

ENGINEERING & TECHNOLOGY

Khulna University Studies 3(2): 505-508

COMPUTER EDUCATION IN KHULNA CITY: AN EMPIRICAL STUDY

C.K. Roy^{a*}, MM Asaduzzaman^a, Md. A. Rahman^a and D. Kamal^b^a Computer Science & Engineering Discipline, Khulna University, Khulna-9208, Bangladesh^b Fisheries and Marine Resource Technology Discipline, Khulna University, Khulna-9208, Bangladesh

KUS-01/38-241101

Manuscript received: November 24, 2001; accepted: March 10, 2001

Abstract: Computer education is necessary for each of the sectors in a developing country like ours. Khulna is situated in the south-western region of Bangladesh. It is one of the important industrial cities in Bangladesh. In this paper, we made a study to identify and analyze the actual situation of computer education in Khulna city based on some questionnaire.

Keywords: IT Institutes, Computer education, Manpower, Hardware, Software, Certificate.

Introduction

Human demand is changing day by day. Science is being used to fulfill the demand of human being. Practice and knowledge of science and technology (Werth, 1997) are playing a great role to fulfill the primary demand of human. Education system – is also changing frequently. Due to the development of science and technology employment opportunities (Uppsala University, 1996) all over the world have also been changed. Skilled technical personnel are fit for all over the world. To develop a nation as well as to eradicate unemployment, it is essential for a country to change the education system frequently to satisfy the demand. It is very difficult for a third world country like ours to change its education system frequently. As a result, with the increase of population unemployment is also increasing.

Computer education is very needful for the time being. Knowledge about computer is essential for every personnel in all sectors in our country. For this reason almost all private and public universities consider this as one of the major subjects. Besides these, many Colleges, Schools, Organizations and Training centers provide diploma, certificate courses to produce skilled computer personnel.

Khulna is a divisional as well as an industrial city in the southern region of the country. The 2nd biggest seaport is also situated in Khulna division. A lot of government and non-government banks, offices, organizations, industries are situated here. So Khulna plays an important role in the development of the region as well as development of the country. Various types of job opportunities are available in Khulna. Most of the offices, organizations require personnel skilled in computer operations, because computer can produce output at greater speed than human being if it is operated properly (Werth, 1996.). Speed and accuracy of output will lead the organization to the top level.

Computer Science and Engineering Discipline of Khulna University is leading the computer education in Khulna city. It provides 4 years B. Sc. Engg. degree in Computer Science and Engineering. It was established in 1991 and since then it has produced a large number of computer professionals for the country. Bangladesh Institute of Technology (BIT) Khulna has also commenced 4 year B. Sc. Engineering degree in Computer Science and Engineering. ILACS has just started B. Sc. in computer science affiliated by the National University. Besides these, Aptech Computer Education, CMC, NCC, CCS (Bhuiyan Institute of Technology) are the leading institutes for computer education in Khulna city. Grameen Star Education has recently commenced their computer education system in this city. There are a lot of training centers also in the city. They concentrated on composing as well as training courses for the people who are really newcomer to this world.

Objective of the Study

In our study we have tried to find out the actual situation of computer education in Khulna City. It is one of the most important industrial cities in the country. Computer educated manpower is now the asset of a region as well as for a country. So it is essential for any personnel to have cognizance about the situation of this important education. We have tried to highlight the matter in our study.

Methodology

We studied almost all the IT institutions/centers/organizations who provide B. Sc., Diploma or training/certificate courses in Computer applications. For this reason, we prepared a questionnaire (Carnegie

* Corresponding author: Tel: +880-41-720171-3/213; Fax: +880-41-731244; e-mail: ku@bdonline.com

DOI:<https://doi.org/10.53808/KUS.2001.3.2.0138-se>

Mellon University, 1994) and supplied to the institutions/centers/organizations for their responses. There are twelve questions in the questionnaire. We got a lot of responses from the centers/organizations/institutions regarding our study. From the responses we got a clear idea about computer education in Khulna City. In the questionnaire we have 12 questions. Some of the questions also have several options. The questions are regarding year of establishment, initial investment, course offered, number of students, number of staffs, types of works, laboratory facilities, course fees and business conditions etc. From the responses we can draw various tables for analyzing the actual situation of computer education at Khulna City.

Findings, Analysis and Discussion

The following table shows the year of establishment and initial investment of the centers/organizations/institutions who responded to our questionnaire.

Table 1. Year of establishment, initial investment and types of works performed by the studied organizations/centers/institutions

Name of the centers/ organizations/institutions	Year of establishment	Initial investment (Tk)	Types of works
Seekers Computers	1993	2,00,000	Software & Hardware
Aptech Compute Education	1999	20,00,000	Software
CMC Computer Education	1999	10,00,000	Software & Hardware
NCC, Khulna Branch	1999	6,00,000	Software & Networking
Jatio Jubo Unnayan Prosikon Kendro	1999	3,00,000	Software, Hardware & others
Computer Clinic Ltd.	1999	5,00,000	Hardware
Bhuiyna Computers (Pvt.) Ltd.	1999	3,00,000	Software & Hardware
Computer Land	1994	2,00,000	Hardware & others
Mac Computer Services	1996	4,00,000	Software
Grameen Star Education	2000	7,00,000	Software
LCC, Khulna	2001	5,00,000	Software & Hardware
Ananda IT	2001	3,00,000	Software & Hardware
ExecuTrain	2001	5,00,000	Software & Hardware

From Table 1, it is apparent that most of the organization for computer education have been established in 1999. They have invested large amount of money for their education system. Most of the organization emphasis on software training or certificate course while some of them are concentrated on hardware only and some others on both software and hardware training/certificate or diploma course.

Table 2. Course offered, duration of the course and course fee of the studied organization/centers/institutes

Name of the centers/ organizations/institutions	Name of the Course	Duration of the Course	Course Fee
Seekers Computers	Training	3 Months	4,000
		3 Months	2,200
Aptech Compute Education	Diploma Training	9 Months	27,000
		2 Years	44,500
		3 Years	80,500
CMC Computer Education	Diploma Training	2 year	68,600
		6 months	16,400
NCC, Khulna Branch	Bachelor Degree Diploma	3 Years	1,50,000
		2 Years	1,20,000
Jatio Jubo Unnayan Prosikon Kendro	B.Sc. Degree Diploma Training	2 years	17,000
		1 year	9,000
		6 months	5,000
Computer Clinic Ltd. Bhuiyna Computers (Pvt.) Ltd.	Training Training	6 months	5,000
		4 months	4,525
Computer Land Mac Computer Services	Training Diploma Training	6 months	5,525
		8 months	5,925
		6 months	5,000
Grameen Star Education LCC, Khulna	Diploma Diploma	6 months	6,500
		3 months	3,000
Ananda IT	Diploma Training Diploma	1 Year	22,000
		1 Year	21,000
		6 months	12,000
ExecuTrain	Training Training	1 Year	18,000
		6 months	10,000
		1 Year	16,000

Table 2 shows that various types of courses are offered by the organization that we have studied. The course varying in duration and course are normally between 2 years and 6 months. Training or certificate courses take from 2 to 8 months and the course fees are between Tk.3000 and Tk.6000. This course includes

software or hardware or both software and hardware. Diploma course varies from 6 months to 2 years. Course fees for diploma are also different from organization to organization and that fees range from Tk.6000 to Tk.68000. CMC computer education provides scholarships for the students.

Table 3. Number of students of the studied organizations/centers/institutions

Name of the centers/ organizations/institutions	Number of students
Seekers Computers	30
Aptech Compute Education	300
CMC Computer Education	300
NCC, Khulna Branch	60
Jatio Jubo Unnayan Prosikon Kendro	60
Computer Clinic Ltd.	40
Bhuiyna Computers (Pvt.) Ltd.	100
Computer Land	80
Mac Computer Services	50
Grameen Star Education	30
LCC, Khulna	25
Ananda IT	30
ExecuTrain	20

Table 3 dictates the actual number of students per year in each of the studied organizations. Two organizations have 300 students for their offered courses related to computer application. A lot of options are there for the students to participate in one or more courses at the same time. All other organizations have average number of students ranging from 30 to 70.

Table 4. Number of staffs of the studied organizations/centers/institutions

Name of the centers/ organizations/institutions	Number of Full time teaching staff	Number of part time teaching staff	No. of full and part time staff
Seekers Computers	02	01	06
Aptech Compute Education	03	01	10
CMC Computer Education	04	00	10
NCC, Khulna Branch	06	01	09
Jatio Jubo Unnayan Prosikon Kendro	03	01	08
Computer Clinic Ltd.	01	02	07
Bhuiyna Computers (Pvt.) Ltd.	02	02	06
Computer Land	01	01	03
Mac Computer Services	01	01	03
Grameen Star Education	04	00	10
LCC, Khulna	01	00	05
Ananda IT	02	00	09
ExecuTrain	02	00	04

From table 4, it is seen that each studied organization/center/institution has a good number of staffs. Teaching staff of the organizations/centers/institutions plays a vital role to maintain the quality of education. There is on an average of 2 faculties/teachers for each organization/center/institution. Most of them are expert in several areas of computer education and therefore, they are capable of building quality computer professional.

Table 5. Number of computer labs, no. of computers and operating system used of the studied organizations/centers/institutions

Name of the centers/ organizations/institutions	No. of labs	No. of PCs	Operating System
Seekers Computers	01	15	Windows 98, Windows NT
Aptech Compute Education	01	20	Windows 2000
CMC Computer Education	02	40	Unix, Windows NT
NCC, Khulna Branch	01	05	Windows, Windows NT
Jatio Jubo Unnayan Prosikon Kendro	02	10	Windows 98, Windows NT
Computer Clinic Ltd.	01	05	Windows NT, Windows
Bhuiyna Computers (Pvt.) Ltd.	01	14	Windows 98, Windows NT
Computer Land	02	10	Windows 98
Mac Computer Services	01	06	Windows 98
Grameen Star Education	01	16	Windows 2000
LCC, Khulna	01	17	Windows 2000
Ananda IT	01	01	Windows 2000
ExecuTrain	02	22	Windows 2000

Laboratory facilities of most of the institutions are not found satisfactory for their students. There are around 300 students/trainee in a few institutions. They manage the classes with a number of batches during the whole day. Most of the organizations teach/train their students/trainee through Windows operating systems. A few of them have networking facilities using Windows NT 4.0/Windows 2000. Only one of the institutions uses Unix operating system among the studied organizations.

Conclusion

Khulna is in one of the poorest part of Bangladesh with a potential resource base, a very low land man-ratio, threatened both natural hazards and anthropogenic mismanagement and over-exploitation. In this regard, computer education in Khulna has emerged as a key factor with multidisciplinary integrated and participatory approach to cope up with the problems and for the sustainable development of the region as well as Bangladesh.

Acknowledgements:

The authors are highly grateful to Dr. Md. Rafiqul Islam, Associate Professor and Head, Computer Science and Engineering Discipline, Khulna University, Bangladesh for his kind cooperation and valuable advice to make this study a success.

References

- Carnegie Mellon University, 1994. New Directions in Human-Computer Interaction Education, Research, and Practice. URL: <<http://www.sei.cmu.edu/>>
- The George Washington University, 1999. Department of Computer Science, Computer Science Education Research at GW. URL: <<http://www.cs.seas.gwu.edu/>>
- Uppsala University, 1996. UpCSERG (Uppsala Computer Science Education Research Group). URL: <<http://www.docs.uu.se/docs/>>
- Werth, L. H., 1996. "Integrating Ethics into a Software Engineering Class" *Software Engineering Education*, N. Mead (ed.) Springer-Verlag, 1996.
- Werth, L. H., 1997. "Getting Started in Computer Ethics" *Proceedings of the Twenty-eighth Symposium on Computer Science Education*, Feb. 1997.