Original Article

EVALUATION OF EXISTING GAPS AND BRIDGING SKILLS GAP IN NON-TEACHING STAFF OF UNDERGRADUATE COURSE UNIVERSITIES

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Abstract

Employers and the industry as a whole are extremely concerned about the employability of engineering graduates. Because of this, the quality of the product that comes from engineering colleges is important, and it must be the kind of product that possesses particular qualities and qualities that can be relied upon. The technical education system requires a complete overhaul in addition to modifications that must be implemented in the individual parts of the system. The purpose of this article is to investigate the skill gaps that exist between the non-teaching staff of academic programmes offered by universities and the industrial applications of information technology (curriculum). It investigates some of the factors that contributed to the gap, as well as some of the potential ways in which it could be closed. Skill gap analysis provides insights into your entire workforce, it helps with strategic workforce planning, it improves recruitment efforts, it generates a competitive edge, and it helps individuals learn and develop more effectively.

Keywords: Skill, Gap, Technical, Education, Employer.

Introduction

Competition at a high level, particularly among those working in frontline jobs, has helped contribute to the expansion and development of skill competition. Over the course of time, there has been a shift in the skill set required to be successful in the designing industry of today. These shifts have had an impact not only on the profession of designing but also on the workforce in the designing sector. Even though the organisation offers education and training, there is still a significant gap that is inhibiting the company's growth. The term "skill gap" refers to a situation in which workers' skills are inadequate for the requirements of their jobs. There is a lack of interest, on both the part of employees and employers, in determining the extent of the skill gap. The absence of necessary skills has the ability to reduce the level of productivity at the company as well as to raise the costs incurred by the company. In addition, there is the possibility that the company's profit level may decrease due to the skills gap, which would have a negative impact on the company's ability to remain sustainable. It is therefore very vital for the business to discover innovative ways to improve the performance of its employees so that it can use its resources in an effective and efficient manner. In order to increase performance and move the needle toward achieving the goals set by the firm, it is highly necessary to measure the expected skills of employees as well as the employees' capacity to perform the job.

It is really remarkable that the concept of skill, which was once front and centre, does not currently have widespread agreement among individuals. Because the significance of each field might be interpreted differently depending on who you ask. The discrepancy between an employee's actual skill level and their perceived level of

ability on the job is referred to as a skill gap in the workplace. Required perceived skill is also known as skill. Work and Occupation is one of the many illustrious contributions that have been made to the concept of skills. This book was first released in the year 1990. However, the majority of the paper focused on discussing the topic from a sociological point of view. After the year 1990, the idea of skill became a focus of study in a variety of disciplines, including sociology, economics, and psychology. It is generally agreed that social skill, expandable skills, and productivity skills are the three most important aspects that comprise an individual's overall personality quality. Therefore, the idea of competence is amenable to investigation from three perspectives, namely those of economics, psychology, and sociology. In the area of classical economic theory, the phrase "Skill mismatch" is most frequently employed. [Citation needed] [Citation needed] The gap that exists between the supply and demand of labour can be conceptualised as a skills mismatch according to the economic theory. The current state of unemployment has been referred to as a "skill mismatch" by many economists. This refers to a scenario in which jobs are available but cannot be filled due to a lack of skills. According to the principles of neoclassical economics, one of the primary components of human capital is skill, while wealth is another. The present and future wages of a person can be discounted to determine the value of their human capital, which can be evaluated from the perspective of the individual. Trainings are offered with the goal of increasing the organization's human capital. Training and development are, as a result, investments in abilities that will be utilised over an indeterminately long period of time. The most significant constraint imposed by neoclassical economics is that the application of talents within an organisation is constrained by the expansion of relationships with the quality and culture of the organisation.

Literature review

Naran, P., Devani, N., Murray, J., & Mandal, S. (2022) investigated a programme for career readiness that aims to close the communication soft skills gap between university graduates and entry-level professional careers in order to increase the number of employed graduates from regional institutions. The author's years of experience in education, information from a literature review, and research from university graduates, educators, and private programmes were all used to develop the program.

Omaish, H. A., Sennuo, A., Alymany, G., Abdullah, M. U., Alnakib, S., Divan, A., & Dionigi, F. (2022) looked into two issues: the knowledge gaps in mathematics and the sciences that students have when they first enrol in college, as well as their causes and potential remedies. Two institutions founded in 2015 in the northwest of Syria that are not under the control of the regime hosted this study. 165 undergraduates were polled, and 25 university professors from the two institutions were interviewed. Our findings indicated that the majority of students entering universities have sizable gaps in their knowledge of their respective fields. The causes of which include social, psychological, and economic elements in addition to a pre-university education disrupted by the war and displacement. We suggest that, with the support of pertinent organizations, an integrated institutional approach that takes into account educational, psychological, social, and economic dimensions is necessary to address the identified knowledge gaps. The research offers a novel perspective on the knowledge gaps that exist among students in northern Syria. It calls attention to the realities of Syrian students and the secondary and higher education systems, and it suggests ways that academics, organizations, and policymakers could respond to those realities to support successful outcomes for university students.

Trajkovski, G., Killian, R. L., & Coen, S. (2022) the establishment of common frameworks based on skills and approaches to assessing those skills as the path forward after exploring the causes of this gap. There is discussion of the needs and perspectives of the learners, the industry, and higher education. Data silos exist to provide information to educational products on the skills that businesses need. In the spirit of a comprehensive learning and employment record, tools to support communication skills in different technological solutions are emerging. The skills and competencies that make up those records must be accurate, properly validated, and expressed in a common tongue. To demonstrate potential, a few examples of current and new skills-first approaches to creating standard frameworks for communication and assessment are given.

Malik, G., & Venkatraman, A. (2017) emphasis on the demand-supply skill gap in India's human resources, which would help identify causes for it and the necessary actions to be taken to improve the situation and close the skill

gap, assisting the greatest number of students in finding employment It would have an effect on different stakeholders regarding the steps that need to be taken to close the gap in India.A review of the available literature was conducted to determine the causes of the widening skill gap, which exists despite a vibrant and prodigious young population. The paper's findings obliquely note that India's labour market suffers from a significant skill gap and a lack of human intellectual capital. Additionally, it emphasised how important it is for different stakeholders to invest in today's workforce in order to close the skill gap and create a better future.

Lane, D., & Sorby, S. (2022) outlined the reasons why a spatial skills intervention was required to be incorporated into Year 1 of the program, and we discussed the effects this had on students' spatial scores and academic performance. The results of our study show that there is a persistent gender difference in spatial scores at the beginning of the first year, with female students entering the Technology Teacher preparation programme at a lower base level than male students. We discussed how we added spatial development activities to an already-existing course and how this led to an improvement in both the course's overall performance and its spatial performance. The paper's conclusion discussed the long-term viability of incorporating spatial interventions into teacher preparation programmes and emphasised the significance of future research to look at spatial skills as a critical element of technological capability.

REASONS OF UNIVERSITY- INDUSTRY GAP IN THE AREA OF INFORMATION TECHNOLOGY

In addition to the natural decay of skills that takes place over time, these differences are also brought about by a number of additional causes. The evolving structure of employment in many industries is a significant contributor. The present trends in the world of work, such as globalisation, commercialization, flexible working hours, deregulation, outsourcing, contract employment, homework, and freelancing, have led to significant changes in the structure of several industries. All of these shifts are driven by the creation of new definitions, new meanings, and new applications of existing knowledge. The discovery of new technologies has resulted in the establishment of new business sectors as well as the reorganisation of work itself. New forms of work structures are increasingly becoming sources of competitive advantage in sectors. These new forms of work structures are flexible, adaptable, less hierarchical, multi-skilled, and they stimulate continuous learning. The international competition for jobs and people has also heated up, which has led to a search for innovative knowledge workers all around the world. In addition, global organisations are finding that they are ill-equipped to compete in the 21st century as a result of a lack of appropriate skills in recent graduates who are employed in the labour market. This is a problem because the skills gap is expected to widen in the coming decades.

In a time when the global knowledge-based economy places an ever-growing premium on the talent, creativity, and efficiency of the workforce, business leaders talk about a widening gap between the skills their organisations need to grow and the capabilities of their employees. This is because the global knowledge-based economy places an ever-growing premium on the talent, creativity, and efficiency of the workforce. Today's corporate leaders face a growing number of open positions, and one of their primary concerns is filling those positions with qualified individuals. According to research conducted, changes in the demography of the workforce have an effect on the availability of workers to fill high-skilled occupations. In a strange twist of fate, technological progress has led to a shortage of skills. If the educational system at universities does not adapt to the changes brought about by the computerization of the industry, then businesses will always have to deal with some kind of a skills gap at some point or another. Lack of proper skills in university students, reskilling, poor facilities for IT skills development, lack of planning, lack of coordination, confusion, mismanagement, inefficient application of scarce resources, and deficient value orientation, along with other perfidies, has greatly contributed to put our country in a very precarious job deficit. Other perfidies have also played a role in this.

The information and technological revolution in the higher education institutions, training facilities are limited, poorly organised, and not specifically focused. Even before the most recent cyclical downturn in the global economy, the employment gap had already ballooned to unmanageable proportions. The position is in an even more precarious state than it was before. A comment was made by a responder in the most recent study that was carried out about how there is a lack of teaching personnel and administrative challenges in the process of changing the curriculum of university programmes for IT education. A lack of technical competence, expensive

information technology equipment, and costly maintenance and repair of equipment are some of the significant obstacles that have been encountered. Another significant issue has been the inability of educational institutions to adapt quickly enough to the rapid changes taking place in business and technology. It has already been established that there is a disparity between the academic standards of higher education institutions and the subjects that are taught as well as the methods that are utilised to teach these subjects.

Reasons for Gap

It has been noticed that the skilling programmes and the higher education system operate independently of one another. There is an insufficient level of congruence between the people who create policy in educational establishments and the requirements for employment in the corporate sector. The primary factor contributing to the low employability is the disjointed relationship that exists between staff and institutions of higher education. This results in increased rates of unemployment as well as decreased employee retention in business settings. Because they are not prepared to work in such circumstances and do not possess the necessary skill set, employees report feeling under pressure and are unsatisfied with their careers. Information that is directly applicable to a job is prioritised by recruiters over academic knowledge in terms of importance. Because there is a lack of communication between recruiters and institutes regarding what skills are necessary for them, institutes are unable to get the required results from their office staff in an effective manner. Therefore, it is necessary for all of the stakeholders to work together to close the gaps between the expectations of employers and the views that employees have of those expectations, with higher education institutions serving as a bridge between the two groups.

Bridging the Skills Gap

The question then is, what can be done to close this chasm? What type of education is necessary in order to get our pupils ready for job in the many industries in our country? What sorts of adjustments need to be made to university so that non-teaching staff can employed with the skills necessary for real-world employment? The solution to this question is obviously providing peoples with opportunities to practise cognitive skills that are prevalent throughout industry and are necessary for employment in those fields. The following is a list of some of the solutions that have been identified as having the potential to deliver positive outcomes:

- Study IT Skills programme: In most cases, this is either presented as a separate programme or included within the various themes that are covered. A variety of skills, including self-learning, learning that continues throughout one's life, research skills, time management skills, critical thinking skills, and so on, are improved. It has been shown that the most successful method for incorporating these components into a university's training of staff, as opposed to treating them as independent disciplines, yields the best results. As part of their efforts to close the achievement gap and/or reform education, a number of nations have come across this challenge and found a solution to it: they have strengthened the technology content of university curricula.

- Information and Communication Technology: This course should be taught to office staff will ensure that the employee has sufficient knowledge of information technology and is equipped with the skills necessary to apply it in his profession comfortably. It has been determined that having knowledge of and abilities in information technology are two components that are crucial Concerns pertaining to talents, just like any other aspect of the economy, can be viewed from both the supply and demand perspectives. This system is defined as the totality of all formal educational institutions that offer some form of skill development or another.

- The government and the organised private sector should also put in place arrangements for professionals of tertiary institutions to undertake short-term practical training in their chosen vocations in Information Technology to enhance their knowledge in the field. In order to protect the information technology industry from unfair competition and harmful business practises, the government ought to put more effort into regulating the operations that take place in this industry.

- It is necessary for employers to actively collaborate with one another and be involved in the process of developing appropriate IT skills in order to avoid a situation in which people who have been trained in a certain field are unable to use their skills because the skills needed by employers are either not available or are grossly inadequate, which can lead to the importation of skills from other countries or the complete incapacitation of the production process. The information technology training of all tertiary institutions should be revised to include these topics as part of the required general programme that is part of the employee training.

- Dialogue between universities and the employers of labour; An outline for a framework for fostering the partnership for interaction between university and employer, while there are some areas of positive interaction between university and employers in the forms of training programmes and joint services geared at bridging the skill gaps, what is needed, however, is a framework that addresses the chronic skilled shortages in the labour market. A unified approach will, without a doubt, be necessary for this.

Employers' Perspective

The problem of a skills mismatch between what employers seek and what universities can supply is currently characterising the interaction between employees and educational institutions. As a result, educational institutions such as universities need to devise a suitable training in order to properly identify the skill sets demanded. Employers should do the following in order to ensure higher advantages that will be accrued in bridging the current gap between the skills of non-teaching staff and the IT skill requirements in the industry. This will allow for a results-oriented dialogue, and on the portion of employers, they should do this in order to achieve maximum advantages.

- Literacy in information and communications technology: Literacy in information and communications technology must become an imperative of the educational process and be integrated into the training to match the problems and opportunities that are in front of us. Our goal is to provide every citizen with the information technology skills necessary for them to continue their education throughout their lives, both in the job and in their personal lives. Our citizens should be equipped with the technological know-how, self-assurance, and adaptability that will allow them to meet the challenges of a changing world throughout their lives.

- Needs of Industry: One of the primary motivators for implementing a fruitful dialogue with universities and a working collaboration with industry on skill development in connection to the curriculum is having a solid understanding of the needs of industry in this regard.

Recommendations and Conclusion

The current researcher is of the opinion that, regardless of the structure of the educational system that will eventually be decided upon, there are a few crucial parameters that need to be sorted out first. This change also necessitates the establishment of a robust and ongoing partnership between educational institutions and the local community. Because of this, it would be necessary to form, cultivate, and continue to sustain new alliances. In order to guarantee a successful implementation, we need to guarantee the accompanying:

- Every university ought to establish working relationships with the various relevant sectors in order to get expertise from those fields for training their non-teaching staff.

- The goal of motivating university staff to attend local and worldwide workshops on the most recent advances in information technology with the intention of working efficiently.

- The university ought to urge its pupils to sign up for IT certifications and get their hands dirty.

- The current gap can also be closed by conducting a comprehensive review of the Information Technology training at the university. This is necessary because application is another challenge associated with conducting a review.

- Because this is going to be a lengthy process, we need to get started on training as soon as we possibly can.

- Also, we need to adequately fund our universities, whether quantitatively or qualitatively, so that our populace, including our working population, can be adequately equipped with the knowledge, skills, and mind-set necessary for effective participation in a highly competitive global society of information technology.

- In addition, this is something that may be accomplished if professionals who are already working in industry are given the opportunity to take computer science classes that are connected to the development of applications, such as programming.

This will require universities to be more open to constructive engagement with employers of labour itself, as well as encouraging employers to practice their hands-on skills. It will also necessitate universities to be more open to constructive engagement with employers of labour itself. Universities, on the other hand, require extensive funding improvements for research, learning, and related intellectual activities, intellectual freedom, the scope to think and interact with academics in many locations and circumstances, the ability to articulate and operate semi-autonomously such that those who provide the funding should not therefore presume that all share similar values to their funding must be done their way at all times, and they also require intellectual freedom. The preceding discussion makes it abundantly clear that bridging the skill gaps does not only entail enhancing employee's capabilities in fundamental areas of information technology (IT).

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