



STRATEGIC UPSKILLING: FUSING TECHNICAL EXPERTISE WITH HUMAN CAPABILITIES

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Abstract

The modern world is marked with high rates of technological development, globalization and dynamic workforce. In this regard, the traditional education models are becoming questioned on whether they can impart the desired competencies on graduates to lead them to success. This review paper holds that paradigm shifts towards skill-based education which focuses on skills integration of both hard and soft skills; is an urgent need of the time. The paper discusses the available literature in defining and distinguishing between hard and soft skills, the increasing need of a holistic skillset in the 21st century workforce and considers different models of skill-based education. In addition to this, it explains the advantages and problems of adopting such a teaching method. To summarize, the paper ends by critically discussing the implications of skill-based education regarding different stakeholders and recommending on future research and practice.

Keywords: Soft Skills, Hard Skills, 21st-Century Skills, Skill-Based Education, Competency-Based Education, Employability Skills, Higher Education

Introduction

Technological innovation and globalization have ushered the 21st century into an era of unprecedented change and complexity. The contemporary workplace is no longer a static environment but a dynamic ecosystem that demands a workforce equipped with a wide and adaptable spectrum of competencies. Individuals are now expected to navigate complicated, interconnected challenges that require more than just specialized knowledge. Historically, education systems worldwide have been predominantly centred on the acquisition of hard skills—technical, measurable abilities specific to a job or trade. This model, rooted in industrial-age paradigms, prioritized quantifiable outcomes and standardized knowledge. Nevertheless, a powerful and growing consensus among educators, economists, and industry leaders confirms that hard skills alone are insufficient for long-term career success and are increasingly vulnerable to obsolescence. Employers are now actively seeking candidates who possess a robust combination of both hard and soft skills, recognizing that the latter, encompassing personal attributes and interpersonal capabilities, are crucial for fostering effective collaboration, innovation, and harmonious organizational culture.

This imperative shift is dramatically accelerated by the rapid rise of Artificial Intelligence (AI) and automation. These technologies are proficiently mastering routine, predictable, and technical tasks, fundamentally reshaping the value proposition of human labour. This technological disruption does not render human workers obsolete; rather, it elevates uniquely human, soft skills from being merely desirable complements to being fundamentally irreplaceable core competencies. Skills such as critical thinking, ethical judgment, creativity, and empathetic communication are becoming the key differentiators in a volatile, uncertain, complex, and ambiguous (VUCA) world, as they are far more difficult to automate and are essential for managing and leveraging technology itself.



Consequently, the mismatch between the capabilities of graduates and the demands of the modern economy is a well-documented and critical problem. Numerous reports from employers globally consistently highlight that while new graduates are often technically competent, they frequently lack essential soft skills such as effective communication, nuanced problem-solving, adaptive collaboration, and creative critical thinking (Khorsheed, 2015). This "adaptability gap" has profound implications, negatively affecting individual employability and career progression, hampering organizational productivity and innovation, and ultimately undermining national economic competitiveness. The cost of this gap is too high to ignore, creating a great and urgent demand to fundamentally rethink and revamp our educational structures.

This review paper directly addresses this urgent need by arguing for a systemic restructuring of education towards a skill-based paradigm that deliberately and methodically incorporates both soft and hard skills. The paper aims to synthesize existing knowledge to provide a comprehensive picture of this critical transition. It is organized as follows: Section 2 details the methodology employed for the literature review. Section 3 presents the findings, including clear definitions of hard and soft skills, evidence of the growing demand for soft skills, and an exploration of effective skill-based education models. Section 4 offers a critical discussion of the implications and challenges, and Section 5 concludes by summarizing the core arguments and providing concrete recommendations for future research and practice.

Literature Review

The discourse surrounding the integration of soft and hard skills in education is situated within a broader critique of traditional educational paradigms and their alignment with contemporary economic demands. Foundational theories of human capital (Becker, 1964) established the value of education in developing productive skills, yet historically, this has been interpreted narrowly as the acquisition of job-specific, hard skills. The paradigm is now shifting. The seminal work of Levy & Murnane (2004) on the changing task composition of the U.S. economy provided early empirical evidence that routine cognitive tasks were increasingly susceptible to automation, while demand for complex communication and expert thinking core soft skills was rising. This established a critical link between technological change and the growing economic premium on uniquely human capabilities.

The term "21st-century skills" has since become a ubiquitous, though often loosely defined, framework for these new required competencies. The Partnership for 21st Century Skills (P21) framework, among others, categorizes these into learning and innovation skills (the 4Cs: critical thinking, communication, collaboration, and creativity), information and digital literacy skills, and life and career skills (P21, 2007). These are positioned not as replacements for hard skills but as essential complements. Research consistently affirms this duality. A comprehensive study by Deming (2017) found that jobs requiring high levels of social interaction have experienced the strongest employment growth since 1980, and the combination of math and social skills is associated with higher wages. This suggests that the labour market does not merely value soft skills, but specifically rewards individuals who possess them *in conjunction* with technical proficiency.

However, a significant and well-documented chasm exists between this recognized need and the outcomes of higher education. Numerous global studies highlight a "skills gap," where employers report that graduates enter the workforce with adequate technical training but deficient soft skills (Jackson, 2013; Suarta et al., 2017). This gap is not merely a perception but has tangible implications for employability, organizational productivity, and national economic competitiveness (Borner et al., 2018). The persistence of this gap points to systemic issues within educational structures, which often remain siloed, focused on knowledge transmission, and reliant on assessment methods ill-suited for measuring competencies like collaboration or ethical judgment.

In response, educational models emphasizing skill integration have gained prominence. Competency-Based Education (CBE) shifts the focus from time-based credit hours to the demonstrable mastery of an

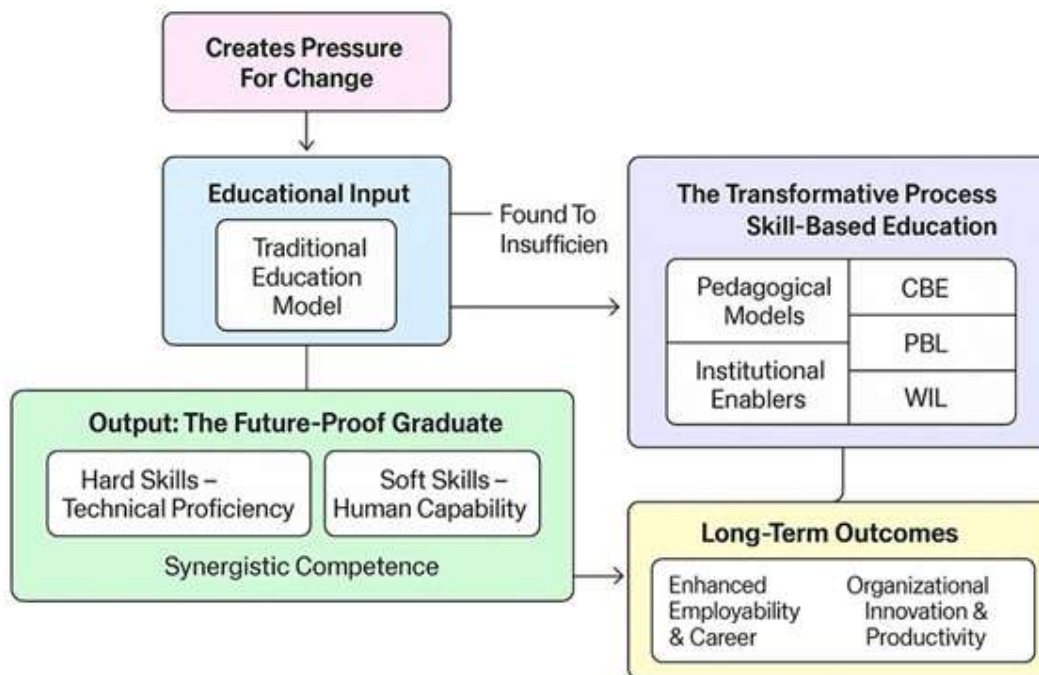


integrated set of knowledge, skills, and abilities (Lumina Foundation, 2015). Similarly, pedagogical approaches like Project-Based Learning (PBL) and Work-Integrated Learning (WIL) are championed for creating authentic contexts where students can simultaneously apply technical knowledge and practice soft skills like teamwork and problem-solving (Barron & Darling-Hammond, 2008). Despite the theoretical support for these models, the literature also cautions about significant implementation challenges, particularly the difficulty in developing valid and reliable assessments for soft skills, which are inherently subjective and context-dependent (Virk et al., 2020; Feldman et al., 2012).

Thus, the existing literature establishes a clear imperative for integrating soft and hard skills, identifies a persistent gap in educational outcomes, and explores emerging pedagogical models while acknowledging the practical hurdles that remain. This review paper builds upon this foundation to synthesize the current state of knowledge and critically examine the path forward for implementing a truly skill-based educational system.

Figure 1

Theoretical Framework



Explanation of the Framework Components

Context (The Modern Era): This is the starting point, the external environment driving the need for change. It includes:

Technological Advancement & AI: Automates routine tasks, increasing the value of irreplaceable human skills.

Globalization & VUCA World: Creates complex, interconnected challenges requiring adaptability and cross-cultural competence.

Changing Labor Market: Demands a new set of competencies, as identified by employers and economists.

Educational Input (The Traditional Model): This represents the current state of many education systems, which are predominantly focused on siloed knowledge and hard skill acquisition. The framework shows that this model is "Insufficient" to meet the demands of the modern era.



The Transformative Process (Skill-Based Education): This is the core of the framework, representing the active intervention.

Pedagogical Models (How): The specific teaching and learning methods like CBE, PBL, and WIL that create environments for integrated learning.

Institutional Enablers (Support): The crucial structural and support systems needed for success: Curriculum Mapping, Faculty Development, and Valid Assessment tools.

These two streams feed into Integrated Skill Development, the process where hard and soft skills are taught, practiced, and assessed together.

Output (The Future-Proof Graduate): This is the direct result of the transformative process. The graduate possesses not just a list of separate skills, but a Synergistic Competence where their hard skills and soft skills amplify each other (e.g., technical expertise communicated effectively, or problems solved through collaborative creativity).

Long-Term Outcomes: This final tier shows the broader impact of producing such graduates.

Individual: Enhanced employability and career longevity.

Organizational: Drives innovation, agility, and productivity.

Societal: Contributes to a more resilient, adaptable, and economically competitive society.

This framework powerfully visualizes paper's main argument: that responding to modern pressures requires a systemic educational shift towards integration, which in turn produces competent individuals who generate positive outcomes at multiple levels.

Methodology

The current review paper is a literature review where the systematic literature review procedure is used to summarize the research that has been conducted on integration of soft skills and hard skills in education. Several electronic databases were used as the search tools in the literature search, such as Google Scholar, Scopus, and the Web of Science. The search strategy was based on the combination of such keywords as the soft skills, hard skills, 21st-century skills, skill-based education, competency-based education, employability skills and higher education.

The inclusion criteria used to select studies were: (1) the peer-reviewed journal articles, conference papers, and reports in English; (2) the studies which focus on the significance of soft and hard skills in education and the workplace; (3) the studies which discuss the models and framework of teaching skills-based training. The exclusion criterion included: (1) articles that were not directly proportional to the research questions; and (2) non-academic publications. A significant number of articles were obtained in the first search and filtered using the title and abstract. Relevance and quality of the selected articles were then evaluated through reading the entire text of the article. The last group of articles included was synthesized and analysed to give an overview of the subject matter.

Results

Defining Hard and Soft Skills

The literature has offered a clear definition of hard and soft skills which are usually represented as two different yet complementary skills.

Hard skills are those technical skills that are specific to job or industry. They are normally obtained in form of formal education, training programs and on job experience. Hard skills can be readily measured and assessed in the form of exam, certification, and demonstration.

On the other hand, soft skills are interpersonal and intrapersonal skills, which concern the way people work and deal with others. They are commonly called 21st -century skills, employability skills, or transferable skills since these skills are not job specific and can be deployed in various situations. Soft skills are harder to evaluate, and measure compared to hard ones.



The following table provides a summary of the key differences between hard and soft skills with examples.

Table 1

Hard Skill vs Soft Skill

| Feature | Hard Skills | Soft Skills | :— | :— | :— |
|--------------------|--|--|------------------|--|--|
| Definition | Technical knowledge and abilities required for a specific job. | Personal attributes and interpersonal skills that enhance an individual's interactions, job performance, and career prospects. | Nature | Teachable, quantifiable, and demonstrable. | Inherent or developed through life experiences; harder to quantify. |
| Acquisition | Formal education, training, certifications. | Life experiences, practice, and self-reflection. | Example s | Programming languages (e.g., Python, Java), data analysis, graphic design, accounting, foreign language proficiency. | Communication, teamwork, problem-solving, critical thinking, leadership, adaptability, emotional intelligence. |

Table 2

A Typology of Integrated Skills for the 21st Century

| Skill Domain | Core Competencies | Concrete Examples in Practice | Primary Development Methods |
|---|--|--|---|
| Technical & Digital Literacy (Hard Skills) | <ul style="list-style-type: none"> - Data Analysis & Visualization - Programming & Coding - Digital Content Creation - Financial Modelling - Foreign Language Proficiency | <ul style="list-style-type: none"> - Using Python to automate a report. - Creating a marketing video with Adobe Suite. - Preparing a balance sheet. | <ul style="list-style-type: none"> - Formal coursework - Technical certifications - Online tutorials & labs - Repetitive practice |
| Cognitive & Analytical Abilities (The Bridge) | <ul style="list-style-type: none"> - Critical Thinking & Analysis - Complex Problem-Solving - Creativity & Innovation - Systems Thinking | <ul style="list-style-type: none"> - Evaluating the validity of data sources. - Designing a user-friendly product feature. - Diagnosing the root cause of a workflow breakdown. | <ul style="list-style-type: none"> - Case study analysis - Project-Based Learning (PBL) - Research projects - Socratic seminars |
| Interpersonal & Social Skills (Soft Skills) | <ul style="list-style-type: none"> - Communication & Storytelling - Collaboration & Teamwork - Conflict Resolution - Negotiation & Influence | <ul style="list-style-type: none"> - Presenting a project proposal to stakeholders. - Co-creating a project plan in a diverse team. - Mediating a disagreement between colleagues. | <ul style="list-style-type: none"> - Team-based projects - Simulations & role-playing - Peer review & feedback - Internships (WIL) |
| Intrapersonal & Self-Management Skills (Soft Skills) | <ul style="list-style-type: none"> - Adaptability & Resilience - Ethical Judgment & Integrity - Self-Directed Learning - Initiative & Proactivity | <ul style="list-style-type: none"> - Pivoting a strategy in response to market feedback. - Handling confidential data responsibly. - Taking an online course to learn a new skill unprompted. | <ul style="list-style-type: none"> - Reflection journals - Coaching & mentoring - Challenging, real-world projects - Failure-analysis exercises |



This table provides "Cognitive & Analytical Abilities" as a crucial bridge domain, showing that skills like critical thinking are the engine that connects technical knowledge (hard skills) to effective social application (soft skills). The "Examples in Practice" and "Development Methods" columns make the concepts tangible and directly relevant to pedagogical models.

4.2. The Growing Demand for Soft Skills

It is supported by too much data that the demand of soft skills in the labour market is increasing. It has been noted that soft skills are gaining popularity as a source of employability and career growth (Borner et al., 2018). Indicatively, a review of millions of publications, course materials and job descriptions showed that the soft social skills, such as teamwork, communication, etc., are demanded more as hard technical skills and tools are demanded more (Borner et al., 2018). This implies that the more technologically advanced the workplace is, the more the uniquely human skills are becoming an essential factor.

Soft skills have always been rated by employers in various industries as very important in hiring decisions. An interview of employers showed that communication, problem-solving, and teamwork are some of the most demanded qualities of new employees. Another point that was raised in the same study was the great disparity between the perceived importance of these skills by the employers and their satisfaction with the competence of new graduates. It is this skills gap that makes it necessary to make educational institutions focus more on the development of soft skills in students.

4.3. Models of Skill-Based Education

As a reaction to the increasing demand of a holistic approach to skills, numerous learning institutions are shifting to the paradigm of skill-based education, which aspires to the combination of skills trainings (both hard and soft). These models differ in the approach and implementation; however, they all aim at offering students a more relevant and practical education. The following are some of the popular models of skill-based education:

Competency-Based Education (CBE): CBE is an educational model that emphasizes on what students know and are capable of doing, as opposed to the number of times they spend in a classroom. Learning under CBE model is quantified by demonstrating competencies, which can be described as a complex of knowledge, skills and ability. In many CBE programs, it is common to combine both the training of soft skills with technical competencies as both have been perceived as the keys to achieving success in workplace.

Project-Based Learning (PBL): PBL is an instructional strategy centred on the student where students are taught through their participation in real life and personally significant projects. PBL offers the perfect setting when it comes to hard and soft skills. When students undertake challenging projects, they are able to not only gain technical knowledge and skills, but also gain important soft skills like teamwork, communication, problem solving and project management.

Work-Integrated Learning (WIL): This is a somewhat broad term describing a variety of educational programs in which academic study is paired with hands-on work experience. WIL programs, which include internships, co-operative education and apprenticeships, give students a chance to use their knowledge and skills to work in a practical environment. Both hard and soft skills are invaluable, and these experiences develop the developability of students in enhancing their employability.

Table 3

Alignment of Skill-Based Education Models with Integrated Skill Development

| Pedagogical Model | Core Focus | Primary Hard Skills Developed | Primary Soft Skills Fostered | Key Implementation Consideration |
|-------------------|------------|-------------------------------|------------------------------|----------------------------------|
|-------------------|------------|-------------------------------|------------------------------|----------------------------------|



| | | | | |
|---|--|--|---|---|
| Competency-Based Education (CBE) | Mastery of predefined competencies. | - Specific technical skills as defined by competencies (e.g., accounting principles, coding standards). | - Self-paced learning, time management, metacognition, perseverance. | Requires a robust and valid assessment system for each competency, especially for soft skills. |
| Project-Based Learning (PBL) | Solving a complex, authentic problem. | - Technical skills required to complete the project (e.g., research methods, software use, design principles). | - Collaboration, communication, problem-solving, critical thinking, project management. | Projects must be well-designed to be truly challenging and not just a series of tasks; requires skilled facilitation. |
| Work-Integrated Learning (WIL) | Application of learning in a professional context. | - Industry-specific tools and procedures, technical standards. | - Professionalism, workplace communication, networking, adaptability, ethical judgment. | Dependent on strong industry partnerships and reflective components to connect experience to academic learning. |

This table provides a clear, at-a-glance comparison of the models. It helps you argue that while all models aim for integration, they have different strengths and emphases.

Implementing Integration

Curriculum Mapping and Faculty Development, for these models to be successful, institutions must move beyond isolated programs and embed skill development into the core curriculum. This requires deliberate curriculum mapping to ensure progressive development of key soft skills across a student's entire degree. Furthermore, faculty, often experts in their technical fields, require support through professional development programs to effectively facilitate, mentor, and assess these integrated skills.

Critical Discussion

The recent change to a skill-based education system that incorporates both hard and soft skills has significant implication on all the stakeholders in the education system. Although the advantages of such approach are obvious, there are a number of obstacles, which should be also resolved.

The evaluation of soft skills is considered to be one of the primary problems. Soft skills, compared to hard ones, are more subjective and situation dependent as they are difficult to measure using the common evaluation tools. The creation of valid and reliable processes of measuring soft skills is not a simple task that should be approached in a multi-faceted manner. Peer, self-assessment, behavioural observation, and situational judgment tests are some of the promising techniques of evaluating soft skills. Nevertheless, the research is required in order to confirm these approaches and to make sure that they can be considered as just and impartial to all students.

The other problem is that there should be a radical shift in the attitude of the teachers and policy makers. Many education systems are well embedded with the traditional model of education, which places an emphasis on rote learning and standardized testing systems. To shift towards a skill-based approach, we need to have a paradigm shift in our thinking of teaching, learning and assessment. Teachers must be educated in the new pedagogical strategies, including PBL and CBE and they must be assisted in their endeavours to incorporate the learning of soft skills in their schools. The policymakers also play an important role in ensuring that there is a conducive policy environment that promotes and incentivizes innovation in the education sector.



Suffice to say though, the shift towards skill-based education is good and needed. We can prepare students more effectively to the challenges and opportunities of the 21st century by providing them with a holistic toolset that consists of both hard and soft skills. Such an education system based on skills will not only make a person employable and more successful in their careers but will also help create a more innovative, productive, and fair society.

Deeper Dive: The Challenges of Assessing Soft Skills

The process of evaluating soft skills is, per se, more difficult than technical knowledge. Although the necessity of such skills is beyond question, measuring them is a difficult issue within the educational institutions in terms of both methodological and practical aspects.

Table 4

Multimodal Approaches for Assessing Soft Skills

| Assessment Method | Description | Best Suited for Assessing... | Advantages | Challenges |
|---|---|---|--|--|
| Behaviourally Anchored Rubrics | Structured scoring guides with explicit criteria describing performance levels for specific behaviours. | Communication, Collaboration, Leadership, Professionalism. | <ul style="list-style-type: none">- Reduces subjectivity.- Provides clear feedback for development.- Promotes consistency across raters. | <ul style="list-style-type: none">- Time-consuming to develop.- Requires rater training to ensure reliability. |
| 360-Degree Feedback | Gathering feedback from a circle of sources (peers, instructors, self, and in WIL, supervisors). | Teamwork, Interpersonal Skills, Influence, Leadership. | <ul style="list-style-type: none">- Provides a holistic, multi-perspective view.- Mitigates single-rater bias. | <ul style="list-style-type: none">- Logistically complex to administer.- Requires a culture of trust and constructive feedback. |
| Reflective Portfolios & Journals | A curated collection of student work accompanied by personal reflections on their learning and skill development. | Critical Thinking, Self-Directed Learning, Ethical Judgment, Adaptability. | <ul style="list-style-type: none">- Captures growth over time.- Encourages metacognition and self-awareness. | <ul style="list-style-type: none">- Can be difficult to score reliably.- Risk of being descriptive rather than critically reflective. |
| Simulations & Situational Judgement Tests (SJTs) | Candidates respond to realistic scenarios, either in action (simulation) or by choosing a course of action (SJT). | Problem-Solving, Decision-Making, Resilience, Communication under pressure. | <ul style="list-style-type: none">- Provides a standardized "test" of applied skills.- High face validity with employers. | <ul style="list-style-type: none">- Development is resource-intensive.- May not perfectly predict real-world behaviour. |

Value Added: This table moves the discussion from merely stating that assessment is difficult to providing a concrete framework for how to do it. It demonstrates a deep understanding of the issue and presents a "toolkit" approach, arguing that a combination of these methods (a multimodal approach) is necessary for a valid and fair assessment of soft skills. This directly addresses the critique and strengthens your paper's credibility.

Subjectivity and Lack of Objectivity: Soft skills are usually exhibited in behaviours and attitudes which may be perceived differently by different assessors. Such skills as professionalism, ethics, and communication can hardly be measured by the right-or-wrong scales (Virk et al., 2020). This subjectivity can be viewed as a weakness, but in the hands of skilled people, it can serve as an advantage as they can give



subtle feedback. Nevertheless, it also presents the risk of the rater bias, as the assessment of a person is consciously or unconsciously affected by the personal opinions or prejudices (Feldman et al., 2012). To curb this, assessing evaluators should be strongly trained to harmonize the evaluation standards and minimize judgmental errors.

Emerging technologies offer promising avenues for overcoming these challenges. Digital badges and micro-credentials can provide verifiable, granular evidence of skill mastery beyond a transcript. Furthermore, learning analytics from collaborative software can offer objective data on a student's communication patterns and contributions to team projects, providing valuable insights to complement qualitative assessments.

Context-Dependence: The successful practice of a soft skill frequently requires the situation. To illustrate, one leadership style may be effective in one team, and it may not be effective in another. It is not an easy task to devise some standardized tests that will be able to predict performance under various conditions. As such, evaluations preferably need to be done in a real-life setting, where performance is involved, like by observing the clinical skills directly or through team-based projects (Kogan et al., 2017). These observations are time consuming and resource consuming.

Problem with Isolation: Soft skills are not isolated; they are usually intertwined. To illustrate, problem solving is best solved through critical thinking, creativity and in most cases, cooperation and communication. Sometimes it may be difficult to make an assessment that captures and measures one of these skills. This complex nature implies that holistic, project-based assessments are possibly more valid as compared to, those that seek to disaggregate and measure each soft skill individually.

Requirement of Specialized Tools and Rater Training: Multiple choice tests cannot really determine effective evaluation of soft skills. It requires application of such tools as behavioural rubrics, 360 feedback, portfolios, and simulation-based scenarios. The creation of such tools and, more crucially, the training of the faculty to use them efficiently and regularly is a big task (Feldman et al., 2012). The best-constructed rubric may be used unequally without proper training, which will deter the validity of assessment (Kogan et al., 2017).

Further Exploration: Successful Skills Based Education Programs

Nevertheless, many schools have achieved success in incorporating a model that brings out hard and soft skill development in spite of the difficulties. Such programs are usually the lights into the future of higher education.

Work-Integrated Learning (WIL) Models: The University of Waterloo in Canada is famous because of its large co-operative (co-op) education program. The students will spend their terms alternating between academic and paid works in their selected field. This model compels the theory of technical skills (hard skills) to become practically and professionally applied in the workplace, and at the same time develop the crucial soft skills, e.g., communication, professionalism, adaptability and teamwork. The practical implications of the workplace offer an incentive context that is a strong one to skill development.

Project-Based Learning (PBL) Curricula: Olin College of Engineering in the United States has constructed its whole process of curriculum based on project-based learning. The interdisciplinary theme of the work of students begins to solve complex, real-life problems in their first year. By doing this, one would make sure that the process of the technical engineering skills development cannot be related to the absence of collaboration, communication, and creative problem-solving. The model shows that a curriculum can be structured in such a way that it imparts the hard and soft skills together but not as individual subjects.

Competency-Based Education (CBE) pioneers: Alverno College in the United States is an older institution which has led the way in competency-based (ability-based) education. The curriculum has been clearly structured with the focus on the creation of a group of core competencies (e.g., communication,



analysis, problem-solving, social interaction) that is incorporated throughout all the courses and majors. Rather than letter grades, students are given specific detailed and actionable feedback of their performance and have to prove that they have mastered these competencies to progress. This model transforms the creation and evaluation of soft skills into a fundamental and transparent element of the learning process.

Entrepreneurship and Innovation Programs: There is a growing trend of universities creating centres and programs devoted to entrepreneurship which is a natural incubator to a combination of skills. These programs take students on a guideline on how to come up with a business idea, write a business plan, and how to pitch the business idea to the investors. It would involve a combination of hard skills (e.g., financial modelling, market analysis) with soft ones (e.g., persuasion, resilience, networking, leadership) (Tomy & Pardede, 2020). Such efforts demonstrate how colleges and universities can generate specialized settings that help cultivate the particular set of skills, which is required to be innovative.

Training of Trainers (ToT) Models: ToT interventions are an effective model of skill-based training in the professional world, and especially in global health. Such programs do not only train local professionals in a technical topic (hard skill), but in the ability to teach and mentor other people (soft skills) (Mormina & Pinder, 2018). Success of such programs is based on the leadership, communication and pedagogical skills of the local trainers that can be developed to generate a local workforce that is self-sufficient and sustainable. Universities can modify this model to train graduate students in how to work in the academic field and in leadership positions in the future.

These cases demonstrate that despite the difficulties, it is fully feasible to formulate and establish learning experiences to result in a graduate that is not only skilled in technical but also interpersonal skills necessary to make them successful.

Conclusion

To sum up, skill-based approach to education is no longer optional but a necessity of the modern era that concerns the integration of soft and hard skills. The demands of the labour market are changing rapidly and necessitate one to have a variety of skills in order to succeed in his career and to serve the society. Although the conventional models of education have largely only concentrated on the development of hard skills, the role of soft skills in the success of the 21st century is increasingly being realized.

The review paper has presented an extensive discussion on existing knowledge regarding the incorporation of soft and hard skills in education. It has outlined and distinguished between the two skill sets, has provided evidence of the increasing need of soft skills and has also discussed different models of skill-based education. The challenges that should be addressed in implementing a skill-based approach to education have also been indicated in the paper.

Moving forward, we urge policymakers to integrate soft skill outcomes into accreditation standards. We call on employers to move beyond passive criticism and engage in active partnerships, co-creating curricula and assessment tools. We challenge educational institutions to invest in faculty development and institutionalize skills-tracking mechanisms for every learner.

Future research must focus on longitudinal studies to quantify the long-term impact of skill-based education and explore cross-cultural dimensions of skill valuation. The ultimate goal is clear: to transition from an education system that primarily filters for technical knowledge to one that cultivates the holistic, adaptable, and uniquely human potential of every individual.

In the future, it is important that all the stakeholders such as teachers, policy makers and employers collaborate to encourage and assist in the growth of a comprehensive skills set in every learner. The future studies are aimed at creating and verifying the effective means of teaching and testing soft skills and also considering the long-term effects of skills-based education on the outcomes of individuals and society.



Through the adoption of a skill-based method of education, we will be in a position to empower people to have the skills required to live worthwhile lives and to create a brighter future among everyone.

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