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Importance of Future Skills and Competencies in Education

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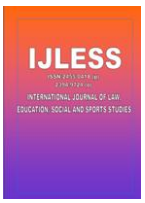

Abstract
At present world is transforming rapidly. Each individual has to imbibe certain skills and competencies to habitat themselves in the transforming world. Education connects an individual to the fast evolving world through its promotion of skills and competencies. Skills development is at the center changes happening in educational trends such as digitalization, Artificial Intelligence, climate change, which are changing the nature of education and skills demand. These evolving trends will redefine the paradigms of education systems globally. Consequently, skills and competencies development must proactively adapt to fast transformation posed by the changing systems. The traditional days are no longer useful with degree and specialization. One needs to imbibe skills and competencies which help one to survive in the future transforming world. In this article the significance of future skills and competencies in education discussed in detail.

Key Words: Future skills, competencies, transforming, digitization, evolving, imbibe.

Introduction

In today's fast growing world, the importance of skills education has become more evident than ever. The traditional notion of relying solely on academic degrees is no longer sufficient to secure a successful future. In this context, developing a diverse set of future skills and competencies are emerged as a critical factor for personal and professional growth. Skills are the ability and capacity to act and be able to use one's knowledge in a responsible way to achieve a goal. Future skills are an emerging concept based on the theory of competence and action, which form a holistic concept, involving the mobilization of knowledge, skills, attitudes and values to meet complex demands.

Defining Future Skills and Competencies:

Skills- These are the specific learned abilities that one need to perform a given task well. Examples, depending on the specific role, range from handling accounts and coding to welding or writing tenders. There is a distinction, however, to be made between hard skills and soft skills.

Where as a hard skill is a technical, and quantifiable skill that a professional may demonstrate through their specific qualification. A soft skill is a non-technical skill that is less rooted in specific vocations. An example computer programming. Apart from these two skills there is new skill called future skill is gaining importance.

Future skills refers to the set of competencies, abilities, and knowledge that are predicted to be in high demand in the future world. These skills are expected to help individuals adapt to the rapidly evolving technological, economic, and social landscape of the future.

Competencies, on the other hand, are the personal knowledge and behaviors' that lead them to be successful in future. Example one is improving in planning and decision making. Future competencies are the abilities that expected to be in high demand in the future. Some future competencies include interdisciplinary collaboration, creativity, innovation etc.

History of future skills and competencies development:

The concept of future skills recognizes that the workforce is undergoing a fundamental shift, driven by advances in technology, globalization and changing workplace dynamics. And this is not the new concept. Centuries ago many have propounded theories to analyze the importance of future skills and competence. Among them important are 'Natural selection' theory by Drawing and 'Survival of fitness' by Herbert Spencer is cited here. Continued with these theories in 19th century Britain introduced Industrial revolution which paved way for the development of machine skills development. And Britain witnessed a revolution by Luddites communities for replacing manual power with machines. Then in 1980s, the age of personal computers created a phobia among people to loose further more jobs. It increased fear of erupting out of the feeling that one can be replaced by a machine, became slave to it. This moved into the 1990s creating another technological anxiety the cyber space. At present many more changes happening in the workplace. Jobs were once considered stable and secure may no longer existing and new jobs are emerging that require a different set of skills and competencies. Research results revealed by Dell and the Institute for the future predict that 85 percent of jobs that will be available in 2030 haven't been invented yet. The world Economic Forum has predicted that the rise of automation and digitization in the workplace will displace millions of jobs. McKinsey Global Institute reporting that by 2030 intelligent agents and robots could eliminate as 30% of world's human labor. Automation will displace between 400 and 800 million jobs by 2030. To get adjusted to the upcoming transformation one need get proper education which help to accommodate one in the future world.

Meta-categories to describe Future Skills by (Athanasius Kotsiou.et. @ Irish Educational Studies): These categories were developed through thematic analyze implemented in an iterative manner. Each Skill, attitude and competency type were given equal consideration when developing initial groupings and the 9 meta-categories, which can be used to define Future skills.

Meta-categories	Skills
Higher-order thinking skills	• Decision making • Problem solving • Critical thinking • Systems thinking
Dialogue skills	• Collaboration • Communication • Empathy • Listening
Digital and STEM literacy	• Computational thinking • Digital literacy • ICT literacy

	• Digital citizenship • Online Safety
Values	• Ethical reasoning • Citizenship • Sustainability • Global awareness
Self-management	• Self-awareness • Resilience • Emotional intelligence • Positive attitudes • Confidence
Lifelong learning	• Learning to learn • Met cognition • Willingness to learn • Active learning
Enterprise skills	• Creativity • Initiative • Entrepreneurship • Curiosity
Leadership	• Responsibility • Goal oriented • Courage • Management
Flexibility	• Adaptability • Multi-tasking • Agility • Executive function

Future skills and competencies development in educational system:

Future skills are competences that enable individuals to solve complex problems in a self- organized manner and act successfully in highly emergent context. They are based on cognitive, motivational, and social resources, are value –based, and can be acquired in a learning process (Ehlers-2020)

Recognizing the urgent need to open a global discussion about education, in 2015 the OECD launched the "Future of Education and Skills 2030" project (Education 2030, transitioning to Education 2040). The project aims to support countries in adapting their education systems by considering the types of 21st century competences (knowledge, skills, attitudes, and values) that students and teachers need to thrive in the future. The Project promotes two strands of work. i.e. 1. Learning and Teaching for 2030 2. International curriculum Analysis.

In India many schemes are initiated many educational programs to inculcate the upcoming skills among the young generations. The government has taken policy decisions to address some skilling challenges- Skill India, PMKVY (Pradhan Mantri Koushal Vikas Yojana), RPL (Recognition of Prior Learning), etc. These technologies will require time and a lot of energy. Government collaborating educational institutions and industries to establish partnerships and implement proper education programs to help students learn future skills. Vocational training programs introduced. Project-based learning atmosphere created in all the educational institutions. The National Skill Development Corporation (NSDC) has been established to take initiatives to align education with industry needs.

Government is trying to extend many policy intervention to reform the education system to better align with industry requirements. Policies promoting vocational education, flexible curriculum frameworks, and the recognition of non-traditional learning pathways demonstrate a commitment to creating an adaptive educational ecosystem. By preparing educational institutions to integrate skill development into their core mission, the government aims to foster an environment where graduates become empower in academics and industrial market required skills. In spite of these many initiatives are taken by the stake holders not achieved the expected goal. It is essential to ensure that government efforts remain responsive to the rapidly changing dynamics of the professional landscape.

Challenges facing in the education system in future skill and competences development

Despite of introducing to many programs and alliance with other agencies to give skill education there are several challenges increasing the gap in future skill development. They are as follows

1. **Persistence of traditional curriculum-**One key challenge in the current scenario is the prevalence of outdated curricula that may not sufficiently address the dynamic needs of industries. It prioritizes theoretical knowledge over practical skills. From which graduates are lacking in the skills demanded by employers, creating future skills gap that is hampering both individual life and nation's development.
2. **Limited exposure and practical experiences-**A notable hurdle is the limited exposure to hands-on, practical experiences to hands-on, practical experiences with the educational journey. Students are well versed in theoretical knowledge and lacking to apply the knowledge in the real world scenario.
3. **Lack of specialized training-**Another challenge is the need for specialized training programs that cater to the unique requirements of different industries. The one-size-fits all approach prevalent in many educational institutions may not adequately address the diverse needs of sectors such as technology, healthcare and manufacturing.
4. **Inadequate infrastructure-**A lack of proper infrastructure plagues many higher education institutions in India, resulting in deficiencies in classrooms, laboratories, libraries and other essential facilities. In result students facing lack of knowledge in practical experiments and skills which leads to various problems.
5. **Lack of multi-disciplinary approaches-**In the Indian education system there are no methods and curriculum to integration to highlights the diverse [perspectives that different disciplines can bring to illustrate a theme, subject or issue. It is widening the gap between students and future society.

Future implications for the development of future skills and competencies:

Research conducted by Pearson co. and others revealed various implications for Education systems, employers, and individuals. Some implications are as follows:

For Education Systems:

- **Moving beyond generic definitions of "21st century skills"-** Education systems need to support better understanding, teaching practice, and assessment of the skills and competencies which are in great demand.
- **Developing pedagogies to support Dynamic knowledge and skill development-** Educational institutions need to provide supports to educators as they are asked to teach these future skills. This could require significant changes in teacher education or faculty incentives in educational institutions.

- **Adapting faster to the changing needs of the labor markets-**One thing that is clear from the research is that the pace of change will continue to accelerate. Education systems developed 20-30 years ago will actually need to plan for a future 20-30 years away.
- **Offering more flexible and adaptive pathways-**As the pace of change accelerates, learners will demand more ways to convert learning to earning. Although there will likely always be some demand for traditional brick-and-motor experiences, more learners want to accelerated and flexible pathways.

For Employers research implications related future skills and competence researches:

- **Self-directed learning and self-organized learning processes-**Companies must take care not to confine their focus on future skills purely to the strategic level. They must follow the matter through to the individual level, because skills are something developed by and in individual employees. Hence, the focus is on the individual's ability to successfully navigate change. And that should be acquired through overcoming real challenges. Self-organized learning processes do, however, require a clear framework and must be aligned with the company's strategy, objectives, and challenges.
- **Defining goals and visions**- Based on the company's own corporate strategy, on market analyses, and on the specific environment in which the company operates. The key is not to treat future skills as top-down skills and give employees an active role.
- **Reflection and operationalisation-**Teams and leadership personnel have a key role to play in the development of future skills. By organizing learning processes to deal with their specific challenges in their work and support them with workshops on learning potential, coaching programs and training methodologies like action mapping.
- **Building up capacity and integrating future skills into learning offerings-**A one-off, standardized solution won't do, because skills are acquired by individuals and are therefore highly dynamic. The company therefore needs to enable skill development in an integrated manner-in various learning environment and at different levels. This allows employees to develop skills in a way that matches their specific needs and learning situations.
- **Learning strategies and awareness campaigns as key components-**The starting point should be a comprehensive awareness campaign. The aim here is to communicate the importance of future skills and strengthen the strategic framework for their development. It is important to recruit them as multipliers and give them the tools they need to foster future skills in their teams.

Conclusion

As we come to conclusion the future skills development in Indian education, several promising trends and opportunities emerge, offering a glimpse into a more dynamic and responsive educational setup. The incorporation of new technologies holds the potential to revolutionize traditional teaching methods, making education more interactive and adaptive to individual learning needs. The ongoing digital revolution, accelerated by the global shift towards remote and online learning is reshaping Indian education system. The future of skill development in India lies in harnessing the full potential of technology to create inclusive, accessible, and quality educational experiences. Future professionals are expected to navigate complex challenges that require a combination of skills form various disciplines. Collaboration between educational institutions, industry stakeholders, and policymakers will be paramount in designing curriculum that not only address the current needs of the job market but also anticipate the evolving skill requirements of a rapidly changing world. The future of skill

development in Indian education lies in a dynamic, collaborative, and technology included approach that prepares students not just for jobs but for the diverse and unpredictable careers of tomorrow.

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