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Building a Future-Ready Workforce: Insights for Employability Skills Framework 2.0

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INTRODUCTION

In today's rapidly changing job market, the skills required for employability are evolving. The convergence of emerging technologies, forward-looking industry demands, and shifting economic landscapes necessitate a fresh approach to defining and developing employability skills so students are well prepared for high-skill, high-wage occupations. The U.S. Department of Education's Office of Career, Technical, and Adult Education (OCTAE) launched the Employability Skills Framework 2.0 project to address the critical need to modernize its widely-used Employability Skills Framework to ensure it remains relevant and effective in preparing the workforce. The modernized Employability Skills Framework 2.0 will assist in promoting social mobility by equipping students, educators, educational agencies, employers, and partners with evidence-based tools, media, and resources. These assets will assist in facilitating the exploration, instruction, and assessment of agile, adaptive skills while advancing career development, workforce preparation, and the recognition of human potential.

The Employability Skills Framework 2.0 project began with a pre-phase to establish the foundation for modernizing the framework. The pre-phase focused on identifying and summarizing resources that provide insights into the current and emerging landscape of employability skills (Box 1). This foundational environment scan, analysis, and synthesis will help inform the modernization of the framework through subsequent phases.

Box 1: Analysis and Synthesis Methods

Analysis and synthesis consisted of three stages to identify insights that would be important to consider in the redesign of the Employability Skills Framework:

Preliminary analysis – During this stage, team members leveraged Artificial Intelligence* to review all resources to generate initial summaries of the resources related to topics aligned to the research questions. We assigned each topic to two team members, allowing for later comparison of outputs. Team members used a detailed protocol to guide their review of relevant resources. From their review, each member produced a preliminary summary of their findings and identified key resources.

Validation – During this stage, team members reviewed the summaries produced during preliminary analysis to verify the accuracy of information and citations, identify common themes across summaries, address any inconsistencies, and dig deeper into areas that might not have been explored during preliminary analysis.

Synthesis – During the last stage, team members synthesized the findings across all topics and summaries, ensuring a cohesive and well-supported set of findings to include in the report.

*GenAI Disclosure: ChatGPT Enterprise was used for the initial research during the period January-April 2025.

This report summarizes the findings of the analysis and synthesis of 1,132 resources[1] that Marzano Research identified in a broad environment and literature scan, including frameworks, research reports, policy and guidance documents, and instructional or program materials. The resources provide information to address key research questions aimed at defining employability skills.

Discussion of the findings is organized into four topic areas aligned to the project's research questions:

- How are employability skills defined in the current landscape?
- What workforce trends are shaping the future, and what skills will be needed to meet these demands?
- What gaps or unmet needs exist in employability skills development?
- What strategies can enhance the development of employability skills?

The findings from this report provide a strong basis for the next stage of this initiative. The report summarizes key ideas regarding the ways in which employability skills have evolved in recent years to support the creation of a framework that is both responsive to current trends and forward-looking.

[1] The findings presented in this report were derived from an analysis and synthesis of all 1,132 resources. In Appendix A, we identify key resources that provide examples of the information summarized in each section. A full reference list of the 1,132 resources and methods for identifying these resources is available in the Environment and Literature Scan Report.

HOW ARE EMPLOYABILITY SKILLS DEFINED IN THE CURRENT LANDSCAPE?

To understand how employability skills are currently defined, we reviewed existing frameworks and reports on perspectives from employers, educators, and students. Although variations exist in how different frameworks articulate employability skills, our synthesis revealed a set of core employability skill categories. This section first explores these categories in detail, followed by a summary of the perspectives of employers, educators, and students.

Current Employability Skills Frameworks

We reviewed 23 frameworks in addition to the OCTAE Employability Skills Framework, representing a range of national and international perspectives from the United States and other similar countries, including Canada, the United Kingdom, and Australia. (See Appendix B for a list of frameworks.) Although variations exist in how different frameworks articulate these skills, our synthesis revealed consistency in the identification of eight core employability skill categories:

- **Adaptability & Continuous Learning**
- **Communication & Collaboration**
- **Creativity & Innovation**
- **Global & Social Awareness**
- **Leadership & Responsibility**
- **Problem-Solving & Critical Thinking**
- **Professionalism & Self-Management**
- **Technology & Information Fluency**

Box 2: Key Insights – Employability Skills Definition

Widespread Consensus on Core Skills: Across 23 reviewed frameworks, there is strong alignment around eight essential employability skill categories.

Visual Frameworks Enhance Understanding but Lack Structure: Visual models make employability skills more approachable and digestible but often do not illustrate relationships or progression among skills, limiting their instructional utility.

Perspectives from Key Groups Provide Nuance: Employers, educators, and students agree on the value of employability skills but emphasize different aspects based on their roles and needs. For example, employers prioritize learning agility and professionalism, educators prioritize tailoring employability skills to individual student needs, and students prioritize developing industry-specific technical skills early.

Description of Eight Common Employability Skills

Although each framework uniquely emphasizes different aspects of employability skills, all frameworks consistently include and affirm the eight skill categories we identified, with slight distinctions in terminology or emphasis. We selected three frameworks as illustrative cases to demonstrate both the consistency in how employability skills are defined and the subtle differences in their terminology or emphasis. Below we provide a description of each skill from the three example frameworks and provide a list of key features associated with each skill category from across all frameworks (Table 1 through Table 8).

Table 1: Adaptability & Continuous Learning

Description of Skill in Example Frameworks	*Key Features of Skill*
Career Ready Practices (Advance CTE, 2024) › Remain resilient in a changing workplace and world of work › Navigate an education and career path aligned to strengths, work style, interests, and goals Employability Skills Framework for **English Language Teaching** (ELT) (Cambridge University, 2022) › Learning to manage one's ongoing professional development Framework for 21st Century Learning (Batelle for Kids, 2019) › Showing flexibility, adapting to change, and developing resilience for personal and professional growth	› Responding positively to change › Learning from setbacks › Demonstrating resilience › Maintaining flexibility in work environments › Continuously improving professional and personal skills

Table 2: Communication & Collaboration

Description of Skill in Example Frameworks	*Key Features of Skill*
Career Ready Practices (Advance CTE, 2024) › Communicate clearly, effectively, and with reason › Collaborate productively while using global competencies Employability Skills Framework for ELT (Cambridge University, 2022) › Understanding others better and working well in a group › Presenting views clearly and effectively › Adapting the way you communicate for different audiences and purposes › Completing collaborative tasks and dealing with conflict Framework for 21st Century Learning (Batelle for Kids, 2019) › Communicating clearly in oral, written, and multimedia formats, including collaboration with others › Engaging in collaborative teamwork, learning to work across disciplines and with different groups	› Effectively exchanging information, ideas, and perspectives through various formats and contexts › Expressing oneself clearly and appropriately › Demonstrating active listening › Adapting communication for different audiences › Collaborating with different groups and individuals › Contributing to team goals › Managing conflicts constructively

Table 3: Creativity & Innovation

Description of Skill in Example Frameworks	*Key Features of Skill*
Career Ready Practices (Advance CTE, 2024) › Demonstrate a creative and innovative mindset Employability Skills Framework for ELT (Cambridge University, 2022) › Developing a creative mindset Framework for 21st Century Learning (Batelle for Kids, 2019) › Using creativity to develop new solutions, approaches, and perspectives	› Using creativity in problem-solving › Demonstrating an innovative mindset › Generating and implementing innovative ideas to enhance processes, products, or solutions

Table 4: Global & Social Awareness

Description of Skill in Example Frameworks	*Key Features of Skill*
Career Ready Practices (Advance CTE, 2024) › Consider the environmental and social impacts of decisions Employability Skills Framework for ELT (Cambridge University, 2022) › Contributing to an organization's positive role in global issues Framework for 21st Century Learning (Batelle for Kids, 2019) › Demonstrating competence in working with different groups, interacting effectively in all kinds of environments, and being a responsible global citizen	› Respecting different perspectives › Working effectively in different kinds of environments › Addressing global challenges

Table 5: Leadership & Responsibility

Description of Skill in Example Frameworks	*Key Features of Skill*
Career Ready Practices (Advance CTE, 2024) › Lead as a contributing and professional employee › Act as a good steward of organizational and personal finances and resources Employability Skills Framework for ELT (Cambridge University, 2022) › Contributing to the success of an organization › Demonstrating leadership Framework for 21st Century Learning (Batelle for Kids, 2019) › Exhibiting leadership, responsibility, and the ability to guide or influence others	› Leading teams › Making responsible decisions › Demonstrating accountability in professional settings › Managing time, tasks, and resources effectively to complete projects successfully

Table 6: Problem-Solving & Critical Thinking

Description of Skill in Example Frameworks	*Key Features of Skill*
Career Ready Practices (Advance CTE, 2024) › Think critically to make sense of problems and persevere in solving them Employability Skills Framework for ELT (Cambridge University, 2022) › Understanding, analyzing and evaluating information and arguments in order to make decisions Framework for 21st Century Learning (Batelle for Kids, 2019) › Developing problem-solving approaches, making informed judgments, and thinking critically	› Analyzing situations based on available data › Making logical decisions › Addressing complex challenges efficiently

Table 7: Professionalism & Self-Management

Description of Skill in Example Frameworks	*Key Features of Skill*
Career Ready Practices (Advance CTE, 2024) › Manage time and space effectively Employability Skills Framework for ELT (Cambridge University, 2022) › Developing organizational skills to manage time, tasks and information › Developing self-awareness, learning to act with resilience, and demonstrating empathy and positive relationship skills Framework for 21st Century Learning (Batelle for Kids, 2019) › Understanding personal responsibility, goal-setting, and committing to continuous learning › Demonstrating work ethic, responsibility, and professional integrity in all settings	› Demonstrating reliability, accountability, and professionalism in workplace behavior › Setting goals › Managing time and responsibilities › Managing emotions › Demonstrating empathy › Maintaining positive workplace relationships › Recognizing one's strengths and weaknesses and applying reflection strategies

Table 8: Technology & Information Fluency

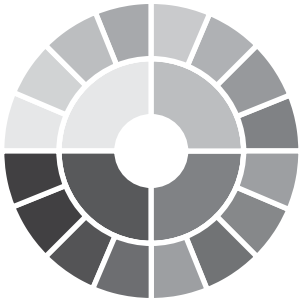
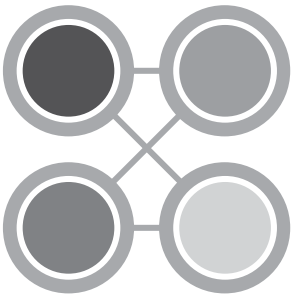
Description of Skill in Example Frameworks	*Key Features of Skill*
Career Ready Practices (Advance CTE, 2024) › Use digital skills and technologies to enhance productivity and make data-informed decisions › Apply appropriate academic and technological skills Employability Skills Framework for ELT (Cambridge University, 2022) › Learning to use tools and creating digital content › Sharing and interacting appropriately with others online › Ensuring safety and wellbeing online Framework for 21st Century Learning (Batelle for Kids, 2019) › Developing digital and media literacy to navigate, evaluate, and use information effectively	› Using digital tools effectively › Evaluating information critically › Managing information › Ensuring cybersecurity

Visualizing Skills

The 23 frameworks reviewed in this analysis often use highly visual formats to convey relationships among skills, emphasize key domains, and engage a broad audience. Common formats include lists and visual depictions, such as wheels, grids, and interconnected quadrants (Figure 1). These visuals help make abstract concepts more concrete, facilitating a shared understanding among educators, employers, and students. For example, some frameworks use color-coded frameworks to emphasize categories like communication and teamwork, while others cluster skills under broader themes like personal qualities, applied knowledge, or workplace competencies. These design choices reflect varying priorities and use cases, from curriculum development to workforce training.

Notably, most frameworks do not convey an explicit hierarchy or interrelationship among the skills presented. While a flat representation supports the idea that all skills are equally important, it may obscure how certain foundational skills (e.g., technology fluency, adaptability) support the development or application of others. Considering a future framework, incorporating some depiction of interdependencies or skill progression could help educators and students better understand how to scaffold instruction and prioritize development over time.

Figure 1. Common Formats of Frameworks

Wheel		**Examples:** Durable Skills Advantage Framework (CompTIA, 2024) Employability Skills Framework for ELT (Cambridge University Press & Assessment, 2022)
Grid		**Examples:** Career Ready Practices (Advance CTE, 2024) Nebraska Standards for Career Readiness (Nebraska Department of Education, 2018)
Interconnected Quadrant		**Examples:** Illinois Essential Employability Skills Framework (Illinois Center for Specialized Support, n.d.) Common Employability Skills (National Network of Business and Industry Associations, 2014)
List		**Examples:** Employability skills 2000+ (The Conference Board of Canada, n.d.) Skill Builder Framework (Ravenscroft & Baker, 2020)

Stakeholder Perspectives on Employability Skills

Insights from employers, educators, and students reveal important perspectives that shape the understanding and practical application of employability skills. These stakeholders agree on the significance of industry-specific technical skills combined with interpersonal and adaptive competencies, though they place differing emphases based on their unique contexts and experiences (Table 9).

Table 9: Stakeholder Perspectives on Employability Skills

Stakeholder Group	*Perspective*
Employers, Business, Industry	› Frame employability as a balance between technical skills and broader workplace dispositions › Emphasize technological and digital proficiency › Prioritize learning agility › Value workplace professionalism, including punctuality, accountability, and ethical conduct › Highlight the importance of integrating many perspectives and sets of knowledge in the workforce and how employees integrate into dynamic work environments
Educators	› Frame employability as a balance between practical abilities and broader workplace attitudes › View workplace readiness as the ability to apply content knowledge › See the need to increase work-based learning › Have increasing awareness of the need for digital literacy › Emphasize tailoring employability skills to different student needs
Students	› Focus on skill development as a continuum › Emphasize the need to develop industry-specific technical skills early › Have a growing awareness of the need for collaboration, adaptive skills, digital literacy, and personal agency after participating in workplace learning

Conclusion

This comprehensive examination of frameworks and stakeholder perspectives underscores a robust alignment around fundamental skill areas, despite varying emphases. The convergence across these sources emphasizes the continued relevance of these employability skills while also highlighting emerging skill needs driven by evolving workplace dynamics.

WHAT WORKFORCE TRENDS ARE SHAPING THE FUTURE, AND HOW ARE SKILLS EVOLVING TO MEET THESE DEMANDS?

In a rapidly transforming global economy characterized by technological innovation, shifting demographics, and evolving workplace structures, understanding emerging workforce trends is crucial for effectively preparing the future workforce. In this section, we explore key workforce and labor market shifts—including the rapid integration of digital technologies, the transition toward more environmentally sustainable practices, and demographic changes shaping workforce composition—and identify how employability skills are adapting in response. While foundational skills such as communication, collaboration, and critical thinking remain essential, their practical application continues to evolve significantly, necessitating an agile, lifelong learning mindset.

Workforce Trends

To understand how employability skills must evolve, we must first examine the macro trends reshaping the labor market. These trends are not only altering the types of jobs available, but also redefining the skillsets required to succeed in them. Identifying and analyzing these key shifts provides the context for understanding how foundational employability skills—like communication, adaptability, and problem-solving—must be applied in new and dynamic ways.

Box 3: Key Insights – Emerging Trends and Evolving Skills

Workforce Transformation:
Emerging trends are significantly changing job roles and required skillsets. These include demographic shifts and an aging workforce, economic and social change, rapid innovation in technology, and a transition toward environmentally sustainable practices.

Growth Sector Skills:
Labor market projections indicate substantial growth in agriculture, community and social services, construction, health care, logistics, emerging energy technologies, and technology, highlighting critical areas for targeted skill development.

Human-Centric Competencies:
While digital and technological competencies are increasingly essential, employers continue to value human-centric skills like communication, leadership, and navigating varying social norms.

Evolving Core Skills:
Employability skills are evolving primarily in their application rather than being entirely replaced, requiring individuals to continuously adapt core competencies to new contexts.

Our analysis identified four critical trends impacting the future labor market.

- **Demographic Shifts and an Aging Workforce:** Declining birth rates and increased life expectancy are resulting in an older workforce. This demographic shift necessitates strategies to manage talent retention, knowledge transfer, and continuous skill upgrading to ensure productivity and workforce sustainability.
- **Economic and Social Change:** Geoeconomic shifts and macroeconomic volatility continue to disrupt labor markets, emphasizing the need for workers to possess adaptability and resilience to navigate uncertain conditions.
- **Innovation in Technology:** Rapid advancements in technology, particularly artificial intelligence (AI), cybersecurity, machine learning, and quantum computing, are transforming job roles and creating demand for new skillsets.
- **Transition to More Environmentally Sustainable Practices:** A global shift toward environmental stewardship and new energy sources has resulted in increased demand for specialized skills related to sustainability and energy technology.

Labor Market Projections

The trends described above are already influencing labor market growth and occupational demand. Analyzing sector-specific projections reveals where future job opportunities will be concentrated—and, crucially, the types of employability skills that will be most essential to access and succeed in those roles.

Labor market projections indicate growth across several key sectors, highlighting specific areas that will experience substantial expansion over the next decade:

- **Agriculture and Food Production**: Increased demand for farm workers and for workers involved in food production and distribution.
- **Community and Social Services:** Increased demand for counseling, assistance navigating complex networks of services, and case management services.
- **Construction:** Increased demand in the construction industry due to the need for more housing.
- **Environmental Sustainability:** Increased demand for occupations supporting the transition to new energy technologies, such as solar and wind energy analysts and engineers.
- **Health Care:** Increased demand for health care workers, including roles in telemedicine, home health care, and medical technology utilizing AI.
- **Logistics and E-Commerce:** Increased demand for logistics, warehousing, and delivery occupations due to continued growth in online shopping and e-commerce.
- **Technology-Driven Jobs:** Increased demand for evolving roles in AI, machine learning, cybersecurity, IT infrastructure, software development, and quantum computing sectors.

Evolution of Employability Skills

As labor market trends and job growth projections reshape the employment landscape, they directly influence how employability skills are defined, applied, and prioritized. Technological change is a key force shaping the evolution of employability skills. At the same time, employers increasingly prioritize a balanced combination of technical expertise, human-centric abilities—such as communication, leadership, relationship-building, and self-management—and a lifelong learning mindset to navigate complex challenges and a rapidly evolving workplace (Box 4). The core skillset has remained largely consistent over time, but the ways in which these skills are applied have evolved to meet the demands of a more digital, global, and collaborative work environment. The following points highlight the ways these skills have evolved in their application.

Box 4:
Example of Combining Technological Expertise with Human-Centric Abilities

Software developers leverage AI to:

- Generate code scaffolding while focusing on complex logic and design
- Debug programs through automated error detection and intelligent code suggestions
- Collaborate using virtual environments and AI-powered code reviews
- Test solutions with AI-powered quality assurance tools that simulate user behaviors
- Stay current with emerging frameworks and languages through AI-assisted learning

Success requires balancing AI assistance with human thinking—knowing when to rely on automation for efficiency versus applying critical judgment to maintain code quality and innovation.

- **Adaptability & Continuous Learning:** Today's evolving workforce requires employees to quickly learn new skills and adapt to changing roles as industries and technologies transform. This necessitates both resilience in uncertain environments and interdisciplinary knowledge that enables flexible application across multiple fields. Employers actively seek candidates who embrace lifelong learning, respond positively to change, and demonstrate ongoing professional growth to meet evolving job demands.
- **Communication & Collaboration:** As hybrid settings become a permanent feature of work, communication and collaboration skills are increasingly vital for employees navigating both digital and physical workspaces across geographic locations and time zones. Virtual collaboration tools have created new expectations, requiring professionals to write and communicate clearly and adjust their communication style to suit digital mediums.
- **Creativity & Innovation:** Today's workplaces require individuals who approach complex challenges with curiosity, logic, and creativity as organizations navigate issues from ethical questions to market shifts. Critical thinking extends beyond analysis to include questioning assumptions, considering multiple perspectives, and making decisions amid uncertainty, while effective problem-solving enables professionals to adapt and contribute meaningfully in dynamic environments.

- **Global & Social Awareness:** Amid expanded global markets and normalized virtual collaboration, professionals must navigate different contexts with sensitivity and respect. Employers seek individuals who can communicate effectively across regions and understand varying social norms. Essential skills now include global communication, language proficiency, and adaptability to different thinking styles.
- **Leadership & Responsibility:** As work environments become more dynamic, leadership extends beyond formal management roles to include initiative-taking, integrity, and cross-team collaboration, regardless of job title. Employers increasingly value professionals who demonstrate accountability, support colleagues, navigate uncertainty, and lead by example while contributing to organizational culture and driving progress toward shared goals.
- **Problem-Solving & Critical Thinking:** There is a growing need for professionals who can assess situations thoughtfully, identify root causes, and generate solutions. Critical thinking involves not just analyzing information, but also questioning assumptions, considering multiple perspectives, and making informed decisions in uncertain conditions. Paired with effective problem-solving, these skills enable individuals to adapt, lead, and contribute in dynamic and fast-paced environments.
- **Professionalism & Self-Management:** As remote and hybrid models become more common, employees must demonstrate increased professionalism, including the ability to manage their responsibilities independently, maintain a high standard of conduct in virtual settings, and adapt to new norms of communication and behavior. Strong interpersonal awareness—including empathy, relationship-building, and sensitivity to others' perspectives—is increasingly recognized as critical to workplace success.
- **Technology & Information Fluency:** Technology and information fluency have become foundational across all industries, requiring employees to confidently navigate digital tools and AI applications that now handle repetitive tasks. This shift results in roles that require advanced cognitive abilities, data literacy for decision-making at all levels, and cybersecurity awareness for safeguarding digital assets.

Conclusion

Aligning the current set of employability skills with economic shifts requires a deeper understanding of how these enduring core skills must evolve—not be replaced—to remain effective and relevant in a changing world of work. By connecting education and workforce strategies with these emerging trends, stakeholders can better prepare individuals to meet the evolving skill demands of the future labor market.

WHAT GAPS OR UNMET NEEDS EXIST IN THE DEVELOPMENT OF EMPLOYABILITY SKILLS?

As the workforce continues to evolve rapidly due to technological advancements, shifting economic factors, and changing industry expectations, distinct gaps and unmet needs currently exist in employability skill development. These gaps primarily fall into three key areas: lack of preparedness in core employability skills, gaps in ability to use emerging technologies, and lack of practical, hands-on experience. These gaps are more prevalent among individuals with access to fewer resources and opportunities.

Preparedness in Core Employability Skills

Employers, businesses, and industry leaders note that employees have a deficiency in core employability skills, and students and educators report a lack of support and opportunity to develop these skills. There is also a large gap between the employability skills employers consider very important and their perception of how well-prepared college graduates are in these skills (Figure 2).

Box 5: Key Insights – Gaps and Unmet Needs

Core Skills Deficiencies
Employers consistently highlight gaps in graduates' communication, teamwork, adaptability, professionalism, and critical thinking.

Technological Skills Gaps
Rapid technological advancements outpace education systems, leaving graduates underprepared in essential digital competencies—particularly AI, cybersecurity, and data analytics.

Lack of Hands-On Experience
Graduates possess theoretical knowledge but often lack practical, real-world experience. Expanding access to internships, apprenticeships, and other work-based learning is crucial.

Challenges for Individuals with Access to Fewer Resources and Opportunities
Some individuals face limited social networks, financial constraints, and insufficient career resources, which further widen skills gaps.

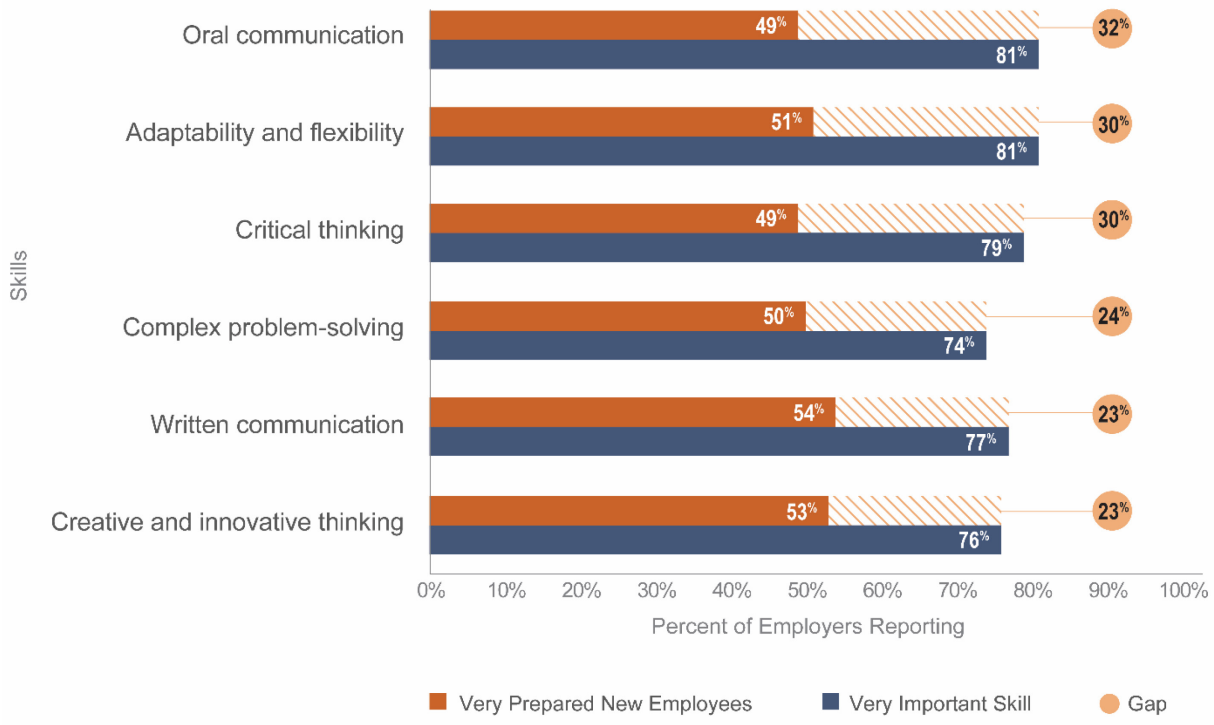
Employers Report Employability Skills Gaps In

- Demonstrating professional writing and public speaking
- Exhibiting teamwork and leadership
- Using adaptability, independent decision-making, and problem-solving
- Practicing self-regulation and self-management

Educators and Students Report Needs In

- Balancing coursework beyond technical skills or theoretical knowledge to develop core employability skills
- Implementing more project-based learning opportunities that foster communication, teamwork, and leadership

Figure 2. Skill Gaps Identified by Employers



Adapted from The Career Ready Graduate (Finley, 2023, p. 22)

Ability to Use Emerging Technologies

Technological literacy gaps are another substantial challenge. Employers report that employees lack proficiency in fundamental and advanced technology, while students and educators report a lack of training on emerging tools to better prepare them for the workplace. Technology skills gaps are especially pronounced in rapidly evolving fields like cybersecurity, AI, and data analytics, where education systems struggle to keep pace with technological advancement.

Employers Report Gaps In

- Integrating and applying digital tools in the workplace
- Applying interdisciplinary IT skills, such as data analytics and visualization
- Demonstrating industry-specific technical expertise and certifications in high-demand fields

Educators and Students Report Needs In

- Keeping pace with technological advances when developing curriculum
- Developing basic and advanced digital skills before entering the workforce
- Receiving training on emerging digital tools and technologies

Practical Hands-On Experience

There is also a troubling disconnect between academic preparation and workplace demands, with employers consistently reporting that new employees possess theoretical knowledge but lack practical skills for real-world professional roles. This misalignment manifests in insufficient hands-on experience and limited exposure to industry-specific competencies, leaving many new hires unprepared for workplace expectations despite holding degrees. Employers frequently report a lack of workplace professionalism in employees, citing a need for real-world learning opportunities such as internships, apprenticeships, and other work-based experiences. Educators and students report that students need more real-world opportunities to apply the academic and theoretical training prior to entering the workforce. This is especially problematic as many businesses shift toward competency-based hiring rather than credential-focused recruitment.

Employers Report Gaps In

- Applying theoretical knowledge to practical workplace problems and situations
- Demonstrating punctuality, reliability, motivation, and accountability
- Practicing appropriate workplace etiquette and ethical decision-making
- Showing resilience and ability to handle workplace challenges effectively

Educators and Students Report Needs In

- Keeping pace with technological advances when developing curriculum
- Developing basic and advanced digital skills before entering the workforce
- Receiving training on emerging digital tools and technologies

Box 6: Example of Disconnect between Academic Preparation and Workplace Demands

Elena graduated from college with a degree in marketing. To cover her college expenses, she worked part-time retail, which limited her ability to participate in unpaid internships that would have provided additional work experience in the marketing field. Despite her excellent GPA, when interviewing at an advertising agency, she:

- Struggles to analyze real ad campaign metrics beyond basic engagement rates
- Shows her portfolio containing theoretical case studies but no actual client work
- Is unfamiliar with the industry-standard project management software
- Lacks experience translating client feedback into revised marketing materials

Elena loses the position to a candidate who participated in a cooperative education program that alternated academic semesters with paid marketing internships.

Impact on Students with Access to Fewer Resources and Opportunities

These gaps disproportionately affect certain students, including individuals from low-income households and those from rural communities. These students often experience challenges that prevent them from accessing opportunities like career guidance, industry partnerships, and meaningful work-based learning opportunities. Students with access to fewer resources and opportunities may doubt their ability to succeed in professional environments because they have not had as much exposure or support. Without encouragement, guidance, or earlier chances to build skills, it can be harder to feel prepared for careers or further education. These students may experience the following types of challenges:

- **Economic and Resource Constraints:** Students may face financial constraints that make it difficult to take part in unpaid internships or after-school programs. They may not have access to transportation, supplies, or school staff who can support career planning. Some also attend schools with fewer resources or opportunities. On top of that, they may have to work or care for family members, leaving little time for career exploration.
- **Geographic and Technological Obstacles:** Students in rural or isolated areas may be far from job opportunities or programs. Some lack reliable transportation or internet access, or the digital skills needed to use online tools for career development.
- **Limited Awareness and Social Capital:** Students may not know about available career options or programs because they lack access to information, role models, or professional networks. Without connections to people in different careers, it can be difficult to imagine or pursue those paths.
- **Social Expectation Constraints:** Beliefs or expectations in a student's family or community may limit which careers feel acceptable to pursue. In addition, students may experience unfair treatment based on their background, which can impact their confidence and opportunities.

Conclusion

The findings clearly indicate a persistent disconnect between workforce expectations and educational preparation. Addressing these gaps is essential not only to better align educational outcomes with industry demands but also to ensure opportunities for those disproportionately impacted by limited access to quality training. Moving forward, targeted efforts to strengthen these areas will be crucial for preparing a resilient, skilled workforce capable of adapting to ongoing economic and technological shifts.

WHAT STRATEGIES CAN ENHANCE THE DEVELOPMENT OF EMPLOYABILITY SKILLS?

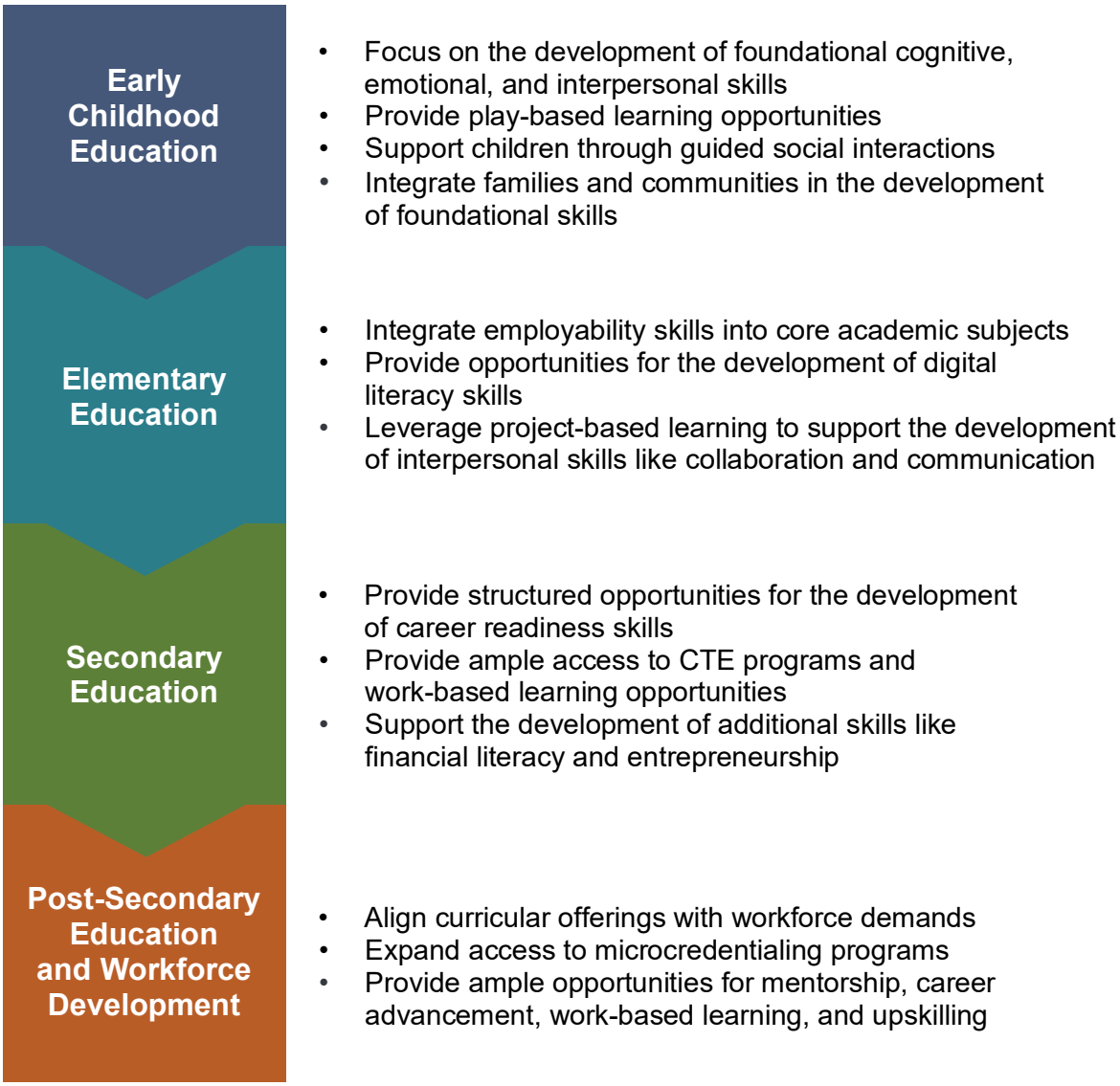
In response to the identified gaps and evolving demands of the contemporary workforce, intentional strategies are crucial to enhance the development of employability skills across all stages of education and career preparation. To effectively equip learners and workers for the future, educational systems and workforce programs need to adopt comprehensive approaches that foster core skills, practical experiences, and digital fluency. In this section we provide targeted, evidence-based recommendations for each stage of development (Figure 3) that are designed to strengthen core skills, ensure alignment with industry needs, and support career opportunities for all individuals navigating a rapidly transforming employment landscape.

Box 7: Key Insights – Strategies to Enhance Employability Skills

Employability skills should be nurtured intentionally from early childhood through lifelong workforce development.

- **Early Childhood Education:** Supporting early development of cognitive, emotional, and social skills by integrating structured play, collaborative activities, family engagement, and age-appropriate technology.
- **Elementary Education:** Integrating project-based learning and digital literacy into curricula enhances adaptability and problem-solving abilities.
- **Secondary Education:** Prioritizing career-focused training, financial literacy, and real-world work experiences to bridge academic learning and workplace demands.
- **Postsecondary and Workforce Training:** Postsecondary education and training programs and industry must collaborate to align training with real-world skills through curricula with practical skill building, stackable credentialing opportunities, support for all learners, and continuous upskilling opportunities including work-based learning.

Figure 3. Progression of Employability Skill Development



Skills Development in Early Childhood Education

Employability skills begin to take shape long before an individual enters the workforce. Early childhood education (ECE) lays the foundation for essential cognitive, emotional, and interpersonal competencies that will influence lifelong learning and career success. Children who develop strong problem-solving abilities, self-regulation, and interpersonal skills in their early years are more likely to adapt successfully to workplace expectations as adults.

To nurture foundational employability skills in early childhood, structured play and guided interactions are essential. Effective strategies include:

- **Collaborative activities:** Group storytelling, cooperative games, and role-playing exercises that foster teamwork, communication, and problem-solving.
- **Family and community involvement:** Home-based literacy activities, interactive reading sessions, and community-based early learning workshops to reinforce skills developed in educational settings.
- **Emotion management practices:** Daily routines that help children recognize emotions and practice self-regulation, supporting emotional intelligence development.
- **Introduction to technology:** Age-appropriate digital tools introduced through supervised activities to foster early digital literacy and curiosity.

Skills Development in Elementary Education

As children progress into elementary school, employability skill development should be integrated more intentionally into academic subjects using the following strategies:

- **Academic integration:** Leveraging subjects like science and English language arts to teach collaboration, critical thinking, and communication through projects and group work.
- **Project-based learning (PBL):** Engaging students in extended projects such as class gardens or student-run enterprises to cultivate adaptability, initiative, and practical problem-solving abilities.
- **Technology and digital literacy:** Teaching basic coding, digital research methods, and use of online collaboration tools to prepare students for future technological demands.

Skills Development in Secondary Education

By the time students reach secondary school, they should have access to structured career readiness programs that provide both professional and interpersonal skills training, such as:

- **Career and technical education (CTE):** Providing specialized, industry-specific training that equips students with practical skills and certifications linked directly to workforce needs.
- **Financial literacy and entrepreneurship education:** Equipping students with essential financial management skills and entrepreneurial competencies such as market analysis, planning, and innovation.
- **Work-based learning experiences:** Facilitating internships, apprenticeships, and job shadowing opportunities to bridge the gap between classroom learning and real-world expectations.

Skills Development in Postsecondary Education and Workforce Training

To effectively respond to rapidly evolving industry demands, postsecondary education institutions and workforce training programs must closely align curricula with practical, real-world skill requirements. These programs can enhance their relevance and reach, better preparing graduates for ongoing success and adaptability in their professional careers by adopting strategies such as:

- **Industry-education partnerships:** Developing cooperative education programs and industry-driven coursework to ensure graduates possess in-demand skills.
- **Stackable credentials:** Offering modular, flexible certification programs that facilitate continuous upskilling, particularly in fields like AI and cybersecurity.
- **Support for all learners:** Implementing mentorship programs, learning accommodations, and targeted career advancement opportunities to support participation and advancement of all learners.

Cross-Stage Strategies for Future Employability

Adapting education and training programs to future workforce demands requires innovative strategies applicable across developmental stages:

- **Foundational AI literacy:** Embedding AI proficiency as a basic skill across educational and workforce training, recognizing its universal applicability.
- **Immersive technology integration:** Utilizing virtual reality, augmented reality, and mixed reality as fundamental tools within skills training, not merely supplements.
- **Career-connected teaching:** Equip educators—across all stages—with the tools and mindsets to serve as mentors and career coaches, aligning pedagogical practices with evolving workplace expectations.
- **Universal design for learning:** Applying universal design principles to ensure employability skill programs are available to all learners and encourage broad participation.

Conclusion

Employability skills must be developed systematically across all stages of education and workforce training to prepare individuals for an ever-changing job market. Through deliberate implementation of these strategies, stakeholders can effectively strengthen employability skills across developmental stages, preparing individuals for dynamic career pathways and lifelong workforce participation.

IMPLICATIONS AND NEXT STEPS

Our analysis and synthesis of current literature, frameworks, and stakeholder perspectives highlight several critical insights essential to the development of the Employability Skills Framework 2.0. Key among these is the broad consensus around core employability skills, including adaptability and continuous learning, communication and collaboration, creativity and innovation, global and social awareness, leadership and responsibility, problem-solving and critical thinking, professionalism and self-management, and technology and information fluency. However, the evolving nature of work—shaped by rapid technological advances, demographic shifts, and transitions toward sustainability—necessitates a reexamination and evolution of these core skills to remain relevant. The identified gaps, such as inadequate hands-on experiences and insufficient digital competencies among graduates, underscore the importance of aligning educational strategies more closely with workforce realities.

Moving forward, the Employability Skills Framework 2.0 should integrate strategies identified throughout this report, such as structured hands-on experiences, deeper industry partnerships, and tailored, broad access to skill-building opportunities. Emphasizing continuous adaptability, digital proficiency, and human-centric competencies will ensure the framework remains responsive and robust. By addressing these emerging trends and gaps, the Employability Skills Framework 2.0 will effectively support a broad range of students and workers in developing the agile, adaptive skills necessary for career success and workforce resilience in a dynamic employment landscape.

APPENDIX A: KEY RESOURCES

This appendix provides key resources that serve as examples of information presented in this report. The reference list for the full set of 1,132 resources can be found in the Environment Literature Scan Report.

Definitions and Current Landscape *Note: Frameworks are marked* ⚙

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