



Future-Ready: A Desk-based Literature and Policy Analysis of Employability Skills and Implications for Innovation in Secondary Education for EiM

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1. Executive Summary

This report for EiM synthesises findings from ten authoritative sources on future employability skills to inform the development of an innovative secondary education curriculum and assessment system through the Worldwide International Diploma (ID). The analysis reveals a persistent skills gap between traditional educational outcomes and rapidly evolving workplace demands, with a recurring focus on AI and digital transformation.

Recommendations and observations from the ten documents suggest that a successful approach to the ID requires a dynamic, interdisciplinary curriculum with strong industry connections, personalised learning pathways, and future-oriented pedagogies to foster student agency and differentiated opportunities to demonstrate and articulate skill achievement.

Other observations suggest that EiM could, where relevant, consider building into their curriculum design for the ID an approach that balances technical, specialist, and methodological skills with human capabilities, including critical thinking, creativity, and communication, to secure a competitive advantage over established qualifications.

According to the findings, assessment systems for the ID should be designed to extend beyond traditional examinations to include authentic, project-based evaluations that measure both technical competence and soft skills.

Analysis of the proposed Worldwide International Diploma (ID) indicates a strong alignment with research findings on future employability skills, as noted in this document. The ID design effectively addresses the skills gap by emphasising future skills and incorporating priority skill clusters: technical and digital, cognitive, social and emotional, and self-management. It also

features innovative curriculum design, diverse assessment methods, and competitive differentiation through its future orientation and technology integration.

Areas for further development could include an even more explicit focus on soft skill development and assessment, teacher preparation, ensuring implementation coherence, and enhanced stakeholder engagement. Addressing these areas could further solidify the ID as a distinctive and effective preparation for students.

By considering these recommendations, in the process of designing its curriculum and assessment for the ID, EiM can help to support the aim to develop students who are distinctively prepared for university and their ongoing pathway towards developing future-ready employability skills.

2. Introduction

As EiM has identified, the landscape of work is transforming rapidly, driven by technological advancements, globalisation, and evolving societal needs. This transformation demands an equally responsive evolution in secondary education to prepare students for future academic and career success. This report analyses findings from ten influential policy documents and white papers to identify critical employability skills and their implications for innovative curriculum design and assessment practices in a manner which is relevant to EiM and the proposed ID.

The analysis is particularly relevant to EiM, as it informs transformation in curriculum and assessment design for the ID, in a manner that provides a competitive advantage over established qualifications such as A-levels and the International Baccalaureate (IB). By aligning curriculum and assessment with future workplace needs, EiM can position its provision as forward-thinking and effectively bridge the potential gap between education outcomes and employer expectations.

3. Literature Review Methodology

This analysis synthesises findings from ten documents produced by reputable organisations. These sources represent diverse perspectives from employers, higher education institutions, and policy organisations, providing a comprehensive view of future skill requirements and educational implications for the ID.

The findings from these documents were first summarised. Common features were then identified to triangulate findings and identify an overarching consensus, relevant to the objectives of this report and the context of EiM and ID.

4. Key Findings

4.1. The Skills Gap and Changing Workplace Demands

The reviewed literature consistently highlights a significant mismatch between skills developed through traditional education and those required in the evolving workplace. Document 2 notes that "education systems have not kept pace" with workplace evolution. At the same time, Document 8 quantifies this gap, stating that "approximately 40% of secondary school graduates are deficient" in preparation for future occupations.

Several factors driving workplace transformation were identified across the literature:

- Rapid technological advancement, particularly in AI and automation
- Digital transformation across industries
- Growing emphasis on sustainability and environmental concerns
- Increased globalisation and interconnectedness
- Demographic shifts in the workforce

4.2. Priority Skill Clusters for Future Employability

Analysis reveals remarkable consistency across the reviewed documents regarding the essential skills for future employability. These can be organised into four primary domains:

Technical and Digital Skills

- AI and automation proficiency
- Data science and analytics
- Cloud computing
- Cybersecurity and networks
- Programming and computational thinking
- Digital literacy

Cognitive Skills

- Complex problem-solving
- Critical thinking
- Analytical thinking
- Creative thinking and innovation
- Metacognition (learning how to learn)

Social and Emotional Skills

- Communication (verbal and written)
- Collaboration and teamwork
- Leadership and social influence
- Emotional intelligence
- Cultural awareness

Self-Management Skills

- Adaptability and flexibility
- Resilience
- Initiative and self-direction
- Curiosity and lifelong learning
- Ethics and integrity
- Environmental stewardship

Document 6 (OECD) specifically highlights "transformative competencies" that enable individuals to shape the future, including creating new value, reconciling tensions and dilemmas, and taking responsibility, capabilities that transcend traditional skill categorisations.

4.3. Labour Market Projections

The analysed documents present compelling data on future labour market trends and implications for curriculum design:

- Document 10 (Universities UK) projects "over 11 million additional graduates needed by 2035" in the UK
- Document 4 (QS) indicates that "14% of the global workforce will need to switch jobs by 2030 due to automation"
- Document 1 (Randstad) confirms that employer demand remains "higher than pre-pandemic levels, with employers anticipating increased demand in 2025"

These projections demonstrate the need for educational innovations to prepare students to join the workforce in this rapidly evolving landscape.

5. Implications for Curriculum Design

5.1. Core Curriculum Components

Based on the analysis, EiM could consider:

- Integrating basic technical literacy for all students, including:
 - AI fundamentals and ethics
 - Data literacy and analysis
 - Digital citizenship and security
 - Computational thinking
 - Sustainable technology applications
- Moving beyond traditional subject silos to create meaningful connections that reflect real-world complexity:
 - Integration of STEM with the humanities
 - Project-based learning that draws from multiple disciplines
 - Real-world problem-solving that applies knowledge contextually
 - Explicit connections between academic content and workplace applications
- Developing social, emotional, and self-management capabilities:
 - Dedicated time for collaboration and communication skill building
 - Structured opportunities for leadership development
 - Explicit teaching of metacognitive strategies
 - Regular practice in ethical decision-making
 - Creative problem-solving across disciplines

Document 4 (QS) recommends that schools "foster interdisciplinary learning to connect skills with various subjects," while Document 6 (OECD) emphasises the importance of developing "transformative competencies" through curriculum design.

5.2. Pedagogical Approaches

The literature suggests several pedagogical strategies that could be of interest to EiM in curriculum implementation via ID:

- **Student Agency:** Document 6 (OECD) emphasises promoting "student agency (the ability to set goals, reflect, and act responsibly) and co-agency (learning in collaboration with peers, teachers, and the community)."
- **Applied Learning:** Document 3 (IB) recommends "inquiry-based learning, collaborative learning, blended learning, gamification, computational thinking, and experiential learning" as particularly effective approaches.
- **Personalisation:** Document 6 (OECD) advocates for "dynamic and flexible" curricula that allow for "non-linear learning paths and personalised learning experiences that cater to individual student needs and talents."

- **Technology Integration:** Document 4 (QS) suggests leveraging "technology as a learning tool" while teaching students to "use various software and platforms relevant to future industries."
- **Industry Connections:** Document 4 (QS) recommends fostering "partnerships with local industries to ensure curricula are aligned with current and future job market needs."

6. Assessment Innovation

6.1. Limitations of Traditional Assessment

Multiple documents critique traditional assessment approaches as inadequate for measuring 21st-century competencies, indicating that the innovations that EiM are planning via ID are sought after:

- Document 2 argues that standardised assessments "often measure students' ability to memorise and reproduce information rather than evaluate more relevant and transferable competencies"
- Document 8 explicitly states that "standardised assessment methods are often incompatible with the assessment of 21st-century skills"

6.2 Recommended Assessment Approaches

For EiM to differentiate from established qualifications, through ID, and better evaluate future-ready skills, the following assessment innovations could be considered:

1. **Diverse Assessment Methods:** Document 6 (OECD) advocates employing "a variety of assessment methods beyond including project-based assessments, portfolios, and practical demonstrations."
2. **Authentic Assessment:** Document 4 (QS) recommends assessment tasks "framed around real-world problems and scenarios" that require application rather than recall.
3. **Competency-Based Assessment:** Document 7 (WEF) suggests a "shift towards competency-based assessments that demonstrate a student's ability to perform tasks and apply skills in real-world contexts."
4. **Technology-Enhanced Assessment:** Document 7 (WEF) proposes leveraging "digital platforms for assessments to mirror the technology used in modern workplaces." This aligns with innovations that EiM is currently exploring and onboarding.
5. **Continuous and Formative Assessment:** Document 6 (OECD) recommends "continuous assessment practices that provide regular feedback to students and support ongoing learning and improvement."
6. **Soft Skills Evaluation:** Document 4 (QS) suggests exploring "methods to assess soft skills, such as through observation of group work, peer assessment, or self-reflection activities." This also suggests that the digital wallet system that EiM is exploring would be useful in demonstrating achievement in these skills.

6.3 Assessment Components

Features of a comprehensive assessment system might include:

- **Individual Projects:** Extended independent work demonstrating research, critical thinking, and creative problem-solving
- **Collaborative Challenges:** Team-based projects that address real-world problems while showcasing collaboration skills
- **Digital Portfolios:** Curated collections of student work demonstrating growth and achievement across skill domains, through the proposed new wallet system
- **Performance Tasks:** Authentic demonstrations of applied knowledge in realistic contexts
- **Reflective Components:** Structured opportunities for metacognition and self-assessment
- **Industry-Validated Assessments:** Evaluations co-designed or endorsed with industry partners to authenticate relevancy, as has been mentioned in some of our meetings.

7. Implementation Considerations

7.1 Teacher Development

Successfully implementing an innovative curriculum and assessment system will require EiM to engage with ongoing investment in teacher development to achieve effective engagement with ID. Document 8 emphasises the "crucial role of schools in supporting the development of 21st-century skills," noting that this requires "effective teacher professional development" alongside curriculum and assessment innovations.

Key teacher development areas should include:

- Technical literacy in emerging technologies
- Facilitation of inquiry and project-based learning
- Assessment design and evaluation beyond traditional testing
- Interdisciplinary teaching approaches
- Industry engagement strategies

7.2 Learning Environments

Physical and virtual learning environments will need to support the development of future-ready skills. Document 8 highlights the need for "appropriate learning environments" to develop 21st-century skills. This may include:

- Flexible physical spaces that facilitate collaboration and project work
- Technology infrastructure that supports digital learning and creation
- Connections to industry and community spaces for authentic learning
- Virtual environments that support collaborative activity

7.3 Stakeholder Engagement

Successful implementation will require EiM and ID to engage meaningfully with:

- **Students:** Involving students in curriculum and assessment design can enhance relevance and motivation
- **Parents:** Educating parents about the value of future-ready skills can build support for innovation
- **Universities:** Ensuring alignment with university expectations will facilitate student transitions
- **Employers:** Ongoing dialogue with industry partners can validate curriculum relevance
- **Policymakers:** Advocacy may be needed to ensure policy frameworks support innovation

It is noted that the IC Global Focus groups will help with the process of engagement associated with the developmental phase of your project.

8. Competitive Differentiation

To establish a competitive advantage over established qualifications like A-levels and IB, the following distinctive features should be emphasised:

8.1 Future Orientation

While traditional qualifications have made efforts to modernise, a new EiM offering has the advantage of being designed specifically for future needs without legacy constraints. This should be reflected in:

- Explicit focus on emerging technology skills
- A dynamic curriculum that can rapidly integrate new developments
- Assessment of future-ready competencies beyond academic knowledge

8.2 Industry Connection

Establish deeper connections with industry than traditional qualifications through some:

- Industry-informed curriculum component design
- Industry-validated assessment
- Opportunities for employer involvement during curriculum delivery

8.3 Personalisation

ID should exceed the flexibility of existing qualifications by:

- Offering multiple learning pathways based on student interests and aptitudes

- Creating curriculum components that can be combined to match student needs
- Providing personalised assessment options that showcase individual strengths. Again, the digital wallet system is relevant here.

8.4 Technology Integration

Position ID as technology-forward through:

- Integrated teaching of emerging technologies, including AI
- Use of technology-enhanced assessment
- The digital wallet/credential system

9. Conclusion and Recommendations

The analysis of ten authoritative sources reveals clear imperatives for educational providers seeking to develop a distinctive secondary education offering with a competitive advantage in preparing students for future employability and university success.

Key Recommendations:

1. **Design an integrated curriculum** that balances technical skills with human capabilities, using interdisciplinary approaches to reflect real-world complexity.
2. **Implement innovative assessment methods** that authentically evaluate both technical competence and soft skills through diverse, continuous, and authentic assessment tasks.
3. **Foster strong industry connections** through partnership programmes that bring real-world relevance to curriculum and assessment.
4. **Invest in teacher development** to build capacity for facilitating future-ready learning experiences.
5. **Create flexible learning environments** that support collaboration, creativity, and technology-enhanced learning.
6. **Develop a distinctive brand identity** that clearly communicates the qualification's advantages in preparing students for future success.
7. **Establish ongoing evaluation mechanisms** to continuously refine the curriculum and assessment based on emerging trends and outcomes data.

By implementing these recommendations, EiM can develop a ID that competes effectively with established qualifications and provides distinctive advantages in preparing students for rapidly evolving university and workplace environments.

10. Alignment of ID Design with the report findings

The ID design, as presented in the ID deck," aligns well with several key findings and recommended key features of a new qualification in this report

- **Skills Gap and Changing Workplace Demands:** The ID emphasises future skills and pathways, acknowledging the need to move beyond traditional education to address the skills gap and evolving workplace demands, particularly in areas like AI and digital transformation.
- **Priority Skill Clusters:** The ID incorporates various skill clusters identified in the report, including:
 - **Technical and Digital Skills:** The ID includes pathways focused on technology and futurism, and emphasises digital literacy through the digital wallet.
 - **Cognitive Skills:** The Extended Project Qualification (EPQ) promotes complex problem-solving, critical thinking, and analytical thinking.
 - **Social and Emotional Skills:** The emphasis on collaboration and teamwork is evident in the project-based learning approach.
 - **Self-Management Skills:** The ID promotes adaptability and flexibility through personalised pathways and lifelong learning via the digital portfolio.
- **Curriculum Design:**
 - The ID promotes interdisciplinary learning by integrating STEM with other disciplines.
 - It incorporates project-based learning and real-world problem-solving through the Extended Project Qualification and industry partnerships.
 - The design includes personalised learning pathways and technology integration via the digital wallet.
- **Assessment Innovation:**
 - The ID uses diverse assessment methods, including A-levels, the EPQ, and digital portfolios.
 - The digital wallet and portfolio facilitate competency-based assessment and technology-enhanced assessment.
 - The EPQ and project-based elements align with authentic assessment principles.
- **Competitive Differentiation:**
 - The ID is designed with a future orientation, focusing on emerging technology skills and dynamic curriculum.
 - It aims to establish strong industry connections through partnerships and industry-validated qualifications.
 - The ID offers personalised pathways and flexibility, enabled by the digital wallet system.
 - It leverages technology integration through the digital wallet and technology-enhanced assessment.

- **Potential Gaps and Missing Elements**

While the ID design aligns well with the "Future Ready" report, some areas could be strengthened:

- The ID mentions the digital wallet for micro-credentials, there could be a more explicit focus on how soft skills (e.g., communication, collaboration, emotional intelligence) are developed within the ID framework. Analysis of key documents in this report emphasises the importance of these skills and suggests methods for their evaluation.
- The ID could make more of a feature of how teachers are able to remain highly skilled and prepared to teach such a future-focused course.
- More detail could be made of how student experience will embed certain features to ensure coherence and consistency, whilst allowing some tailoring to local context and iterations for the ID
- While industry connections are referred to, more could be said about how these stakeholders will be involved in the ongoing development, implementation, and personalisation of the ID.

In conclusion, the Worldwide International Diploma demonstrates a strong alignment with the research findings on future-ready skills and innovative educational approaches. By addressing the potential gaps noted above, EiM can further enhance the ID to provide a truly distinctive and effective preparation for students in the 21st-century world.

11. References

The references below relate to the ten documents which were analysed for the purpose of this report:

1. Randstad Enterprise - [Today's top global in-demand skills](#)
2. CELL Press - [Global employability skills in the 21st century workplace: A semi-systematic literature review](#)
3. International Baccalaureate - [21st century employability skills \(2020\)](#)
4. QS - [World Future Skills Index](#)
5. Coursera - [Global Skills Report 2024](#)
6. OECD - [Future of Education and Skills 2030](#)
7. World Economic Forum - [Future of Jobs Report 2025](#)
8. Elsevier/Kain et al. - [Mapping the landscape: A scoping review of 21st century skills literature in secondary education](#)
9. HESA/Prospects/ADCAS - [What do Graduates Do?](#)
10. Universities UK - [Jobs for the Future](#)

12. Appendix: Individual Document Summaries

Document 1
Title: Today's top global in-demand skills

Source: Randstad Enterprise

Document Summary

The report analyses global employment data to identify the professional skills most in demand. The research highlights that while overall demand has tempered since 2022, it remains higher than pre-pandemic levels, with employers anticipating increased demand in 2025. The report identifies nine in-demand "white-collar" skill clusters, including AI and automation, cloud computing, and data science, and also notes the high demand for "blue-collar" skilled trades. Human capital leaders are focusing on strategies like complementing human intelligence with AI and nurturing skills development to address these demands.

Identified Key Employability Skills for the 21st Century

The report identifies the following key skill clusters as being in high demand:

- AI & automation
- Audit & compliance
- Cloud computing
- Customer service
- Data science & analytics
- Engineering & maintenance
- Finance & accounting
- Marketing, content & advertising
- Software project management & leadership

Comments on Assessments and Secondary Education

Assessment and Curriculum Implications for Schools:

The report does not explicitly address secondary school education or Assessments. However, there are clear implications for curriculum design and assessment:

- **Curriculum Focus:** Secondary education should prioritize the development of the in-demand skills identified in the report, such as AI and automation, cloud computing, and data science, to prepare students for the future job market.
- **Emphasis on both Technical and Soft Skills:** Schools should balance the teaching of technical skills with the development of soft skills like communication, problem-solving, and adaptability, which are crucial for success in the workplace.

- **Real-World Application:** Curriculum should incorporate real-world applications of these skills, enabling students to see their relevance and develop practical competence.

Document 2

Title: Global employability skills in the 21st century workplace: A semi-systematic literature review

Source: CELL Press

Document Summary

This article presents a semi-systematic literature review of 30 years of global research on employability skills, highlighting a persistent mismatch between the skills employers expect and those graduates typically possess. It identifies 87 unique employability skills, with problem-solving, communication, teamwork, adaptability, and willingness to learn consistently cited across the decades. The study finds that while the nature of work has evolved rapidly, particularly due to technology and globalisation, education systems have not kept pace. The importance of digital literacy, emotional intelligence, leadership, and flexibility has grown significantly. However, the article critiques traditional education models, particularly secondary schooling and Assessment systems, for being outdated and overly focused on rote learning. It calls for stronger collaboration between educators and employers to align academic programmes with the realities of the 21st-century workplace and better prepare young people for employment and lifelong learning.

Identified Key Employability Skills for the 21st Century

- Problem-solving
- Communication
- Teamwork
- Adaptability
- Willingness to learn
- Creativity and initiative
- ICT/digital literacy
- Critical thinking
- Integrity
- Leadership

Comments on Assessments and Secondary Education

The article strongly critiques traditional secondary education systems, particularly their reliance on standardised Assessments. It argues that these assessments often measure students' ability to memorise and reproduce information rather than evaluate more relevant and transferable competencies such as problem-solving, creativity, collaboration, and adaptability. As a result, Assessments may contribute to a disconnect between what is taught in schools and what is required in the modern workplace.

Furthermore, the review highlights that many secondary school curricula remain outdated, with little integration of skills related to digital literacy, emotional intelligence, or entrepreneurial thinking. There is a call for urgent reform to ensure that schools not only impart academic knowledge but also foster holistic development, including soft skills, ethical reasoning, and real-world application.

The article advocates for a shift in educational priorities—from a narrow focus on exam performance towards broader learning outcomes that align with employers' expectations and better prepare students for a lifetime of career adaptability and success in a rapidly changing global economy.

Document 3
Title: 21st century employability skills (2020)

Source: International Baccalaureate

Document Summary

This study examines how the International Baccalaureate Diploma Programme and Career-related Programme prepare students for future employment. In today's rapidly changing workforce, technological advances, offshoring, and demographic shifts are transforming skill requirements. The research identified well-represented skills in the IB curricula, including communication, ethics, mindfulness and critical thinking, with moderate coverage of metacognition, collaboration, creativity and leadership. However, growth mindset, curiosity, courage and resilience need greater integration. Future jobs will require complex problem-solving, creative thinking and social interactions, with increasing shortages in digital, content, process and social skills. Learner-centred pedagogies are recommended to develop these 21st century competencies alongside content knowledge.

Identified Key Employability Skills for the 21st Century

- Complex problem-solving and critical thinking
- Creative thinking and innovation
- Social interaction and communication skills

- Digital literacy and technical knowledge
- Metacognition and adaptability
- Ethics and leadership

Comments on Assessments and Secondary Education

The article emphasises that secondary education must deliberately cultivate these competencies using innovative pedagogies that place student inquiry at the centre. Both 21st century skills and deep content knowledge are necessary for preparing young people for future careers.

The study recommends integrating employability skills into traditional classroom subjects and implementing innovative approaches such as inquiry-based learning, collaborative learning, blended learning, gamification, computational thinking, and experiential learning.

These approaches are particularly effective in developing students' competencies without sacrificing content knowledge. As technological change accelerates, education systems must adapt to help students develop diverse competencies for a world that is increasingly volatile, uncertain, complex and ambiguous.

Document 4
Title: World Future Skills index

Source: QS

Document Summary

The index highlights the urgent need for higher education to adapt to the skills economy, driven by AI, digital, and green technologies. Key employability skills for the 21st century include machine learning, data science, cloud computing, environmental conservation, and renewable energy management. The report emphasises rapid industrial innovation and the risk of occupational displacement, with 14% of the global workforce needing to switch jobs by 2030 due to automation. It notes that secondary education must align with industry demands, but focuses primarily on higher education's role in bridging skills gaps through modular learning, industry partnerships, and lifelong learning pathways. The UK leads in academic readiness and skills fit, but investment in R&D and curricula innovation is critical globally.

Identified Key Employability Skills for the 21st Century

The document emphasises the rapidly evolving demands of the job market, driven by AI,

digital transformation, and the growing importance of sustainability. To prepare students for this future, schools should prioritise curricula that foster:

- **AI Proficiency:** Including machine learning tools, data science, natural language processing, and cloud computing.
- **Digital Literacy:** encompassing cloud computing, AI, web/application/chatbot development, data science, and security/compliance.
- **Green Skills:** Focusing on environmental science, conservation, climate change mitigation, agriculture, water management, renewable energy, and biodiversity conservation.

These skills are crucial as industries across the board are being transformed. The report indicates a shift away from traditional skills and sectors, with a decline in areas like fossil fuels, traditional agriculture, and legacy software.

To effectively prepare students, schools should:

- **Integrate practical applications** of AI, digital tools, and sustainability principles into the curriculum.
- **Promote interdisciplinary learning** to connect these skills with various subjects.
- **Incorporate project-based assessments** that require students to apply these skills to real-world problems.
- **Foster partnerships with local industries** to ensure curricula are aligned with current and future job market needs.

By doing so, schools can equip students with the skills necessary to thrive in the evolving world of work and contribute to economic growth and sustainability.

Comments on Assessments and Secondary Education

Curriculum Implications:

- **Curriculum Diversification:** Move beyond traditional subjects to integrate modules on AI fundamentals, basic coding, data literacy, digital citizenship, and sustainability principles. This might involve creating new subjects or embedding these topics within existing ones (e.g., integrating data analysis into mathematics or environmental science into geography).
- **Emphasis on Applied Learning:** Shift from rote learning to project-based learning, problem-solving activities, and real-world simulations. This allows students to apply future skills in practical contexts. For example, students could design a sustainable solution for a local environmental issue or develop a basic app to solve a community problem.
- **Interdisciplinary Approach:** Foster connections between subjects to mirror the integrated nature of future work. For instance, a project on climate change could

combine science, geography, economics, and even social studies to explore the multifaceted aspects of the issue.

- **Technology Integration:** Leverage technology as a learning tool and teach students how to use various software and platforms relevant to future industries. This includes cloud-based collaboration tools, data visualisation software, and potentially, introductory AI tools.
- **Development of Soft Skills:** Alongside technical skills, explicitly cultivate soft skills like critical thinking, creativity, collaboration, communication, and adaptability. These are essential for navigating complex and rapidly changing work environments.
- **Careers Education and Guidance:** Enhance careers education to provide students with up-to-date information on future job trends, the skills employers will seek, and pathways to acquire those skills. This should start early in secondary school.

Assessment Implications:

- **Assessment Diversification:** Move away from solely relying on traditional written exams. Incorporate a wider range of assessment methods that evaluate future skills, such as:
 - Project portfolios: Assessing students' ability to apply skills to complex tasks.
 - Presentations: Evaluating communication and critical thinking skills.
 - Group projects: Measuring collaboration and teamwork.
 - Practical assessments: Demonstrating proficiency in technical skills (e.g., coding, data analysis).
- **Emphasis on Problem-Solving:** Design exam questions that require students to analyse complex scenarios, propose solutions, and justify their reasoning, rather than simply recalling facts.
- **Integration of Technology:** Consider using technology for assessments, such as online platforms that allow for interactive questions, simulations, or the submission of digital portfolios.
- **Real-World Context:** Frame exam questions and assessment tasks around real-world problems and scenarios to make them more relevant and engaging for students.
- **Assessment of Soft Skills:** Explore methods to assess soft skills, such as through observation of group work, peer assessment, or self-reflection activities.

By implementing these changes, secondary schools can better prepare students for the demands of the future world of work and ensure they have the skills and knowledge to thrive.

Document 5
Title: Global Skills Report

Source: Coursera

Document Summary

The report emphasizes the crucial need to adapt education to the rapidly changing demands of the job market, driven by trends like generative AI (GenAI) and digital transformation. For secondary schools, this translates into several key implications, as the report highlights a surge in GenAI course enrollments, demonstrating a global race towards AI literacy. This surge underscores the necessity for educational institutions to integrate AI-related skills into their curricula to prepare students for a future where AI proficiency is paramount. The report also points out that while emerging skills like AI are critical, foundational skills such as mathematics, statistics, and communication remain essential for building a well-rounded skill set. Therefore, secondary schools must strike a balance, ensuring students are equipped with both cutting-edge and fundamental capabilities to navigate the evolving job landscape effectively.

Identified Key Employability Skills for the 21st Century

The skills identified in this report as key are as follows:

- **AI Proficiency:** The report emphasizes the growing importance of AI-related skills, driven by the rise of generative AI.
- **Digital Skills:** The report highlights the demand for digital skills, indicating their importance in the contemporary job market.
- **Foundational Skills:** Alongside emerging skills, the report underscores the continued relevance of foundational skills like mathematics, statistics, and business communication.
- **Human Skills:** The report acknowledges the significance of "human skills" such as communication, collaboration, and problem-solving.

Comments on Assessments and Secondary Education

Curriculum Implications:

- **AI and Digital Literacy Integration:** The report highlights the surge in demand for AI-related skills and the persistent digital skills gap. Schools should embed AI literacy and digital proficiency across the curriculum, not just in isolated IT classes. This includes foundational knowledge of AI, data analysis, cybersecurity, and proficiency in using various software and digital tools.
- **Emphasis on Foundational Skills:** While emerging skills are critical, the report also underscores the importance of foundational skills. Schools must continue to strengthen areas like mathematics, statistics, business communication, and critical thinking, as these provide a base for more advanced learning.
- **Development of "Human Skills":** The report acknowledges the importance of "human skills" alongside digital skills. Schools should actively foster skills like communication,

collaboration, problem-solving, and adaptability, which are essential for navigating the changing nature of work.

Career Readiness: Schools need to better prepare students for the future job market by providing exposure to industry trends, in-demand roles, and pathways for acquiring relevant skills, such as micro-credentials.

Document 6
Title: Future of Skills 2030

Source: OECD

Document Summary

The report aims to help countries adapt their education systems to prepare students for an unpredictable future. This involves equipping students with the necessary knowledge, skills, attitudes, and values to thrive in a complex and interconnected world. The project emphasizes the need for education to evolve in response to rapid technological advancements and societal shifts. It highlights the importance of developing students' creative ingenuity, ethical awareness, and sense of responsibility. The project also addresses the challenge of ensuring that education systems keep pace with the rate of technological change to avoid a period of "social pain" and instead foster "prosperity". This requires a shift from traditional, static education models to more dynamic, flexible, and personalized approaches that recognize the unique learning paths of individual students.

Identified Key Employability Skills for the 21st Century

Based on the OECD Future of Education and Skills 2030 project, the following key skills are necessary for students to acquire for future employability purposes:

- **Cognitive and Metacognitive Skills:** These include critical thinking, problem-solving, creativity, analytical thinking, and learning to learn. These skills enable individuals to adapt to new situations, process information effectively, and innovate.
- **Social and Emotional Skills:** These encompass communication, collaboration, teamwork, empathy, and self-regulation. These skills are crucial for interacting effectively with others, navigating diverse social contexts, and building strong relationships in the workplace.
- **Practical and Physical Skills:** These involve the ability to apply knowledge and use tools and technologies to perform tasks and achieve goals. In the future, this will likely include digital literacy and the ability to work with AI and other advanced technologies.

- **Transformative Competencies:** These are skills that enable individuals to shape the future, such as creating new value, reconciling tensions and dilemmas, and taking responsibility. These competencies are essential for addressing complex challenges and driving innovation in the workplace.

Comments on Assessments and Secondary Education

Based on the OECD Future of Education and Skills 2030 project, here are the implications for secondary school curriculum and Assessments:

- **Curriculum Implications:**
 - **Emphasis on Competency Development:** The curriculum should focus on developing a range of competencies, including cognitive and metacognitive skills (e.g., critical thinking, problem-solving), social and emotional skills (e.g., collaboration, communication), and practical and physical skills.
 - **Integration of Transformative Competencies:** Schools should foster transformative competencies such as creating new value, reconciling tensions and dilemmas, and taking responsibility, to empower students to shape a better future.
 - **Promotion of Student Agency and Co-agency:** The curriculum should be designed to promote student agency (the ability to set goals, reflect, and act responsibly) and co-agency (learning in collaboration with peers, teachers, and the community).
 - **Dynamic and Flexible Learning:** Curricula need to be dynamic and flexible, allowing for non-linear learning paths and personalized learning experiences that cater to individual student needs and talents.
 - **Interdisciplinary Approach:** Incorporate interdisciplinary learning to connect different subjects and apply knowledge and skills in real-world contexts.
 - **Focus on Attitudes and Values:** Cultivate attitudes and values that promote individual, societal, and environmental well-being, such as ethical decision-making, social responsibility, and sustainability.
- **Assessment Implications:**
 - **Diverse Assessment Methods:** Employ a variety of assessment methods beyond standardized tests to evaluate the development of competencies, including project-based assessments, portfolios, and practical demonstrations.
 - **Assessment of Higher-Order Skills:** Assessments should assess higher-order thinking skills, such as analysis, evaluation, and creation, rather than just recall of knowledge.
 - **Emphasis on Application of Knowledge:** Assessments should require students to apply their knowledge and skills to solve complex problems and address real-world challenges.

- **Evaluation of Collaboration and Communication:** Incorporate assessment methods that evaluate students' ability to work effectively in teams, communicate ideas, and engage in constructive dialogue.
- **Continuous Assessment and Feedback:** Implement continuous assessment practices that provide regular feedback to students and support ongoing learning and improvement.

Document 7
Source: WEF
Title: Future of Jobs Report

Source: International Baccalaureate

Document Summary

The document highlights the significant impact of technological advancements, particularly in AI and big data, on the future of work. It anticipates a substantial transformation in job roles and skills demands. Key skills identified for future employability include technological skills like AI and data analysis, as well as human skills such as analytical and creative thinking, resilience, and collaboration. The report does not explicitly detail implications for secondary school education or Assessments. However, the emphasis on rapidly evolving technical and soft skills suggests a need for curricula to adapt to foster these competencies in young people to adequately prepare them for the future workplace.

Identified Key Employability Skills for the 21st Century

Here's a summary of key skills for the future from the World Economic Forum's Future of Jobs Report 2025 (WEF_Future_of_Jobs_Report_2025.pdf):

- **Technological Skills:**
 - AI and Big Data
 - Networks and Cybersecurity
 - Technology Literacy
 - Programming
- **Cognitive Skills:**
 - Analytical Thinking
 - Creative Thinking
 - Problem-solving
- **Soft Skills:**
 - Resilience, Flexibility and Agility
 - Leadership and Social Influence
 - Collaboration

- Communication
- Adaptability
- Motivation and Self-awareness
- Curiosity and Lifelong Learning
- **Other Skills:**
 - Environmental Stewardship
 - Talent Management

Comments on Assessments and Secondary Education

The report highlights the following:

Curriculum Implications:

- **Integrate Technology Skills:** Curricula must embed training in AI and big data, cybersecurity, and programming to prepare students for tech-driven workplaces.
- **Cultivate Cognitive Skills:** Schools should prioritise the development of analytical and creative thinking, as well as complex problem-solving abilities, through various subjects.
- **Enhance Soft Skills Training:** The curriculum needs to actively foster soft skills like resilience, flexibility, agility, leadership, collaboration, communication, and adaptability.
- **Promote Lifelong Learning:** Instilling a growth mindset and a passion for continuous learning is crucial, given the pace of change in the job market.
- **Embed Environmental Literacy:** With the rising importance of sustainability, incorporating environmental stewardship into the curriculum is essential.

Assessment and Assessment Implications:

- **Assess Practical Application:** Assessments should move beyond theoretical knowledge to assess the practical application of skills, especially in technology and problem-solving.
- **Evaluate Soft Skills:** Assessment methods need to evolve to measure soft skills effectively, possibly through project-based assessments, simulations, or peer evaluations.
- **Incorporate Digital Tools:** Leverage digital platforms for assessments to mirror the technology used in modern workplaces.
- **Focus on Competency-Based Assessment:** Shift towards competency-based assessments that demonstrate a student's ability to perform tasks and apply skills in real-world contexts.

Document 8

Title: Mapping the landscape: A scoping review of 21st century skills literature in secondary education

Source: Elsevier, Kain et al.

Document Summary

Kain et al. (2024) conducted a scoping review of 21st-century skills literature in secondary education. The review analysed 82 research articles to provide a systematic overview of how 21st-century skills are addressed in research. The study found that research on 21st-century skills focuses on stakeholders' opinions and attitudes, their potential effects, and their implementation or assessment. The authors emphasise the necessity for more research to improve the integration of 21st-century skills in secondary education, as many students are not adequately prepared for their future occupations.

Identified Key Employability Skills for the 21st Century

The article identifies 21st-century skills as crucial for preparing students to adapt to a rapidly changing world and ensuring their capability for continuous learning and problem-solving. Specific skills mentioned include:

- Communication skills
- Technological competences
- Creativity
- Adaptability
- Critical thinking
- Problem-solving
- Mathematical knowledge and abilities
- Written performances
- Professional work ethics

Comments on Assessments and Secondary Education

The article indicates a significant concern regarding the preparedness of secondary school graduates for their future occupations, stating that approximately 40% of these students are deficient in this area. This lack of preparedness extends to insufficient competence in various skill areas.

Specifically, employers have observed that a majority of students lack strong enough basic skills in mathematical knowledge and abilities (53.3% deficiency) and written performances (72.0% deficiency) upon graduation. Furthermore, deficiencies are also noted in applied

skills, including communication skills (80.9%), critical thinking and problem-solving (69.6%), and professional work ethics (70.3%).

The authors argue that standardized assessment methods are often incompatible with the assessment of 21st-century skills. They emphasize the crucial role of schools in supporting the development of 21st-century skills. This support necessitates appropriate learning environments, relevant curricula, effective teacher professional development, and suitable tests and assessments designed to measure these skills.

Document 9
Title: What do Graduates Do?

Source: HESA Prospects & ADCAS

Document Summary

The "What do graduates do?" report analyses the career paths of UK-domiciled first-degree graduates 15 months after completing their studies. Based on the Graduate Outcomes survey, with responses from 184,650 graduates who left higher education in 2021/22, the report provides insights into graduate employment trends. It highlights that around 80% of graduates are in employment, mostly full-time, and that the demand for professional-level workers continues to rise. The report emphasises that while many job opportunities exist for graduates, finding the right job can be challenging and aims to support graduates in their career journey.

Identified Key Employability Skills for the 21st Century

While the report primarily focuses on graduate outcomes, it implicitly points to the importance of a combination of specific and transferable skills for employability:

- **Technology-related skills:** The increasing demand for graduates in computing and engineering suggests the importance of strong STEM skills.
- **Digital skills:** The growth of digitally-enabled roles indicates a need for digital competence.
- **Analytical and creative thinking:** These are highlighted as valuable skills for graduates in the workforce.
- **Self-efficacy skills:** resilience, flexibility, agility, motivation, self-awareness, curiosity, and lifelong learning.
- **Transferable skills:** The report underscores the general value of a university degree in equipping graduates with skills that enable them to adapt to the changing job market.

- **Other skills identified by employers:** self-motivation, adaptability, confidence, presentation skills, remote working skills, interpersonal skills, work-appropriate written and verbal skills, teamwork skills, problem-solving, basic IT and digital skills, numeracy skills, political and economic awareness, and diversity and inclusion awareness.

Comments on Assessments and Secondary Education

The report mainly centres on graduate skills and their employment outcomes, but it also carries implications for secondary education. To prepare students for the demands of higher education and the future job market, secondary schools should consider the following:

- **Curriculum Development:** Secondary school curricula should aim to develop a strong foundation in core academic subjects, alongside fostering digital literacy, analytical thinking, and creative problem-solving abilities.
- **Skill Development:** Emphasis should be placed on cultivating transferable skills, such as communication, collaboration, and adaptability, which are highly valued by employers and essential for navigating the evolving world of work.
- **Assessment Strategies:** While the report doesn't explicitly discuss examination formats, it suggests a need for assessment methods that go beyond rote learning. Schools could explore diverse assessment approaches that measure students' ability to apply their knowledge and skills in practical, real-world contexts.

Document 10
Title: Jobs for the Future

Source: Universities UK

Document Summary

The Universities UK report "Jobs of the Future" projects a substantial increase in the demand for graduates in the UK by 2035, with over 11 million additional graduates needed. This demand is driven by the need for high-level skills in sectors like computing, engineering, health, and education. The report also addresses the skills mismatch between graduates and employer needs, highlighting the value of graduate skills and the positive employment outcomes for graduates compared to non-graduates. It further explores the impact of AI, automation, and digitalization on the job market.

Identified Key Employability Skills for the 21st Century

The report emphasizes the importance of both specific skills and transferable skills for graduate employability:

- **Technology-related skills:** The report highlights the growing demand for professionals in STEM fields, particularly in computing and engineering.
- **Digital skills:** The expansion of digitally-enabled roles is noted, indicating the need for digital competence.
- **Analytical and creative thinking:** These are identified as crucial skills valued by employers.
- **Self-efficacy skills:** This includes resilience, flexibility, agility, motivation, self-awareness, curiosity, and lifelong learning.
- **Transferable skills:** A university degree provides transferable skills that enable graduates to adapt to the changing job market.
- **Other skills identified by employers:** self-motivation, adaptability, confidence, presentation skills, remote working skills, interpersonal skills, work-appropriate written and verbal skills, teamwork skills, problem-solving, basic IT and digital skills, numeracy skills, political and economic awareness, and diversity and inclusion awareness.

Comments on Assessments and Secondary Education

Assessments and Secondary School Education:

While the report's primary focus is on the graduate labour market and higher education, it has clear implications for secondary education. The projected increase in demand for graduates with specific skills suggests that secondary schools play a vital role in laying the groundwork for these skills. To effectively prepare students for future graduate-level jobs, secondary school curricula should consider integrating elements that foster the development of key skills.

This includes:

- Strengthening foundational skills in areas like mathematics, sciences, and digital literacy, which are crucial for STEM and digitally-enabled roles.
- Developing analytical and problem-solving abilities through curricula that emphasise critical thinking and application of knowledge.
- Cultivating soft skills such as communication, collaboration, adaptability, and resilience, which are increasingly valued by employers.

While the report doesn't explicitly discuss changes to Assessment formats, the shift in curriculum focus implies a need for assessment methods that go beyond rote memorization. Secondary schools might explore incorporating project-based assessments,

portfolios, and other methods that allow students to demonstrate these skills in a practical context.