



University of Phoenix
Workforce Solutions

Addressing employee skill gaps to increase productivity and retention



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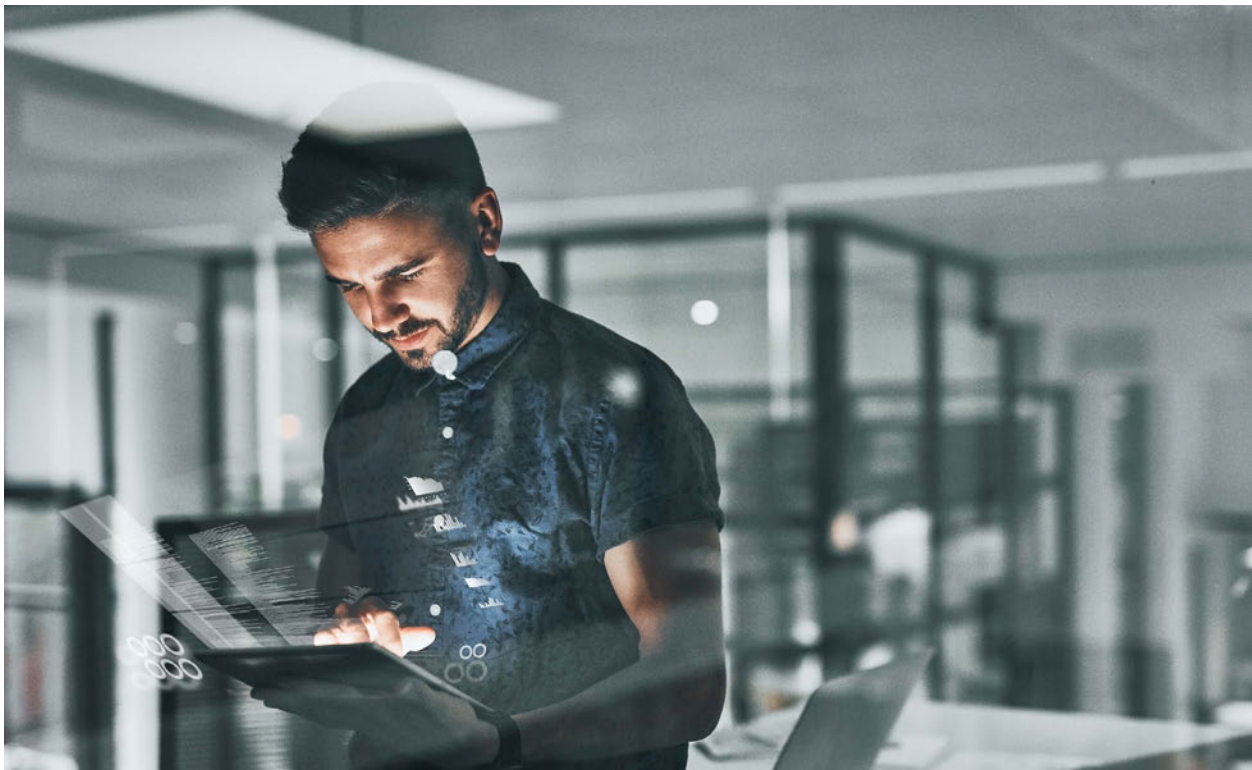
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Abstract

Technological change has reached unprecedented rates, and shows no signs of slowing. As new technologies, including the already rapidly-evolving category of Artificial Intelligence (AI), continue to emerge and iterate, the rate at which human workforces will need to adapt and develop new skills will also continue to increase at rates exceeding historical levels.¹ For the foreseeable future, constant change and ongoing skill development will be not just the new normal, but an increasingly critical requirement for business success.

With skilled workers in relatively short supply worldwide, business leaders who invest in skill development programs exhibit measurable advantages and elevated performance outcomes relative to those who rely solely on conventional, external sources of skilled labor. As advances in technology have produced innovative methods of training delivery, skill-centric employee training remains the most effective means of ensuring business performance.² Effective strategies for identifying and addressing skill gaps include AI-assisted skill assessment, personalized learning programs, and the integration of continuous learning into business culture.³



¹ Roser, Max. "A timeline of technology transformation: How has the pace changed?" The World Economic Forum, 27 February 2023, <https://www.weforum.org/agenda/2023/02/this-timeline-charts-the-fast-pace-of-tech-transformation-across-centuries/>. Accessed 23 July 2024.

² Sanchez, Antonio, et al. "Effect of training on business results." *International Journal of Human Resource Management*, vol. 14, no. 6, 2003, pp. 956-980. ResearchGate, https://www.researchgate.net/publication/247521855_Effect_of_training_on_business_results. Accessed 23 July 2024.

³ Yoo, Rose. "The Importance of Continuous Learning and Development." *SHRM*, 30 June 2023, <https://www.shrm.org/membership/students/importance-of-continuous-learning-development>. Accessed 23 July 2024.

Continuous Disruption as the New Normal

Since the turn of the millennium, widespread adoption of networked computing technologies, mobile and integrated devices, and distributed workforce patterns have fundamentally reshaped the basic structure of business environments. A worker transported from a typical business office in 1989 likely would not comprehend the way an ordinary work day progresses in 2024. The advent of generative AI for business applications in 2023 has accelerated the rate of transformation in ways that businesses and analysts are still struggling to comprehend, representing the nearing of what noted futurist Ray Kurzweil refers to as The Singularity - a point of technological innovation beyond which current minds are incapable of reliably predicting future states.⁴

In this increasingly complex and ever-changing business reality, companies are struggling to find and retain sufficiently skilled workers to keep up with current operational demands*, let alone keep pace with ongoing change.⁵ Many organizations struggle to find qualified candidates, leading to talent shortages and hindering business growth, even amid recent elevated unemployment levels. Particularly hard-hit industries include:



Professional and business services
(50% shortage)



Skilled manufacturing
(45% shortage)



Financial sectors
(40% shortage)

All of these industries require ongoing training to keep up with increasingly specialized and rapidly changing skill requirements for their workers.⁶

The disparity between available job seekers and relevant work skills has become so prevalent that upskilling and reskilling workers has emerged as a recommended strategy for combating potential labor shortages by the US Chamber of Commerce.⁷

Companies that prioritize training and skill development in response to disruptive market change tend to fare significantly better than those that do not. Increased revenues, profits, productivity, and cost savings all correlate to the prioritization and implementation of employee training programs. For business decision-makers, the cost of employee training is substantially lower than the relative increase to productivity attributed to training. In addition to revenue, productivity, and cost savings, employee training correlates strongly to increases in customer satisfaction, employee retention, and brand value.⁸

⁴ Kurzweil, Ray. The Singularity Is Nearer: When We Merge with AI. Penguin Publishing Group, 2024.

⁵ Tilo, Dexter. "3 in 4 organisations worldwide struggling to find skilled talent." HRD America, 1 April 2024, <https://www.hcamag.com/us/specialization/recruitment/3-in-4-organisations-worldwide-struggling-to-find-skilled-talent/483216>. Accessed 2 August 2024

⁶ Wagreich, Ian. "Understanding America's Labor Shortage: The Most Impacted Industries." U.S. Chamber of Commerce, 24 June 2024, <https://www.uschamber.com/workforce/understanding-americas-labor-shortage-the-most-impacted-industries>. Accessed 23 July 2024.

⁷ Fors, Michael, et al. "How Reskilling and Upskilling Can Bolster Economic Recovery and Workplace Success." U.S. Chamber of Commerce, 2021, <https://www.uschamber.com/on-demand/economy/how-reskilling-and-upskilling-can-bolster-economic-recovery-and-workplace-success>. Accessed 23 July 2024.

⁸ Dearden, Lorraine, et al. "The Impact of Training on Productivity and Wages: Evidence from British Panel Data*." OXFORD BULLETIN OF ECONOMICS AND STATISTICS, vol. 68, no. 4, 2006, pp. 397-421. Centre for Economic Performance, <https://cep.lse.ac.uk/textonly/people/vanreenen/papers/OBESArticle.pdf>. Accessed 23 July 2024.

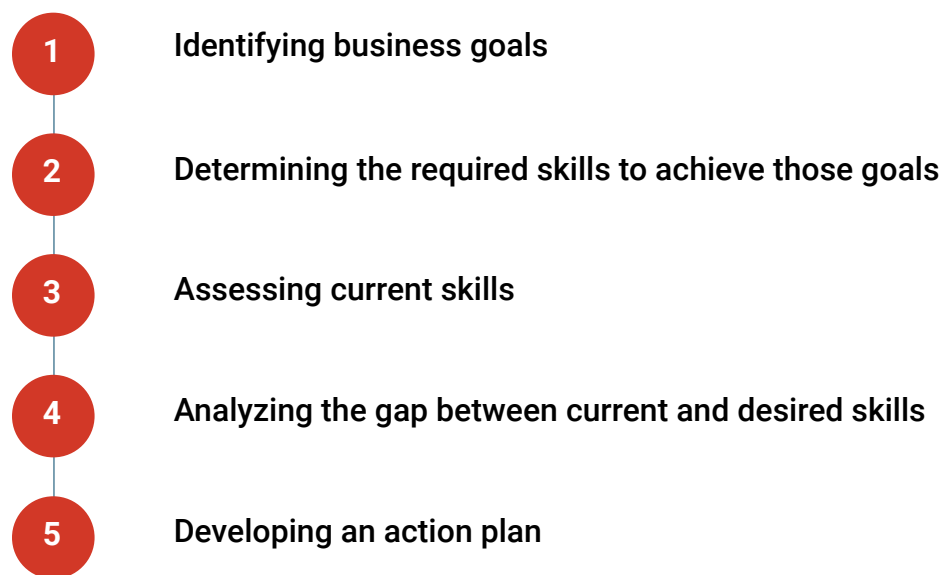
Identifying and Assessing Skill Gaps

Recognizing workforce skill gaps can be challenging for business leaders, not only in identifying current disparities between employee skills and the needs of the business, but especially in foreseeing skill gaps that may emerge in the near term as technologies and business practices evolve.

Skill gap analyses align employee capabilities with evolving business goals, ensuring that the workforce can fulfill the organization's strategic objectives. Research from Deloitte highlights that organizations fostering strong learning cultures are 92% more likely to innovate.⁹ A variety of approaches and technologies exist to address this opportunity.

An essential component in any skill-gap analysis strategy is proactive assessment. Organizations that routinely define, articulate, and measure required work skills against industry and internal benchmarks demonstrate greater acuity at skill development than those practicing ad hoc assessment processes. They also gain the advantage of **metrics-driven insights, allowing greater ability to experiment and verifiably improve training efforts in relation to desired key performance indicators**. In addition to individual assessment, team-level assessment relative to industry metrics can help determine training investment priorities for the organization.

Skill gap analysis generally consists of a five-step process:



Repeating the process at structured intervals can help ensure progress is made and new skill requirements are accounted for.

⁹ Schwartz, Jeff, and Bill Pelster. "Global Human Capital Trends 2014." Deloitte Insights, 2014, <https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2014/hc-trends-2014-introduction.html>. Accessed 23 July 2024.

Assessing current skills is best approached as a multi-modal process in which a variety of inputs provide a well-rounded picture of competencies for individuals and teams.

- **Input from managers and peers via talent management systems or performance management applications can provide a qualitative measure of performance against needed skills.**
- **Collaboration platforms such as Slack or Microsoft Teams can also give managers a reviewable record of collaboration interactions, which can be useful in noticing individuals in need of further skill development.**
- **Survey-based assessment tools and knowledge checks in learning management systems can provide more quantitative measures.**
- **In large-scale enterprise organizations, AI-based solutions can provide valuable analysis across large data sets to assess overall organizational competency and identify outliers in need of specific attention.¹⁰**

To ensure organizations are prepared for future trends and not simply solving for short-term gaps, forward-looking analysis should always be included in the gap assessment process. While not every business will need employees trained in every emerging technology or skill, considering data on emerging business trends during the skill requirements phase of gap analysis can help leaders to think more holistically about the business landscape. At the time of this writing, top skills projected for the 10-year business horizon include digital literacy, time management, data literacy, and emotional intelligence.¹¹



¹⁰ Rikala, Pauliina, et al. "Understanding and measuring skill gaps in Industry 4.0 – A review." *Technological Forecasting and Social Change*, vol. 201, no. April 2024, 2024, pp. 123-206. ScienceDirect, <https://www.sciencedirect.com/science/article/pii/S0040162524000027>. Accessed 23 July 2024

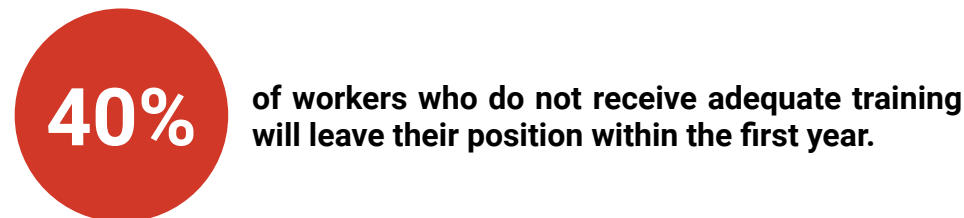
¹¹ Ferguson, Stephanie, et al. "Workforce of the Future: What Businesses Need to Know." U.S. Chamber of Commerce, 4 October 2023, <https://www.uschamber.com/workforce/data-deep-dive-the-workforce-of-the-future>. Accessed 23 July 2024.

Strategies for Closing Skill Gaps

Once skill gaps have been identified and prioritized via gap analysis, training can begin. Closing skill gaps in any sizable organization requires a structured approach that engages workers via a variety of learning modalities. **The most effective skill development initiatives generally offer personalized learning paths for interrelated skills mapped to relevant career growth expectations in a continuous learning framework.**¹²

Learning paths provide a coherent program of study and practice that break down thematically grouped skills into discrete, readily consumable courses. The most effective learning paths offer personalization based on individual skill competencies, which facilitates faster skill acquisition, heightened engagement, and enhanced knowledge retention by addressing individual needs. This targeted learning approach not only accelerates proficiency but also optimizes resource allocation.¹³

Continuous learning delivers better and more consistent results than one-time or ad hoc training programs.¹⁴



The half-life of newly learned digital skills can be as short as two years¹⁵, making continuous learning essential for maintaining relevant skill sets. Meanwhile, employees who receive ongoing access to personalized learning demonstrate significantly higher engagement than those who do not.¹⁶

In addition to increasing effectiveness of skill acquisition and employee retention, continuous, personalized learning improves measurability for companies and individuals, making it easier to track progress against goals at every level of the business.



¹² EL Hajjar, Said Taan, and Madina Sughra Alkhanaizi1. "Exploring the Factors That Affect Employee Training Effectiveness." SAGE Open, vol. 2018, no. April-June, 2018, pp. 1-12. SAGE Open, <https://journals.sagepub.com/doi/pdf/10.1177/2158244018783033>. Accessed 23 July 2024.

¹³ De Smet, Cindy, et al. "The design and implementation of learning paths in a learning management system." Interactive Learning Environments, vol. 24, no. 1, 2014, pp. 1-21. ResearchGate, https://www.researchgate.net/publication/266513244_The_design_and_implementation_of_learning_paths_in_a_learning_management_system. Accessed 23 July 2024.

¹⁴ "5 Ways to Create a Culture of Continuous Learning." Institute of Financial Operations & Leadership, 2024, <https://acarp-edu.org/5-ways-to-create-a-culture-of-continuous-learning/>. Accessed 2 August 2024.

¹⁵ McKendrick, Joe. "Half Of All Skills Will Be Outdated Within Two Years, Study Suggests." Forbes, 14 October 2023, <https://www.forbes.com/sites/joemckendrick/2023/10/14/half-of-all-skills-will-be-outdated-within-two-years-study-suggests/>. Accessed 5 August 2024.

¹⁶ "2024 Workplace Learning Report." LinkedIn Learning, 2024, <https://learning.linkedin.com/resources/workplace-learning-report>. Accessed 6 August 2024.

Measuring Return on Investment from Skill-Gap Initiatives

Measurement is probably the single most essential component in any skill-gap initiative. Establishing metrics that assess the efficacy of skill gap-closing efforts and their return on investment (ROI) gives leaders a way to tie costs to business outcomes. By monitoring changes in organizational and individual skills over time, organizations can cross-reference this data against delivered training to determine which skills are being acquired.

To showcase the value of skill-gap programs to stakeholders, particularly senior executives, it is crucial to communicate tangible benefits. Targeted training can substantially enhance productivity and performance by addressing skill gaps. When employees lack necessary skills, it can lead to inefficiencies, errors, and missed deadlines.

Conversely, equipping them with requisite skills can yield a 21% increase in profitability and a 17% boost in productivity.¹⁷



Additionally, addressing skill gaps can reduce costs associated with low morale, employee turnover, and external recruitment. Proactively identifying and closing skill gaps can save money, as the cost of replacing an employee can amount to six to nine months of their salary, according to the Society for Human Resource Management (SHRM).¹⁸

Focusing on employee engagement and development cultivates a satisfied and committed workforce. Employees who perceive growth and learning opportunities are 42% more likely to stay with their company, as LinkedIn's Workplace Learning Report indicates.¹⁹ This dedication to development not only elevates morale but also bolsters retention.

Tying the above outcomes and others to training and skill development programs requires simultaneous data tracking both from training systems and business performance KPIs. In this aspect of the measurement effort, it is essential for managers to clearly define the relationship between specific skills required in a business process, learning paths and courses to provide those skills, and business metrics associated with the desired results. Regular analysis and updated reporting can then provide visibility into program effectiveness for employees, managers, and executives across the organization.

¹⁷ "Amazon Research Hub." Gallup, 2024, <https://www.gallup.com/analytics/506696/amazon-research-hub.aspx>. Accessed 23 July 2024

¹⁸ "Essential Elements of Employee Retention." Lynchburg Regional SHRM, 29 October 2017, <https://lrshrm.shrm.org/blog/2017/10/essential-elements-employee-retention>. Accessed 6 August 2024

¹⁹ "2024 Workplace Learning Report." LinkedIn Learning, 2024, <https://learning.linkedin.com/resources/workplace-learning-report>. Accessed 23 July 2024.



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