Impact of Skill Enhancement Training on Quality of Work Life– A Review

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ABSTRACT

Purpose: *The paper aims, through a literature survey, to study the skill enhancement initiatives of the Government, measures taken by Higher Education Institutions and the role of corporate sector in skill enhancement. The paper also examines the earlier mismatch between industry requirements and academic practices which necessitated skill enhancement efforts and the impact such training programmes have on Quality of Work Life of graduates.*

Design/Methodology/Approach: *The data for the literature survey is collected from several secondary sources such as research papers, news articles, and websites.*

Results/ Findings: *The review paper shows the existence of skill gap between the levels required by industry and the levels acquired by graduates. HEIs have re-modelled course content and teaching methodologies to make degrees corporate integrated. The Government has initiated a large number of initiatives to reach its goal of skill enhancement among the workforce/students. The paper also notes the importance of skilled human resources, positive effects of skill enhancement on employee performance, job satisfaction, and also organizational performance.*

Value: *Through a detailed analysis of literature on the topic, the paper emphasizes the need for skill enhancement efforts.*

Type of Paper: *Literature Review*

Keywords: Skill Enhancement, Impact of Training, Quality of Work Life, Skill gap, Literature survey.

1. INTRODUCTION :

The fourth industrial revolution which is characterized by rapid innovations in technology has brought about far-reaching changes for production and service industries. Skill and efficiency are among the success factors that are essential to survive in this competitive environment. The relationship between skills and economic growth has been well established [1]. Skill development can help reduce poverty by making people more employable [2]. Skill gap is lack of requisite skills and skill mismatch is the under and oversupply of skills [3]. One of the challenges faced by manufacturing and service sectors is enhancing skills of graduates to increase their job-readiness [4]. Anomalies have been observed in the demand and supply of skilled workers with higher order skills [5]. The problem of skill gap is prevalent in many parts of the world. In the U.S., there are studies that note lack of job-readiness among graduates [6]. In Europe, skill gaps are found in communication, critical thinking, problem-solving and social skills [7].

In India, all stakeholders are involved in the efforts to generate human resources with industry specific skills. Collaboration between industry and educational institutions can enhance value [8]. The education system is being remodeled in a way that students can develop capabilities for life-long learning [9]. The NEP has laid emphasis on research so that skills for the professional field are developed [10]. Industry has involved itself in skill enhancement through knowledge sharing and internships.

The purpose of skill enhancement is both for the employability of graduates as well as ensuring career

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progression and job satisfaction for individual employees. When workers are encouraged and trained to develop new skills, they are more satisfied with their job [11]. Career and skill development is found to be a key driver of Quality of Work Life [12]. Also, skill development positively influences work performance [13]. Training for skill enhancement has a significant impact on the profitability and market performance of a firm [14].

Skill enhancement is thus essential for the individual, organization and economy.

2. OBJECTIVES OF REVIEW PAPER :

(1) To study the problem of discrepancies in skill levels attained and skill level expected by industry i.e., skill gap and the extent of this problem.
(2) To review the current status of skill enhancement training initiatives by HEIs, Government and industry.
(3) To understand the impact of such training on the Quality of Work life of employees and job readiness among students.
(4) To identify the scope for further research in the area.

3. METHODOLOGY :

For this review paper, databases such as Google Scholar and Cross Reference were searched to collect journal articles. A total of 110 papers and reports were reviewed and articles were searched using keywords such as "Skill Enhancement", "Skill Gap", "Impact of Training", "Quality of Work Life" etc. Data was also collected from other secondary sources such as websites and news reports.
The data has been grouped under each keyword and presented in a tabular form.

4. REVIEW OF LITERATURE/ RELATED WORKS :

4.1. The Role of Educational system in Skill Enhancement

The HEIs are a major source of recruitment for industry. As such, there is a need for graduates to be equipped with skills for job roles. A study by Jain and Jain [15], proposes a framework to develop career orientation in terms of goal setting, networking and job involvement. Naqui and Parvez [16], propose a holistic method of learning where learning is a result of one's own experiences. Rajni Singh et. al., [17] propose Research Based Learning as a means to ensure zero gap between academia and industry. PK Paul, Aithal, P. S. and Others [18] maintain that an innovative approach by many HEIs is that of offering degrees and programmes that are Corporate Integrated. The study lists out universities offering such programmes and also a detailed list of courses offered and companies with which they have collaborated. P. K. Paul, Aithal, P. S. and Others [19] make a study of skill-orientated Engineering courses offered by different private universities. The study notes that in Computer Science Engineering, a large number of innovative subjects catering to new emerging areas of technology are offered, the most popular being cloud computing.

4.2. The problem of skill gap

Several reports have mentioned about the low levels of employability among graduates in India. The National Employability Report [20]- Engineers, 2019 reports the poor level of preparedness of engineering graduates for next generation technological skills. The Report finds that only 2.5% of Indian Engineers possess skills in AI, only 2.8%- 5.3% are qualified in wireless technology and only 1.5- 4.5% have necessary skills for data engineering. A study [21] finds that only 10% of the MBA graduates and 17% of engineering graduates are job-ready. Another study [22] finds that due to their poor English language and cognitive skills, 47% of the graduates are not employable. The India Skills Report, 2019 [23], notes that in the preceding half a decade, employability levels among MBA students have reduced from 41.02% to 36.44%.

Several studies have documented the low levels of employability among graduates in various sectors of the economy. Premkumar Balraman and others [24] identified the skill mismatches and training requirement of the Indian Aviation sector. A study by Sipra Karmakar and Bibhunandini Das [25] finds, through a literature survey, skill gap in various industries such as Food Processing Banking, hospitality industry, Information Technology industry and manufacturing sector. Rameshwar Dubey and Tripti Singh [26] identify the variables that cause skill gap in the logistics sector. Sucha Singh and

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Kulwinder Kaur [27] find that a lack of formal training has resulted in skill gap in the paint and coating industry.

4.3. The role of industry in skill enhancement

The cost of skill enhancement is considerable and Manish Kumar and others [28] address the question of who should bear the cost of such programmes. The paper makes a case for financing these programmes by private sector and lists out the benefits derived by all stakeholders. The study shows that firms surveyed are open to a public-private partnership for skill enhancement.

Industry members have taken proactive measures to overcome the skill deficiencies and have involved themselves in the academic ecosystem to enhance the quality of education to bring out candidates with industry- ready skills. The Campus Connect program started by Infosys [29] is one such program where the company shares with more than 300 engineering institutions its expertise and learning resources. Industry involvement ranges from setting up training institutes to tie ups with other institutions [30]. Industry can play an important role in skill enhancement by providing opportunities for internships and resource sharing through guest lectures.

4.4. The process of collaboration between industry and the educational system

A particular study [31] has stressed the importance of coordination between industry and the educational system to overcome the existing skill gap problem of the country. Vinay K. Nangia [32] and others identify barriers to industry – academia interface and put forth a wide range of suggestions to improve collaboration between the two. Lalit Upadhyay [33] attributes the low quality of the technical graduates to the disconnect between the educational system and industry and presents an innovative method to analyse the impact of collaboration with industry on the quality of technical education. Gouri Palsokar [34] and others in a study of the pharmaceutical industry find that there is a industry-academia expectation gap.

4.5 The role of Government

The Government is aiming to improve skill levels among the workforce through various initiatives under the banner of Skilling India. NEP 2020 aims to promote learning which is holistic [35]. Teaching methodology will focus on developing skills of communication and presentation, research orientation and developing abilities for critical analysis [36].

4.6 Role of non-profit organizations

Several non-profit organizations have undertaken skill enhancement initiatives, particularly for those from less privileged backgrounds. Upadhyay [37] in a study of socio-economic background of IT professionals finds that among those from rural areas and lower-income groups, the skill gap is higher, affecting their job entry and career progression.

In D.K. district, one such non-profit organization the WKC has established Kshamata Academy [38] for motivating and providing soft skills training to students from lower income groups pursuing professional courses.

Table 1: Scholarly literature on Skill Enhancement

S. No.	Focus Area	Findings	Reference
1	Skill enhancement	The study analyses the problems encountered in skill enhancement efforts and vocational training in India. The study recommends overcoming bias towards vocational training when compared to formal education and making it more acceptable. The paper notes that adequate training and better working conditions are a must for the trainers.	Pilz, M., & Regel, J. (2021). [39]
2	Skill enhancement	The paper studies the skill enhancement policies undertaken at the state and national level pursuant to the skill development mission of the country. The paper outlines the difficulties encountered in this mission and comes out with recommendations to upgrade the quality of training and	Sharma, E., & Sethi, S. (2015). [40]

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		reduce the skill mismatch. The paper emphasizes the necessity of a skill survey to find out the nature and extent of the skill gap problem in the country.	
3	Skill enhancement	The study outlines the skill enhancement efforts in India and points out the challenges faced in skilling the labour force. The paper studies the vocational and technical training models adopted by Brazil, China and Singapore. The study recommends introducing vocational training at school level.	Sharma, L., & Nagendra, A. (2016). [41]
4	Skill enhancement	The paper studies the skill enhancement eco system in India and the national programmes for skill development. Among the suggestions of the paper are incentives to develop on the job skilling and re skilling in both public and private sectors and introducing industry-oriented curriculum in schools, colleges and universities.	Chenoy, D., Ghosh, S. M., & Shukla, S. K. (2019). [42]
5	Skill enhancement	The paper outlines the measures adopted both by the government agencies and corporates to build up skills. The study calls for setting up a Labour Market Information System for assessing and predicting skill shortages and skill gaps and also a designated agency to design industry-suitable courses.	Kanchan, S, & Varshney, S (2015). [43]
6	Skill enhancement	A detailed study of the efforts of the government to further its skill enhancement agenda is made. The paper calls for synergy among various agencies involved in skill development.	Jamal, T, & Mandal, K. (2013). [44]
7	Skill enhancement	Skill enhancement initiatives, in particular, the NSDM and NRLM which are participating in skill enhancement for MSEs are studied. The study found that in NRLM, the PPP projects were well monitored and calls for increasing awareness about these programmes and better monitoring for the government sponsored schemes.	Das, A. (2015). [45]
8	Skill enhancement	The Russian concept of TRIZ analysis is used to propose a model for an effective skill development eco system which ensures high quality and is capable of innovating continuously. The model calls for integration of all institutes engaged in imparting technical education and training, integration of all current and future schemes of the govt. for skill development and proposes a mechanism for a fund generation. The paper defines the roles and responsibilities of all the members of the eco system.	Shrotriya, S, & Dhir, S. (2018). [46]
9	Skill enhancement	The paper studies skill development undertaken in countries like Germany, South Korea, China, UK, Singapore and stresses the need for incentives to the private sector in the form of subsidized land and preference in allotting govt. projects in order to encourage participation of industry in skill development initiatives.	Punjani, K. (2019). [47]
10	Skill enhancement	Various skill development initiatives in the country and the existing mechanism for delivering such schemes are studied. A certain lack of coordination between different agencies and lack of private participation are some problems in implementing these schemes.	Misra, S. K. (2015). [48]
11	Skill enhancement	The paper notes that in the post pandemic scenario characterized by technological development, the skill gap issue has become more critical.	Behera, B., & Gaur, D. M. (2021). [49]

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12	Skill enhancement	The paper examines the skill development initiatives of the government and lists the objectives, activities and achievements of the NSDC, the NSDA and PMKVY.	Kedar, M. S. (2015) [50]
13	Skill enhancement	In a study of the initiatives of NSDCB and NSDC and other vocational training centers requirement for increasing skilling initiatives in rural areas, financial incentives for those participating in them and differential wages for skilled workers is observed.	Kapur, R. (2014). [51]
14	Skill enhancement	There is a well-developed network of educational institutions offering a wide range of technical, nontechnical, professional and non-professional courses in the country. However, the skill levels attained by the labour force is insufficient to meet the requirements of a highly competitive knowledge-based industry. The paper makes a case for internships along with class room training and a well-designed curriculum to equip students with necessary skills.	Malhi, R. K. (2017). [52]
15	Skill enhancement	Differences between Chinese TVET system and the Indian system in terms of quality of education a training of teachers' role played by govt and industry are discussed. The paper calls for offering vocational training free of cost, innovative ways of industry participation and ways of financing the TVET system. Drawing from the success of the Chinese system, the paper recommends the introduction of vocational curriculum at secondary level, designing of curriculum in a way to incorporate academic skill as well as content associated with a particular occupation.	Mehrotra, S., Gandhi, A., & Kamaladevi, A. (2015). [53]

Table 2: Scholarly literature on Skill Gap

S. No.	Focus Area	Findings	Reference
1	Skill Gap	Through a literature survey, a vast gap in the skill expectations of industry and the skills of the Indian workforce is observed. The paper points out the necessity of upgrading the skills and outlines the role of industry, government and academia in this process.	Malik, G. and Venkatraman, A. (2017). [54]
2	Skill Gap	The various facets of the skill gap among workers, the characteristics of tertiary education, occupation and industry are studied. It is recommended that non-graduate technical diploma holders can be upscaled to occupy certain grades of jobs meant for graduates.	Unni, J. (2016). [55]
3	Skill Gap	The paper is based on an online survey of 157 employers in different sectors and regions of India to find the importance, level of skill sets and how far they are satisfied with the skill level of freshly hired engineering graduates. The study found that employers give highest importance to soft skills such as communication skills and core employability skills. Maximum skill gap reported in higher order thinking skills. The paper puts forth suggestions to redesign curriculum to include these skills.	Blom, Andreas and Saeki (2011). [56]
4	Skill Gap	The paper finds skill gaps among fresh engineering graduates in the US and Europe. This empirical study found that graduates fresh out of engineering colleges lacked	Radermacher, A., Walia, G., & Knudson,

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		communication and problem-solving skills. They also had problems with using several software tools.	D. (2014). [57]
5	Skill Gap	The paper identified skill gaps in various competency categories such as professional, methodological, social and personal skills. The study advocates the use of project-based learning in colleges.	Büth, L., et al. (2017) [58]
6	Skill Gap	The paper studied perceptional differences with regard to required skills and competencies between employees and students. The study found that respondents differ in perception of various skills.	Misra, R. K., & Khurana, K. (2018). [59]
7	Skill Gap	In a study of 40 HR managers from different IT companies, the paper tries to find if the skill sets of management graduates are up to the expectations of the employers. A significant gap in the actual skills possessed and skill level expected, across all categories of skills is found.	Nagaraju, E., and Subbarayudu, Y. (2017) [60]
8	Skill Gap	The paper studies employability readiness of under graduate students pursuing courses other than engineering. The study reported that the current university curriculum is not sufficient for meeting the skill requirements of industry and puts forth suggestions for revamping of curriculum, mandatory internships and project work.	Zeidan, S., & Bishnoi, M. M. (2020). [61]
9	Skill Gap	The paper reviewed literature on 120 employer surveys in various developed and developing countries. The report examines the extent and causes of skill gap. The report calls for a specific definition of skills that define employability and linking of the education and training eco system to the requirements of the job market.	Aring, M. (2012). [62]
10	Skill Gap	The paper lists out the skills required for the logistics sector and finds that there is a huge skill gap in the Indian logistics sector. Through an empirical survey of logistics professionals and students, the reasons for the skill gap in the sector are identified. The paper puts forth several suggestions, the main one being the introduction of Logistics and Supply Chain Management as a field of study, increased training for employees and better wages to attract talent.	Dubey, R., & Singh, T. (2009). [63]
11	Skill Gap	The paper makes a study of skill deficiencies in the informal sector, in particular, the construction sector. The paper compares vocational training in vogue in India with that of the Chinese system and identifies the reasons for skill gaps in all the categories of workers engaged in the construction sector.	Hajela, R. (2012). [64]
12	Skill Gap	The paper makes a study of the nature, scope and challenges of skill shortages in India and China. The paper contends that skill shortage is due to the inability to align the human capital planning mechanism to the needs to the growing and dynamic economy and proposes a framework for effective talent management. Among the many suggestions include introducing far reaching changes in HR practices, in particular, acquisition, placement and career development.	Chatterjee, S., Nankervis, A., & Connell, J. (2014). [65]
13	Skill Gap	This review paper identifies the extent, nature and reasons for lack of employability skills among youth qualified in various disciplines. The paper recommends that soft skill and other employability skill training should become a part of the graduate program.	Subramanian, K. R. (2017). [66]

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14	Skill Gap	The paper identifies the appropriate mix of skill sets required for employability of engineering graduates and also the shortcomings within the educational system which are responsible for the skill gap. The paper suggests three approaches namely, embedding, bolting -on and integrating for skill development.	Vyas, P., & Chauhan, G. S. (2013). [67]
15	Skill Gap	The study finds regional imbalance with wider skill gap in rural areas. Listing out the various reasons for the skill mis match the paper calls for curriculum revision to inculcate skills.	Saini, V. (2015). [68]
16	Skill Gap	The study maintains that there is skill gap in the labour market with a problem of both employment and employability. Some of the problems outlined in the paper are a regional imbalance in infrastructure for training and education , job opportunities, absence of standards for vocational training, shortage of trainers and assessors, inadequate monitoring and evaluation.	Afroz, Z. (2018) [69]
17	Skill Gap	The paper maintains that poor communication skills is a major cause of unemployability among engineering students. The paper evaluates the English teaching methodology in engineering colleges and its effectiveness in enabling students to go through the recruitment process, particularly GDs. 160 engineering students were surveyed. The paper recommends that English teaching should be more interactive and responsive to workplace communication needs.	Clement, A., & Murugavel, T. (2015). [70]

Table 3: Scholarly literature on Impact of Training

Sl. No.	Focus Area	Findings	Reference
1	Impact of Training	The paper is based on the results of a survey conducted among 135 employees of a firm in Indonesia. Hypotheses are tested using path analysis techniques. The study finds that training has a significant influence on work performance and career development. The study found that better performance on the job leads to career development of employees.	Niati, D. R., et al. (2021). [71]
2	Impact of Training	The study assesses the impact of the process of improving employee skill and abilities, on job performance at ESCON, a firm in South Africa. The study reports that training has a positive impact on job performance, morale and confidence levels of employees.	Kum, F. D., Cowden, R., & Karodia, A. M. (2014). [72]
3	Impact of Training	The study seeks to emphasize the importance of soft skills training as against hard skills or technical training, through a study of managers/ supervisors and executives of private firms in Malaysia. Using regression analysis, the study establishes that training methodologies and soft skills significantly predict employee work performance. The study recommends time-spaced learning as an effective technique of ensuring transfer of training.	Ibrahim, R., Boerhannoeddin, A., & Bakare, K. K. (2017). [73]
4	Impact of Training	The study analyzed the effect of training programmes on employee as well as organizational productivity. The study included a sample of 400 bank employees in Punjab. Using Multiple Regression analysis as a tool of evaluation, the	Kaur, J. (2016). [74]

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		study found that productivity was positively influenced by training programmes.	
5	Impact of Training	The paper explores the impact of training on worker productivity, through a literature survey. The authors observe that the Training and Development function contributes to quality enhancement of human capital. It is an effective means of skill development, improving employee productivity and company performance besides, facilitating motivation and retention of existing employees.	Nda, M. M., & Fard, R. Y. (2013). [75]
6	Impact of Training	The paper highlights that there are difficulties involved in defining and measuring the impact of skills on performance as different metrics are used to measure performance at individual, firm and economy levels. The paper suggests that improving the research design could help to establish the relationship between skills and performance.	Grugulis, I., & Stoyanova, D. (2011). [76]
7	Impact of Training	The paper examines the impact of training programme on employees. The study finds that training increases employees' skills and commitment towards quality and also improves performance standards.	Palo, S, & Padhi, N (2003). [77]
8	Impact of Training	The study finds that evaluation of the training often receives a backseat as the models are descriptive and subjective in nature with the indicators for evaluation not being specific.	Topno, H (2012). [78]

Table 4: Scholarly literature on skills for employability

Sl. No.	Focus Area	Findings	Reference
1	skills for employability	In a study of over 500 students pursuing engineering, this study sought to determine whether technical or non-technical education is key to ensuring employability of students. The study found that more than the technical education, soft skills is a stronger factor in employability.	Gokuladas, V. K. (2010). [79]
2	skills for employability	The study summaries the results of a panel discussion conducted to identify the skill sets lacking in engineering students. The paper finds that soft skills are more important to enhance employability of tech- graduates. The paper calls for widespread changes in the course content to inculcate Graduate Attributes enlisted by ABET, re modelling the evaluation methods to develop practical and cognitive abilities among students and involvement of industry in devising syllabus and instruction.	Tulsi, P. K., & Poonia, M. P. (2015). [80]
3	skills for employability	The paper studied the importance of skills from the employer's perspective. Using the Analytical Hierarchy Process (AHP) to analyze perceptions of hiring managers across three industry sectors, the study found that human skills are the most preferred skill set followed by communication, professional and technical skills.	Kulkarni, N., & Chachadi, A. H. (2014). [81]
4	skills for employability	The author has studied the various types of skills required for engineering graduates and has come out with suggestions to create awareness among Engineering graduates about the type of skills needed in the globalized scenario.	Mishra, D. S. (2016). [82]
5	skills for	The study included a sample of 507 and measures	Chand, P.

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	employability	employability with a 24-item scale. The study uses mediation analysis and regression analysis. The study found that there is partial mediation of Emotional Intelligence in the relationship of job-ready skills and job satisfaction.	K., Kumar, A. S., & Mittal, A. (2019). [83]
6	skills for employability	The paper lists out the skills which are required to enhance employability for engineering graduates. The paper outlines a three steps process - awareness, self-analysis and acquisition, through which the education system can facilitate the acquisition of employability skills.	Kaushal, U. (2011). [84]
7	skills for employability	Through a literature survey, the paper emphasizes the importance of proficiency in English language to improve employability. In a survey of English teachers and students of a UG course, the study found that English teaching is oriented more towards memorizing rather than developing presentation and writing skills. The paper suggested giving more emphasis to improving communication skills of the students.	Bharathi, A. V. (2011). [85]
8	skills for employability	The study identifies generic employment skills that are vital for securing a job and remaining employable. The study develops a scale on employability skills. The tools used for analysis include Exploratory Factor Analysis and Confirmatory Factor Analysis. The study identifies six dimensions along which these skills can be measured. The reliability of the instrument/scale ranges from moderate to high for each of these dimensions.	Misra, R. K., & Mishra, P. (2011). [86]
9	skills for employability	The study identified those factors/ skills which define employability of management graduates through a survey of 150 management graduates. The authors recommend that training programmes and workshops should be conducted to develop the skills identified in the study.	Shah, R. J., & Srivastava, N. A. (2014). [87]
10	skills for employability	The paper uses an innovative technique, the TISM to analyze the factors that have a bearing on the employability of IT graduates. Through in-depth interviews of techno managers at mid management levels, the paper finds that technical specialties, skills to manage technology and communication skills are the skills that determine employability of engineering graduates.	Sehgal, N., & Nasim, S. (2018). [88]

Table 5: Scholarly literature on impact of training on QWL (job performance)

S. No.	Focus Area	Findings	Reference
1	impact of training on QWL	The authors note that broader skills lead to the higher performance and better pay in current day industry. Using a sample of 100 managers from public and private sector banks, the study found that career management initiatives like skill enhancement and self-development undertaken by the banks have led to increased job satisfaction.	Kumudha, A., & Abraham, S. (2008). [89]
2	impact of training on QWL	The study notes that job satisfaction is a motivational factor that encourages employees to enhance their skills.	Pawar, P. A., & Raut, U. R. (2012). [90]
3	impact of training on QWL	The paper observed a strong positive correlation between skill enhancement training and employee satisfaction in educational sector.	Chaudhary, N. S., & Bhaskar, P.

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			(2016). [91]
4	impact of training on QWL	The study found that High Performance Work Systems (a platform for skill development and Worker's Participation in Management) have a positive impact on employee engagement, well-being and job satisfaction in Indian call centers.	Ananthram, S., et al. (2018). [92]
5	impact of training on QWL	The authors studied the impact of HRD climate which ensures skill development to match current and future job roles, on job satisfaction. The study, based on a survey of 70 managers from public sector organizations, found that HRD climate can positively influence job satisfaction.	Solkhe, A., & Chaudhary, N. (2011). [93]

Table 6: Scholarly literature on skill enhancement initiatives of HEI and collaboration with industry

Sl. No.	Focus Area	Findings	Reference
1.	Skill enhancement initiatives of HEI	The paper outlines the functions and roles of Higher Education Institutions (HEI) which are necessary develop human resources capable of contributing to the nation's progress. The paper points out that the objective of the HEIs should be to equip students with necessary skills to enable them to compete and sustain in the globalized, multi-cultural business environment.	Aithal, P. S., & Kumar, P. M. (2016). [94]
2	Skill enhancement initiatives of HEI	The authors evaluated the experiences and results of mentoring programs through e-internships. The authors note that e- internships are more prevalent in India and the US. The study used a sample of 158 e- interns working for different companies from various countries. The study found that e-interns had developed interpersonal skills, communication skills and ability to take strategic decisions. The interns observed that the mentoring program enabled them to acquire skills for career development.	Jeske, D., & Linehan, C. (2020). [95]
3	Skill enhancement initiatives of HEI	The authors carried out a study of 10 firms that have partnered with academic institutions to train students for employability skills. The study advocates course based and project-based teaching collaborations in place of the usual method of hiring graduates and then training them on -the - job.	Borah, D., Malik, K., & Massini, S. (2019). [96]
4	Skill enhancement initiatives of HEI	The paper identifies challenges and opportunities for private universities by analyzing various aspects of their functioning such as their contribution to research and development, designing curriculum to suit industry requirements, various levels of industry collaboration, tie ups with foreign universities, use of ICT, best practices and good governance. The paper includes an ABCD analysis of private universities and stakeholders and an analysis of National Institutional Ranking Framework.	Aithal, P. S., & Kumar, P. M. (2016). [97]
5	Skill enhancement initiatives of HEI	The paper lists out several approaches which can bridge the skill gap. The suggestions given include collaboration among universities and industry, education system oriented towards skill development, project base learning, compulsory internships and projects, technology enabled learning and so on.	Bano, Y., & Vasantha, S. (2019). [98]
6	Skill enhancement	The paper discusses an innovative programme adopted in a private college, e-Bridge programme. The e-Bridge	Devambatla, L., & Nalla,

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	initiatives of HEI	programme is a mechanism for student participation and cooperative learning through social constructivism. The paper reports that among the many benefits accrued to students were, improved communication skill and better performance in placements.	D. (2015). [99]
7	Skill enhancement initiatives of HEI	The paper notes that curriculum per se and real job performance do not match and that there is a need to incorporate skill supplements to boost employability. With an example of a private university, the paper outlines the measures undertaken to create employment preparedness and enlists the co-curricular activities designed to develop all round skill enhancement among students.	Aithal, P. S., Rao, S., & Kumar, P. M. (2015). [100]
8	Skill enhancement initiatives of HEI	The paper notes the merits of skill focused and research-oriented education models. The paper explains the five stages of growth of a private university. With an example, the paper proposes that a curriculum designed to incorporate research activities and industry focused skills can succeed in creating innovators who can usher in change.	Aithal, P. S., & Aithal, S. (2020). [101]
9	Skill enhancement initiatives of HEI	The paper highlights the results of a case study in ELP and Competitive programming. The study finds that in ELP, as Course Outcomes are linked to Program Outcomes, there is improvement not only in the employability of students but also their career growth and prospects.	Nair, P. R. (2020). [102]

The survey of literature undertaken shows

1. At one time, there was a gap between the type of skills imparted by the higher education system and the industry requirement resulting in lower level of employability among graduates and this effected many sectors of the economy.
2. Various studies have listed out the multi-pronged effort of the Government to promote skill development.
3. There are studies that have enlisted the various measures undertaken by the colleges to ensure job readiness among their graduates.
4. Other studies have put forth suggestions which could be adopted by colleges in terms of course content which help in inculcation of industry specific skills among the students.
5. Studies have shown that industries have also made a contribution through collaborations.
6. Some studies have pointed out the importance of skilled human resources for the development of the economy.

5. CURRENT STATUS & NEW RELATED ISSUES :

A review of scholarly works reveals that a large number of measures have been undertaken by all concerned stakeholders in response to the skill gap which effected many sectors of the economy.

Far-reaching changes in course content, teaching methodologies and evaluation are introduced by Higher Education Institutions to enhance skills among students to make them job-ready.

Through its Skill India mission and NEP 2020, the Government is also emphasizing on the need for industry-ready skills among graduates.

The corporate world has increased co-ordination with academia to ensure job-readiness among graduates.

6. IDEAL SOLUTION, DESIRED STATUS & IMPROVEMENTS REQUIRED :

Industry derives all required inputs, including human resources from external environment. The educational system provides the required human resources for the industry. The more efficient higher educational institutions have introduced many changes in their curriculum, pedagogy and evaluation system to include skill enhancement programmes. The ideal situation is these changes have to be adopted by all colleges so eradicate industry-academia skill gap.

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7. RESEARCH GAP :

There is a scope for undertaking a study which makes an analysis of the effectiveness of skill enhancement programmes in terms of Quality of Work Life, career progression and job satisfaction among engineering graduates of Dakshina Kannada district.

8. RESEARCH AGENDA :

1. The study would make a detailed analysis of the various efforts for skill enhancement for engineering students.
2. To Study the impact of these initiatives for job-readiness and ease of entering profession among the students.
3. The study would aim to analyze the satisfaction levels of trainees towards such initiatives.
4. As the impact of the initiatives should ideally be felt throughout the career, the study would aim to study the impact of the training on career balance, career progression and career satisfaction.

9. ANALYSIS OF RESEARCH AGENDAS :

The purpose of obtaining professional education such as engineering is to pursue career in the chosen field. Quality of Work life, defined as career advancement, career satisfaction and career balance [103] is an objective of both the organization and individual employee. Skill enhancement training enables individuals to convert knowledge into skills required for securing desired placements, good on-job performance, job satisfaction and finally, a proper work life balance.
The study proposes to examine the impact of skill enhancement training on Quality of Work Life among Engineering Graduates.

10. FINAL RESEARCH TOPIC :

Impact of Skill Enhancement Training on Quality of Work Life among Engineering Graduates

11. ABCD ANALYSIS OF CHOSEN RESEARCH PROPOSAL :

In the recent years, Aithal, P. S. [104] developed ABCD model which proposes a technique for analyzing issues relating to corporate, business and operational levels of a company. This model is a tool for studying different business models and analyze its effectiveness in terms of the value created for stakeholders. The quantitative analysis extension of the ABCD model helps in studying the organizational system by identifying key criteria [105]. The model constitutes a grid in which the Advantages, Benefits, Constraints and Disadvantages of the unit under study are identified from the perspective of stakeholders and influencing factors and key constituent elements are identified through elementary analysis and factor analysis [106].
ABCD model can be used in analyzing a company [107] and also an industry by examining the key attributes that affect an industry [108]. This enables the competitors in given industry to identify the advantages they can derive from the business environment and the constraints that can become challenges. Further, the benefits and disadvantages to stakeholders resulting from operations of the industry can also be studied [109].
The ABCD model has been used to analyze the chosen research topic and the findings are as follows:

Advantages

The Skill India initiative aims to upgrade skills of the working population. Right kinds and level of skill will enable to reap demographic dividend. Skill upgradation among the workforce is a must for Make in India campaign, i.e., the goal to make India a manufacturing hub.
Skill Enhancement is required to keep pace with the rapid technological innovations that characterize Industry 4.0.

Benefits

An analysis of the impact on Skill Enhancement on Quality of Work Life of graduates benefits all stakeholders.
(1) Benefit to Industry – Procurement of talent and ensuring the right skills among employees is a major concern for the industry. There may be a time gap in selection of right candidates and successful

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placement on the job. Also, the candidates will have to be trained before they are placed on the job. Right skilling can help reduce cost of training.

(2) Benefit to students – The right kind of inputs would be a huge boost to the student community in securing right kind of jobs, career progression and development, meet organization goals as well as individual career goals.

(3) Benefit to Academia – An insight into the effectiveness of skill enhancement programmes would enable HEIs to design courses, course content and content delivery in more effective manner and would make students job-ready. One important measure of the success of a HEI is the placement achieved by its graduates.

Constraints
The country has a vast network of institutions offering a wide variety of courses with huge enrolments. Ensuring imparting of uniform standard of skill sets would be challenge.

Disadvantages
One limitation of the study could be that Quality of Work Life is not purely a result of skill levels. A combination of factors such as knowledge, personality, attitude, value systems, experiences, socio-economic background, hobbies and interests, intelligence and emotional quotient (IQ and EQ) determine a person's level of career growth, job satisfaction and the degree to which they achieve work life balance.

12. SUGGESTIONS TO IMPLEMENT RESEARCH ACTIVITIES ACCORDING TO THE PROPOSAL :

12.1. Population of the Study
The population of the study is engineering graduates from various engineering colleges in D.K. district who have received specialized skill enhancement training in addition to their regular syllabus.

12.2. Methodology of data collection
The Study will be based on primary data collected from a representative sample.

12.3. Methodology of data interpretation
The collected data will be analyzed using SPSS package. Appropriate statistical tools such as Structural Equation Modelling will be used for interpreting the data.

13. CONCLUSION :

The demographic dividend is a result of increase in the working age population which in turn can increase economic growth. India's working age ratio will rise to 69% by 2040 [110]. Skill development of the country's working population is very important to reap demographic dividend. Employability skills are thus very important for economic growth.

The present study based on literature review has identified the importance of skill enhancement for the economy, industry and individual employees. The study has also highlighted the existence of skill mismatch.

A large number of studies have recorded the ongoing efforts instituted by the Government, industry and academia to raise job-readiness among students. The study also observes that skill enhancement training can improve employee performance and job satisfaction among employees. The review of literature also reveals there is ample scope for research on the impact of skill enhancement programmes/ training on QWL. The objectives of all skill enhancement efforts are to increase productivity for organization, good QWL for the employees and economic growth of the nation.

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