

Study of impact of Quality of Education on Employability in Pune

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Abstract: The major aim of education is to enhance employability skills of students through education in addition to giving them a degree. The aim of the paper is to understand the major attributes of quality of education that would help to increase employability of students and facilitate good job prospects in Industry. Initially, an exploratory research was carried out through extensive review of literature on vocational and technical education. Based on the literature, key attributes were identified and a structured questionnaire was developed. The questionnaire administered to students and teachers of various vocational and technical institutions. Factor analysis test through SPSS was carried out to identify the key skills that would enhance the quality of education and enhance employability of students. The results revealed that analytical skills, Soft skills, Technical Skills and Internship/Apprenticeship are the major factors responsible for employability.

Keywords: quality education, employability, skills

Concept Definitions

Quality of Education

(Defining Quality in Education by United Nation International Children Education Fund UNICEF (2000)) Quality education includes:

- Learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities;
- Environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities;
- Content that is reflected in relevant curricula and materials for the acquisition of basic skills, especially in the areas of literacy, numeracy and skills for life, and knowledge in such areas as gender, health, nutrition, HIV/AIDS prevention and peace;
- Processes through which trained teachers use child-centred teaching approaches in well-managed classrooms and schools and skilful assessment to facilitate learning and reduce disparities;
- Outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society

Employability: (Employability: developing a framework for policy analysis by Jim Hillage & Emma Pollard, 2015) Employability is about having the capability to gain initial employment, maintain employment and obtain new employment if required. In simple terms, employability is about being capable of getting and keeping fulfilling

work. More comprehensively employability is the capability to move self-sufficiently within the labor market to realize potential through sustainable employment. For the individual, employability depends on the knowledge, skills and attitudes they possess, the way they use those assets and present them to employers and the context (e.g. personal circumstances and labor market environment) within which they seek work.

Vocational Education: (Terminology of European education and training policy-a selection of 100 key terms book) It is an education and training based course which aims at inculcating knowledge, skills and/or competencies in the people which is required for particular job or occupation or stated broadly in labor market.

Purpose of Research

India was the first country where education system evolved in the form of Vedic system from the beginning of civilization. The ancient Vedic education system was the catalyst for the formulation of all the education systems in the world. The primary aim of education was to develop overall qualities in students and to make them ready for the development of society and to the world a better living place (Progress of Education in ancient Indian education). In primitive times education in India was in the form of Gurukula in which the individual who had strong desire of education used to visit teacher's (Guru) house and request him to teach. If teacher finds him competent enough to learn new things then the student was suppose to stay at the teacher's place till the tenure of education and help the teacher in all activities at home. This not only created strong bonding between the teacher and student but also

developed many other qualities apart from just education thus making him wise enough to face the challenges of competitive world (The Education System in India by Dr. V. Sasi Kumar).

But nowadays the quality of education is confined to limited areas in countries especially in metropolitan cities falling under 1st and 2nd tier. The Indian Education System as well as government has failed to address the serious education deficit in remote areas which resulted in creation of stumbling block towards its objectives of achieving inclusive growth. According to the report in DNA India is going to experience the paradox of nearly 90 million people joining the workforce but most of them will lack of requisite skills and the mindset for productive employment (Education System of India: Its Functions, Drawbacks and Its Contribution July 13, 2009). A lot of research has been made on education system in India, however the research relating to Quality of Education Impacting Employability in Pune is not yet done.

Review of Literature

According to Geeta Gandhi Kingdon (2007), in international perspective the achievement of India's education system is comparatively better than its neighboring countries Pakistan and Bangladesh in some certain areas of education, but when compared with other neighboring countries such as BRIC countries the quality of education in India really shows worrying concerns. Also the participation in secondary school is still low and unevenly distributed. Even though lot of economic incentives are provided for obtaining secondary schooling and demand for secondary schooling is likely to be strong the participation is greatly hindered due to restricted supply of secondary schools and household credit-constraints. Secondly, learning opportunities in both primary and secondary schooling are very low, resulting in poor quality schooling. Thirdly, amenities provided by schools are very poor and punctuality of teacher is very low. The private schooling sector is prevailing extremely fast in urban areas but more slowly in rural areas. It is clear that the advantage of private schooling can be utilized by poor families as well. The statistics on the relative effectiveness of private and public schools in India shows that the quality of education provided by private schools is more effective and economic than government schools. The private schools for more economic than public schools because the teachers in private schools are paid as per market rate whereas the salaries of teachers in government school are set bureaucratically by teacher unions. Thus the population residing in rural areas is deprived of cost-effective private schools due to less availability.

As per the article posted in THE VIEWSPAPER by Shubhi Vijay (2009) on Poor Quality of Education in Government Schools, there has been

significant amount of division in education system provided in rural and urban area in terms of facilities and quality, which has serious social consequences and could lead to social upheaval. The schools in backward and rural areas often face negligence and the quality of teaching is very poor. Most of the schools for underprivileged and physically challenged children are run by either by State or local authorities thereby providing poor quality education for differently-able children. The most visible problems with government run schools is infrastructure which includes poorly maintained buildings, poorly maintained classrooms, ill-equipped libraries and laboratories, lack of sanitation facilities and even drinking water are issues that the students face every day. Availability of qualified teachers is the chronic problem for all government-run schools. The curriculum and teaching methodologies are outdated, with more emphasis on rote-learning than on practical application. Lack of vocational training and non-availability of such courses in academics renders students with hardly any employable skills at the end of their schooling. These cumulative factors results in high dropout rates in the country.

According to Puja Mondal (2015), the problems associated with education in rural areas in India are,

- **Defects of Present System:** According to Amartya Sen, 'Primary education in India suffers not only from inadequate allocation of resource, but often enough also from terrible management and organization. To him, management and organization of schools is still in a terrible State in India.
- **Physical Environment :** In order to achieve the objective of providing 'schooling for all' the government have considerably failed to deliver the core objective of schooling i.e. education for all by empathizing more on development of schools not the education.
- **Defects in Curriculum:** Major problem in the prescribed curriculum for rural children's is that it is depreciated and irrelevant in current market as more focus is given on classical and sermonic lesson (such as hygiene, cleanliness) or generalized education such as needs of poor or over-idealized scenarios such as panchayats, functioning of village hospitals, favorable government schemes etc., thus ignoring the delivery of education as per the current expectation of the market.
- **Most Important Resource—The Teacher:** Apart from teaching there are many other assignments that a teacher needs to perform such as election duty, conducting different surveys, prevailing information about the new schemes launched by government for the welfare of people etc. which results in poor attendance of teacher in school. In some circumstances the schools are kept closed for

many days due to unavailability of teachers when they are assigned to other governmental duties which in turn create an adverse effect on quality of education delivered to students.

According to Ramandeep Kaur(2013), majority of population still lives in villages and as per Annual Status of Education Report (ASER) survey the number of students attending schools is rising in rural area but the quality of education delivered and imbibed by the students is very poor as most of the students in higher grade are not able to read, write and solve the problems which are meant for lower grade students. This is due to poor infrastructure of schools resulting into single classroom concept i.e. educating students from more than one grade in single classroom. The single classroom methodology not only makes it difficult to deliver the absolute knowledge to all the students but also makes it difficult to manage it, thus resulting into poor quality education.

A study by Anjini Kochar (2001) on Emerging Challenges for Indian Education Policy highlights that despite of lot of investments made by government on schooling over the past fifty year the quality of schools in India is always poor. The study shows that the quality of schooling greatly affects the enrollment decisions of household's especially poorer households with minimum parental schooling level. It is very disappointing to learn that little or very less attention is given to the regulation of India's schooling sector even though lots of debates on the regulation of almost every sector in the Indian economy have opened up. Significant improvement and regulation in schooling sector is required so as to develop right skills in Indian Market and increase employability which will have cascading effect on development of Indian economy.

According to Adameji James(2015) the vocation education is very important tool for employability and self-reliance. From the analysis of data collected from schools, students and other institutions it is been inferred that the quality of vocation education is very vital for economic growth of nation and well-being of people.

Research Methodology

The various steps undertaken in research design are as follows,

1. Exploratory Study

This study will be carried out by visiting education institutions providing vocational skill based education in Pune. This research aim to examine the quality of technical and vocational education delivered by institutions providing vocational skill based education for the self reliance of the students. The approach adopted for this study will be quantitative research in which multiple methods were used

to obtain and understand the viewpoints of participants in this research. The study will be conducted using the structured as well as unstructured questionnaire method since the main focus was to gather information among students and teachers about the challenges faced by teachers in imparting skills required for employability along with education, students imbibing skills which will help them landing in suitable company. Secondary sources of information such as existing research papers on education, reports of government organisations and newspapers were studied. The gap between current quality of education and desired level of education for employment will be projected through this research.

The variables identified through exploratory study are as follows,

- a. **Arithmetic Skills:** (Deb Russell) A branch of mathematics usually concerned with the four operations (adding, subtracting, multiplication and division) of positive numbers. Arithmetic will include concepts like counting, identifying numbers and amounts, learning the basic mental math facts. The curriculum in the early grades often addresses most of the concepts in arithmetic. It is the basic day to day math. Arithmetic is the foundation of math.
- b. **Communication skills:** Communication is much more than words going from one person's mouth to another's ear. In addition to the words, messages are transferred by the tone and quality of voice, eye contact, physical closeness, visual cues, and overall body language.
- c. **Time Management skills:** Systematic, priority-based structuring of time allocation and distribution among competing demands. Since time cannot be stored, and its availability can neither be increased beyond nor decreased from the 24 hours, the term 'time budgeting' is said to be the more appropriate one.
- d. **Computer skills:** Level of familiarity with the basic hardware and software (and now Internet) concepts that allows one to use personal computers for data entry, word processing, spreadsheets, and electronic communications.
- e. **Practical Knowledge:** (Prof. Dr. Christoph Lumer, 2010) 'Practical knowledge' is roughly defined as knowledge that does and shall (from a normative, prudential or moral, point of view) motivate to act in a certain way.

- f. **Employable skill:** Employability Skills can be defined as the transferable skills needed by an individual to make them 'employable'. Along with good technical understanding and subject knowledge, employers often outline a set of skills that they want from an employee. These skills are what they believe will equip the employee to carry out their role to the best of their ability.
- g. **Apprenticeship:** Method in which trainees learn a craft or trade by hands-on experience while working with a skilled worker, usually under a written or implied indenture ship agreement.
- h. **Job placement:** (Lisa McQuerrey, Demand Media) "Job placement" is the term used to describe the process by which educational institutions, social service agencies, military branches, employment agencies and recruiters help their students, soldiers and clients find work.
- i. **Employability:** (Professor Mantz Yorke, 2004) 'It is a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy'.

2. Research Questions

The purpose of this study is to explore the challenges in providing quality education in terms of knowledge and employability by educational institutions providing vocational education in Pune and to identify strategies which might be adopted to address them. The study was guided by the following research questions:

- a. What challenges are faced by teachers in delivering quality education which comprises knowledge and skills so as to enhance the employment of students?
- b. What challenges are faced by students in accessing quality education so as to enhance their employability?
- c. How can these challenges be addressed?

3. Research Objectives

The following research objectives were designed to find answer to research questions:

- 1. To determine the challenges faced by teachers in delivering quality education (which comprises knowledge and skills) so as to enhance the employment chances of students.

- 2. To determine the challenges faced by students in accessing quality education so as to enhance their employment chances.

4. Research Questionnaire Development

Based on the understanding from review of literature and other research papers on related area, a structured questionnaire was developed to carry out the study. The questionnaires are divided into two subsets i.e. for students and teachers so as to get holistic information regarding the quality of education which comprise of knowledge and skills required for getting employment. Each subset will commence with questions related to personal details of respondents followed by questions related to scope of research. All these questions are single and multiple choices in nature so that the respondents can answer the questions with ease and in less time. To measure the responses of respondents related to delivery of course content by teachers along with other soft-skills provided by educational institution, a 4-point ordinal scale and nominal scale is been used. The respondents were asked to rate as per their preference.

5. Collection of primary data

An extensive data collection method will be adopted to collect the primary data from education institutions. A survey will be conducted across multiple education institutions in Pune which are providing vocational education. For the purpose of collecting the data, two types of questionnaires were developed for the research: the teacher questionnaire and the student questionnaire. The questionnaires will be provided to students and teachers for determining the current state of education delivery. Some background information about the study will be given to all the participants of the group.

The first part of both the teacher and student questionnaires included demographic information questions, and the second part of the questionnaires included nominal scale concerning the effective course delivery, availability of technology, course assessment methodology.

6. Sampling Design

a. Sampling Technique

Based on the review of related researches (such as research on "Entrepreneurial Challenges for SC Persons in India" conducted & Prepared by Bhartiya Shishu Evom Mahila Vividh Vikash Samiti New Delhi) and sampling technique suggested by Vaid and Sen Gupta (1990) for conducting primary study, **Non-probabilityconvenience sampling method** will be more preferable for the

study since the size of the population will be very small.

b. Sample Size

Based on the review of related researches (such as research on “Entrepreneurial Challenges for SC Persons in India” conducted & Prepared by Bhartiya Shishu Evom Mahila Vividh Vikash Samiti New Delhi) and according to sampling procedure suggested by **Vaid and Sen Gupta (1990)**, the population for the study will constitute teachers and students working in education institutions providing vocational education in Pune. The study will be conducted at 5-10 education institution by randomly selecting boys and girls between 19 and 24 years of age. The

study will be aiming to study fifteen to twenty children in each of the 5 schools. The sample size will comprise of 50 teachers and 140 students for unbiased and holistic information from respondents.

7. Data Analysis

The data obtained from Questionnaire will be analysed by using frequencies and percentages. Data from questionnaires will be segmented into positive factors and negative factors that affect the quality of education in educational institutions providing vocational training. Descriptive statistics will be used in order to analyze the data collected. The descriptive statistics includes the use of frequency tables, percentages, means, and standard deviations.

Analysis and Interpretation

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.795	41.518	41.518	10.795	41.518	41.518
2	3.877	14.911	56.429	3.877	14.911	56.429
3	2.23	8.579	65.008	2.23	8.579	65.008
4	1.803	6.935	71.943	1.803	6.935	71.943
5	1.635	6.289	78.232	1.635	6.289	78.232
6	1.083	4.165	82.397	1.083	4.165	82.397
7	0.889	3.419	85.816			
8	0.767	2.951	88.768			
9	0.716	2.754	91.522			
10	0.542	2.084	93.606			
11	0.458	1.761	95.367			
12	0.289	1.11	96.477			
13	0.276	1.061	97.537			
14	0.188	0.723	98.26			
15	0.156	0.601	98.861			
16	0.103	0.398	99.259			
17	0.078	0.301	99.561			
18	0.061	0.236	99.797			
19	0.027	0.104	99.901			
20	0.017	0.067	99.967			
21	0.008	0.033	100			
22	2.77E-15	1.06E-14	100			
23	1.84E-16	7.09E-16	100			
24	-4.33E-16	-1.67E-15	100			
25	-7.44E-16	-2.86E-15	100			
26	-1.84E-15	-7.08E-15	100			

Based on % Variance under Extraction Sums of Squared Loadings component 1, 2 and 3 are selected for determining the factors from component matrix since the variation % is low for component 4, 5 and 6.

KMO and Bartlett's Test:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.72
Bartlett's Test of Sphericity	Approx. Chi-Square	618.433
	df	36
	Sig.	0

Based on the outcome of KMO test the sample drawn for testing of hypothesis is accurate since the level on significance is 0.

Component Matrix

	1	2	3
Basic arithmetic skills	0.546		-0.529
Advance technology Training		0.715	
Certification training		-0.743	
Computer Traning		0.798	
Institution Efforts to provide presentations sills	0.938		
Institution Efforts to encourage reading articles and books	0.904		
Institution Efforts for accounting completion of assigned tasks (e.g. homework)	0.882		
Institution Efforts to ensure optimum level of attendance	0.88		
Institution Efforts on punchuality	0.614		
Institution Efforts to monitor meeting of project deadlines	0.899		
Institution Efforts for using a planner to schedule your day	0.818		
Course comprise of individual project work			0.673
Course encouraged team project work	0.658		
Institution efforts to provide employable skill courses	0.945		
Satisfaction Level of training provided(Please rate from 1 to 5, where 1 - Not satisfied and 5 - Very satisfied)	0.943		
Guidance and counselling for opting skill based courses	0.902		
Apprenticeship in your study program	0.599		0.517
Good quality of laboratories/workshops	0.498		0.659
Internship in study program		0.486	-0.604
Arrangment of guest- lectures from Industry experts.		0.889	
Institution assistance in organizing job seeking documents and locating job leads		0.822	
Institution support to place participants for wage employment		0.425	
Institution support to start and sustain a business			
Institution links with employers for job placement	0.855		

The component particulars having component value more than 0.50 are considered for determining the factors responsible for testing hypothesis.

Consolidated factors particulars considered for the testing of Hypothesis

Component No.	Component Particulars	Factors Determined
1	Basic arithmetic skills	Analytical and Soft skills
	Institution Efforts to provide presentations skills	
	Institution Efforts to encourage reading articles and books	
	Institution Efforts for accounting completion of assigned tasks (e.g. homework)	
	Institution Efforts to ensure optimum level of attendance	
	Institution Efforts on punctuality	
	Institution Efforts to monitor meeting of project deadlines	
	Institution Efforts for using a planner to schedule your day	
	Course encouraged team project work	
	Institution efforts to provide employable skill courses	
	Satisfaction Level of training provided(Please rate from 1 to 5, where 1 - Not satisfied and 5 - Very satisfied)	
	Guidance and counselling for opting skill based courses	
	Apprenticeship in your study program	
Institution links with employers for job placement		
2	Advance technology Training	Technical Skills
	Computer Training	
	Arrangement of guest- lectures from Industry experts.	
	Institution assistance in organizing job seeking documents and locating job leads	
3	Course comprise of individual project work	Internship/Aprenticeship
	Apprenticeship in your study program	
	Good quality of laboratories/workshops	

Conclusion:

The test statistic show that there is significance difference in employability due to proficiency in arithmetic skills, soft skills, institution efforts in providing practical knowledge and job placement, Advance technology Training, Computer Training, arrangement of guest- lectures from Industry experts and apprenticeship in study program.

So it can be concluded that the analytical skills, Soft skills, Technical Skills and Internship/Aprenticeship are the major factors responsible for employability in Pune.

Hence all the null hypothesis can be rejected.

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