



## Awareness of the students of Higher Technical Colleges towards our present Technical Education System with special reference to the Kamrup district of Assam : a study.

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### Abstract

Education is the instrument through which every needs of the society can be realised. The development of science and technology has occupied an important place in the modern society and their wonders are perceptible all round. Therefore, technical education has a supreme importance in present times. Observing the importance of technical education in the present era, various technical institutions have been established in our state to meet with the different types of challenges. It should be the matter of consideration that only the establishment of these institutions is not enough. It should be able to produce required technical manpower. For the qualitative and quantitative development of this particular type of education, along with the greatest efforts of the authorities and management, students' participations are very much essential. Therefore this study is an attempt to see the awareness level of the students of technical colleges towards our technical education system. The sample of the study is comprised of 120 students studying in the technical colleges of the kamrup district of Assam. The investigator has used the self structured Awareness Interview Schedule. Appropriate Statistical Techniques are used for testing the hypotheses of the present study.

**Keywords:** Awareness, Education, Higher Technical, Kamrup.

### 1. Introduction

Education is a subject that takes into consideration of the total human aspects of growth and development. Some opine that education is co-terminus with life. Some others define education as the enrichment of one's experience by drawing upon the experience of others. Education was made compulsory for the first time in human history in the year 1792 in U.S.A. Since then it has been revolutionizing civilization everywhere at every level.

Higher education is a definite imperative for a country's progress. As maintained by Dr. A.P.J. Abdul Kalam, the knowledge society's development is a pre-requisite of developed India and for building a

knowledge society; we need a very good higher education system.

The greatest for education is to meet the needs of the society. The development of science and technology has occupied the modern age and their wonders are perceptible all round. Therefore technical education has a supreme importance in modern times. The Government of India Science Policy Resolution in 1953 expressed that India's enormous resources of man power can only become an asset, modern world when trained and educated. According to the draft 6<sup>th</sup> plan, "The technical education system represents of science and technology with specialised laboratories, sophisticated instrumentation facilities and more

importantly teams of highly qualified scientific and engineering personnel on their faculty. These internal resources should be utilised not merely towards technological self reliance but also to bring about progressive improvement in the quality of technical education”.

Technical education in India has grown under the pressure of necessity along various lines including industrial, engineering and technological training.

The later part of the 18<sup>th</sup> century was crucial period of technical education. The education system of this period was influenced by the policy of East India Company. The importance of technical education was realised more after the independence. The most encouraging advance in the field of Indian Education during the last decade has been in the field of technical education. In 1951, there were only 53 colleges and 89 diploma institutions for engineering and technology. But now it has been expanded to a great extent.

In Assam, The first technical Institute was the Government Weaving Institute at Guwahati established in 1920. Then the Royal Highness the Prince of Wales Technical School came up in the year 1927 to offer certificate courses. In 1948, the Assam Engineering Institute was started to degree level technical institute in this area and the Assam Engineering College in the year 1955. The Directorate of Technical Education, Assam was created in 1959. In 1960, the 2<sup>nd</sup> degree Engineering College was established at Jorhat. The first NIT (National Institute of Technology) of Assam was established in 1977 at Silchar. Similarly the only IIT (Indian Institute of Technology) was established in 1994 at Guwahati.

In Assam, Kamrup district can be said as the place of significant in the expansion of the technical education. It should be noted here that in the history of the technical education of Assam, the first technical institute was established at Guwahati of Kamrup district in the year of 1920. The first degree college of engineering was also established here as Civil Engineering College in the year 1955.

Technical education in Assam is growing significantly. Now a day, the world is changing in no time. In order to cope up with the current changes and to modify the current system with necessary required facilities, the students of various technical colleges must be fully aware as their cooperation is need of the hour for betterment of this education system prevailing in Assam.

## 2. Need of the study

Higher education plays an important role in

developing a nation to a great extent. Technical education is a part of higher education which essentially concerns education in the areas of technical enterprise. Technical education is one of the most significant components of human resource development spectrum with great potential for contributing to the national economy and for the quality of life of the people.

Technical education is a newer form of education compared to the general form of education. For this kind of education both theoretical and practical aspects should be taken care of. Due to the revolution in information technology and rapid change in various aspects of society, higher education has become lifelong learning. Some say that “any time and anywhere” education is emerging and it plays a vital role in the development of technology.

As we know that Guwahati (under Kamrup district) is the gate way of Assam. It is the centre place of education for most of the students of Assam as well as the North East region. Every year thousands of students come to its various private and government technical colleges with the purpose of getting a high professional degree. Therefore, the investigator feels that for the well progress of this particular type of education system, awareness amongst the students about some of its related important fields will help a lot for its further development and progress. Considering the gravity of this matter, the investigator tries to find out the awareness level of the students of technical background towards our existing technical education system.

## 3. Significance of the study

As per the modern world is concerned, higher education is necessary. With the advancement of science and technology, technical education has become the supreme need of the present society. If we go to compare our educational systems with other technically developed countries like U.S.A, Japan etc, we can easily realise our own system.

Observing the importance of technical education at the modern days, the study in hand becomes significant and relevant one. It demands at extra ordinary necessity for the qualitative and quantitative development of technical education. The Investigator hopes that it will help the people to become conscious about this matter. And the study will be a significant one to build a healthy attitude in the minds of the students of various technical colleges to give their contributions for its further progress.

#### **4. Objectives of the study**

The present study was based on the following objectives.

1. To find out the level of awareness amongst the students of technical colleges for better progress of the present technical education of Assam.
2. To see the difference on awareness between the boys and girls students of technical colleges towards the present technical education of Assam.
3. To see whether the students of private and government technical colleges are differ on awareness towards the present technical education of Assam.

#### **5. Hypotheses**

Following hypotheses were framed on the basis of the objectives:

Ho 1 = The students of technical colleges do not have awareness for better progress of the present technical education of Assam.

Ho 2 = There is no significant difference between the boys and girls students of technical colleges on awareness towards the present technical education of Assam.

Ho 3 = There is no significant difference between the students of private and government technical colleges on awareness towards the present technical education of Assam.

#### **6. Methodology**

For the present study, data were collected from both the primary and secondary sources. Under the descriptive method of educational research this study has been completed.

##### **6.1 Sample**

In order to collect relevant data for the study, the investigator selected 4 technical colleges from the Kamrup district of Assam by using purposive sampling method. These colleges are Assam Engineering College, Indian Institute of Technology, Guwahati, Don Bosco College of Engineering and Technology and Girizananda Chowdhury Institute of Management and Technology. The sample comprises of 60 boys and 60 girls students from the above selected colleges.

##### **6.2 Tools used**

A self structured Awareness interview schedule was prepared for the students of the technical colleges. In this schedule 3 levels of awareness were taken in

to consideration on the basis of 3 options. These options were -Strongly Agree—High Awareness, Agree—Aware and Strongly Disagree—Low Awareness. The schedule was prepared on the basis of some common elements of technical education such as teacher, curriculum, research works, library and laboratory facilities, unemployment problems, government's contributions and so on.

Besides, the investigator also used the observation tools to know the present situation of the technical education system in the sample colleges.

#### **7. Delimitation of the study**

- a. The study was delimited to the Kamrup district of Assam.
- b. The study was delimited to the 4 technical colleges (2= Govt., 2= Private) of the Kamrup district of Assam.
- c. Only 120 students (60= boys, 60=girls) were taken as sample students.
- d. All the sample students are presently studying in the selected technical colleges.

#### **8. Review of related literature**

The section review of related literature actually reviews the important literature related to the study. It provides a background for the development of various research designs and brings the reader up to date. Accordingly, the present investigator has consulted a number of articles and research studies related to technical education. A few are mentioned below.

- Assessment of Engineering Manpower 1978-83. Pub: Planning and Development Department, Govt of Assam, Dispur, January 1979.
- Annual Technical Manpower Power Review, Jammu and Kashmir, 1984-87, prepared by Nadal Centre, Regional Engineering College, Srinagar. Pub: Institute of Applied Manpower Research New Delhi- 110002, 1988.
- Annual Technical Manpower Review- Punjab (82-85) prepared by Nadal Centre, Punjab Engineering College, Chandigarh, Lead Centre, Institute of Applied Manpower Research, Ring Road, New Delhi- 110002, 1986.
- Arnold D. Kerr, University of Delaware, USA and Ripe R Bhuyan, University Delaware's College of Engineering, USA.

Why We Need Hands- On Engineering Education. Pub: The Indian Journal of Technical Education. Vol. 12. No 2 New Delhi 1989.

- Sahidullah Fatima Tohsin "A Study on the Girls

Students In the Technical Institutions of Assam with Special Reference to Their Problems”, 1998.

## 9. Analysis and interpretation of the data

Objective 1) To find out the level of awareness

amongst the students of technical colleges for better progress of the present technical education of Assam.  
Ho 1= The students of technical colleges do not have awareness for better progress of the present technical education of Assam.

**Table 1.1 :** Awareness Level Scores of the students of technical colleges

Sl . No	Awareness Level Measuring Statements	Awareness		
		HA	A	LA
1	Technical education is need of the hour	74	30	16
2	Our state has made considerable progress in technical education	16	26	78
3	Teachers of the technical colleges should have industrial experiences.	84	20	16
4	Updating curriculum is essential in our technical education system	74	40	8
5	Personal contact between teacher and students is essential and practical classes should be given more importance.	42	54	24
6	Research, Library and Laboratory facilities should be improved.	50	60	10
7	Technical education should have proper linkage with industry and community.	20	36	64
8	In every colleges of technical education, proper hostel facilities should be made available for both boys and girls.	16	62	42
9	Unemployment is more acute among the passed out students.	36	70	14
10	Our state Govt. is doing enough for it.	30	62	28
	Total no of students:120	Average score:	44	46
				30

Table 1.1 shows the awareness level scores of the students of technical colleges in various respective areas. Out of the 120 students of the 4 sample technical

colleges, average scores of High Awareness (HA) = 44, Awareness (A) = 46 and Law Awareness (LA) = 30 have been found from the above table.

**Table 1.2 :**  $\chi^2$  (chi-square) values of the awareness level scores

Sl No	$\chi^2$ (chi-square) Value	Level of Significance
1	45.8	Significant
2	72.8	Significant
3	55.4	Significant

4	51.2	Significant
5	26.6	Significant
6	18.2	Significant
7	24.8	Significant
8	11.4	Significant
9	39.8	Significant
10	35.0	Significant

df = 2

Critical value of  $\chi^2$  (chi-square) = 5.991 at 0.05 level of significance.

9.210 at 0.01 level of significance.

Table 1.2 shows  $\chi^2$  (chi-square) values of the awareness level scores on the basis of table 1.1. All the values are found to be significant at both 1% and 5% level of significance. Consequently we have to reject the null hypothesis (Ho 1) that the students of technical colleges do not have awareness for better progress of the present technical education of Assam.

Thus, the finding has focussed the nature of objective no 1 and it can be said that students are aware about our existing system of technical education.

Objective 2) To see the difference on awareness between the boys and girls students of technical colleges towards the present technical education of Assam.

Ho 2 = There is no significant difference between the boys and girls students of technical colleges on awareness towards the present technical education of Assam.

**Table 2 :**  $\chi^2$  (Chi -square) value of the awareness level scores of boys and girls students

Awareness Level Scores				Total	df	Chi-square value
Samples	HA	A	LA			
Boys	15	34	11	60	2	1.26
Girls	20	32	8	60		
	35	66	19	120		

Critical value of  $\chi^2$  (chi-square) = 5.991 at 0.05 level of significance.

9.210 at 0.01 level of significance.

Table 2 shows  $\chi^2$ (chi-square) value of the awareness level scores of the boys and girls students of technical colleges. Here the calculated  $\chi^2$  value =1.26 is much less than the table value at the both level of significance. Therefore the null hypothesis (Ho 2) is accepted that there is no significant difference between the boys and girls students of technical colleges on awareness towards the present technical education of Assam.

Thus, the finding has focussed the nature of objective no 2 and formulated hypothesis Ho2 is also found correct.

Objective 3) To see whether the students of private and government technical colleges are differ on awareness towards the present technical education of Assam.

Ho 3 = There is no significant difference between the students of private and government technical colleges on awareness towards the present technical education of Assam.

**Table 3 :  $\chi^2$  (chi-square) value of the awareness level scores of Govt and Private technical college students**

Samples	Awareness Level Scores			Total	df	Chi-square value
	HA	A	LA			
Govt technical colleges	17	34	9	60	2	0.17
Private technical colleges	16	36	8	60		
	33	70	17	120		

Critical value of  $\chi^2$  (chi-square) = 5.991 at 0.05 level of significance.

9.210 at 0.01 level of significance.

Table 2 shows  $\chi^2$  (chi-square) value of the awareness level scores of the students of Govt. and Private technical colleges. Here the calculated  $\chi^2$  (chi-square) value =0.17 is much less than the table value at both the level of significance. Therefore the null hypothesis ( $H_0$ ) is accepted that there is no significant difference between the students of private and government technical colleges on awareness towards the present technical education of Assam.

Thus, this finding of the study proves that the formulated hypothesis on the basis of the objective no 3 is found to be positively correct.

## 11. Conclusion

Today, society is marked by the rapid progress of technical development. The demand of technical manpower has increased day by day. Therefore technical education can be considered as the backbone for the economic progress and development of the nation. To meet with the different challenges of our society, various technical institutions have been

established in our own state also. But the important matter is that to what extent these institutions are really able to produce sufficient technical manpower for the better progress of our society. Therefore, our technical education should be planned in such a way as to meet the needs of the individuals and those of the nation. The quality of technical education can be improved not only by the labour of the faculty, supporting staff and the availability of infrastructure, but also the students should also be hard working and committed. The awareness of the students may be used as a great instrument for its better progress. Proper knowledge, understanding and positive attitude on the part of the students will help to remove the various obstacles that are taken place in the path of progress of this particular system of education.

This study was done to find the level of awareness of the students regarding the importance as well as the improvement of technical education in the state of Assam. In spite of obstacles like unsuitable curriculum, shortage of efficient teachers, lack of sufficient research works etc, the students of Assam have thirst for better and quality education to compete with the other technically well developed countries.

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