility for advocacy: “We [team leaders] should have a responsibility to get our teams in there and using it. Put accountability onto team leaders to say ... help us get the word out there.” While some leaders emphasized accountability and ownership, others called for more substantial support to help their team

members grow. The senior leadership team plays a crucial role in enabling team leaders to guide their people effectively and in reinforcing the importance of learning throughout the firm.

Leadership Sponsorship, Modeling, and Endorsement

Visible commitment from senior leaders signaled importance and encouraged engagement. Senior leaders at ABC refer to all partners in the organization. The participation and encouragement from senior leaders sent strong signals about learning priorities. Maya stressed that “the most important thing is leadership endorsement” when the CEO or executive team spoke about learning technologies, “are they behind it and ... say ... this is a great tool, use it. I think that’s where it’s got to start, right ... having someone at the top going ... and then creating the need.” Four leaders described positive examples of CEO advocacy for AI training. Sophia called it “really, really good”; Lucas described it as “a walk-the-talk role and it’s a sponsorship role”; and Daniel viewed it as “a pretty good example of pushing ... reinforcing of the message and bringing out his own ... he did his AI course, and they wanted all the partners to do their AI certificate.” These comments highlighted the influence of role modeling at senior levels in hierarchical professional service firms.

Isabelle also valued endorsement from senior executives, noting the chief people officer “spoke about Platform B. I think having that level of endorsement and the ability to explain the systems is really useful.” She believed “if we’ve got the buy-in from leaders and the backing of leaders, that is probably the most powerful thing we can get.” At the same time, she pointed out that “lead partners never speak about online learning or any kind of [learning platform]. They just don’t speak.” George confirmed this gap in his own experience as a partner: “I’ve never even had other partners say that to me. You should be ... doing these ... upscaling in these areas.” Senior leaders' advocacy encourages the embracing and adoption of new initiatives, including

learning technology. The participants' comments illustrated both the impact of visible advocacy and the missed opportunities when senior leaders remained silent.

Leaders also reflected on what kind of support was most effective. Grace posited learning as an essential part of work, particularly during times of stress, when

it is about helping people with permission and space to say learning is as equally as important as all of the other things that you do in your day and more so important when there is when you feel a sense of change or pressure or stress. ... Position learning in a way that makes people feel safe to experiment.

Grace emphasized the role of leadership in creating psychological safety, enabling people to take on challenges and persist through difficulties. Michael suggested a different view of sponsorship, arguing that top leadership should focus mainly on investment: "People will inherently want to learn the way that works best for them. I actually don't think there's an awful lot ... from the top ... that's required on this." In his view, the senior leadership's role is "most important[ly] ... to provide the right level of investment in the reinvention of our learning technology." Jim added that senior leadership prioritized reinvention in their conversations: "at the moment ... whenever they turn to the people at that table, it's all about how you're reinventing and where's that." Senior leadership support, therefore, remains at the center of driving learning and sustaining the value of learning technologies, while gaining their sponsorship can be difficult when other priorities and organizational changes compete for attention.

Change Process

The change approach to introducing and managing learning technologies influences whether leaders pay attention and follow through. Organizations select change processes that

align with their objectives, and each process requires a distinct combination of performance support tools, knowledge, and motivational strategies to succeed (Clark & Estes, 2008). In professional service firms, the high-performance culture and hierarchical structure require change processes that align with the organization's growth agenda and fast-paced momentum. Interview data highlighted communication, prioritization, and the expanding role of AI as three critical factors in the change process of ABC.

Clear Value Proposition and Consistent Communication

Leaders respond when change messages communicate a clear purpose and reinforce it through regular channels. Their engagement grew when receiving timely and relevant reminders connected to business needs. George and Sophia both shared how much they appreciate the synergy between the message and the goal. Sophia emphasized collective alignment that “we all [are] talking together and we are meeting that common goal.” George stated, “We need to reflect about what it is the benefit of this new system ... making sure ... we’re launching it in a way that is appealing, engaging and relevant to people.” He also emphasized “always talking from the same [page] and it’s clear and people [are] hearing the same message over and over.” Maya reinforced the importance of linking messages to the employee value proposition (EVP): “We need to link it back to our new employee EVP ... Maybe it’s a targeted automated monthly note ... let’s showcase that.” She added that learning messages had become less visible compared to other CEO communications.

Leaders also reflected on the delivery of communication. Although email is still the mainstream way to distribute the information, Leo contrasted broad firm-wide emails with targeted outreach: “that email was sent to the entire firm ... then no one’s looking at it,” whereas a tailored message made employees feel “it’s really relevant to me and myself ... and then I ...

should spend some more time rather than kind of the junk email.” Maya shared a similar concern, asking, “As the user, why do I care ... what am I going to get that I’m not getting somewhere else?” Leaders concluded that both message content and delivery methods determined perceptions of relevance and usefulness and influenced attention.

Several leaders commented on the challenges of communication during periods of change. In Patrick’s view, change-related communication could face a “perfect storm of fragmentation and complexity and no narrative.” Employees need a “framing that helps understand the context and the impact and the efficacy and the intent of this” to manage their own learning and development effectively. James used an example to suggest that clear “sounds bites around AI” should align with the evidence of the firm’s approach to “embrace AI and digital ... [and] a collective view how will it integrate.” Grace insisted that as an organization, “you have to have a strategy on being a learning organization ... form a closer congruency between the messaging and the technology.” Leaders consistently emphasized the need for clear and strategic communication that connected value propositions with organizational practices.

Prioritization and Quick Wins

Leaders stressed the importance of prioritization and early successes to sustain momentum in large-scale transformations. Focusing on fewer initiatives and demonstrating visible early results helped maintain commitment amid competing projects. Leaders expressed diverse perspectives on how prioritization and early wins influence learning and development. Michael valued providing options because “change management ... often where you’d need the right tone from the top, is going to be less important ... I actually think it won’t be as important for this as getting the right options in front of people.” Jim pointed to budget constraints, explaining that the organization “need[s] greater revenue if they’re going to make greater

investment” and describing the challenge of “pipeline prioritization” as to identify “no regrets, quick wins.”

Five leaders reflected on how learning has shifted as an organizational priority. In her business, Olivia welcomed that learning had become “front and center,” contrasting it with earlier times when “it was just like a given.” Maya saw learning as inseparable from the firm’s growth strategy, observing, “all of us is so aligned to that ... it’s kind of not an option ... this is really important.” Her suggestion was “just always link everything back to the strategy” to gain the prioritization. In the meantime, Sophia and James argued that learning and development often slipped in priority when client delivery pressures increased, with Sophia adding concerns about insufficient investment to “bring [it] all together.” For future approaches, Patrick encouraged prioritization strategies that “putting out people first” and introduced a “connection layer that is thinking about life is complicated and busy for you as an employee here, how do we help you with that.” He explained that such an approach would increase engagement and “make it more dynamic.”

Time emerged as another factor in prioritization. George noted that “we are all busy ... there’s obviously certain periods where you’re busy and certain periods where you’re not busy. ... I’m not sure that we’ve ever really linked the two ... to training.” He recommended guiding employees toward “five or six things that are amazing ... [that] pique curiosity ... then we’re gonna talk about why it’s important, the purpose” to help individuals prioritize their time. Leaders believed that prioritization, supported by visible quick wins, enabled them to sustain attention while managing competing pressures.

AI for Integration, Personalization, and Simplification

Leaders increasingly position AI as a tool to streamline access, personalize experiences, and integrate learning into their daily work. Many expressed optimism that AI could make learning platforms more intuitive, proactive, and aligned with both individual needs and business goals. Lucas thought the first step should be to “make the tools available and then we encourage our people to be curious ... we’re obviously a firm of bright people ... so I think in a firm like ours ... that can work.” As an example, Isabelle is one of those leaders who has already started using an AI podcast to “keep my skills relevant.”

Leaders also envisioned AI as a connector between systems and processes. Daniel described the experience like “a royal description. ... I can open up and see the procedures from there. It could drive me [to] two things. It could take me to a user manual or ... to some learning if I needed to.” He wanted “a real connection between here’s all [the] things I needed to do in my job, here’s the procedures and processes to support that.” His expectation is a “real hard link ... you could link it all the way through.” By connecting the systems and processes, Michael emphasized AI’s ability to improve adoption by providing more options. He stated, “We are now given a better alternative to what I was getting previously that better matches my style, I won’t need to be convinced to adopt that I will adopt it in a second.” For his team, his view is, “I don’t think we’ve got a learning engagement problem. I think we’ve got an engagement problem with the options the firm provides ... 90% plus of my team are already using AI assistance for personal coaching.”

Others thought that AI should remain as a background enabler, referring to the role of learning technology in the AI age. Jim argued that learning technology should play a more implicit role while connecting dots across different functions, as “I don’t think people should be

aware of it ... meeting people where they're at is really important. All these learning technologies ... should enable and they're just like be there when people need it." This quote echoed what Sophia previously envisioned, a personalized assistant "just like the old Clippy in Microsoft ... you go, this is what I need today, Clippy, and Clippy goes. ... I've got this for you."

Reflecting on how AI-powered learning technology can enhance an individual's learning journey, Patrick emphasized that AI could automate routine process work: "AI is going to take out that process work, which is where most people get their practical learning." He also highlighted enduring human needs such as "mental plasticity, a learning orientation, [and] curiosity," and suggested integrating AI into development planning: "Why couldn't we link that to my development plan ... push notifications ... link that to some sort of personal assistant, then what's in there is great." Leaders consistently viewed AI as an integral part of future integration and reinvention, regardless of whether it appeared through notifications, personalization, or other applications. Jim concluded by calling for integration that aligned with a unified purpose: "We're not separate people. We've got a single goal." Together, these reflections suggest that the successful adoption of learning technologies relies on clear and consistent communication, strategic prioritization that yields early wins, and the integration of AI to personalize and simplify the learning experience.

Organizational Findings Summary

Organizational influences permeate individuals' behaviors, perceptions, and values by establishing social norms, performance expectations, and approaches to change. The adoption of learning technologies occurs within this context through the interplay of organizational culture, leadership, and the change process. Leaders described their experiences with these influences

and shared perspectives on the opportunities and challenges of engaging with learning technologies.

Culture shapes how leaders perceive and use the platform. As a professional service firm, ABC's culture emphasizes compliance training and a performance-oriented approach. According to the interviews, many leaders used the platform primarily to complete mandatory training while managing heavy workloads, and they value designs that combine efficiency with engaging content. The environment, with high-performance norms and competing priorities, created pressure to focus on learning that supports performance, career progression, and keeps pace with change. Leaders also reflected on the difficulty of enforcing learning, given competing demands and the breadth of their roles across the firm. Collective learning creates momentum when peers recommend resources, share takeaways, and study together. Leaders value collective upskilling that strengthens learning effectiveness and builds accountability at both individual and team levels.

Leadership guides organizational change and directs how teams participate in and apply learning. All interviewed participants led teams and described their role in facilitating the team's learning progress by allocating time, providing targeted direction, and coaching team members on applying their learning to their work. Leaders noted gaps when check-ins centered only on completion rather than on applying knowledge to create value. Senior leaders signal priority when they model participation, endorse initiatives, and invest in platform reinvention. Participants also insisted that senior leaders played a crucial role in fostering psychological safety, enabling people to view learning as an integral part of their work, particularly during periods of pressure.

The change process influences leaders' attention and persistence. Organizations choose change approaches that align with their culture and hierarchical structure. Leaders adopted a clear value proposition and maintained consistent communication, with reinforcement through regular updates on relevant channels. They also noted that during change, communication can fall short when it lacks context, purpose, and connection to organizational practices.

Prioritization and early wins help people focus amid competing demands and limited resources. Leaders reflected on the need to link learning to strategy, balance it with work rhythms, and offer shorter, curated options to sustain engagement. They also envisioned AI as a means to integrate learning into daily work, personalize choices, and advance learning technologies beyond task-driven interactions to curate seamless experiences. While they expected AI to become integral to the reinvention of learning technologies, they emphasized that human qualities such as curiosity and learning orientation remain indispensable for guiding technology and optimizing experiences to help individuals reach their goals.

Findings Summary

ABC is transitioning its learning experience platform to support employees' continuous growth and build the organization's future capability. This study analyzed ABC's three public reports to contextualize the change and conducted interviews with 15 organizational leaders to gather insights into the factors influencing the adoption of learning technology and the opportunities to increase utilization toward the 85% adoption target. Leveraging Clark and Estes' KMO framework, the findings examined leaders' declarative, procedural, and metacognitive knowledge; motivations associated with expectancy-value, self-efficacy, and goal orientation; and organizational support related to culture, leadership, and the change process.

Throughout the interviews, adoption reflects leaders' declarative awareness of platforms and their purposes, their procedural ability to navigate systems and integrate learning into daily routines, and their metacognitive habits of reflecting, monitoring strategies, and outcomes. Leaders engaged more actively when they could apply learning directly to their roles, strengthen performance, and develop future skills. Peer recommendations, shared practices, and collective learning also played strong motivational roles. Leaders' use of learning technologies aligns with the firm's compliance-driven culture, leadership's endorsement of learning as a priority, and the effectiveness of the change process for introducing and sustaining new platforms.

For RQ1, factors that drive knowledge transfer, engagement, and performance begin with a high level of awareness reinforced through mandatory training. A mix of internal and external platforms, available on demand, provides flexibility to accommodate individual learning preferences. Motivation rises when leaders connect learning technologies to their performance outcomes, career growth, or personal goals. Most leaders expressed confidence in exploring the new platform, especially when supported by peers and champion networks. At the organizational level, team leaders foster adoption by setting direction, protecting time for learning, and coaching application on the job. Senior leaders influence priorities through visible modelling, endorsement, and investment. Clear communication and integrated AI features enrich the learning experience by providing relevance, connection, and purpose as leaders embrace new technologies.

For RQ2, opportunities to increase and sustain utilization include enhancing knowledge transfer through early awareness, strengthening induction processes, improving navigation and search functions, enabling mobile access, offering proactive nudges, and providing guided support through training and peer communities. To elevate engagement, the learning platform

can further demonstrate its value by connecting learning outcomes to individual performance and organizational strategy while simplifying the user journey to increase efficiency and self-efficacy. The firm's performance-oriented and compliance-driven culture offers potential to channel compliance-driven engagement toward broader development. Embracing collective learning, leadership advocacy, and AI-enabled personalization can help offset time pressure and competing priorities, positioning learning as a vital component of both individual development and organizational success.

In summary, multiple enablers and barriers interact across individual experiences, technology design, and organizational transformation in the adoption of learning technologies. The KMO framework offers a systemic lens for interpreting these dynamics and identifying the factors that most significantly affect adoption and sustain usage. Understanding what drives success and what requires further attention lays the foundation for the practical recommendations in the next chapter, which aims to enhance the value, relevance, and impact of learning technologies in ABC's evolving environment.

Chapter Five: Recommendations

Organizational leaders at ABC engage with both internal and external learning technologies to meet compliance requirements and pursue skills-based learning. Their understanding, experiences, and perceptions of learning technologies indicate key influencing factors and opportunities for improvement (see Table 10). The influencing factors and opportunities, along with the conceptual framework and relevant research, establish the foundation for future recommendations in organizational practices.

Leaders are aware of the platforms but primarily use the internal system for mandatory training. An informed workforce supports technology adoption by promoting clarity and engagement (Clark & Estes, 2008; Giannakos et al., 2022). Navigation is intuitive, though leaders highlighted areas for improvement in search accuracy and mobile access. They value flexibility in learning modalities and expect the technology to support behavior change and performance improvement. Time pressure, perceived usefulness, and digital confidence influence how leaders engage with learning platforms. While most people feel confident using digital tools, their motivation varies depending on the relevance of the content and the alignment with their goals. Choices depend on the perceived usefulness of the learning and the expected outcomes (Eccles & Wigfield, 2002, 2020; Wigfield & Eccles, 2000). Increasing content relevance and efficiency, and balancing self-directed with collective learning, can support goal setting and strategic adoption.

ABC's high-performance culture also guides learning behaviors. Social influence and norms affect technology use (Venkatesh & Davis, 2000), while leadership modeling and consistent communication sustain adoption (Burke, 2018; Ifenthaler & Egloffstein, 2020). Reinforcing collaborative learning practices, maintaining visible leadership advocacy, and

ensuring clear and timely communication supported by early wins can build momentum to strengthen the value of engaging with learning technologies.

Table 10

Influences and Recommendations by Knowledge, Motivation, and Organizational Factors

Assumed influence	Context-specific opportunity
K: Declarative knowledge: Leaders know the platform exists and mainly associate the internal system with compliance; they also use external portals for development. Leaders described the internal platform as a “compliance mechanism,” while external platforms felt easier to navigate and better matched to immediate needs.	Run “day-one” induction that explains the platform’s purpose and performance link; message “why this tool now” in change comms; show concrete use-cases tied to role KPIs; align internal search/catalog to business tasks so leaders see relevance fast.
K: Procedural knowledge: Navigation is generally clear for assigned/mandatory items, but search quality and volume overwhelm; leaders want mobile access, proactive nudges, and step-by-step aids.	Improve ranking/semantic search/curation; deliver mobile-first, in-transit experiences; add “push” nudges and contextual prompts (Clippy); publish quick guides, 60–90s walkthroughs, and job-embedded microlearning; enable peer demo channels.
K: Metacognitive knowledge: Leaders plan and monitor learning, prefer modalities that fit time and task, and expect technology to enable experiential, on-the-job application.	Build post-activity reflections, “apply-this-week” tasks, and coaching nudges; add progress dashboards and brief debriefs; integrate projects/simulations into pathways so learning connects to performance.
M: Expectancy value: Leaders value relevance and efficiency but are time-poor; perceived usefulness and ease of use shape intention to use.	Surface role-relevant items first; reduce clicks and search effort; show “time-to-benefit” and on-the-job payoffs; schedule training to workload cycles; hold calendar time for learning.
M: Self-efficacy: Most leaders feel digitally capable; confidence strengthens with self-regulated learning and peer modeling, though some distrust algorithms.	Stand up champion networks and peer “show-and-tell;” highlight quick wins and visible success cases; provide low-risk sandboxes and optional walkthroughs; allow user control over pace and modality.
M: Goal orientation: Approach goals (curiosity, growth) and avoidance goals (compliance, penalties) coexist; compliance gates drive logins but limit deeper learning.	Shift signals from “complete to avoid penalty” to “progress to build capability;” recognize skill milestones and credentials; embed choice of pathways at the start of mandatory modules to channel traffic to growth options.
O: Culture: Compliance obligations prompt initial use, but workload and competing priorities limit deeper engagement. A performance-driven culture favors completion over capability. Teams with shared learning rituals and psychological safety sustain stronger engagement.	Position compliance as a foundation for growth. Embed team-based reflection and knowledge sharing in workflow. Recognize collective learning behaviors and align learning windows with business cycles.
O: Leadership: Leaders’ active modeling and coaching translate learning into performance. Visible sponsorship signals priority, while inconsistent advocacy reduces momentum.	Provide leaders with briefing packs linking learning to goals. Encourage them to share takeaways, set application goals, and discuss learning in check-ins. Track leader participation as an adoption indicator.
O: Change process: Adoption strengthens when change messages are clear, sequenced, and tied to business value. Competing messages or unclear benefits reduce attention. Early wins and AI-driven simplification build trust and sustained use.	Communicate a concise, role-relevant value proposition. Deliver visible quick wins on a steady cadence. Use AI to personalize and simplify the learner experience while maintaining transparency and user control.

Knowledge Recommendations

In ABC's fast-paced, time-pressing environment, team leaders often have limited tolerance for complexity and short attention spans. Learning technologies have evolved from formal, structured instruction to adaptive and interactive platforms. The new learning experience platform in ABC reaches employees mainly through compliance training. To sustain usage and facilitate skills-based learning to improve performance, the platform should minimize procedural complexity and activate metacognitive engagement through versatile access and modality options.

No Learning Curve: Guided Support When Needed

Leaders described the platform as intuitive but time-consuming when trying to locate relevant content. Inefficient navigation reduces perceived ease of use, which affects adoption (Davis, 1989). In time-constrained environments, a shorter learning curve increases engagement and drives adoption. Early exposure during onboarding helps employees understand platform functions and identify relevant applications in their daily jobs. Procedural fluency strengthens engagement and alignment between content and job-specific needs (Krautter et al., 2022). Therefore, embedding guided support and knowledge-sharing in induction training from day one, combined with ongoing communication that reinforces relevance, can strengthen and sustain long-term adoption.

Future platform enhancements should be self-explanatory and intuitive to use, with a minimal learning curve for searching, sharing, or accessing content. An AI-powered coach can provide personalized guidance and support on demand. Improving search accuracy and ranking relevance helps users locate content efficiently, building trust in the platform, particularly given ABC's extensive content library. To improve procedural fluency, quick self-paced video guides,

walkthroughs, or peer demonstrations, rather than traditional training and workshops, can offer flexible, just-in-time support, enabling users to access help as needed and through their preferred channels.

Modalities of Learning and Mobile Accessibility

During the interviews, leaders reflected on diverse learning modalities and their individual preferences for effective learning. Metacognitive knowledge enhances the ability to set learning goals, evaluate the relevance of content, and adapt learning approaches (Jain et al., 2023; Lanaj et al., 2019). Future designs should cater to these preferences by offering a range of modalities and access options that engage users effectively.

Modality options can operate at two levels: individual and collective. At the individual level, learning should be adaptive, with content delivery tailored to learners' proficiency, learning preferences, and work context, including capacity. Leaders noted that for compliance learning, they preferred concise reading or audio formats over lengthy video scenarios, as they sought to learn more efficiently, i.e., filtering out content they already knew. Providing learners with the ability to select their preferred modality, such as video, audio, or simulation, can increase engagement by offering choice. While research debates whether matching learning styles improves performance outcomes (Aslaksen & Lorås, 2018; Clinton-Lisell & Litzinger, 2024; Hattie & O'Leary, 2025; Lyle et al., 2023), learning experience platforms can personalize learning experiences through intelligent content recommendations, real-time feedback, and interactive pathways (Haowospace, 2019) to uplift engagement. Leveraging mandatory training as an entry point for experimenting with modality options enables designers to understand user needs better and refine future skills-based learning programs. The more usage data the new learning platform captures, the more effectively it can personalize learning pathways, deliver

real-time feedback, and provide targeted nudges for on-the-job application and performance improvement.

At the collective level, leaders emphasized the importance of peer recommendation and team-based learning. Organizational learning can evolve from individual-focused to collaborative models such as social learning networks to promote shared expertise, collective problem-solving, and innovation (Menolli et al., 2020; Wenger-Trayner & Wenger-Trayner, 2020). Features such as content rating, peer sharing, and following subject-matter experts can cultivate social and cohort-based learning experiences. Increasing awareness and encouraging the use of these features can strengthen engagement and create various channels to build a learning community within the firm.

Currently, employees can access the learning platform only on work laptops. More than 85% of the interviewed leaders expressed interest in mobile access. External platforms already offer mobile applications, providing accessibility and convenience. Expanding access to mobile devices aligns with the broader evolution of learning technologies, from computer-assisted instruction to adaptive and personalized platforms. Mobile access can support adoption by enabling in-transit learning, contextual prompts, and just-in-time content.

Self-reflection, a core element of metacognitive knowledge, sustains learning engagement that aligns with both individual and organizational goals (Hacker et al., 2019). Leaders' reflections underscore the importance of providing intentional and adaptive support that integrates intuitive user experience, flexible learning options, intentional instructional design, and peer-based learning communities to complement technology rollouts. Fulfilling the demand for knowledge fuels individuals' motivations for ongoing exploration and learning.

Motivation Recommendations

Organizational leaders at ABC balance multiple priorities and responsibilities. Leaders engage with learning technologies when they clearly see the connection between learning and the goals they must achieve or aspire to, and when they feel confident in sustaining their effort. ABC's public reports recognized the connection between learning engagement and performance. The reports also emphasized well-being and psychological safety as key enablers of growth. During the interviews, all leaders expressed a strong interest in developing new skills, particularly in AI and other emerging capabilities relevant to their work. The following recommendations build on these motivational drivers to strengthen and sustain engagement.

Relevance to Job Performance and Career Development

Relevance responds to the “why” questions: why learn, why use this platform, and why invest time. Leaders consistently noted that they are time-poor and must prioritize learning that is useful and worthwhile. Perceived usefulness comprises four cognitive instrumental determinants: job relevance, output quality, result demonstrability, and perceived ease of use (Venkatesh & Davis, 2000). In a competitive, performance-oriented environment like ABC, job relevance directly translates into performance outcomes and career progression. While earlier recommendations focused on quality content, collective learning, and a minimal learning curve, establishing job relevancy should begin by identifying tangible value and balancing it against the cost of time and effort.

ABC has built an effective governance and operating mechanism for its compliance learning. The value of completing compliance training lies in maintaining professional eligibility and annual performance review outcomes. However, for skills-based learning, where no formal regulatory mandate exists, role relevance becomes the primary driver of adoption. ABC's role-

based skills framework helps identify capability needs, enabling the platform to map learning content to required skills and recommend targeted learning resources. By linking learning outcomes with job performance through simulations, nudges, or scenario-based practices, the learning platform can demonstrate tangible benefits and accelerate knowledge transfer to accountability, performance, and career progression.

Alongside strengthening job relevance, organizations should also minimize effort costs. Leaders highlighted the importance of reducing the time required to search, navigate, and acquire knowledge. As the platform amplifies the value of job relevance, it is equally important to minimize search and navigation friction to improve the time-to-benefit and effort-to-capability ratios. Digital learning research suggests that platforms are most successful when integrated into workflows and tied to measurable performance outcomes (Martin et al., 2020; Welsh et al., 2003). Integration into daily routines eliminates the need for learners to take extra steps to identify their learning needs and search for resources. Explicit measurement provides an evidence-based approach to demonstrate the value and benefits of adopting the learning platform. The connection to the performance holds individuals accountable for their growth and future career development. Over time, with the aligned measurement, the focus on individual-level gains can expand to include team-based metrics and shared accountability. Adoption gradually occurs at the team level rather than solely through individual decisions. When leaders see tangible performance benefits, their confidence in the platform strengthens, reinforcing adoption through demonstrated success.

Confidence and Commitment in Self-Directed and Collective Learning

Leaders at ABC generally feel confident using digital tools and systems, including the new learning platform. As a precursor to motivation, self-efficacy influences the intention to use

and supports self-regulated learning (Peng & Hwang, 2021). When priorities compete, self-efficacy predicts effort and persistence, sustaining commitment to self-regulated and self-driven learning. Recognition mechanisms such as digital certifications, micro-credentials, or visible examples of success can bolster confidence and persistence. Meanwhile, the learning platform should continue to provide a psychologically safe and supportive environment that enables learners to practice and experiment without risk. Features such as low-stakes simulations, sandboxes, and learner-controlled pacing and modality can strengthen self-efficacy by providing space to achieve mastery incrementally.

The sense of mastery is one of the four sources of self-efficacy, alongside vicarious modeling, social persuasion, and affect (Bandura, 1997; Schunk & Usher, 2019). ABC can enhance the mastery approach through building champion networks and endorsing peer recommendations. Promoting team-based and collective learning expands accountability and creates opportunities for peer reinforcement. Learners build confidence when they observe colleagues applying skills successfully and persist when they receive encouragement and feedback that affirms their ability to succeed. Formal and informal learning communities can connect individuals, strengthen accountability, and reinforce progress through constructive and supportive feedback. Organizations can also offer inventive, technology-enabled learning experiences to spark interest in using digital tools to master a skill, such as simulations with VR or AR, or gamified, AI-driven, adaptive learning where learners co-design to personalize their own experience, boosting engagement without making participation feel compulsory.

ABC emphasizes the importance of employees' well-being and psychological safety as part of its organizational strategy. Creating a psychologically safe learning environment that supports stress management, emotional regulation, and work-life balance contributes to stronger

efficacy beliefs in learning, which, in turn, lead to mastery and the achievement of performance goals. Leaders who feel psychologically safe are more likely to experiment with new technologies and adopt innovative approaches. As adoption expands, the learning experience platform can serve as a virtual community that encourages curiosity, collaboration, and personal growth, motivating individuals to pursue challenges that contribute to both their development and the organization's success.

Organizational Recommendations

ABC is committed to its employee learning and growth. The firm shared this commitment in its public reports with established programs, practices, and policies supporting workforce development. Learning technologies equip professional service firms with the agility, knowledge, and capabilities to sustain competitive advantage and achieve business goals (Leuhery, 2024; Menolli et al., 2020). Introducing new learning technologies can lead to organizational change. Success depends on alignment among culture, leadership support, and change processes, which collectively influence the adoption and sustained use of new technology. Organizational leaders shared their observations as they experienced the introduction of the new learning platform. Within the hierarchical structure typical of professional service firms, where power and status shape behavior and motivation (O'Higgins et al., 2021; Rehman et al., 2023; Schein, 2016), the following recommendations aim to transform organizational support by emphasizing recognition over penalties and redefining the future role of learning technologies in the context of AI.

From Penalties to Rewards: Building Trust and Efficiency

Organizations select an appropriate change process to lay the foundation for achieving transformation goals. Each method requires a unique mix of performance support tools,

knowledge resources, and motivational strategies (Clark & Estes, 2008). ABC's high-performance culture and compliance focus have created efficient systems that maintain high completion rates for mandatory learning. Although compliance obligations ensure participation and prevent regulatory or financial consequences, the avoidance-oriented approach limits experimentation and more profound understanding (Elliot, 2006). Completion does not automatically equate to engagement or knowledge transfer, and can solely serve as an obligation, as leaders noted in the interviews.

When leveraging technology for skills-based learning, leaders expect experiences that promote growth through recognition, autonomy, and connection while acquiring and applying knowledge. They seek engagement that feels rewarding rather than obligatory. A change process that incorporates positive reinforcement increases both adoption and retention. A positive learning experience rewards users by acknowledging their knowledge and motivation. It also relies on strong organizational support through sponsorship, leadership endorsement, and role modeling. Burke (2018) emphasized that in large-scale change, leadership behavior, culture, and strategic alignment carry more influence than structure or systems. In a hierarchical organization like ABC, leaders' words and actions signal priorities and set behavioral norms across teams.

As digital transformation accelerates, leaders' digital proficiency and ability to build trust in virtual environments become essential (Hacker et al., 2019). When leaders' actions align with their words, trust develops. When they demonstrate curiosity, encourage innovation, and celebrate experimentation, they establish social norms that support the use of technology. Recognition from a leader not only reinforces engagement within a team but also influences other teams that observe this positive modeling.

Recognition and rewards do not have to involve financial incentives. Interview findings did not indicate that leaders perceive financial incentives as motivators for learning. The non-financial motivator contrasts with the avoidance-based approach to mandatory learning, which focuses on preventing financial penalties. Leaders emphasized the importance of support, coaching, and a psychologically safe learning environment. An optimal learning environment combines psychological safety that tolerates risk with cultural norms that encourage it, fostering collective learning grounded in trust and recognition.

Reframing Learning Technology: From Tool to Intelligent Adviser

Beyond cultivating a supportive environment, ABC must also adapt to technological advancements, particularly AI and its impact on the learning experience platform. For AI-enabled learning to succeed, organizations need to be ready for and adopt a range of new approaches, including robust digital infrastructure, digitally fluent employees, and supportive leadership (Ramachandran et al., 2024). The new learning platform should continue to evolve to remain technically relevant and strategically integrated as it transitions into its future role within the organization.

When framing the change process, ABC should reimagine the AI-enabled learning platform as a learning advisor rather than a repository; a content curator that delivers insights rather than merely storing information; and a proactive performance partner rather than a passive compliance system. Tools such as Microsoft Copilot and similar AI-driven assistants, e.g., Clipper, demonstrate the potential for platforms to deliver contextual, embedded learning within daily applications. Rather than requiring employees to log in to a separate system, future iterations could integrate as plug-ins within frequently used tools such as Microsoft Outlook or Teams. This model reflects a transition from viewing learning technology as a standalone tool to

engaging it as an intelligent advisor. Achieving this level of integration will require new forms of digital fluency, trust in data privacy, and confidence in the system's transparency and intent. The change will fundamentally shift how people interact with the platform, as the technology will not only recommend learning but also leverage data to provide evidence-based rationale and proactive feedback.

Ultimately, the learning platform should become less visible as a tool and more integrated as an advisor that supports employees' development decisions. Realizing this vision requires a change in both behavior and mindset. In hierarchical structures where power and status are pervasive and have significant implications for perceptions, motivation, and behavior, leaders, as higher-power individuals, possess greater autonomy and face fewer constraints, allowing them to be more aware of and adaptive to organizational goals (Bunderson & Reagans, 2011). Leaders, therefore, hold more visibility to model the change. Their advocacy and sponsorship directly influence adoption and signal legitimacy for continued investment. Leadership support also ensures the availability of resources to sustain both technological integration and human enablement. The platform's evolution should reflect and respond to leaders' aspirations. As Lucas stated, "I don't think of it as tools ... it's not even teach. It's encourage ... curiosity, encourage collaboration, go explore." Similarly, Michael described his vision for the platform as "tailored to me ... pique my interest ... make it really easy, rewarding, grounded for you to do your job better." These perspectives illustrate how the future learning platform can transcend its functional purpose to serve as an intelligent learning partner that inspires curiosity, enhances collaboration, and supports real-time performance improvement.

Limitations and Delimitations

Limitations represent factors beyond the researcher's control that might influence the findings or interpretations of this study (Merriam & Tisdell, 2016). Based on the methodology and the conceptual framework, there are four anticipated limitations. First, this study used a qualitative approach within a professional service firm, so the findings were context-specific and had limited generalizability to broader populations. Transferability, while possible, will rely heavily on detailed descriptions and transparent documentation of research methods and contexts (Merriam & Tisdell, 2016). Yin (2018) emphasized the importance of providing rich contextual detail so that readers can interpret findings more meaningfully in other settings. Second, the validity of interview data largely depended on interviewees' willingness to provide honest and accurate responses. Interviewees might consciously or unconsciously omit, misrepresent, or exaggerate their experiences and perceptions due to personal or professional sensitivities, perceptions of organizational expectations, or memory inaccuracies (Creswell, 2009). Organizational culture, perceived power dynamics, or concerns about confidentiality might shape what participants choose to disclose. Third, the study leveraged the organization's public reports as secondary data sources to complement the findings. However, limitations in data availability, completeness, or organizational transparency could constrain the contextual understanding of learning technology use. Fourth, my role as a researcher and digital learning leader in ABC may have influenced how interviewees responded during the interviews and my interpretation of the data. Although I used reflexivity memo to monitor bias and plan to share findings to increase transparency, complete neutrality remains inherently challenging.

Delimitations are intentional decisions made by the researcher to set boundaries and define the scope of the research, directly influencing the study's outcomes and interpretations

(Merriam & Tisdell, 2016). The delimitations for this study include four aspects. First, the study applied Clark and Estes's gap analysis framework (Clark & Estes, 2008). While this approach provided structure and clarity, it inherently constrained the analysis to constructs related to knowledge, motivation, and organizational influence. This theoretical lens guided data collection and analysis, while limiting the exploration of other possible influences, such as political or external economic factors. Second, in terms of interviewee selection, the study focused on organizational leaders as internal stakeholders who lead teams and interact directly with the firm's learning technologies. The decision concentrated the analysis on the users who actively contribute to and influence the implementation and adoption of learning technology, while excluding broader user groups, such as general employees in individual contributor roles, external contractors, and clients. The selection criteria bound the scope of insights to a specific managerial and operational perspective. Third, the qualitative data collection drew from semi-structured interviews and existing documents. This deliberate choice excluded other potentially informative qualitative methods, such as observations or focus groups, thereby limiting data inputs from different sources. Consequently, it might limit a comprehensive understanding of the nuanced day-to-day interactions and behaviors associated with technology use. Fourth, framework analysis provided a structured, theory-aligned approach to interpreting data within predefined categories of knowledge, motivation, and organizational influences. While ensuring rigor and alignment, framework analysis limited the extent of inductive discovery, potentially restricting identification of unanticipated emergent themes (Gale et al., 2013). These limitations and delimitations outlined the study's boundaries, clarifying the factors beyond the researcher's control and the intentional choices that shaped the inquiry's focus.

Recommendations for Future Research and Practices

The findings of this study outline the key influencing factors and opportunities for learning technologies to support and sustain employees' knowledge transfer, engagement, and performance in a professional service firm amid rapid technological advancement. The interviewees represented organizational leaders from different levels and functions within the same organization. Future research can extend this inquiry in three areas: the relationship between learning modalities and performance, the generalizability of these findings beyond the professional services industry, and the impact of future interactions between agentic AI and human agency on organizational learning.

Organizational leaders expressed a strong desire for flexibility in choosing their preferred learning methods, such as self-driven e-learning modules, videos, podcasts, or written materials. Employees are more likely to engage and perform when they feel informed, empowered, and valued (Berger, 2014). The autonomy to choose learning modalities encourages higher usage, satisfaction, self-efficacy, and efficiency, as reflected in the interviews. However, empirical evidence linking modality choice with measurable performance improvement remains limited. Future research could explore this relationship quantitatively to determine whether offering multiple modalities improves knowledge application and performance outcomes.

The current study focused on a single organization and captured the perspectives of team leaders within a specific professional service context. While ABC's structure and culture reflect many characteristics typical of the industry, broader generalization requires additional data from multiple firms or cross-industry comparisons. Extending this study to include organizations from diverse industries could validate whether the identified influencing factors hold across different environments.

AI-enabled learning technologies have transformed the roles and expectations of traditional learning platforms. Agentic AI expands the potential of these technologies to act not merely as delivery tools but as intelligent partners in learning. Future research and practice can examine how autonomous collaboration between human and machine agencies enhances organizational learning through human-AI teaming (Simón et al., 2024), socially interactive agents (Benderoth et al., 2025), and AI-powered informal learning (Rausch, 2025). These agentic approaches reposition learning technologies as co-creators that curate, adapt, and evolve alongside human expertise to support continuous and scalable learning in the workplace.

Conclusion

This dissertation explored how learning technologies can strategically elevate and sustain employee engagement and performance. Today, 98% of organizations integrate online learning solutions into their ecosystems (LinkedIn Learning, 2024), yet over 70% still struggle with implementation and scalability (Accenture, 2024; BCG, 2024; McKinsey, 2022). As technology advances, learning platforms increasingly embed social, collaborative, and AI-driven features, transforming how individuals learn, connect, and build capability in the flow of work.

As organizations advance toward a skills-based and AI-enabled future, learning technology stands at the vortex of transformation, where people, performance, and technology continuously converge. Emerging from the KMO conceptual framework, the intersection between knowledge, motivation, and organizational support remains an open space for exploration. It represents an opportunity for human agency to meet AI in shared purpose, a nascent form of collective learning where humans and AI evolve together, and a cautionary frontier that calls for agentic AI to collaborate with humans ethically and responsibly. In this dynamic landscape, learning technology acts as a strategic enabler and a sparring partner, with

people at its core. Adopting AI-driven, agentic learning systems does not replace human connection; it reimagines the channels that activate knowledge and skills with purposeful interactions, uniting individual growth with organizational capability.

Learning technology thereby extends beyond digital facilitation to function as an intelligent agent that augments self-regulated and collective learning, integrates deliberate and implicit interactions, and sparks curiosity while achieving measurable impact with minimal friction. Its power lies not only in automation but in amplification, amplifying human potential, collective intelligence, and adaptability through active engagement. This study affirms that learning technology thrives when people, technology, and strategy collaborate with intent. When culture cultivates curiosity, leadership models continuous learning, and systems embed seamlessly into work, learning technology becomes an anchor stabilizing the organization and a catalyst propelling growth. With AI at the forefront of transformation and humans steering the course, learning technology can ignite learning, performance, and growth through autonomous yet human-centered processes, offering profound potential in the continuously evolving world of organizational change.

References

- Adair, J. G. (1984). The Hawthorne effect: A reconsideration of the methodological artifact. *Journal of Applied Psychology*, 69(2), 334–345. <https://doi.org/10.1037/0021-9010.69.2.334>
- Ahmed, S. K. (2024). The pillars of trustworthiness in qualitative research. *Journal of Medicine, Surgery, and Public Health*, 2, 100051. <https://doi.org/10.1016/j.glmedi.2024.100051>
- Al Abri, M. H., Al Aamri, A. Y., & Elhaj, A. M. A. (2024). Enhancing student learning experiences through integrated constructivist pedagogical models. *European Journal of Contemporary Education and E-Learning* 2(1) 130–149. [https://doi.org/10.59324/ejceel.2024.2\(1\).11](https://doi.org/10.59324/ejceel.2024.2(1).11)
- Alexander, P. A., Schallert, D. L., & Reynolds, R. E. (2009). What is learning anyway? A topographical perspective considered. *Educational Psychologist* 44(3) 176–192.
- Ali, H., Li, M., & Qiu, X. (2022). Employee engagement and innovative work behavior among Chinese millennials: mediating and moderating role of work-life balance and psychological empowerment. *Frontiers in Psychology* 13, 942580. <https://doi.org/10.3389/fpsyg.2022.942580>
- Allied Market Research. (2024, April). *Corporate training market size, share, competitive landscape and trend analysis report, by training program, by industries: Global opportunity analysis and industry forecast, 2023–2035*. <https://www.alliedmarketresearch.com/corporate-training-market-A06445>
- Ambrose, S. A. (2010). *How learning works: Seven research-based principles for smart teaching*. Jossey-Bass.
- Anderson, J. R. (2016). *The architecture of cognition* (1st edition). Psychology Press.

- Andreev, I. (2021). *What is a learning experience platform*. Valamis.
- Argote, L., & Hora, M. (2017). Organizational learning and management of technology. *Production and Operations Management* 26(4) 579–590.
<https://doi.org/10.1111/poms.12667>
- Aslaksen, H., & Lorås, H. (2018). *The modality-specific learning style hypothesis: A mini-review*. *Frontiers in Psychology*, 9, 1538. <https://doi.org/10.3389/fpsyg.2018.01538>
- Association for Learning Technology. (2024). *What is learning technology?*
<https://www.alt.ac.uk/about-alt/what-learning-technology>
- Austin, W. (2016). *Making space: Strategic leadership for a complex world*. Createspace Independent Publishing Platform.
- Azadegan, A., Srinivasan, R., Blome, C., & Tajeddini, K. (2019). Learning from near-miss events: an organizational learning perspective on supply chain disruption response. *International Journal of Production Economics* 216, 215-226.
<https://doi.org/10.1016/j.ijpe.2019.04.007>
- Bandura, A. (1997). *Self-efficacy: the exercise of control*. W.H. Freeman.
- Bandura, A. (1989). *Human agency in social cognitive theory*. American Psychologist.
- Benderoth, M., Gebhard, P., Keller, C., Nakhosteen, C. B., Schaffer, S., & Schneeberger, T. (2025). *Socially interactive agents for preserving and transferring tacit knowledge in organizations* (No. arXiv:2508.19942). arXiv. <https://doi.org/10.48550/arXiv.2508.19942>
- Bensimon, E. M., & Neumann, A. (1993). *Redesigning collegiate leadership: teams and teamwork in higher education*. John Hopkins University Press.
- Berger, B. K. (2014). Read my lips: Leaders, supervisors, and culture are the foundations of strategic employee communications. *Research Journal of the Institute for Public*

Relations, 1(1). <https://instituteforpr.org/read-lips-leaders-supervisors-culture-foundations-strategic-employee-communications/>

Bernacki, M. L., Greene, M. J., & Lobczowski, N. G. (2021). A systematic review of research on personalized learning: personalized by whom, to what, how, and for what purpose(s)? *Educational Psychology Review*, 33(4), 1675–1715. <https://doi.org/10.1007/s10648-021-09615-8>

Bitzer, D. L., Braunfeld, P. G., & Lichtenberger, W. (1965). The uses of plato: a computer-controlled teaching system. Coordinated Science Laboratory University of Illinois.

Bolman, L. G., & Deal, T. E. (2021). *Reframing organizations: Artistry, choice, and leadership* (Seventh Edition). Jossey-Bass.

Bond, M., Zawacki-Richter, O., & Nichols, M. (2019). Revisiting five decades of educational technology research: a content and authorship analysis of the British journal of educational technology. *British Journal of Educational Technology* 50(1) 12–63. <https://doi.org/10.1111/bjet.12730>

Boston Consulting Group. (2024). *AI adoption in 2024: 74% of companies struggle to achieve and scale value*. <https://www.bcg.com/press/24october2024-ai-adoption-in-2024-74-of-companies-struggle-to-achieve-and-scale-value>

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

Bronfenbrenner, U. (1996). *The ecology of human development: experiments by nature and design*. Harvard University Press.

- Brown, K. G. (2001). Using computers to deliver training: Which employees learn and why? *Personnel Psychology*, 54(2), 271–296. <https://doi.org/10.1111/j.1744-6570.2001.tb00093.x>
- Buckingham, M., & Coffman, C. (1999). *First, break all the rules: What the world's greatest managers do differently*. Simon & Schuster.
- Bunderson, J. S., & Reagans, R. E. (2011). Power, Status, and Learning in Organizations. *Organization Science*, 22(5), 1182–1194. <https://doi.org/10.1287/orsc.1100.0590>
- Burke, W. W. (2018). *Organization change: theory and practice* (fifth edition). SAGE.
- Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity*, 56(3), 1391–1412. <https://doi.org/10.1007/s11135-021-01182-y>
- Cameron, E., & Green, M. (2024). *Making sense of change management: a complete guide to the models, tools and techniques of organizational change* (sixth edition). Kogan Page.
- Cappelli, P., & Tavis, A. (2016). *The Performance Management Revolution*.
- Castillo-Montoya, M. (2016). Preparing for interview research: The interview protocol refinement framework. *The Qualitative Report*, 21(5), 811–831. <https://doi.org/10.46743/2160-3715/2016.2337>
- Chadwick, I. C., & Raver, J. L. (2015). Motivating organizations to learn: Goal orientation and its influence on organizational learning. *Journal of Management*, 41(3), 957–986. <https://doi.org/10.1177/0149206312443558>
- Chambers, J. A., & Sprecher, J. W. (1983). *Computer-assisted instruction: its use in the classroom*. Prentice-Hall.

- Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2023). Bright and dark side of knowledge management practices in firms using information systems: examining different moderating impacts. *VINE Journal of Information and Knowledge Management Systems* 53(5) 880–900. <https://doi.org/10.1108/VJIKMS-07-2022-0222>
- Chen, S., & Zheng, J. (2022). Influence of organizational learning and dynamic capability on organizational performance of human resource service enterprises: moderation effect of technology environment and market environment. *Frontiers in Psychology* 13, 889327. <https://doi.org/10.3389/fpsyg.2022.889327>
- Clark, R. E., & Estes, F. (2008). *Turning research into results: a guide to selecting the right performance solutions*. Information Age Pub Incorporated.
- Clinton-Lisell, V., & Litzinger, J. (2024). *Is it really a neuromyth? A meta-analysis of the learning styles matching hypothesis*. *Frontiers in Psychology*, 15, 1428732. <https://doi.org/10.3389/fpsyg.2024.1428732>
- Cloney, R. (2014). Motivation. *Nature*, 505(7484), 580–580. <https://doi.org/10.1038/505580a>
- Coetsee, L. (1999). From resistance to commitment. *Public Administration Quarterly* 23(2) 204–222. <https://www.jstor.org/stable/40861780>
- Collins, A., & Halverson, R. (2009). *Rethinking education in the age of technology: The digital revolution and schooling in America*. Teachers College Press.
- Colville, I. D., & Murphy, A. J. (2006). Leadership as the enabler of strategizing and organizing. *Long Range Planning*, 39(6), 663–677. <https://doi.org/10.1016/j.lrp.2006.10.009>
- Cornerstone OnDemand. (2023). *2023 learning content trends*. <https://www.cornerstoneondemand.com/resources/article/2023-learning-content-trends-shifting-learner-expectations>

- Connelly, L. M. (2016). Trustworthiness in qualitative research. *MedSurg Nursing*, 25(6), 435–437. <https://europepmc.org/article/MED/30304614>
- Costanza, D. P., Blacksmith, N., Coats, M. R., Severt, J. B., & DeCostanza, A. H. (2016). The effect of adaptive organizational culture on long-term survival. *Journal of Business and Psychology* 31(3) 361–381. <https://doi.org/10.1007/s10869-015-9420-y>
- Creswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approaches* (3rd ed). Sage Publications.
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry and Research Design* (4th ed.). SAGE.
- Cunningham, C. M., Hazel, M., & Hayes, T. J. (2020). *Communication and Leadership 2020: Intersectional, Mindful, and Digital*.
- Daly, J. A. (2023). Ground rules for effective leadership communication. In N. Pfeffermann & M. Schaller (Eds.), *New leadership communication—inspire your horizon* (pp. 137–146). Springer International Publishing. https://doi.org/10.1007/978-3-031-34314-8_10
- Danzel, S. (2024). *Skillable data reveals nearly half of tech worker training goes to waste*. Skillable. <https://www.skillable.com/resources/skill-validation-development/skillable-data-reveals-nearly-half-of-tech-worker-training-goes-to-waste/>
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>
- Delianidi, M., Diamantaras, K., Moras, I., & Sidiropoulos, A. (2025). Dk-practice: An intelligent educational platform for personalized learning content recommendations based on students knowledge state. In *INTED2024 Proceedings* (pp. 391–403). <https://doi.org/10.22492/issn.2435-9467.2024.36>

- DeLone, W. H., & McLean, E. R. (2003). The Delone and Mclean model of information systems success: a ten-year update. *Journal of Management Information Systems* 19(4) 9–30.
<https://doi.org/10.1080/07421222.2003.11045748>
- Dennis, A. R., & Valacich, J. S. (1999). *Rethinking media richness: towards a theory of media synchronicity*. In Proceedings of the 32nd Hawaii International Conference on System Sciences Volume 1 - Volume 1 (pp. 1017–1027). IEEE.
- DeRenzis, B., LaPrad, J., Ricks-Pettyjohn, N., & Taylor, R. (2023). *Creating an equitable, resilient workforce system: New ideas for the Workforce Innovation and Opportunity Act*. National Skills Coalition.
<https://nationalskillscoalition.org/resource/publications/creating-an-equitable-resilient-workforce-system-wioa-recommendations/>
- Dhanani, A., & Connolly, C. (2015). Non-governmental organizational accountability: talking the talk and walking the walk? *Journal of Business Ethics*, 129(3), 613–637.
<https://doi.org/10.1007/s10551-014-2172-1>
- Dirani, K. M., Abadi, M., Alizadeh, A., Barhate, B., Garza, R. C., Gunasekara, N., Ibrahim, G., & Majzun, Z. (2020). Leadership competencies and the essential role of human resource development in times of crisis: A response to COVID-19 pandemic. *Human Resource Development International*, 23(4), 380–394.
<https://doi.org/10.1080/13678868.2020.1780078>
- Dolamore, S., Lovell, D., Collins, H., & Kline, A. (2021). The role of empathy in organizational communication during times of crisis. *Administrative Theory & Praxis*, 43(3), 366–375.
<https://doi.org/10.1080/10841806.2020.1830661>

- Dorairaj, S., Noble, J., & Malik, P. (2012). Understanding lack of trust in distributed agile teams: A grounded theory study. In *Proceedings of the 16th International Conference on Evaluation & Assessment in Software Engineering (EASE 2012)* (pp. 81–90).
<https://doi.org/10.1049/ic.2012.0011>
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53(1), 109–132. <https://doi.org/10.1146/annurev.psych.53.100901.135153>
- Eccles, J. S., & Wigfield, A. (2020). From expectancy-value theory to situated expectancy-value theory: A developmental, social cognitive, and sociocultural perspective on motivation. *Contemporary Educational Psychology*, 61, 101859.
<https://doi.org/10.1016/j.cedpsych.2020.101859>
- Edmondson, A. C. (2008). The competitive imperative of learning. *Harvard Business Review*, 86(7), 60–67.
- Elliott, R., & Timulak, L. (2021). Why a generic approach to descriptive-interpretive qualitative research? In R. Elliott & L. Timulak, *Essentials of descriptive-interpretive qualitative research: A generic approach*. (pp. 3–14). American Psychological Association.
<https://doi.org/10.1037/0000224-001>
- Engeström, Y., Kerosuo, H., & Kajamaa, A. (2007). Beyond discontinuity: Expansive organizational learning remembered. *Management Learning*, 38(3) 319–336.
<https://doi.org/10.1177/1350507607079032>
- El Kadiri, S., Grabot, B., Thoben, K.-D., Hribernik, K., Emmanouilidis, C., von Cieminski, G., & Kiritsis, D. (2016). Current trends on ICT technologies for enterprise information systems. *Computers in Industry*, 79, 14–33.
<https://doi.org/10.1016/j.compind.2015.06.008>

- Elliot, A. J. (2006). The hierarchical model of approach-avoidance motivation. *Motivation and Emotion*, 30(2), 111–116. <https://doi.org/10.1007/s11031-006-9028-7>
- Elliot, A. J., Dweck, C. S., & Yeager, D. S. (Eds.). (2017). *Handbook of competence and motivation: Theory and application* (2nd ed.). Guilford Press.
- Eroglu, S., & Gurol, Y. (2021). The impact of organizational learning on competitive advantage in Turkey. *Journal of Global Strategic Management*, 15(1), 47–57. <https://doi.org/10.20460/jgsm.2021.298>
- Evans, P. (2015). *Motivation*. Psychology Press. <https://doi.org/10.4324/9781315667652>
- Faller, P., Lundgren, H., & Marsick, V. (2020). Overview: Why and how does reflection matter in workplace learning? *Advances in Developing Human Resources*, 22(3), 248–263. <https://doi.org/10.1177/1523422320927295>
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: a new area of cognitive–developmental inquiry. *American Psychologist* 34(10) 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- Ford, J. D., & Ford, L. W. (2009). Decoding resistance to change. *Harvard Business Review*. <https://hbr.org/2009/04/decoding-resistance-to-change>
- Ford, J. D., Ford, L. W., & D’Amelio, A. (2008). Resistance to change: The rest of the story. *Academy of Management Review*, 33, 362–377. <https://doi.org/10.5465/amr.2008.31193235>
- Ford, J. K., & Weissbein, D. A. (2008). Transfer of training: an updated review and analysis. *Performance Improvement Quarterly*, 10(2) 22–41. <https://doi.org/10.1111/j.1937-8327.1997.tb00047.x>

- Fosway Group. (2023). *Digital Learning Realities 2023*. <https://www.fosway.com/wp-content/uploads/2023/10/Fosway-DL-Realities-2023-Infographics-DW-FINAL-Part-5-c.pdf>
- Fosway Group. (2024). *Digital Learning Realities 2024*. <https://www.fosway.com/research/next-gen-learning/digital-learning-realities-2024/>
- Gaan, N. (2012). Collaborative tools and virtual team effectiveness: an inductively derived approach in India's software sector. *Decision*, 39(1) 5–27.
- Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*, 13(1), 117. <https://doi.org/10.1186/1471-2288-13-117>
- Gallimore, R., & Goldenberg, C. (2001). Analyzing cultural models and settings to connect minority achievement and school improvement research. *Educational Psychologist*, 36(1), 45–56. https://doi.org/10.1207/S15326985EP3601_5
- Garavan, T., McCarthy, A., Lai, Y., Murphy, K., Sheehan, M., & Carbery, R. (2020). Training and organisational performance: A meta-analysis of temporal, institutional and organisational context moderators. *Human Resource Management Journal*, 31(1) 93–119. <https://doi.org/10.1111/1748-8583.12284>
- Giannakos, M. N., Mikalef, P., & Pappas, I. O. (2022). Systematic literature review of e-learning capabilities to enhance organizational learning. *Information Systems Frontiers*, 24(2) 619–635. <https://doi.org/10.1007/s10796-020-10097-2>
- Gill, R. (2002). Change management—Or change leadership? *Journal of Change Management*, 3(4), 307–318. <https://doi.org/10.1080/714023845>

- Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS Quarterly*, 19(2) 213. <https://doi.org/10.2307/249689>
- Grant, A. M. (2021). *Think again: The power of knowing what you don't know*. Viking.
- Gravity Global. (2024). *Benefits of GRAVITY: Maximize efficiency & savings*.
<https://www.gravity.global/en/benefits>
- Hacker, J. V., Johnson, M., Saunders, C., & Thayer, A. L. (2019). Trust in virtual teams: A multidisciplinary review and integration. *Australasian Journal of Information Systems*, 23. <https://doi.org/10.3127/ajis.v23i0.1757>
- Halverson, L. R., & Graham, C. R. (2019). Learner engagement in blended learning environments: A conceptual framework. *Online Learning*, 23(2), 145–178.
<https://doi.org/10.24059/olj.v23i2.1481>
- Hambley, L. A., O'Neill, T. A., & Kline, T. J. B. (2007). Virtual team leadership. *International Journal of E-Collaboration*, 3(1) 40–64. <https://doi.org/10.4018/jec.2007010103>
- Hasan, H. (2023). Effect of organizational culture on organizational learning, employee engagement, and employee performance: Study of banking employees in Indonesia. *Problems and Perspectives in Management*, 21(3), 471–482.
[https://doi.org/10.21511/ppm.21\(3\).2023.38](https://doi.org/10.21511/ppm.21(3).2023.38)
- Hattie, J., & O'Leary, T. (2025). *Learning styles, preferences, or strategies? An explanation for the resurgence of styles across many meta-analyses*. *Educational Psychology Review*, 37, Article 31. <https://doi.org/10.1007/s10648-025-10002-w>
- Holmes, A. G. D. (2020). Researcher positionality-A consideration of its influence and place in qualitative research-A new researcher guide. *Shanlax International Journal of Education*, 8(4), 1–10. <https://doi.org/10.34293/education.v8i4.3232>

Howspace. (2019). *What is a learning experience platform (LXP)?* Howspace.

<https://howspace.com/blog/what-is-a-learning-experience-platform>

Hultman, K. E. (2003). Managing resistance to change. In H. Bidgoli (Ed.), *Encyclopedia of information systems* (Vol. 3, pp. 693–705). Academic Press.

<https://www.sciencedirect.com/referencework/9780122272400/encyclopedia-of-information-systems>

Human Capital Institute. (2019). The ROI of Learning. *HCI*.

<https://www.hci.org/system/files/2019-12/The-ROI-of-Learning.pdf>

Ifenthaler, D., & Egloffstein, M. (2020). Development and implementation of a maturity model of digital transformation. *TechTrends*, 64(2) 302–309. [https://doi.org/10.1007/s11528-](https://doi.org/10.1007/s11528-019-00457-4)

[019-00457-4](https://doi.org/10.1007/s11528-019-00457-4)

Jain, S., Bajaj, B., & Singh, A. (2023). Linking metacognition, workplace cognitive competencies and performance: An integrative review-based conceptual framework.

Primenjena Psihologija, 16(1) 107–147. <https://doi.org/10.19090/pp.v16i1.2427>

Johnston, M. P. (2017). Secondary data analysis: A method of which the time has come.

Qualitative and Quantitative Methods in Libraries, 3(3), 619–626.

<http://www.qqml.net/index.php/qqml/article/view/169>

Jongbloed, J., Chaker, R., & Lavoué, E. (2024). Immersive procedural training in virtual reality: A systematic literature review. *Computers & Education*, 221, 105124.

<https://doi.org/10.1016/j.compedu.2024.105124>

Kapo, A., Milutinovic, L. D., Rakovic, L., & Maric, S. (2024). Enhancing e-learning effectiveness: analyzing extrinsic and intrinsic factors influencing students' use, learning,

- and performance in higher education. *Education and Information Technologies*, 29(8) 10249–10276. <https://doi.org/10.1007/s10639-023-12224-3>
- Keller, J. M. (2010). *Motivational Design for Learning and Performance: The ARCS Model Approach*. Springer US. <https://doi.org/10.1007/978-1-4419-1250-3>
- Keržič, D., Alex, J. K., Pamela Balbontín Alvarado, R., Bezerra, D. D. S., Cheraghi, M., Dobrowolska, B., Fagbamigbe, A. F., Faris, M. E., França, T., González-Fernández, B., Gonzalez-Robledo, L. M., Inasius, F., Kar, S. K., Lazányi, K., Lazăr, F., Machin-Mastromatteo, J. D., Marôco, J., Marques, B. P., Mejía-Rodríguez, O., ... Aristovnik, A. (2021). Academic student satisfaction and perceived performance in the e-learning environment during the COVID-19 pandemic: Evidence across ten countries. *PLOS ONE*, 16(10) e0258807. <https://doi.org/10.1371/journal.pone.0258807>
- Kezar, A. J. (2001). *Understanding and facilitating organizational change in the 21st century: Recent research and conceptualizations*. Jossey-Bass.
- Kirkpatrick, D. L., & Kirkpatrick, J. D. (2018). *Evaluating training programs: The four levels* (3rd ed.). Berrett-Koehler.
- Kirkpatrick, J., & Kirkpatrick, W. (2015). *An introduction to the new world Kirkpatrick® model*. Kirkpatrick Partners LLC. https://www.cpedv.org/sites/main/files/file-attachments/introduction_to_the_kirkpatrick_new_world_model_-_eval_002.pdf
- KPMG International. (2024). *KPMG global tech report 2024*. https://assets.kpmg.com/content/dam/kpmg/pe/insights/fy25/junio-06/2024_Tech-Report_final_Web.pdf
- Krathwohl, D. R. (2002). A Revision of Bloom's Taxonomy: An Overview. *Theory Into Practice*, 41(4), 212–218. https://doi.org/10.1207/s15430421tip4104_2

- Kvale, S., & Brinkmann, S. (2015). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). Sage Publications.
- Lakos, A., & Phipps, S. E. (2004). Creating a culture of assessment: A catalyst for organizational change. *Portal: Libraries and the Academy*, 4(3), 345–361.
<https://doi.org/10.1353/pla.2004.0052>
- Lanaj, K., Foulk, T. A., & Erez, A. (2019). Energizing leaders via self-reflection: A within-person field experiment. *Journal of Applied Psychology*, 104(1), 1–18.
<https://doi.org/10.1037/apl0000350>
- Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. *Human Resource Management Review*, 21, 243–255. <https://doi.org/10.1016/j.hrmr.2010.07.001>
- Leuhery, F. (2024). The role of technology in employee training and development: a systematic review of recent advances and future directions. *Management Studies and Business Journal (Productivity)*, 1(3) 369-385.
- Lewin, K. (1947). Quasi-stationary social equilibria and the problem of permanent change. In K. Benne & B. Muntyan (Eds.), *Human relations in curriculum change* (pp. 39–44). University of Illinois, The Dryden Press.
- Lewis, L. K. (2011). *Organizational Change: Creating Change through Strategic Communication* (1st ed.). Wiley. <https://doi.org/10.1002/9781444340372>
- Li, J., Ghosh, R., & Nachmias, S. (2020). In a time of COVID-19 pandemic, stay healthy, connected, productive, and learning: Words from the editorial team of HRDI. *Human Resource Development International*, 23(3), 199–207.
<https://doi.org/10.1080/13678868.2020.1752493>

- Li, L. (2024). Reskilling and upskilling the future-ready workforce for industry 4. 0 and beyond. *Information Systems Frontiers* 26(5) 1697-1712.
- LinkedIn Learning. (2024). *The future of learning: Eye-opening employee training statistics in 2024*. <https://www.linkedin.com/pulse/future-learning-eye-opening-employee-training-statistics-2024-1epuc>
- Long, P., & Siemens, G. (2011). Penetrating the fog: Analytics in learning and education. *EDUCAUSE Review*. <https://er.educause.edu/articles/2011/9/penetrating-the-fog-analytics-in-learning-and-education>
- Lyle, K. B., Young, A. S., Heyden, R. J., & McDaniel, M. A. (2023). *Matching learning style to instructional format penalizes learning*. *Computers and Education Open*, 5, 100143. <https://doi.org/10.1016/j.caeo.2023.100143>
- Martin, F., Chen, Y., Moore, R. L., & Westine, C. D. (2020). Systematic review of adaptive learning research designs, context, strategies, and technologies from 2009 to 2018. *Educational Technology Research and Development*, 68(4) 1903–1929. <https://doi.org/10.1007/s11423-020-09793-2>
- Matthews, K. E., Andrews, V., & Adams, P. (2011). Social learning spaces and student engagement. *Higher Education Research & Development*, 30(2) 105–120. <https://doi.org/10.1080/07294360.2010.512629>
- McGrath, R. G. (2001). Exploratory learning, innovative capacity, and managerial oversight. *Academy of Management Journal*, 44(1), 118–131. <https://doi.org/10.5465/3069340>
- McKinsey & Company. (2022). *Why do most transformations fail? A conversation with Harry Robinson*. <https://www.mckinsey.com/capabilities/transformation/our-insights/why-do-most-transformations-fail-a-conversation-with-harry-robinson>

- McInerney, D. M. (2019). Motivation. *Educational Psychology*, 39(4), 427–429.
<https://doi.org/10.1080/01443410.2019.1600774>
- McLoughlin, C., & Oliver, R. (2000). Designing learning environments for cultural inclusivity: a case study of indigenous online learning at tertiary level. *Australasian Journal of Educational Technology*, 16(1). <https://doi.org/10.14742/ajet.1822>
- Medina, M. S., Castleberry, A. N., & Persky, A. M. (2017). Strategies for improving learner metacognition in health professional education. *American Journal of Pharmaceutical Education*, 81(4), 78. <https://doi.org/10.5688/ajpe81478>
- Meinhardt, R., Junge, S., & Weiss, M. (2018). The organizational environment with its measures, antecedents, and consequences: a review and research agenda. *Management Review Quarterly*, 68, 195–235. <https://doi.org/10.1007/s11301-018-0137-7>.
- Menolli, A., Tirone, H., Reinehr, S., & Malucelli, A. (2020). Identifying organisational learning needs: an approach to the semi-automatic creation of course structures for software companies. *Behaviour & Information Technology*, 39(11) 1140–1155.
<https://doi.org/10.1080/0144929X.2019.1653372>
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: a guide to design and implementation* (4th ed.). Jossey-Bass.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE.
- Motulsky, S. L. (2021). Is member checking the gold standard of quality in qualitative research? *Qualitative Psychology*, 8(3), 389–406. <https://doi.org/10.1037/qup0000215>
- Muo, I. (2014). The other side of change resistance. *International Review of Management and Business Research* 3, 96-112.

- Nesterkin, D. A. (2013). Organizational change and psychological reactance. *Journal of Organizational Change Management*, 26(3), 573–594.
<https://doi.org/10.1108/09534811311328588>
- Nikolaroza. (2024). *Learning management system statistics, facts & trends for 2024*.
<https://nikolaroza.com/learning-management-system-statistics-facts-trends/>
- Noe, R. A., Tews, M. J., & McConnell Dachner, A. (2010). Learner engagement: A new perspective for enhancing our understanding of learner motivation and workplace learning. *Academy of Management Annals*, 4(1), 279–315.
- Northouse, P. G. (2022). *Leadership: Theory and practice* (9th ed.). SAGE Publishing.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), Article 1609406917733847. <https://doi.org/10.1177/1609406917733847>
- Orlikowski, W. J. (1992). The duality of technology: Rethinking the concept of technology in organizations. *Organization Science*, 3(3), 398–427. <https://doi.org/10.1287/orsc.3.3.398>
- O’Higgins, C., Aramburu, N., & Andreeva, T. (2021). Managing international professional service firms: A review and future research agenda. *Baltic Journal of Management*, 17(1) 34–55. <https://doi.org/10.1108/BJM-08-2020-0293>
- OpenAI. (2025). *ChatGPT (GPT-4.1, March 2025 version)* [Large language model]. OpenAI.
<https://chat.openai.com/>
- Paradise, A. (2007). *State of the industry: ASTD’s annual review of trends in workplace learning and performance*. ASTD Resource Development.
- Pappas, S. (2021). Rousing our motivation. *Monitor on Psychology*, 52(7).

- Patton, L. D. (2016). Disrupting postsecondary prose: Toward a critical race theory of higher education. *Urban Education*, 51(3), 315–342. <https://doi.org/10.1177/0042085915602542>
- Peng, M.-H., & Hwang, H.-G. (2021). An empirical study to explore the adoption of e-learning social media platform in Taiwan: An integrated conceptual adoption framework based on technology acceptance model and technology threat avoidance theory. *Sustainability*, 13(17), Article 17. <https://doi.org/10.3390/su13179946>
- Phipps, S., & Davis, C. (2023). *Self-Efficacy*. SAGE Publications, Inc. <https://doi.org/10.4135/9781071907719>
- Piderit, S. K. (2000). Rethinking resistance and recognizing ambivalence: A multidimensional view of attitudes toward an organizational change. *Academy of Management Review*, 25, 783–793. <https://doi.org/10.5465/amr.2000.3707722>
- Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology*, 95(4), 667–686. <https://doi.org/10.1037/0022-0663.95.4.667>
- Popova-Nowak, I. V., & Cseh, M. (2015). The meaning of organizational learning: A meta-paradigm perspective. *Human Resource Development Review*, 14(3) 299–331. <https://doi.org/10.1177/1534484315596856>
- Pranckūnienė, E., & Girdzijauskienė, R. (2023). Personalized and deeper learning opportunities using learning experience platforms. In *INTED2023 Proceedings* (pp. 7734–7741). 17th International Technology, Education and Development Conference. <https://doi.org/10.21125/inted.2023.2114>

- Prediscan, M., & Braduanu, D. (2012). Change agent: A force generating resistance to change within an organization? *Acta Universitatis Danubius. Ecnomica*, 8(6)
<https://ideas.repec.org/a/dug/actaec/y2012i6p5-12.html>
- Qi, C., & Chau, P. Y. K. (2016). *An empirical study of the effect of enterprise social media usage on organizational learning*. PACIS 2016 Proceedings.
<https://aisel.aisnet.org/pacis2016/330>
- Ramachandran, K. K., Srivastava, A., Panjwani, V., Kumar, D., Cheepurupalli, N. R., & Mohan, C. R. (2024). Developing AI-powered training programs for employee upskilling and reskilling. *Journal of Informatics Education and Research*, 4(2)
<https://doi.org/10.52783/jier.v4i2.903>
- Rausch, A. (2025). Artificial intelligence for informal workplace learning: A problem-solving perspective. *Frontiers in Organizational Psychology*, 3, 1555429.
<https://doi.org/10.3389/forgp.2025.1555429>
- Rehman, J., Hawryszkiewicz, I., Sohaib, O., Namisango, F., & Dahri, A. S. (2023). Towards the knowledge-smart professional service firms: How high-performance work systems support the transformation. *Journal of the Knowledge Economy*, 14(4) 3640–3670.
<https://doi.org/10.1007/s13132-022-00903-4>
- Ritchie, J., & Spencer, L. (1994). Qualitative data analysis for applied policy research. In A. Bryman & R. G. Burgess (Eds.), *Analyzing qualitative data* (pp. 173–194). Taylor & Francis. https://doi.org/10.4324/9780203413081_chapter_9
- Romero, C., & Ventura, S. (2024). *Educational data mining and learning analytics: An updated survey* [Preprint]. arXiv. <https://doi.org/10.48550/arXiv.2402.07956>
- Rossett, A. (2009). *First things fast: A handbook for performance analysis* (2nd ed). Pfeiffer.

- Roumell, E. A. (2019). Priming adult learners for learning transfer: Beyond content and delivery. *Adult Learning*, 30(1), 15–22. <https://doi.org/10.1177/1045159518791281>
- Rowlands, J. (2021). Interviewee transcript review as a tool to improve data quality and participant confidence in sensitive research. *International Journal of Qualitative Methods*, 20, 1–11. <https://doi-org.libproxy1.usc.edu/10.1177/160940692110661>
- Rushton, C. (2023). Positionality. *Nursing Philosophy*, 24(4), e12415. <https://doi.org/10.1111/nup.12415>
- Saettler, L. P. (1990). *The evolution of American educational technology*. Libraries Unlimited.
- Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). Jossey-Bass.
- Schein, E. H., & Schein, P. (2016). *Organizational culture and leadership* (5th ed.). Wiley.
- Schraw, G., & Moshman, D. (1995). Metacognitive theories. *Educational Psychology Review*, 7(4), 351–371. <https://doi.org/10.1007/BF02212307>
- Schreiber, C., and K. Carley. (2006). Leadership style as an enabler of organizational complex functioning. *Emergence: Complexity and Organization* 8(4): 61–76.
- Schunk, D. H., & Usher, E. L. (2019). Social cognitive theory and motivation. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 9–26). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780190666453.013.2>
- Schön, D. A. (2017). *The reflective practitioner*. Routledge. <https://doi.org/10.4324/9781315237473>
- Senge, P. M. (2006). *The fifth discipline: The art and practice of the learning organization* (Rev. and updated ed.). Currency Doubleday.
- Serrat, O. (2017). *Knowledge solutions*. Springer Singapore. <https://doi.org/10.1007/978-981-10-0983-9>

- Sharan, K., Dhayanithy, D., & Sethi, D. (2023). Interrelationship between strategic factors, technology and organizational learning: A systematic literature review. *Journal of Knowledge Management*, 27(9) 2462–2483. <https://doi.org/10.1108/JKM-09-2022-0706>
- Siciliano, M. D. (2017). Ignoring the experts: Networks and organizational learning in the public sector. *Journal of Public Administration Research and Theory*, 27(1), 104–119. <https://doi.org/10.1093/jopart/muw039>
- Siemens, G. (2013). Learning analytics: the emergence of a discipline. *American Behavioral Scientist*, 57(10) 1380–1400. <https://doi.org/10.1177/0002764213498851>
- Simoes, P. M. M., & Esposito, M. (2014). Improving change management: How communication nature influences resistance to change. *Journal of Management Development*, 33(4), 324–341. <https://doi.org/10.1108/JMD-05-2012-0058>
- Simón, C., Revilla, E., & Jesús Sáenz, M. (2024). Integrating AI in organizations for value creation through Human-AI teaming: A dynamic-capabilities approach. *Journal of Business Research*, 182, 114783. <https://doi.org/10.1016/j.jbusres.2024.114783>
- Small, M. L., & Calarco, J. M. (2022). *Qualitative literacy: A guide to evaluating ethnographic and interview research*. University of California Press.
- Squire, L. R. (1987). *Memory and brain*. Oxford University Press.
- Technavio. (2023). *Corporate e-learning market analysis—US, Canada, China, India, UK: Size and forecast 2024–2028*. <https://www.technavio.com/report/corporate-e-learning-market-industry-analysis>
- Tracy, B. (2013). *Motivation*. American Management Association.
- Velasco, M., & Sansone, C. (2019). Resistance in diversity and inclusion change initiatives: Strategies for transformational leaders. *OD Practitioner*, 51(4), 44–49.

<https://beyondinclusiongroup.com/wp-content/uploads/2020/10/Resistance-in-Diversity-and-Inclusion-Change-Initiatives-OD-Journal.pdf>

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204.

<https://doi.org/10.1287/mnsc.46.2.186.11926>

Welsh, E. T., Wanberg, C. R., Brown, K. G., & Simmering, M. J. (2003). E-learning: Emerging uses, empirical results and future directions. *International Journal of Training and Development*, 7, 245–258. <https://doi.org/10.1046/j.1360-3736.2003.00184.x>

Wenger-Trayner, E., & Wenger-Trayner, B. (2020). *Learning to make a difference: Value creation in social learning spaces* (1st ed.). Cambridge University Press.

<https://doi.org/10.1017/9781108677431>

Wigfield, A., & Eccles, J. S. (2000). Expectancy–Value Theory of Achievement Motivation. *Contemporary Educational Psychology*, 25(1), 68–81.

<https://doi.org/10.1006/ceps.1999.1015>

Wu, K., Zhao, Y., Vassileva, J., Sun, X., & Fan, Z. (2014). How does awareness of task conflict motivate wiki-based collaborative learning? A design science approach. In *Proceedings of the 18th Pacific Asia Conference on Information Systems* (PACIS 2014).

<https://scispace.com/pdf/how-does-awareness-of-task-conflict-motivate-wiki-based-55uylnhw3m.pdf>

Yi, M. Y., Jackson, J. D., Park, J. S., & Probst, J. C. (2006). Understanding information technology acceptance by individual professionals: Toward an integrative view.

Information & Management, 43(3), 350–363. <https://doi.org/10.1016/j.im.2005.08.006>

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE.

- Yukl, G., & Gardner, W. L. (2020). *Leadership in organizations* (9th ed., Global ed.). Pearson.
- Zhou, S. S., Zhou, A. J., Feng, J., & Jiang, S. (2019). Dynamic capabilities and organizational performance: The mediating role of innovation. *Journal of Management & Organization*, 25(5), 731–747. <https://doi.org/10.1017/jmo.2017.20>.
- Zigurs, I., & Buckland, B. K. (1998). A theory of task/technology fit and group support systems effectiveness. *MIS Quarterly*, 22(3) 313–334. <https://doi.org/10.2307/249668>

Appendix A: Interview Protocol

Research Questions:

1. What knowledge, motivation, and organizational factors influence organizational leaders' efforts to utilize learning technologies to enhance knowledge transfer, employee engagement, and performance in alignment with strategic business goals?
2. What opportunities related to knowledge, motivation, and organizational factors do organizational leaders perceive can enhance the adoption and impact of learning technologies to achieve measurable improvements in knowledge transfer, employee engagement, and performance aligned with strategic business goals?

Introduction to the Interview:

Thank you for participating in this research interview today. My name is Diane Zhang. I am a doctoral student studying organizational change and leadership at the University of Southern California. This interview is an important part of my dissertation study about maximizing the value of learning technologies in the workplace. The purpose of this interview is to understand the main factors influencing your use of learning technologies, such as our new learning experience platform, or any learning and development-related technologies that you have interacted.

The interview will take about 45-60 minutes. During then if you need a break or clarification, please feel free to let me know.

Your responses will be confidential, and you may choose to skip any questions or conclude the interview at any time. Do you have any questions before we start? (Great, if you are ok, I'm going to record this meeting and capture your consent.)

May I have your consent to participate in the study? With your permission, I would like to record this session for research purposes and store the data securely, only accessible to me.

May I record our interview?

Table A1

Interview Protocol

Interview questions	Key concept addressed
1. Please briefly describe your role and responsibilities within the organization.	Context
2. What learning technologies have you used to develop skills and capabilities at work?	Knowledge (Declarative)
3. What do you think about these technologies in terms of using them to enhance your skill development?	Knowledge (Procedural and Self-Reflection)
4. How does using the learning platform, as you mentioned earlier, affect your performance?	Knowledge (Procedural and Self-Reflection)
5. What motivates you to use the new learning platform?	Motivation (Expectancy Value and Goal Orientation)
5.1. What are your main objectives when using the platform?	
6. How confident do you feel about using the learning platform.	Motivation (Self-Efficacy)
7. What challenges have you faced when interacting with the new learning platform?	Motivation (Expectancy Value and Goal Orientation)
7.1. How do you typically overcome these challenges when learning new features in the platform?	
8. How does the organization support your use of the learning platform?	Organizational Factors (Culture and Change Process)
9. What training or preparation have you received to help you use the platform?	Organizational Factors (Change Process)
10. How does the senior management team influence your and your team's adoption of these technologies?	Organizational Factors (Leadership)

Interview Questions	Key Concept Addressed
11. From your perspective, what should the successful implementation of learning technologies look like?	Vision of Success
11.1. How do you measure success?	Motivation (Goal Orientation)
12. What opportunities do you see to maximize the use and value of the new learning platform to support business goals?	Opportunities
13. How can we increase employee engagement in their own development and performance improvement through the new learning platform?	Vision of Success
14. How can we address all the issues you have mentioned above?	Vision of Success
15. Is there anything else you would like to share about your experiences with learning technologies that we haven't covered so far?	Overall Insights

Conclusion to the Interview:

Thank you so much for joining me in this conversation and sharing your experiences. Your insights are highly valuable. I will work on the transcripts and get back to you if I need any clarification. Would you like to receive a copy of this interview transcript to review? In the meantime, please recommend a few team leaders you think could be a good fit for this interview and forward my information to them. I am sharing my contact information on the screen. If you have any further thoughts or follow-up questions, please do not hesitate to contact me. Thank you again for your time!

Appendix B: Document Analysis Protocol

The documents for this study include the following:

1. Publicly available Annual Report 2024
2. Publicly available Independent Review of Action Plan
3. Publicly available Transparency Report 2024

Annual Report Prompts:

1. How does the report describe the firm's strategy, and how is culture integrated into this strategy? (RQ1; RQ2)
2. What learning technology adoption strategies might impact the firm's culture and support its strategic business goals? (RQ1; RQ2)
3. How do feedback mechanisms contribute to understanding the effectiveness of learning and development initiatives, particularly those involving technology? (RQ1)
4. What feedback mechanisms can capture leadership perspectives on opportunities and challenges related to adopting learning technologies? (RQ2)

Independent Review of Action Plan Prompts:

1. Does the organization's risk management framework consider the potential risks and opportunities associated with learning technology adoption? (RQ1; RQ2)
2. Are there any inferences about the organization's perceived value of learning technologies based on investments, programs, or stated priorities within the documents? (RQ1)
3. What evidence, if any, is there regarding leadership's role in promoting or implementing learning and development initiatives, including technology-based solutions? (RQ1; RQ2)

Transparency Report Prompts:

1. How does the report discuss the firm's culture? (RQ1)
2. What initiatives are in place to support a positive culture? (RQ1)
3. What is the role, if any, of technology within the described learning and development programs? (RQ1)
4. How do the documents describe the link between learning and development, employee engagement, and achievement of strategic business goals? (RQ1; RQ2)

Appendix C: Recruitment Letter

My name is [Dihan Zhang], and I am a [student] at University of Southern California. I am conducting a research study to identify the influencing factors and organizational strategies that support effective technology integration and lead to measurable outcomes. The goal is to surface actionable insights and propose evidence-based strategies to address performance gaps and enhance the use of learning technologies in professional service environments.

I am recruiting individuals who meet these criteria:

1. Organizational leaders at middle/senior level, client-facing, or internal firm service support staff, making critical decisions for the team, driving changes to serve the overall strategy, and being an active group of users who advocate for learning technologies and the change with impact.
2. You are over 18 years old.

If you decide to participate in this study, you will expect the following activity:

1. Participate in a 1:1 online interview over Microsoft Team for 45-60 minutes.

During these activities, you will respond to the questions about:

- Your role and responsibilities within the organization.
- Your previous and current experiences using learning technologies, including the learning experience platform.
- Your perspectives on the effectiveness of learning technologies and opportunities to leverage them for achieving business goals.
- Your suggestions for measuring and maximizing the value of adopting learning technologies in the future.

If you are interested in participating in this study, please contact me at [dihanzha@usc.edu].

Thank you!

[Dihan Zhang]

[dihanzha@usc.edu]

Appendix D: Code Book

Table D1

INVIVO Code Book

Name	Description	Sources	References
Knowledge		0	0
Declarative knowledge	The role LXP plays	1	5
Awareness of new platform		0	0
Awareness	Platform awareness, compliance-driven rather than growth-focused learning	11	17
Large suit	Use of multiple internal and external learning platforms across services	2	2
Type of tech by functions	Emerging use of AI tools to create and personalize learning content	3	6
Platform evolution & purpose		0	0
Quality of content	Preference for high-quality, relevant, and up-to-date learning content	9	25
Understand the why-purpose	Need for clear purpose, integration, and value communication beyond system use	6	10
Metacognitive Knowledge	Benefit from wealth of knowledge	2	6
Modality & preferences	Social/blended/self-paced	0	0
Curation	Need for better content curation, visibility, and communication of learning resources	5	10
How to learn	Preference for experiential, self-directed, and on-the-job learning	13	60
Various training modality	Preference for diverse and flexible learning formats	8	24
Progress via application	Experimentation, feedback	0	0
Application	Learning through real tasks, peer guidance, and applied problem-solving	8	24
Learn by doing	Learning by doing, experimenting, and solving real work problems	9	21
Tech as enabler	Performance enabler, not repository	0	0
Measure-evaluate	Need for meaningful metrics linking learning, skills, and performance outcomes	7	12
Reflection on system by comparison	Desire for more advanced, AI-driven, and proactive learning platforms	6	6
Self-reflection	Combat against our own assumption	11	25
Procedural Knowledge	Preference for quick, accessible tools	1	13

Name	Description	Sources	References
Guided support	Onboarding, job aids, peer demos, micro-practice	1	2
Guide with consistency	Need for consistency and centralization across learning platforms and content	5	15
System support	availability of helpful quick guides	3	11
Training to teach tech	Limited formal training; reliance on self-learning and peer-led demonstrations	7	11
Integrated experiences	Cross-device, just-in-time, nudges	0	0
Accessibility	Need for seamless, mobile, and easily accessible learning experience	12	23
JIT	Just in time learning from both timing and job relevancy perspective	9	22
Navigation & search challenges		0	0
Perceived ease of use	Desire for intuitive, streamlined, and AI-assisted access to relevant learning	12	39
Resume content	Frustration with interruptions and poor progress-saving in learning modules	2	6
Source of truth	One source of truth, integrated solution	3	4
Search for relevancy	Overwhelming content volume; need for smarter, refined search and filtering	13	31
Motivation		1	2
Expectancy value	Need for quick, interactive, and just-in-time learning resources	2	17
Autonomy	Over pacing & sequence	0	0
Level of control - autonomy	Developer vs application of use	9	23
Effort cost & efficiency	Time/cognitive load	0	0
Cost	Compliance and performance incentives drive learning engagement	6	12
Efficiency	Preference for short, targeted, and easily accessible learning resources	11	22
Guilt	Time pressure and guilt limit personal learning investment	2	3
Time	Time to learn and apply, less time needed, easier it's perceived to access	9	28
Usefulness & attainment	Job relevance	0	0
Balance	Find the right balance	2	2
Certifications-badges	Badges and credentials boost motivation and recognition	3	7
Fun-gamification	Mobile microlearning supports continuous skill development on the go	2	4
Perceived usefulness	Preference for relevant, personalized, high-quality	13	36

Name	Description	Sources	References
	learning content		
Relevancy (how to learn, data)	Relevancy to different types of learning, data accuracy	9	33
Relevancy (job related)	Relevancy to job, performance, goals? mastery oriented or task-oriented	13	64
ROI	Career growth relies on relationships and experiential learning, not just technology	5	7
Value for individual	Learning motivation driven by relevance, personalization, and “what’s in it for me”	12	41
Value for the firm	Learning seen as compliance-driven; curiosity and strategic alignment	8	17
Goal Attainment	Learning driven by immediate needs and situational relevance	1	8
Approach	Mastery	7	10
Curiosity	Driver for learning, innovation, and engagement	7	20
Skills mix	Emphasis on skill clarity, relevance, and balance between technical and human skills	8	11
Avoid	Penalty	3	4
Keep with the change	Need for continuous upskilling to stay current with evolving technology	7	14
Performance-task oriented	Learning driven by business needs, self-initiative, and practical application	11	29
Self-Efficacy	Ease of use and accessibility enhance engagement with learning platforms	3	10
Confidence to use	High confidence in navigating external learning tools	13	18
Commitment	Investment in infrastructure, training, and simplification for sustainable adoption	5	6
Select among multiple tools	Preference for flexible, self-directed, and AI-assisted learning across multiple platforms	6	14
Self-governance	Self-directed learning driven by personal motivation, curiosity, and perceived need	7	14
Trust	Suspicion of algorithms despite effective experiences	2	6
Digital mastery	Confidence grows with small wins	0	0
Multiple system users	Use of multiple evolving platforms combining LMS, AI, and external tools	11	14
Understand tech with no fear	Confidence increases adoption and effective tool use	6	8
Social persuasion	Peer influence	0	0
Frequency of use	Familiarity improve use; infrequent use reduces	4	7

Name	Description	Sources	References
	retention		
Peer insights-rating	Peer influence and social proof drive engagement and learning choices	8	11
Related recommendation	Desire for personalization and proactive learning recommendations	8	13
Share achievement	Encouraging knowledge sharing and recognition of learning achievements	3	3
Team connection -classroom training	Need for interactive, collaborative, and experiential learning experiences	3	3
Organization		1	7
Change process	A variety of training and systems exist	4	19
AI ~ tech impact	AI for integration, personalization & simplification	7	29
Embed in FOW	Short, just-in-time learning with embedded, AI-assisted nudges	8	21
Genuity-human touch	Learning should feel genuine, human, and easily accessible	4	10
Clear value proposition	incl. consistent communication	0	0
Communication	Clear, targeted, and story-driven communication enhances engagement	9	32
Consolidate practices to measure	Leaders need alignment and consistent messaging to unify and measure learning efforts	1	3
Engagement	Interactive, personalized, and incentivized learning boosts engagement and relevance	10	23
Feedback	Feedback loops and pilot engagement help identify training needs and champions	5	9
Leverage P&C support	HR and transformation teams guide firmwide learning	2	3
Recognition	Leadership support, recognition, and gamification drive learning motivation	9	15
Simplicity	Simplified structure, concise content, and investment enhance user engagement	6	7
Standard process	Onboarding and communication to sustain engagement	7	9
Prioritization & quick wins		0	0
Agility to change	Need agile, curated learning aligned with fast-changing tools and dispersed work	6	9
Eligibility enforcement	Learning access encouraged but weakly enforced and inconsistently reinforced	4	6
Integrated approach	Integrate learning into daily workflow, and in line with firm strategy	11	33

Name	Description	Sources	References
Job-related training	Lack of structured or role-specific training opportunities	1	2
Support resources	Tech, change, communication	10	19
Systematic vs. spot fires	Learning efforts lack cohesion and sustained follow-up across teams	6	14
Training classifications	Need clear guidance on essential and exploratory learning sources	6	14
Culture	Leadership awareness and generational differences influence learning adoption	3	6
Collective learning	Peer networks, momentum	9	14
Accountability	Individual accountability, leadership accountability, and organizational level accountability	5	13
Champions-early adopter	Champion networks and advocacy groups drive adoption and engagement	2	5
Flexibility	Personal schedules and life demands, and additional learning	3	10
Mentor & coach	Learning and skill progression occur through interaction, coaching, and real-world application	5	10
Compliance-driven engagement	With time pressure	1	1
Compliance training	Learning viewed mainly as compliance requirement, not developmental opportunity	11	28
Push and pull	Personalized, non-intrusive course recommendations and notifications	2	3
Transparency	Honest leadership communication fosters engagement amid rapid change	2	2
High-performance norms	Competing demands	1	2
Collaborate in agile approach	Collaboration and cross-team engagement essential for effective implementation	4	4
Compete to deliver	Performance defined by delivery; balance need and expectation	3	11
High performance (sustain)	Winning culture, system performance, build mechanism, long term adoption	6	10
Priority	Strategic alignment, investment, and prioritisation critical for sustainable learning initiatives as learning organization	10	33
Psychological safety	Psychological safety and shared understanding enable real learning application	4	5
Sustain to develop	Initial enthusiasm fades; need sustained engagement and habit integration	5	5
Leadership	Leaders encourage and allocate time for team upskilling	2	9

Name	Description	Sources	References
Senior leadership sponsorship	Modeling & endorsement	0	0
Permission	Support learning by providing space and time	6	11
Role model-showcase	Leaders model learning and visibly promote growth culture	7	13
Top level behavior	Senior leaders show limited engagement and advocacy for learning	8	11
Top level support-sponsorship	Leadership endorsement, investment, top-down advocacy drive learning engagement	11	17
Team leaders' role	Coaching, guidance & follow-up	0	0
Career pathway & development plan	Career growth depends on guidance, connection, and proactive development planning	4	9
Share stumbled-failed experiences	Learn through doing and failing, coaching	4	4
Split between individual and leadership	Learning responsibility rests largely on individuals or leaders	2	2
Team leader support-regular check-ins	Leaders need to drive engagement through guidance and consistent communication	9	19
Younger multi-generation	Generational differences shape learning styles and technology expectations	4	10