Study Skills Development As An Important Tool For Enhancing Competitiveness And Employability

Abstract:

Skill and knowledge are the driving forces of economic growth and Social development of the country. This conceptual paper contains the emerging trends in skill development in all over the world. This study provides the various skill development steps taken in the empowerment of each individual in the vast populated areas for the increase in the economic growth of the country. This paper will highlight the timeline of various trends from early stages to internet-based skills needed for today's scenario

Keywords:

skill development-demanded skills - emerging trends- employment - economic growth – recent tools.

Introduction :

Skill development is needed to empower the people and improve the employment and economic growth of the country. Countries with highers and better levels of skills adjust more effectively to the challenges and opportunities of world of work. It is a unique investment for harnessing the country's demographic dividend. Since India is the youngest in labour workforce, there is vast urge to skill the people efficiently. Various Skill Development programmes have been adopted both by the Public and Private sectors. They function as PPP (Public-Private Partnership) model.

By such programmes, the people get to raise confidence, improve productivity, and be directed towards their employment. There is also a need for skilling and reskilling the persons entering in the labour force. Many Labour Market Policy (LMP)programs such as Active LMP, which is given as pre-employment training, skill development and upgrading public works match supply and Passive LMP, for compliance of core labour standards, job scrutiny provisions, improving working conditions. There are four basic skill categories in the world such as

- Leadership & Management .
- Creativity & Communiation .
- Analysis & Reasearch .
- Technical & Information Skills .

Learning of skills may be of formal where structured curriculum leads to formal credentials, non-formal where less structured curriculum does not lead to formal credentials, informal take place through people activities and experiences. Also, skills are of two types (i) Hard skills (ii) soft skills

(i) Hard skills:

They are defined as the learned abilities, acquired and enhanced through practices, repetition and education. Hard skills include technical or administrative competence. There are many hard skills required by the employers such as Accounting, Administrative, Analytics, Auditing, Automotive Technology, Banking Operation, Bookkeeping, Budgeting, Carpentry, Construction, Database Management, Design , Editing, Electrical, Engineering, Financial, Hardware, Healthcare, JavaScript, Languages, Legal, Manufacturing Technology, Marketing Research, Mechanical, Medical Diagnosis, Nursing, Optimization, Pharmaceutical Coding , Pipefitting, Python Programming, Project Management, Proposal Writing, Reporting, Science, Software, Social Media Marketing, Spreadsheets, Teaching, Technical Writing, Testing, Translation, Transcription, Word Processing.

(ii) Soft skills:

They are the personality traits of people may spend in their whole life developing. Though hard skills provide employment, soft skills make them incredibly valuable and desired by their employers. It is necessary for sustainability and better persons at their workplace. Soft skills include Communication, Integrity, personality traits, flexibility, Courtesy, Interpersonal skills, Positive attitude, Professionalism, Responsibility, Teamwork, Work ethic, Critical thinking, Emotional intelligence, Social skills, Empathy, Social intelligence, etc..,

Table: 1.1. Topmost labour workforce in demand of skilled around the world :

- HIGH GROWTH SECTORS MAN POWER REQUIREMENTS
- Skilled trades Electricians, welders, mechanics
- Sales representatives B2B, B2C, Contact centre.
- Engineers Chemical, Electrical, Technical staff
- Drivers Truck, delivery, construction, mass transit .
- Technicians Quality controller, technical staff.
- IT Cyber security experts, network administrators, technical support.
- Accounting & Finance Certified accountant, Auditors
- Professionals Project managers, lawyers, researchers.
- Office support Administrative assistance, personal Assistants
- Manufacturing Production and machine operators
- Auto & Auto components Logistics, manufacturing, sales & services
- Retail Commercial Director, Administration manager, store keepers
- Gem & jewelry Quality control, cnc machines, drawing
- Real estate Civil engineers, architects, planners.
- Healthcare sales, marketing, HR, IT and operations, within the industry.

Timeline about Emerging of Skill Development in India:

- 1945 – All India Council for Technical Education (AICTE)
- 1947- Ministry of Labour and Employment (MoLE)
- 1951- Indian Institute of Technology (IIT’s) established.
- 1956 – National council of Training and vocational Trades. First industrial policy.
- 1961 - Apprenticeship Act.
- 1964 – National Institute for Career service established. & Indian Education Commission (Kothari Commission).

- 1966 - National Labour Policy.
- 1968 - National Policy (first). on Education (NPE).
- 1969 – (first) Industrial Training Institute.
- 1986 – (new) National Policy on Education.
- 1992 –National Policy on Education (Modified).
- 1998 – Skill Development Act
- 2005 – Public-Private Partnership (PPP) model esatablished
- 2005- 2006: Government Upgraded 100 ITI's.
- 2007 – National Institute of Technology (NIT) Act National Institute of Technology Science Education and Research.
- 2008 – National Skill Development Corporation (NSDC) established.
- 2009 –National Policy on Skill Development (first).
- 2013 – National Skills Qualification Framework (NSQF) & National Skill Development Agency (NSDA) established.
- 2014 – Apprenticeship (Amendment) Act & Ministry of Skill Development and Entrepreneurship (MSDE) established.
- 2015 –National Policy on Skill Development & Entrepreneurship Training and Apprentice Division moved to MSDE
- 2015-2022: "Skill India "

Emerging Tools:

Emerging tools are used to bridge the skill gap found among the people. In the Learning Development of Professionals, the pace of disruption , required innovations and changing technology play a key role in knowing not only how but also when and why to use emerging tools. There are various trending tools to shape the skills in the people for the current requirements for the labour force . They are as follows;

- Artificial Intelligence (AI).
- Rapid e-learning authoring tools.
- Robotics.
- Technological Areas.
- Digital Badging.
- Augmented Reality (AR) & Virtual Reality (VR).
- Blockchain.
- Reinforcement Tools.
- 3D printing & Design.
- Immersion technologies to manage change.
- Cyber security.
- Data sciences.
- Quantum computing.
- Internet of Things (IoT).

Technological Areas :

A fully-networked platform and a standardised framework that could help all skills centres spread across the country to effectively communicate with one another and help dynamically aggregate and help with cross-dimensional views of information. The most major domino effect

of technology is being felt in the education and training sector. While reducing the burden on physical infrastructure, technology deployment for skill development can lead to lower costs, higher quality, and greater reach. Social innovations are blooming in a world that has become a global village due to the collapse of geographical and temporal boundaries. Learning by doing is the new mantra for vocational education and skill development. The government has allocated sizeable budgets and has engaged the services of some of the large IT and skill development companies to help in putting all of this backbone and framework in place.

Rapid e-learning :

Rapid e-learning is referred to as a methodology to build a learning course rapidly online. These tools allow anyone to create an e-learning context without knowing the programming language. They often contain pre-made templates, themes and animations. It is also called “ Short form “ or “bite-size “ learning. It is changing the landscape of e-learning.

The authoring tools for Rapid e-learning to consider are Elucidat, Adobe Captivate, articulate storyline, inspiring suit, gomo, etc., The rapid e-learning tools are of three types:

1. PowerPoint-based add-ins,
2. installation based authoring tools,
3. cloud-based authoring tools.

Jobs related to e-learning are Instructional Designer, E-Learning Consultant, Content, Developer, Course Developer, LMS Administrator, Learning and Development Specialist, ELearning Marketing Specialist, Subject Matter Expert.

Artificial Intelligence (AI) :

AI is defined as a system's ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation.' Instead of having to manually program any dashboards and reports, organizations can use intelligent AI to automatically learn from data, while using non-technical domain experts to convert these learnings into valuable business insights.

Machine learning models can automatically suggest learning experiences and self-optimize by analyzing historical matches and continuous learner feedback. This way, people can be paired with the best mentor and resources to support their mentorship program, or with experts, the right peers, and resources to collectively go through a meaningful group learning experience.

Robotics :

Robotics is such a powerful tool in education and it has gained a notable impact in the field of teaching computer science, engineering, math, physics and similar. As educational robotics laboratories stimulate many different abilities in students, such as problem solving and group working, it is possible to use robotics to promote soft skills as well. With the rapid development of robotic technologies, particularly programming tools and low-cost electronic kits, educational robotics products constitute more accessible tools for school students and are more compatible with the concept of maker education.

Although educational robotics provides an innovative way in informal learning environments, using Lego robotics products have presented divergent findings regarding content knowledge gains and the development of problem-solving skills.

Augmented Reality(AR) & Virtual Reality (VR):

Augmented reality (AR) is expressed as an interactive experience of a real-world environment where the objects that reside in the real world are enhanced by computer-generated perceptual information, sometimes across multiple sensory modalities, including visual, auditory, haptic, somatosensory and olfactory.

Virtual reality (VR) is referred to a simulated experience that can be similar to or completely different from the real world. Applications of virtual reality can include entertainment (i.e. video games) and educational purposes. In projector-based virtual reality, modelling of the real environment plays a vital role in various virtual reality applications, such as robot navigation, construction modelling, and aeroplane simulation. Image-based virtual reality systems have been gaining popularity in computer graphics and computer vision communities. In generating realistic models, it is essential to accurately register acquired 3D data; usually, a camera is used for modelling small objects at a short distance

Mixed Reality MR(both AR & VR) is a boon for today's workforce demand for more advanced training and skills development in the various industries . It's an incredibly effective way to teach students about highly advanced technological processes, such as STEM and coding; plus, it makes the process of learning information faster and more fun.

Reinforcement tools:

Reinforcement is used to retain the skills learned for development. Training reinforcement is essential to ensure that knowledge and skills learned in training are applied on the job. There are three ways to reinforce skills: repetition, applicability and effective use of technology. It provides a comprehensive reinforcement process and numerous simulation-centric tools to help to ensure sustainability and application of learning. The output of reinforcement includes SMART Action Plans, Follow-Up Webinars, Virtual Role Plays, Artificial Intelligence, Skill Individual or Team Simulation play, eLearning.

Digital badging :

Digital badges can signal achievement to potential employers; motivate engagement and collaboration; improve retention and levelling up in learning; support innovation and flexibility in the skills that matter; and build and formalize identity and reputation within learning communities. digital badge learning trajectories and criteria can be flexible tools for scaffolding, measuring and communicating the acquisition of knowledge, skills or competencies. There is a significant increase in measures of motivation including self-efficacy, self-regulation and perceived competence found among the learners. Development and Implementation of Digital Badges for Learning Science, Technology, Engineering and Math (STEM) Practices has been found useful.

Immersive learning to manage change :

“Learning is experience. Everything else is just information.” Says Einstein. Likewise learning is something developed by practices to manage sudden changes. New technologies are creating opportunities to make immersive learning more experiential, creating the opportunity to “transport” people into an environment or situation where they are enveloped and engaged at greater depth than previously possible. And the technology is poised to make the leap into workplace learning, as factors conspire to bridge the gap between possibility and practicality.

More deeply immersive learning is now possible, and it’s bringing with it a powerful tool for delivering more memorable and meaningful learning experiences. However, there is now a new generation of immersive technologies, including interactive 360-degree video, virtual reality (VR), augmented reality (AR), mixed reality (MR) and, a little further down the line, haptics, which holds exciting possibilities for bringing deeper immersive learning into the workplace.

Conclusion :

Skills development can be an important tool for reducing poverty and exclusion and enhancing competitiveness and employability.

India can achieve the target of skilling its younger generations only through a strong partnership and collaboration of all stakeholders including government/policymakers, industries, the education sector and last but not least, the students themselves. Since there is an avalanche opportunity are available for skilled personnel in the country, these emerging tools should meet up with the required skills for today’s digital ecosystem.