

Czech University of Life Sciences Prague

Faculty of Economics and Management

System Engineering and Informatics



Diploma Thesis

**Evaluating student's usage level of IT (Information
Technology)**

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

MD Ujjal Hossain

Systems Engineering and Informatics
Informatics

Thesis title

Evaluating student's usage level of IT (Information Technology)

Objectives of thesis

The diploma thesis has been conducted based on two main objectives:

- a) The study's broad objective is to evaluate student's usage level of IT (Information Technology): A survey on Dhaka University & Jagannath University, Bangladesh.
- b) The specific objectives are:
 - i) To explore the sincerity of the student about IT.
 - ii) To identify various arena of IT usage.
 - iii) To know whether access to IT helps to develop student's efficiency level.
 - iv) To focus the consciousness has of the students in terms of uses or abuses of IT

Methodology

To get an insight into evaluating student's usage level of IT, the study would like to follow mixed methods (both qualitative & quantitative). As the nature of the study is a descriptive one & aimed to find out the student's usage level of IT (Information Technology). The mixed methods are belonging:

1. Quantitative method has used this study to explore and analyze necessary data needed to make the research fruitful.
2. Qualitative method has used through nonprobability sampling & case study.

The proposed extent of the thesis

60-80 pages

Keywords

Information technology, Educational uses of technology, University Student of Bangladesh, IT usage student, E-Learning, Survey Research, Student attitudes, Students satisfaction. Negative effect of Information Technology.

Recommended information sources

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Declaration

I declare that I have worked on my diploma thesis titled " **Evaluating student's usage level of IT (Information Technology)**" by myself, and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break the copyrights of any person.

In Prague on 30.03.2021

MD Ujjal Hossain

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Evaluating student's usage level (IT) of Information Technology

Abstract

We are living in an Information Age. Information Technology is the oxygen of the modern age, as Ronald Reagan stated in his speech to the English-speaking union in 1989. In recent years, there have been significant developments in information technology. In the field of education Information Technology encourages students to be up to date in education with modern methods and innovations, such as the use of smartphones, cell phones, computers, etc. In addition to helping students learn new skills. Keeping pace with the global change, Bangladesh is in the process of turning into an information society. So, the study has analyzed for evaluating student's usage level of IT (Information Technology), through a survey on Dhaka University & Jagannath University Bangladesh, mainly to focus the IT scenario and the behavior of the students, the thinking of the students about the usage & abuse of IT. This study has followed the quantitative method through surveys and the qualitative method through case studies. Complementing the questionnaires were interviews with university students.

keywords: Information technology, Educational uses of technology, University Student of Bangladesh, IT usage student, E-Learning, Survey Research, Student attitudes, Students satisfaction, Negative effect of Information Technology.

Hodnocení úrovně využití informačních technologií (IT) studentem

Abstrakt

Žijeme v informačním věku. Informační technologie jsou kyslíkem moderní doby, jak uvedl Ronald Reagan ve svém projevu k anglicky mluvící unii v roce 1989. V posledních letech došlo k významnému rozvoji v oblasti informačních technologií. V oblasti vzdělávání Informační technologie povzbuzuje studenty k tomu, aby byli ve vzdělávání s moderními metodami a inovacemi, jako je používání chytrých telefonů, mobilních telefonů, počítačů atd. Kromě toho, že pomáhají studentům naučit se nové dovednosti. Bangladéš, který drží krok s globálními změnami, je v procesu přeměny na informační společnost. Studie tedy analyzovala hodnocení úrovně využití IT studentů (informační technologie) prostřednictvím průzkumu na Dhaka University a Jagannath University v Bangladéši, zejména s cílem zaměřit se na IT scénář a chování studentů, na myšlení studentů o využití & zneužití IT. Tato studie sledovala kvantitativní metodu prostřednictvím průzkumů a kvalitativní metodu prostřednictvím případových studií. Dotazníky doplňovaly rozhovory se studenty vysokých škol.

Klíčová slova: Informační technologie, Vzdělávací využití technologie, Univerzitní student Bangladéše, Student IT využití, E-Learning, Výzkumné šetření, Postoje studentů, Spokojenost studentů, Negativní vliv informačních technologií.

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1 Introduction

Through a previous couple of decades, computer-based information technology (IT) has dramatically penetrated most of the modernized nations of the globe. "Technology is that the use of scientific discoveries to unravel practical problems" (Horton & Hunt, 2000). Technological achievements became the measuring rods to assess the economic strength of a nation today. The control of data, especially scientific and technical information, could be a source of prestige and power altogether in post-industrial societies. Especially at the start of this 21st century, nations that do well within the field like computers, supercomputers, information technology, electronics, biotechnology, Telecommunications, etc., usually are considered the 'postmodern' and technologically most advanced nations. According to many in education, information technology integration is beneficial, meaningful, and necessary for the study to work effectively.

1.1 Statement of the problem

Bangladesh, which is considered a developing nation, has started giving more importance to those subjects of great scientific importance in its educational system during recent years, especially after September 1997. When the government of Bangladesh appointed a committee to seem into the issues of software ([www. Cyber Bangladesh.org](http://www.CyberBangladesh.org)), though Bangladesh contains a relatively long experience within the use of computers- the primary 'Second Generation'- the pc was installed in 1964 at Dhaka ([www. Cyber Bangladesh. org](http://www.CyberBangladesh.org)).

Within the newly established engineering universities (Khuet, Chute, etc.) and other public universities, these subjects are introduced. A more significant number of the coed have gotten attracted towards them. "Thus, "Science may be a major institutional sector of contemporary societies; an indicator of the trendy social order is that the conduct of research in universities and other research organizations (Kornblum, 2000). The study of the science of technology has therefore become an increasingly important study specialty. With the technological Change, a dramatic rift has opened in education. As education moves towards a more technological-information age, everyone must integrate new, emerging technologies in every academic institute area yet as universities. It's been emerged fluently since the Word Ware II and includes within the university (Developed Countries) nearly almost from the 50S decades (Teauge, M. & Teauge, G., 1995). In recent times, most colleges and universities of developed countries are using IT to form learning

more practical, more adventurous, and informative. But in Bangladesh use of IT in education is extremely limited. Efforts to bring computers into classrooms and colleges started about 13 years ago. The Secondary School Certificate and the Higher Secondary School Certificate examinations now include Computer Studies as an optional subject. To coordinate state and semi-government agencies' computerization activities, a National Computer Committee was founded in 1983. The national computer board was established in 1988, and the Bangladesh Computer Council was established in 1989 by an act of parliament (www.sdnbd.org). It had some initial problems and faced lots of criticism from the IT community when it became more of a regulatory body instead of a promotional body as initially envisaged. It's planned to strengthen BCC by inducting more IT professionals to play a much more significant role in IT development within the public sector, particularly human resource development.

Bangladesh University of Engineering and Technology (BUET) was the primary institution to supply post-graduate degrees (M.Sc. and Ph.D.) in computing & engineering. University of Information Technology and Sciences (UITS) in Bangladesh's the first IT-based private university was founded on 7th August 2003. Around 24 universities are offering undergraduate degree programs in IT-related fields. These four BITs (at Rajshahi, Chittagong, Khulna, and Gazipur) also prepare undergraduate curriculum in engineering science & engineering. The 20 polytechnics are introduced 3 years diploma programs in engineering. So, it is said that almost all educational institutions are teaching only computers as a personal subject instead of integrating it into the curriculum.

The purpose of Education is to organize tykes to be human, rational, and participating citizens in a very world that's becoming increasingly independent (Wang, 1995)." It may be employed in the classroom to satisfy the needs and curriculum needs. By using IT in education, the training would be more practical and more interesting than before. For educations, the challenge is the way to use emerging technologies effectively and creatively within the curriculum goals. As a broad area of learning, science draws upon various academy faculty, including many faculties. The majority believed that the purpose of education is to coach good citizens. But the views of how best to coach them have varied. Some thought we must always make society better by showing citizens a way to change the culture. Some people felt the requirement of coaching good citizens by teaching them to grasp themselves, regardless of the debate is, and the goals are typically divided

into categories: acquiring skills; developing values and attitudes, and active participation or participatory citizenship (Marsh, 1987); (Huang, M.Y., 1995). The importance of scientific discipline is well known within the constitution of the people's republic of Bangladesh. The constitution (Article 17of) states relating education to society's requirements and producing adequately trained and motivated citizens to serve those needs (GOB, 1993). The secondary level National Curriculum Report of 1995 emphasizes social issues as priorities and objectives of education in Bangladesh, as well as the education system. Within the report, among 23 general goals determined all subjects to update the knowledge (NCTB, 1995).

The National Educational Policy Report of 2000 determined 15 aims and objectives for the education of Bangladesh. Out of these 15 aims and objectives, 10 are directly associated with information-based knowledge (GOB, 2000). This situation establishes the importance of IT making society better. Nowadays, most advanced countries have emphasized using appropriate and up-to-date methods, techniques, and aid in-classroom education for effective learning. But in Bangladesh, almost all the education sectors used traditional methods of learning (Begum H., 1979). By the 19th century, the range of educational use instruments was expected to include chalk-Slate and other materials. After this, the overhead projector, transparencies, slides, fills, audiotapes, language lab, radio, video, and television have been used for educational purposes. The computer has been added to the instructor's innovation tool compartment. In Bangladesh, most of the classes are and chalkboard-centric. Integration of computers into the curriculum is not widespread. No extensive research has been carried out to investigate whether teaches using new technologies in their teaching and what support they had (Ward, K & Lee, k.t, 1996). The constructive view of learning supports the use of technology in instruction. Constructivist maintains that the learners construct their knowledge rather than serve as receptors as knowledge. The construction of learners' knowledge makes the experience more meaningful. (White, P., 1997) addresses three essential components necessary in a constructive methods class: (a) reflection, (b) students' active involvement, and (c) development of a community of learns. All three components can be addressed using IT communications.

Dhaka & Jagannath University are renowned public universities that carried out different faculties, including several departments. So, it is entirely justifiable to evaluate students'

usage level of IT of Dhaka & Jagannath University to establish constructive methods class and reach the goal of education. Though IT has diversified in various levels, this study has observed only uses the students' level in computer-based technology, especially the internet.

1.2 Significance

Science in the modern world is more and more lending towards developing sophisticated technology. Much of the knowledge required in the new study field has been used to create an extremely sophisticated technology. It is indisputable that technological innovations have immense great significance computer-based technology is being used in modern times in ways that educations could not have dreamed a decade ago. In the past, the instruction was mainly teacher-centered, with knowledge dispensing activities such as lecturing, reading text, answering questions, taking tests, etc. But now the situation is changing. Teachers are becoming facilitators or mentors, and students are learning independently or together with teachers through exploration. Successful use of IT depends on the proper understanding of its scope and facilities, needs careful planning for selecting and using it appropriately corresponding to the objectives. If information technology could be used effectively, education would be attractive to learners, and they would acquire more profound knowledge and enhanced skills and be good citizens for servicing every sphere of society.

2 Objectives and Methodology

2.1 Objectives

The use of information technology in education have the benefit of increasing academic accomplishment both from the students' and teachers' viewpoints (Courville, K., 2011). Real-world applications of information technology and other academic subjects help inspire learners in research by (Usher, A., 2012). They found that students tend to see the inherent meaning of what is being learned when technology-based inquiry-learning corresponds to real-world circumstances, which increases student engagement and motivation. Furthermore, students will grasp complex concepts by applying abstract theories to real-world conditions, increasing competence. Adding information technology into education can utilize this technology to differentiate instruction, motivate students, and include all skill levels.

The study has been conducted based on two main objectives:

- a) Broad &
 - b) Specific
- a) The study's broad objective is Evaluating student's usage level of IT (Information Technology): A survey on Dhaka University & Jagannath University, Bangladesh.
- b) The specific objectives are:
- i) To explore the sincerity of the student about IT.
 - ii) To identify various arena of IT usage.
 - iii) To know whether access to IT helps to develop student's efficiency level.
 - iv) To focus the consciousness has of the students in terms of uses or abuses of IT.

2.2 Methodology

The methodology is a concept and analysis of how research is carried out or should be carried out, and it involves accounts of how the general structure of the theory is applied in a specific scientific discipline. In other words, methodology refers to the choices we make about cases to study methods of data gathering, forms of data analysis, etc., in planning & executing a research study. It could be described as a science that studies how scientific research is carried out. We study the various steps that a researcher generally adopts in

studying his or her research problem, along with the logic behind them. This chapter has presented the methodology that has been followed to conduct this study. To get an insight into evaluating student's usage level of IT, the study would like to follow mixed methods (both qualitative & quantitative).

As the nature of the study is a descriptive one & aimed to find out the student's usage level of IT. The mixed methods are belonging:

1. Quantitative method has used this study to explore and analyze necessary data needed to make the research fruitful
2. Qualitative method has used through nonprobability sampling & case study

2.2.1 Operational Definition

Technology → To address practical issues, technology is the use of scientific discoveries. (Horton & Hunt, 2000) Technology (from Greek, techne,' craft, ability, the cunning of hand'; and -logia) is the set of techniques, procedures, or processes used in the manufacturing of products or services or the achievement of goals as a scientific study. Technology may be the knowledge of methods, procedures, etc. It can be embedded in machines, computers, devices, and factories that people can operate without a thorough understanding of such things.

IT → **Information technology** uses computer and media communications hardware to store, recover, send, and control information, frequently in the sense of a business or other activity.

Students → Persons Getting & Processing on Education on Curriculum for being the good Citizens.

Dhaka University → One of a renowned public university of Bangladesh (Study area)

Jagannath University → Another renowned public university of Bangladesh (Study area)

2.2.2 Analytical Framework

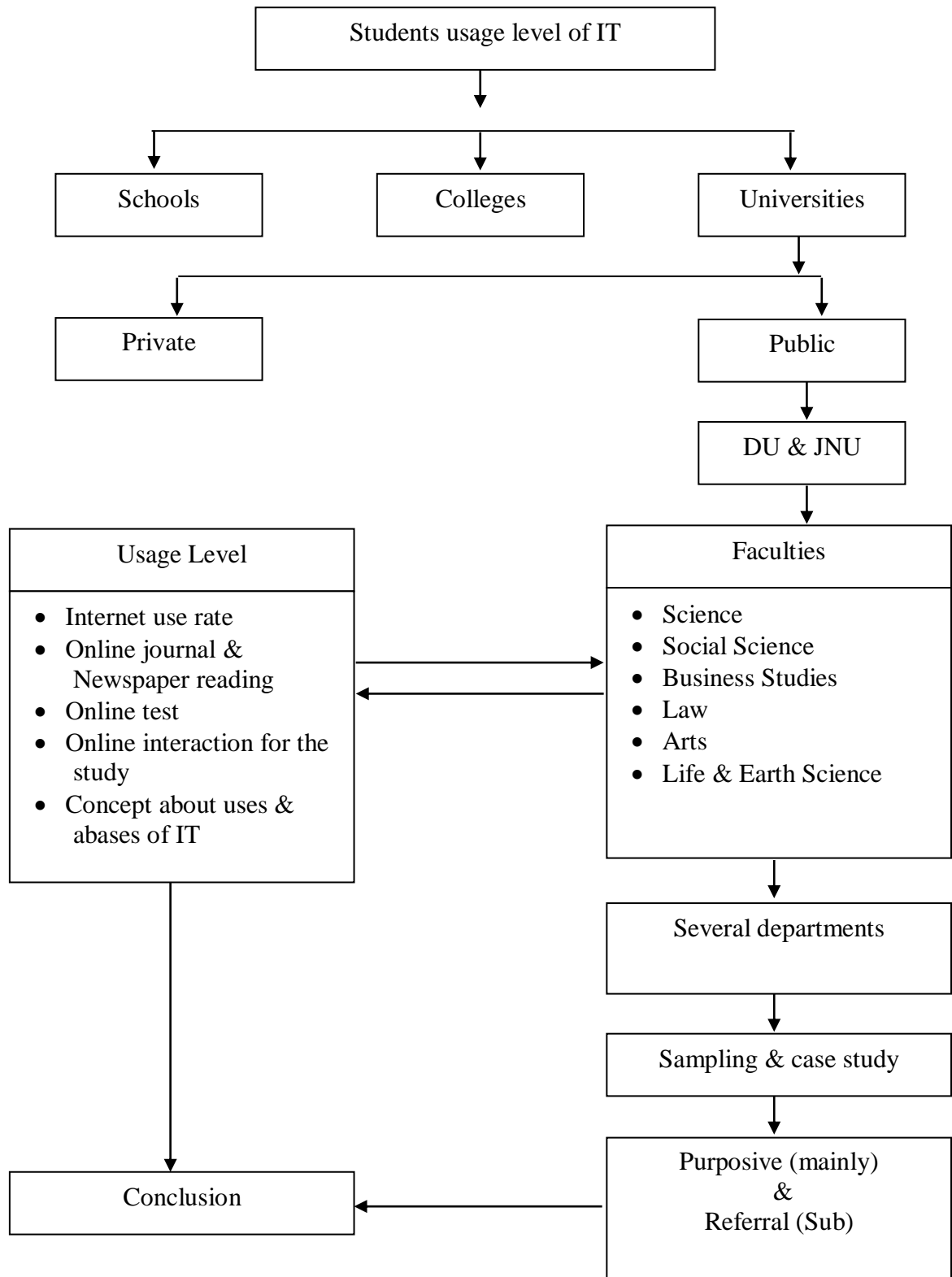


Figure 1: Analytical Framework (Source: Self-Development)

2.2.3 Survey Design

The survey method has been designed in broad & specific objectives & has followed a cross-sectional schedule including 4 months. This study's area is Dhaka University & Jagannath University; the population is the students at Dhaka University & Jagannath University. The sampling has dialed through mainly purposively & then referral through in survey including a structured questionnaire. A checklist used for a case study (qualitative)

2.2.4 Sample Design

This study's population is the students at Dhaka University & Jagannath University, including several faculties with several departments.

2.2.4.1 Research Approach

Survey Design: Questionnaires have been designed for the respondents, and they have been interviewed to find out data and information considering respective questionnaires.

Case study: The checklist has used through video call interviews with over 5 respondents.

2.2.4.2 Area Selection / Sample frame

The area has been chosen based on Dhaka University & Jagannath University's faculties through purposive sampling.

2.2.4.3 Respondent Selection / Sample Unite

From the area which has chosen by the purposive sampling method, specify the respondent through referral sampling from the several departments.

2.2.5 Questionnaire Content

The information has collected through the online (Zoom, Facebook) interviewer-administered questionnaire method. The questionnaire contents several questions to measure the student's usage level of IT.

2.2.6 Case study contents

The checklist has used through online (Zoom, Facebook) interviews.

2.2.7 Time Schedule

	1 st month			2 nd months			3 rd months			4 th months		
	10 _d	10 _d	10 _d	10 _d	10 _d	10 _d	10 _d	10 _d	10 _d	10 _d	10 _d	10 _d
Introducing with supervisor												
Title selection												
Seeking eleventh literature												
Making questionnaire												
Data collection												
Data analysis												
Findings												
Getting contusion & Binding												

Table 1: Time Schedule (Source: Self-Development)

2.2.8 Data Collection Procedure

For collecting data, the study has followed the social survey method as the study is a quantitative one, and a survey is the best method for quantitative data collection. For qualitative, the research has followed an online interview procedure by video call.

2.2.9 Limitations

As the study has conducted within only four months, there might be some lacking. And the whole procedure was handled by online interview and video call, so there might be some lacking.

3 Literature Review

From mobile phones with fingerprint scanners to cars with integrated GPS navigation, information technology of all sorts has been widely integrated into everyday life. From an educational viewpoint, it is only normal to study the impact of technology on student life. To better understand how students use information technology in education, a baseline must be developed from which to explore the influence, importance, and implementation of information technology to engage students. Once the baseline is established, it can be compared to what is occurring in the education. First, the role of information technology in education will be reviewed, along with higher education and emerging information technology. Then, I review and address the current state of educational information technology implementation and the use of information technology and student belief, attitude, ability motivation, and experience. Finally, I review information technology in Bangladesh for the education field and also about information technology challenges, student disabilities, negative effects, addiction, and misuse of information technology.

3.1 The Role of Information Technology in Education

[Paul Steinberg \(2008\)](#) published an article on 'The Role of Information Technology in Education,' He said that technology had become an essential component in the modern era in which we live. Every day, a new gadget or device makes life simpler and enhances the technology and software already in existence. Making life simpler is not, however, the only role in our lives that technology plays. In education, technology plays a growing role.

It is used to support students of all ages in the learning process as technology progresses. The program used in the classroom helps students absorb the material. For example, because some people are visual learners, computer-related projection screens may allow learners to see their notes instead of just listening to a teacher giving a lecture. To complement the class curriculum, the program may be used. For a class if you are looking that can help students continue learning outside the classroom, the programs include study questions, games, and even assessments and quizzes. Even outside of computer and technology schools, technology has also become part of many curricula. To create presentations, students use computers and use the Internet to study subjects for papers and essays. In computer and technology courses, students also learn to use the technology available to them. This means that they will be able to use the technology in a job environment after graduation, which could place them ahead of someone who has not had access to a specific technology or software in their school environment. Students have better access to educational resources like these as technology progresses.

The "better" technology becomes more accessible as something fresh and "older" is revealed, allowing it to be used in educational environments, even when schools are on a tight budget. And before they began school, technology was already advanced to support children. Young children's educational video games and programs help them plan for school and get a head start on their education in some instances. Some individuals would argue that technology is "spoiled" by adolescents. For example, instead of adding a long column of numbers to their heads, they switch to a calculator. Technology is an integral part of today's culture, regardless of these claims. Students would be better prepared to move from the classroom to the workplace by integrating it into the classroom.

3.2 Higher Education and Emerging Technology

Higher Education and Emerging Technology and conduct, Changing Student Usage Patterns joint research by (Cassidy, et al., 2014), researchers found that students were increasing their use of laptops and e-readers, were beginning to use tablets, and were more interested in mobile library services. The immediacy and popularity of mobile devices offer scholars opportunities to advance learning and provide resources while also posing challenges to ensure that students are educated and trained. A future possibility is mobile-device training for SHSU students, especially about accessing library resources. Although

researchers agree that no training is required for the most effective mobile apps, we also understand that vendor-provided library services such as mobile databases and downloadable DRM-protected e-books appear to be less user-friendly than most common apps. Demonstrations and training can support the average undergraduate student or the least tech-savvy faculty member. Improving the marketing of technology-based library resources is another potential possibility, as the current study re-emphasized an existing discontinuity between the services provided by the library and the services that are or are not known to many students. The researchers also reaffirmed their conviction that library offerings should not be focused on what employees think is frontline or stellar technology but instead on proof of students' interest in devices, features, and services and their use.

3.3 The current state of educational Information Technology implementation

The Department of Education of the United States examined the use of technology by students in Education in the fields of public schools (Gray, Thomas, & Lewis, 2010). Ninety-seven percent of the teachers surveyed were found to have one or more computers in the classroom, and 54 percent said they could and could while less than 40 percent used the technology 'often' to carry computers into the classroom, 'Sometimes' and 29 percent. Just 69 percent of students used technology despite having open access to technology, Regularly, the technology at hand (Gray, Thomas, & Lewis, 2010). Researchers at the Finnish Vocational Education Research Centre studied the use of technology from a pedagogical viewpoint (Nokelainen, P., 2006). At that point in the study, technology and digital media used in pedagogy have not been analyzed in detail, and Further research was merited, as it was decided that technology could be used to help the Educational environment. More research has been conducted since that time and will be presented in this chapter throughout. It was found that there is extreme strength when evaluating state educational agencies (SEA). The pressure to close the nation's achievement gap, state officials, and the people between learners with high and low results. This so-called "new normal" implies that for SEAs to act with fewer resources than they used to, greater progress must be made in closing the achievement gap (Gross, B., Jochim, A., & Nafziger, D., 2013). Educational authorities are expected to innovate training from the national and state levels down to individual schools. It is hoped that school-based leaders can set and

retain higher expectations but are unable to do so for several reasons. These factors include a lack of formal training in setting up students for post-secondary ([Floyd, K. K. & Judge, S. L., 2012](#)), the significant gap in planning and technology implementation in each school, and a lack of funding ([Ehrlich, S. B., Spote, S. E., & Sebring, P., 2013](#)). The Building State Ability and Productivity Center (BSCPC) was established to help educators receive funding to alleviate these issues.

3.4 Influence of Information Technology on Inclusive Education

There have been inadequacies in the improvement of facilities for understudies with learning incapacities utilizing assistive innovation. ([Floyd, K. K. & Judge, S. L., 2012](#)) led an examination on the miniature level, following the advancement of six understudies who had some type of a learning inability. The examination was finished using a piece of innovation called Classmate Reader. A perusing and understanding section was given to all understudies. Understudies were then approached to test utilizing conventional pen, and paper techniques, trailed by a subsequent task finished utilizing the Classmate Reader. The outcomes showed that the utilization of assistive innovation is a compelling help and convenience for understudies with learning incapacities. With an end goal to help the capability of innovation in the homeroom to fortify the consideration of a wide range of students, ([Futurelab, 2009](#)) distributed a report showing an assortment of ways that innovation can uphold comprehensive practice ideas. For example, versatile advancements help give a bona fide and significant learning experience. General media (counting video conferencing and introduction programming) media give a real and important experience as well as encourage a feeling of the local area. The possibility of the ([Futurelab, 2009](#)) report can be handily converted into an ordinary study hall. Not exclusively do the web recordings, sites, and wikis assist with an assortment of inclusionary rehearses (local area sense, students taking possession, collective/cooperative learning, and critical thinking, yet large numbers of these online innovations are promptly accessible for nothing from an assortment of sources. Assistive innovation upholds educators to set up and keep an inclusionary climate by permitting an understudy with a recognized learning handicap to get to training at a similar speed as the standard instruction, as was seen with the classmate Reader in the investigation finished by ([Floyd, K. K. & Judge, S. L., 2012](#)). Notwithstanding, as found in the investigation by ([Flanagan, S., Bouck, E. C., & Richardson, J, 2013](#)), these projects might be cost-restrictive in the buying of innovation as

well as nearby preparation. They proceed to express that further exploration ought to be finished, as there is an absence of writing here.

3.5 Integrating Information Technology in the academy

Information Technology has gotten ordinary in the study field, assisting with hoisting and supplant obsolete educational strategies and offering instructors the capacity to plan educational programs for separation (Mulrine, C. F., 2007). Indeed, even concerning the sum and utilization of explicit innovation in the study hall, and even though some innovation might not have initially been intended to line up with instructive objectives, numerous educators discover approaches to incorporate innovation into the homeroom (Zimlich, S. L., 2015). In an examination performed by (Zimlich, S. L., 2015), six alumni from the expert's level accreditation program at the University of Alabama were continued in the expert world to notice their exercise plan viability utilizing information technology. It was discovered that the amount of innovation in the study hall was not the main consideration about whether the information technology usage was a triumph, yet instead the nature of the utilization of innovation in the interest of the instructor. This quality aids the educators to hang out in the personalities of the understudies. The plenty of devices and the easy-to-use nature of innovation offer understudies an exceptional capacity to work together with peers (educators and understudies). Google Drive and Google Doc innovation offer understudies the ability to chip away at a community record (comparable to reports, accounting pages) with at least one co-creator in various areas (Eckstein, M., 2009). Weblogs (or websites for short) likewise offer clients comparative freedoms, permitting somebody to distribute remarks and thoughts in a public gathering where a per user would then be able to remark. This sort of innovation enables understudies to distribute thoughts and musings about their learning, sharing considerations like a conversation meeting in a study field (Eckstein, M., 2009).

3.6 Information Technologies Perceived Usefulness and Ease of Use

The study named Perceived Usefulness, Ease of Use, and Usage of Information Technology a Replication was conducted by Dennis A. Adams, R. Ryan Nelson, & Peter A Todd (2010). This research presents two studies' findings replicating perceived utility, ease of use, and use of information technology. The two experiments concentrate on

determining the psychometric properties of the scales of ease of use and usefulness while analyzing the relationship between ease of use, utility, and use of the system. Study 1 clarifies the convergent validity of the two scales by analyzing heterogeneous consumer groups coping with heterogeneous implementations of messaging technology. Furthermore, since users may be expected to share similar views on voice and electronic mail, the research also represents a straightforward test of discriminant validity. In this analysis, a total of 118 respondents from 10 different organizations were surveyed for their attitudes toward two messaging technologies: voice and electronic mail. Study 2 complements the approach taken in Study 1 by concentrating on demonstrating the validity of discriminants. Based on the assumption that they will all be scored highly on both scales, three typical software applications (WordPerfect, Lotus 1-2-3, and Harvard Graphics) were examined. In this report, a total of 73 users classified the three packages in terms of ease of use and usefulness. The studies' results show accurate and valid scales for calculation of perceived ease of use and effectiveness. Also, the paper measures the relationships between ease of use, usefulness, and use using structural equation modeling. The findings of this model are consistent with previous studies for Study 1, which suggests that utility is a significant determinant of using the method. The results for Study 2 are somewhat mixed but indicate the significance of both ease of use and utility. To understand these effects, variations in conditions of use are discussed.

3.7 Students Understanding, Changes in Belief and Attitude toward Information Technology Usage

[Anol Bhattacharjee & G. Premkumar, \(2004\)](#) research about understanding Changes in Beliefs and Attitudes toward Information Technology Usage-based that user expectations and attitudes are vital assumptions influencing information technology use. However, these expectations can change over time as users acquire the first-hand experience with IT use, which may change their subsequent information technology use behavior. This article analyzes how users' beliefs and attitudes shift during their IT use, describes emerging constructs driving such change, and suggests a temporal model of change in beliefs and attitudes by building on the theory of expectation-disconfirmation and the current literature on IT use. Student data from two longitudinal studies in the context of end-user computing (use of computer-based training method) and system creation (use of software for rapid

application development) provided empirical support for the hypothesized model, demonstrated its generalizability across technologies and use contexts, and allowed us to investigate context-specific differences. Some of the quantitative outcomes were confirmed by content analysis of qualitative results. We report that evolving variables such as disconfirmation and satisfaction are critical to understanding shifts in IT users' beliefs and attitudes and suggest that they be included in future IT usage process models.

3.8 The Factors contributing to each in the acceptance of information technology

Students attitudes, satisfaction, and usage: Factors contributing to each in the acceptance of information technology a researched-based article by (Al-Gahtani & King, 2010). This study tests and establishes the Technology Acceptance Model (TAM), introduced by (Fred D. Davis, 1986), which seeks to describe end-users ' attitudes towards computing technologies. A surrogate measure for IT performance and acceptance, it adds many new variables, including usability, user characteristics, device ranking, and the end-user computing satisfaction (EUCS) construct. Many users completed a questionnaire with over seventy items, and LISREL, a technique for modeling a structural equation system, was used to analyze the responses. The analysis shows the model matches the data very well and suggests important relationships between variables in the model. These results confirm that TAM (technology acceptance model) is a valuable tool for predicting attitudes, satisfaction, and usage from beliefs and external variables. They also show that the relative advantages of the model contributed most to attitudes and satisfaction. Compatibility (from the method to the task performed) contributed most to usage and was the most important precedent, including relative benefit, of the belief variables.

3.9 Large Scale Research Study on Technology in K–12 Schools

An article published about Large-Scale Research Study on Technology in K–12 Schools conducted by (Barron, A. E., Kemker, K., Harnes, C., & Kalaydjian, K., 2003), for technology incorporation as IT relates to the National Technology Standards. The findings of a survey are summarized in this article (N=2, 156) in one of the country's largest school districts focusing on educational modes related to technology integration for teachers, as illustrated in the National Student Educational Technology Guidelines. Nearly 50 percent

of the teachers who responded to the survey suggested using technology as a classroom communication tool. Smaller percentages were mentioned for technology integration as an efficiency, analysis, or problem-solving tool. Statistically, significant variations were observed when teachers used computers as a testing tool or a problem-solving/decision-making tool to compare subject areas. Science teachers registered the highest use in both cases, followed by mathematics teachers. So, it might be concluded that all subjects related to teachers or students might not be used similar information technology.

3.10 Relationship between the implementation of national IT

Skryabin, M., Zhang, J. J., Liu, L., & Zhang, D (2015) joint research demonstrates the latest knowledge of the relationship between implementing national IT and individual skills. The present study results showed that among 4th and 8th-grade students, the national IT level was an important positive predictor for individual skills. Since the relationship between the digital divide and the achievement gap may explain the positive impact of the level of IT, recommendations should be given to national/international organizations and other international education stakeholders to bridge the digital divide. It should also include guidelines for national IT/education policies. The present study's findings also revealed that, based on the various forms of IT use, IT use showed mixed effects on three topics across all classes of individuals. Also as result, further research is needed to determine how various IT use forms affect individual performance and the direction of these impacts. Nonetheless, in education, IT should be used carefully, especially in compulsory education.

3.11 Web use of students, information credibility perceptions, and verification behaviour

Research on Web use of college students, information credibility perceptions, and verification behavior conducted by (Metzger, M. J., Flanagin, A. J., & Zwarun, L., 2003). This research into the use of web-based information by college students, their perceptions of information credibility, and their online verification behaviors was prompted by concerns about the inherently questionable existence of online information and users' willingness to assess it appropriately. Two studies were conducted to address these issues. The first research results show that college students rely very heavily on the Web for both

general and academic knowledge and that they expect this use to increase over time. The second study's findings show that, through various media and considering several different forms of information, students find information more reliable than those from a more general adult population. Nevertheless, students review the data they discover online significantly less. Implications are explored in the light of educators' ongoing attempts to enhance the literacy of the Internet.

3.12 Perceptions of Information Technology student's daily life

Nearly every teacher will accept that a mobile phone interferes with academic performance, but mobile phone practices range from banning electronic devices outright to far more flexible policies. Most authorities claim that students don't have to have electronic devices in the classroom, where learners see technology as an essential, daily item and vital for safety (Thomas, K. M., O'Bannon, B. W., & Bolton, N., 2013). In a way that does not engage learners, some teachers prefer to lecture students. Therefore, their students appear to assume that an artificial and fabricated classroom that is detached from the so-called 'true world' is (Baker, W. M., Lusk, E. J., & Neuhauser, K. L., 2012). PowerPoint software enables a teacher to visually present knowledge, but teachers who relied primarily on this technology were often found to be authoritative, and the technology was seen as negative (Goodin, L. M., 2012). This concept of the authoritarian is reinforced by restricting or monitoring the use of technology in the classroom by teachers, creating a learning barrier. It should also be remembered that the authors spoke to the teachers. The agreement was that the modern-day student also lacks the degree of self-control and maturity needed to have electronics in the classroom, Thus, the laws regulating electronics in the classroom (Black, P., Harrison, C., Hodgen, J., Marshall, B., & Serret, N., 2010). It is reasonable to believe that technology plays a role in everyday life, whether it is a deliberate decision to use it or not, from the mobile phones sitting in our pocket, to the car we drive to work, to the computer that makes our coffee in the morning (Egbert, J., 2009). If the average learner uses technology on a day-to-day basis, it would be counterintuitive for a teacher to use obsolete strategies designed when there was no technology in the classroom. If teachers incorporate technology more completely into classroom teaching, a paradigm shift in modern pedagogy must occur. With a technology-based learning environment, teachers would have more strategies to involve students in learning activities.

Student views on school-based learning can improve, and students will be driven and achieved at higher classroom levels.

3.13 Attitudes towards online services from the perspective of students

[Alkhanak & Ghani Azmi \(2011\)](#) researched the use of information technology and attitudes towards online services from students' perspectives. The most important results to answer the research questions were: 1.) The IT technology facilities offered by the University appear to be adequate and support online learning. Students depend primarily on ICT facilities and services offered to them on campus by universities. Also, the students indicate that all learning materials made accessible online were significant and beneficial, and the relevant finding of this study was that lecturers and students are increasingly practicing blended learning. 2.) The results uncovered by analyzing the student attitudes questionnaire reveal that students attach great importance to e-learning to gain information and resources. This means that the attitude of students towards e-learning is typically very optimistic. The study results also support the view that students strongly prefer face-to-face instruction, which is combined with online resources in a way that complements the two methods. The results also suggest that courses that make at least some use of IT are marginally favored. Furthermore, students typically tend to learn using online tools rather than studying based solely on traditional textbooks.

3.14 The Student ability and self-efficacy affect the usage of ICT

[Prof. Dr. Aytekin İŞMAN & Gülsün Ersoy \(2009\)](#) study how does student ability and self-efficacy affect the usage of computer technology? This research aimed to seek out the self-efficacy level among participant students and analyze their beliefs. This study showed that male understudies are surer contrasted with female understudies, equivalent to the exploration of [\(Bimber, B., 2000\)](#), Computer utilization has been called one-sided toward the interests and style of men, this study likewise showed that females aren't however sure as men seem to be to IT. [\(Awolaye, M. O. & Siyanbola, O. W., 2005\)](#), [\(Bimber, B., 2000\)](#) demonstrated that computers have some gendered ascribes that favor men in how altogether, men are bound to utilize computers and are more certain. Therefore, it is often said that several studies are supporting gender consider self-efficacy. Still, this study found that these improvements are more likely to be influenced by the task's difficulty and the

student's year of machine use (Busch, T., 1995) has been found the similar results. just like the study of Campeau and (Compeau, D. R. & Higgins, C. A., 1995), it's found that self-efficacy shapes the individual's beliefs and behaviors additionally. It's to be expected to search out that understudies have exceptional computer levels, which influences their self-viability. Also, some students have advance computer knowledge; therefore, they complain about the extent of the pc courses offered to them. additionally, to the current, it will be said that students with different computer skills show different self-efficacy levels further. There are many studies done on computer self-efficacy and beliefs. This research should be a guide for related educational institutions to implement solutions to the exciting problem. The most and the most urgent problem of the EMU case is that everyone student has an extraordinary level of computer usage abilities, and it's challenging to handle all students need through one basic computer course; therefore, students could be grouped in line with their computer usage level and take computer courses supported their levels. This might help students boost their self-efficacy, and therefore, the results of the updates will be an additional study to be done on this issue.

3.15 Student Experiences with Information Technology

Thomas, K. M., O'Bannon, B. W., & Bolton, N.(2013) Studied about student experiences with information technology and their link to other facets of student participation with students using information technology on each day for his or her academic and non-academic pursuits, and there's a requirement to grasp the tutorial effects of this use. The findings of this study indicate that how today's college university students participate in successful educational activities (e.g., active and collaborative learning) is related to how they use information technology for educational purposes. As the researchers and practitioners within the field of higher education, we must make decisions about how to assess and conceptualize students' use of information technology. Is there a way to use information technology to participate in other activities? Is it's kind of engagement, or is it possible both? The consequences of this study brief us to consider how settled markers of understudy commitment may like tying information technology things to activities related to shared learning, for example. In doing as such, notwithstanding, two things ought to be remembered. First, measuring students' engagement in information technology might not increase our ability to clarify educational outcomes above and beyond what's already captured by other student engagement measures. If this can be the case, we'd like to ask

whether their inclusion adds the worth. Second, we should always not be boxed in by what we already measure. It's vital to understand whether there are other ways for students to engage with information technology that aren't reflected by the NSSE survey or other instruments.

3.16 Students' expectation, satisfaction about digital textbooks

A study about Students' expectation, satisfaction, and continuance intention to use digital textbooks conduct by (Joo, Y. J., Park, S., & Shin, E. K., 2017). The current study examined the structural relationships among expectation, perceived enjoyment, perceived usefulness, satisfaction, and lyceum students' continuance intention to use digital textbooks, supported (Bhattacharjee, A., 2001) expectation confirmation model. the most focus of this study is to analyze students' the intention to use new digital media and repair within the educational context, not to justify using digital textbooks from teachers' and policymakers' perspectives. This study confirmed that levels of expectations perceived enjoyment and perceived usefulness with digital textbooks, students were more likely to be happy (Jung, C. H. & Jung, Y. S., 2012). Particularly, the result, the expectation could be a factor that affects satisfaction more than other factors within the current study, is in line with the finding from (Jung, C. H. & Jung, Y. S., 2012); that expectation is that the most critical factor to use with different types of data systems. The top quality of contents and repair experienced by digital textbooks should be maintained and enhanced to produce more satisfying outcomes than students expect.

In comparison, perceived utility and satisfaction positively influenced continuance intention to use digital textbooks. According to this report's finding, higher satisfaction may be a more influential factor influencing continuance intention to use than perceived usefulness, supported by (Thong, J. Y., Hong, S. J., & Tam, K. Y., 2006). That's to mention, while learners have positive perceptions of digital textbooks initially, they would not continuously use digital textbooks once they were to become dissatisfied with them. Therefore, teachers should recognize learner satisfaction first in virtual textbook-integrated classes. On the other hand, perceived enjoyment failed to affect continuance intention to use digital textbooks significantly. This finding is not per previous research, which claimed the numerous influences of perceived enjoyment on continuance intention to use technology (Kim, B., 2010). The insignificant influence of perceived enjoyment could be

associated with the educational context in this study. Although portal or mobile services focus more on enjoyment, digital textbooks within the current research paid more attention to the function of learning as instructional media, which implied that learners perceive digital textbooks as less enjoyable than other technologies for entertainment. Perceived pleasure, however, indirectly influenced the purpose of continuing to use digital textbooks by mediating satisfaction. Still, it must use instructional strategies to motivate learners internally and to form them to engage in digital textbooks. With technological development, digital textbooks were introduced as a brand-new learning media by combining diverse multimedia components with the formats of existing textbooks. This study's importance is that it identified factors affecting continuance intention to use digital textbooks for learners and newer generations who have experienced rapid changes in learning environments? Based on the expectation-confirmation model, this study suggested strategies to extend continuance intention to use digital textbooks.

3.17 Information Technology in Bangladesh

[Chowdhury \(2000\)](#) conducted a study on "Information Technology in Bangladesh," including all the possibilities and information about IT. In particular, he listed the education sector. He noted that the government has requested various ministries concerned and creates different possibilities for IT implementation. He found that every year, Bangladesh's universities turn out to have a growing number of graduates in computer-related subjects. He argued that the attempts to incorporate computers in schools & colleges as 'Computer Studies' was initiated around 13 years ago as an optional subject in both Secondary School Certificate and Higher Secondary School Certificate. Twenty-four universities in IT-related fields offering undergraduate degree programs. Besides this, a diploma program in information technology was also launched by BITS & Polytechnics. He indicated that many educated unemployed youth forces exist, with the ability to read and write English, that the country can be trained within a short time in the skills needed. To allow quite a few skilled professionals from Bangladesh to work abroad, they can be encouraged to return to the country.

3.18 Role of Information Technology (IT) in a classroom at secondary schools

[Banu, \(2005\)](#) studied the Role of Information Technology (IT) in a classroom at secondary schools: Where she analyzed the data from secondary sources like different educational documents. The work's main purposes were to identify how IT relates to the science curriculum of secondary schools and create a positive attitude of science teachers to using IT in their classes. She found that most of the secondary schools' teachers are ill-prepared and have insufficient knowledge of the technology-rich classrooms. Numerous studies have found that the introduction of technology can lead to important changes in teachers' instruction methods. She recommended that schools have an internet-connected computer lab & that teacher need more than just training on operating the machines & technical support to use technology.

3.19 The new communication technologies social impacts in Bangladesh

[Asaduzzaman, A.S.M, \(2007\)](#) conducted a study on "Social Impacts of new communication technologies in Bangladesh. The article mainly discusses the possible negative social impacts that modern communication technologies can bring along with them and aims to help policymakers take timely preventive measures. He mentioned that new communication technologies are undoubtedly playing vital roles in transmitting information, enriching our storehouse of knowledge, and meeting our entertainment needs. It has made communication easy, rapid, and frequent in our day-to-day life. Besides, these technologies have immense potential in developing our national economy. Though he argued that the pattern of media ownership/distribution of information, agenda-setting. However, an uninterrupted flow of superficial media entertainment negates the claims made by the western media in respect of the free flow of information, which brings changes in our life and culture. To minimize the negative effects of modern technologies, approaches have been taken. Firstly, the Government should take several measures and secondly, we must change our mentality and lifestyle. Controlled and selective use of communication technologies can give the most effective result.

3.20 E-government in Bangladesh

A research was conducted by (Hasan, 2003) on "E-government: ready in Bangladesh?" Mentioned in his research about the use of the Internet is already beginning to change how government operates in response to the constituent mandates, such as enhancement of services, cutting of waste, streamlining existing operations, and providing greater public access to information, which resulted into the e-government. In this context, the paper sketches the situation of Bangladesh in the IT sector and its preparation for implementing e-government. Like all the Bangladesh government, the technology sector is also welcome. Still, our many industries have grown through this technology, most of the sectors are not fully prepared to get it. Via training and other practices, people in Bangladesh should be wholly conscious & technically advanced.

3.21 Innovative use of ICT in distance education in Bangladesh

Begum M. (2011) submitted a Doctor of Philosophy thesis about "A study on Innovative use of ICT in distance education in Bangladesh: Design delivery and evaluation." She studied her analyses based on Elton's Model of technology in education and argued that technology carried our life easier and faster, distance is irrelevant, life has become more virtual and intellectual. Bangladeshi students or learners had become more interested to learn distance than before because of the information communication technology. She mentioned that as we live in an information age, we have already diverted our lives based on the new communication system. According to Elton's model, she argued that the use of technology in education had undergone a progressive change in the developed country. Still, as a developing country, Bangladesh is changing too slowly through information technology. The changing patterns become faster day by day. Several Bangladeshi learners have become more interested in taking distance education and the advanced degree with both positive & negative sides. Either Bangladesh could not be more technologically advanced, Bangladesh may face brain drain condition hugely, or if Bangladesh becomes more advanced, she might be top-ranking position in the world. She recommended that Bangladesh should be aware of it and decorate itself technologically as far as possible. She concluded that Bangladesh is becoming advanced by ICT, and distance learning may develop Bangladesh too advance.

3.22 Sustainable Development Networking Programme in Bangladesh

A joint study by Bangladesh Government UNDP & BIDS as 'Prospect of IT in Bangladesh' through by-the "Sustainable Development Networking Programme, Bangladesh" (SDNP) conducted by (Islam, 2000). (Islam, 2000) mentioned that Bangladesh's government has declared IT as a thrust sector and that every divisional and district headquarters in Bangladesh will have a computer training center. Every industry, including e-commerce, e-governance, computer networking, internet, web browsing, web application, multimedia product creation, and so on, is buzzing with activity. He also mentioned that the young generation of Bangladesh is very enthusiastic has correctly identified IT as the country's future. He statistically analyzed that Bangladesh is becoming more advanced in the IT sector.

3.23 Critical success factor in e-learning

Another study about Critical success thinks about e-learning: Examining technology and student factors conduct by (Musa & Othman, 2012). They explore that many universities commit to making the most of e-learning for the delivery of education these days. e-Learning is becoming a more and more accepted paradigm across many institutions of upper learning. A detailed investigation of critical success factors (CSFs) that influence students' perspective is essential as many higher educational institutions endeavor to draw in and retain students to adopt e-learning courses or programs. This study focused on the vital components influencing e-learning from the understudies' perspective and assessed two CSF classes' basic level: innovative and understudy attributes. An example of 450 Undergraduate understudies was reviewed to look at and measure the proposed e-learning CSFs. From the innovation perspective, 13 markers were inspected. The outcome demonstrates that the net's perusing rate is that the main achievement factor in sync with understudies having the essential factor stacking of 0.91 followed by grounds internet access unwavering quality with a component stacking of 0.88. The extracted Cronbach alpha and variance are 0.96 and 0.86, respectively, both of which are very accurate and agreed values. This criticality level requires the university authority's urgent need to seem into the problem of internet access on all the campuses of the university and the speed of the web. This may be achieved by upgrading the bandwidth package and improving the infrastructure of the knowledge technology. The second factor, which is students'

characteristics, is sub-categories into three: student's computer competency, student's collaboration activities, and student's contents. All the three sub categories have a natural fit and high factor loading of 50.65, which are therefore valid and accepted. All of them have a worth of concha alpha of 60.70, which indicates a decent fit. Within the first categories: the scholar's computing competency, SDT9, which is learning by construction, participation, and contribution, is the foremost critical factor loading value of 0.91. Therefore, it is suggested that the lectures taking e-learning based courses must ensure to put all the relevant material in e-learning as timely as possible. So that the scholars taking such courses can always be rest assured to access all the courses as at when needed.

3.24 Challenges for information technology supporting the tutorial assessment

The analysis of ([Webb, M., Gibson, D., & Forkosh-Baruch, A., 2013](#)) recent research about Challenges for information technology supporting the tutorial assessment presented during this article has confirmed the potential for IT to play a significant role in transforming assessment practices to support the wants of learners additionally because the needs of educational systems (e.g., classroom practices, school organizations, and national priorities) within the 21st century. A variety of challenges have also been identified, and a few ways of addressing them are explored. ECD provides a useful framework for creating components that might be reassembled easily to produce assessments that address users' needs ([Mislevy, R. J., Steinberg, L. S., & Almond, R. G., 2003](#)). However, so as for users to learn thoroughly, developers must consider a way to make the reasoning and decision-making processes accessible to users to understand them and contribute to assessment development and interpretation. There's thus a desire to develop assessment literacy ([Stiggins, R. J., 2005](#)) in teachers and other users so that they understand the benefits and limitations of assessment types and processes and are confident in developing and analyzing arguments from evidence supported the present understanding of validation ([Black, P., Harrison, C., Hodgen, J., Marshall, B., & Serret, N., 2010](#)). These professional development processes could even be supported by computerized assessment systems that analyze data about student performance and misunderstandings. In this way, development could become a shared process between assessment bodies, teachers, and other stakeholders.

The consequences of digitally enhanced assessments are at an early stage. Still, they need the potential to extend the range of assessment measures, thus contributing to complete construct representation and increasing the authenticity of assessment. Improvements in computer-supported statistical analysis promise to form the analysis of the large quantities of knowledge generated more manageable. However, as we've argued during this article, significant challenges remain for developing validation approaches that may realize the complexity of those learning experiences, especially for group tasks in simulations, games, and other problem-solving environments. Suppose these challenges are often overcome so that digitally enhanced assessments through simulations and games can become important components of high-stakes assessments. In that case, they provide the promise of overcoming a number of the negative impacts of current high stakes assessments, for instance, on the event of creativity and social development (Harlen, W. & Deakin Crick, R., 2002) the advantages of embedded continuous unobtrusive measuring of performance are obvious therein learners can become engaged in interesting tasks that are designed to support their learning. However, at the same time, as we've argued during this article, learners also must be involved in discussing and negotiating their learning intentions so that they should have access to meaningful representations of evidence-based arguments about their achievements. Therefore, instead of describing this unobtrusive measuring as 'stealth assessment,' which has connotations of secrecy and furtiveness, we value more highly to conceptualize these processes as 'quiet assessment' whose volume may be turned up by learners and teachers whenever they need. As outlined above, our analysis of existing research has enabled us to spot ways in which the identical assessment could engage the scholars in meaningful activity, contribute to feedback information, improve decisions to support learning, and enable judgments about knowledge and skills shared with learners and teachers. Such approaches would combine formative and summative assessment purposes to the advantage of learners while at the same time helping educational environments to continuously improve by, as an example, setting and monitoring targets for individual students and groups and using aggregated data on student misunderstandings to tell curriculum planning. However, even with the increased possibilities that ICT provides, we've got not yet found the way to mention confidently that the multiple purposes that some assessments are used (Mansell 2009) can or should be supported through the identical evaluation.

3.25 Students with Learning Difficulties and Disabilities

Usher and the Center on Education (2012) focused on what rouses understudies to lock-in in learning exercises who experience issues in the conventional center courses. What sorts of nonstandard strategies can be utilized to get understudies who are uninterested or unmotivated to get inspired by academic learning and succeed? Could non-scholarly interests be used to encourage an understudy inside the study hall? With the last objective to persuade understudies in school and make classwork seriously fascinating, a few strategies were applied to test, including, however not restricted to, 'genuine world' applications, active work, and point of view changes (for example utilizing web-based media or computer games/technology). In their 2011 investigation, (Ernst, J. V. & Moye, J. J., 2013) recognized a few significant challenges experienced by understudies in the essential schooling framework, including an understudy's sensations of social segregation. They likewise noticed that understudies with explicit in danger markers (like an incapacity, monetary detriment, or who are second language English speakers) were bound to experience issues. To counter the sensations of segregation, (Ernst, J. V. & Moye, J. J., 2013) recommended that an innovative instruction homeroom may help ease and cure these issues. This study hall would offer the chance to master correspondence and socialization abilities in a controlled climate that the understudies know about, which may not be the situation in other standard homerooms. It was presumed that understudies within danger factors are bound to have their feelings met and an expanded social communication when presented to innovation mix in the homeroom. (Flanagan, S., Bouck, E. C., & Richardson, J, 2013) considered the insight encompassing the utilization of assistive innovation from a center school custom curriculum educator's viewpoint during proficiency guidance. The understudies who were partaking in this specific investigation were distinguished as having high-rate incapacities. Even though educators felt assistive innovation was powerful, cost and innovation precise preparation were restrictive. At the hour of the investigation, it was noticed that there was a little collection of writings on the subject of assistive innovation and its usage in schooling (Flanagan, S., Bouck, E. C., & Richardson, J, 2013).

3.26 Negative Effects, student addiction misuse of Information Technology

An article about the Negative Impact of Information Technology on Education was published (Richie KS, 2018). He concentrated on the availability of unlimited internet knowledge that can also destroy imagination, which serves as a great learning tool. To get good grades, students often just copy and paste the content. Hence, nowadays, we have numerous understudies and graduates who are remarkable on paper however have practically no involvement with their picked field of study. Though they are degree holders, these graduates can't solve technological problems. This is one of technology's saddest negative impacts on students. He also listed student distractions, where students spend much of their time playing online games on social media sites and television shows instead of learning. For most students, social media these days has become an addiction to the point that they choose to sit in class on Instagram, Snapchat, Facebook, or Twitter instead of concentrating on what is being taught. Even though he wrote about the likelihood of disinformation, while the Internet's information is infinite, there is no assurance that what student's access is what they need. Anyone can post something on the Internet, and what is the truth and what is just a clout-chasing piece of disinformation is incredibly hard to decide.

4 Practical Part

The practice work carried out in this research is defined in this chapter. This chapter focuses on two-section, the first section is general findings of the quantitative study's basic findings, and the second section is general findings of the qualitative study. The first section addresses the total number of respondent university student survey data by some questionnaires and opinions about student usage level of Information Technology. This survey consisted of some questions about the use of information technology, several multiple opinions, several habitual findings of using the internet, and several yes/no questions (see Appendix – A: Questionnaire). And the second section presents some case studies of student personal experiences about the use of Information Technology. (see Appendix -B: Case study checklist)

4.1 The general finding of the quantitative study basic finding:

General findings of the quantitative study basic findings section carried out Dhaka University and Jagannath University respondent student survey consisted of some questions about the use of information technology, several multiple opinions, several habitual findings their thinking, expectation, satisfaction, and experience of the use of information technology in the field of education and for study.

➤ A total number of respondent university students and age limit listing for this study:

The study listed 105 respondent university students from Dhaka University and Jagannath University-based different age with male and female student combination. And the process was completed by making individual groups and with some social media groups.

Number of respondent student and their age

	Age	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-20	14	13.3	13.3	13.3
	21-24	88	83.8	83.8	97.1
	25-28	3	2.9	2.9	100.0
	Total	105	100.0	100.0	

Table 2: Age Condition (Source: Self-Development)

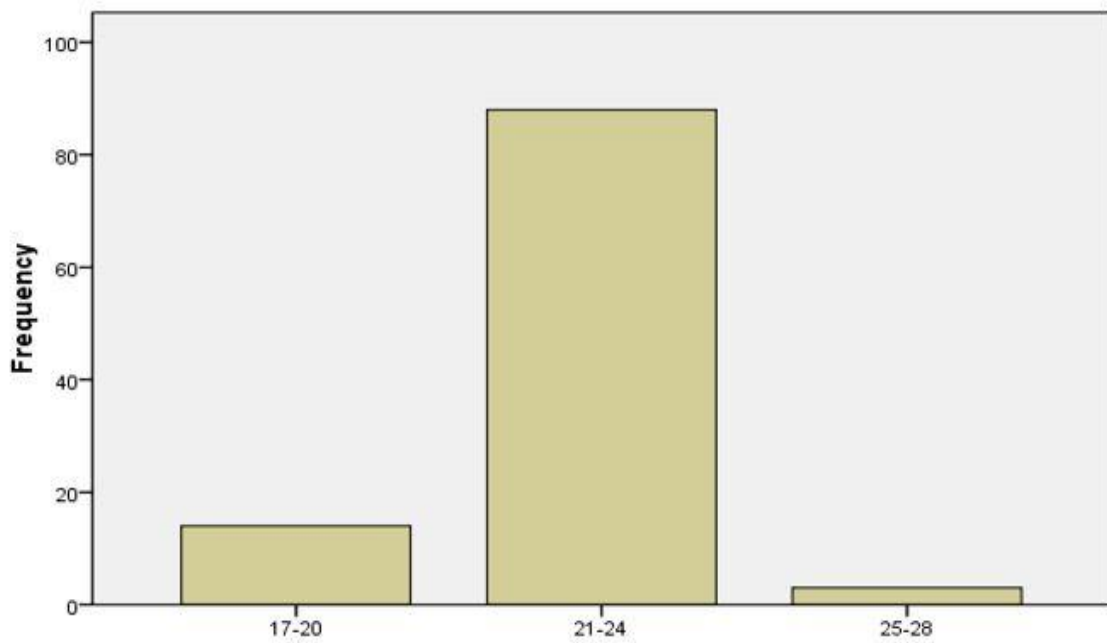


Figure 2: Respondent university students age frequency (Source: Self-Development)

□ As all the respondent’s university students are 105, the age limit (upper-lower) has been found 17 - 28 years, where 13.3% holds on 17-20 years. Maximum (83.8%) are belonging 21 – 24 years. Rest 2.9% holds on 25 -28 years that shows the graph above.

All the respondent university students CGPA presenting by a Bar Chart for this study based on male and female:

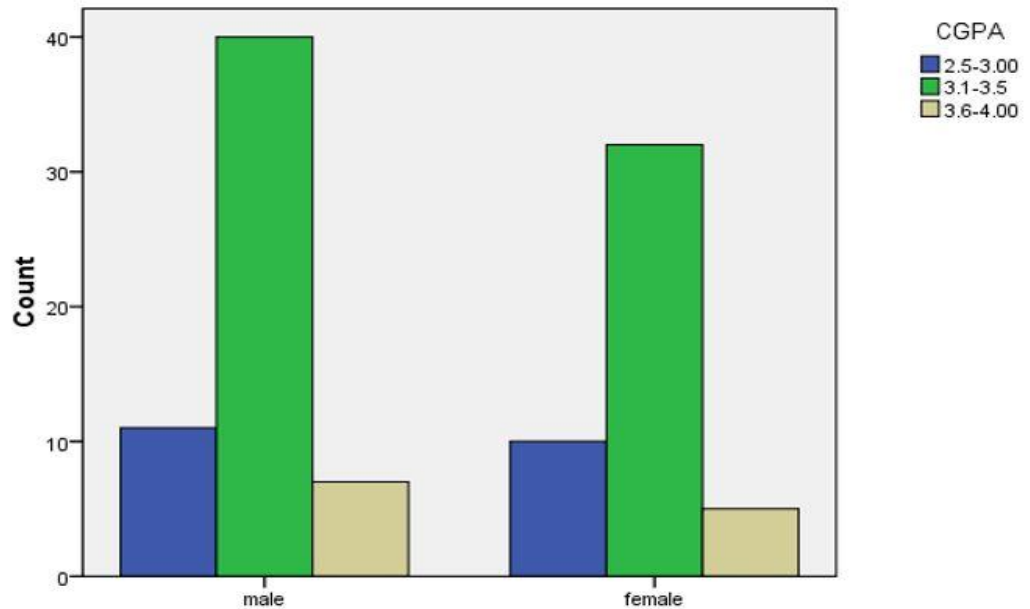


Figure 3: Students acquired CGPA based Male & Female (Source: Self-Development)

□ This graph represents the total number of male & female based on their CGPA result, which focuses that maximum respondents are in the category of CGPA (3.1-3.5)

4.1.1 Primary findings

The primary finding is showing below by a table based on a questionnaire about do you use the internet or not?

Do you use the internet?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	105	100.0	100.0	100.0

Table 3:Do you use the internet (Source: Self-Development)

□ The table is showing the result that 100% respondent they use the internet.

4.1.2 Internet-Based Newspaper Reader

Below the table is showing the student percentage for internet-based newspaper readers.

Do you read the online newspaper?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	35	33.3	33.3	33.3
	No	70	66.7	66.7	100.0
	Total	105	100.0	100.0	

Table 4:Internet Based Newspaper Reader (Source: Self-Development)

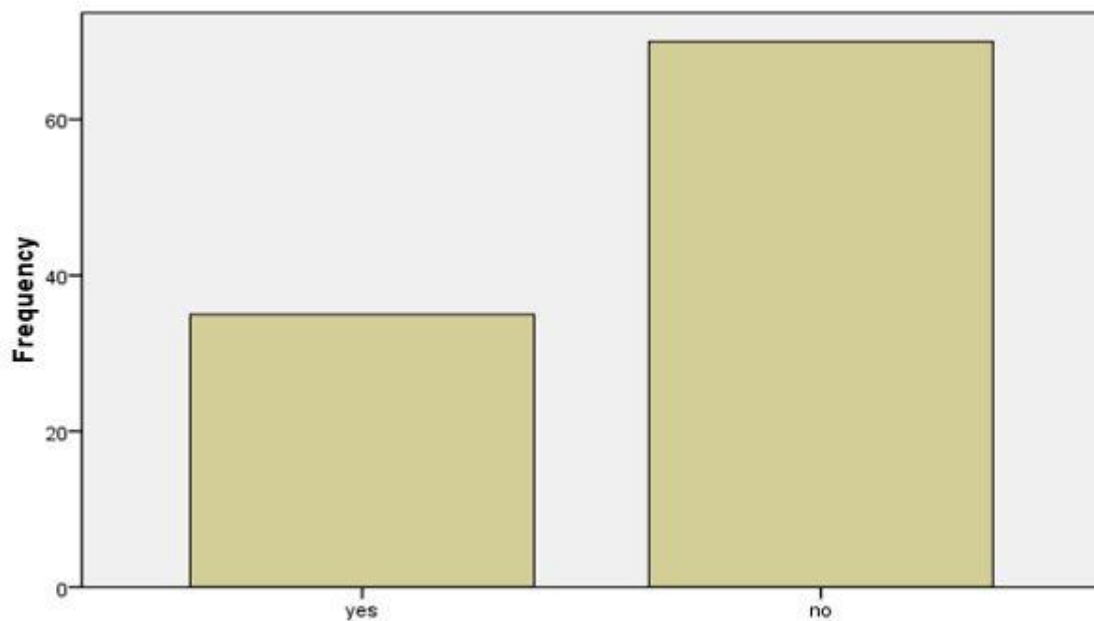


Figure 4: Do you read the online newspaper? (Source: Self-Development)

□ Based on the table & chart, we found that a maximum (66.7%) respondents surprisingly not used to read online newspaper.

4.1.3 Percentage of student Online Test participator

Following the table is showing the percentage of student Online Test participator.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	73	69.6	69.6	69.6
	No	32	30.4	30.4	100.0
	Total	105	100.0	100.0	

Table 5: Percentage of student Online Test participator (Source: Self-Development)

Do you feel comfortable joining several online tests?

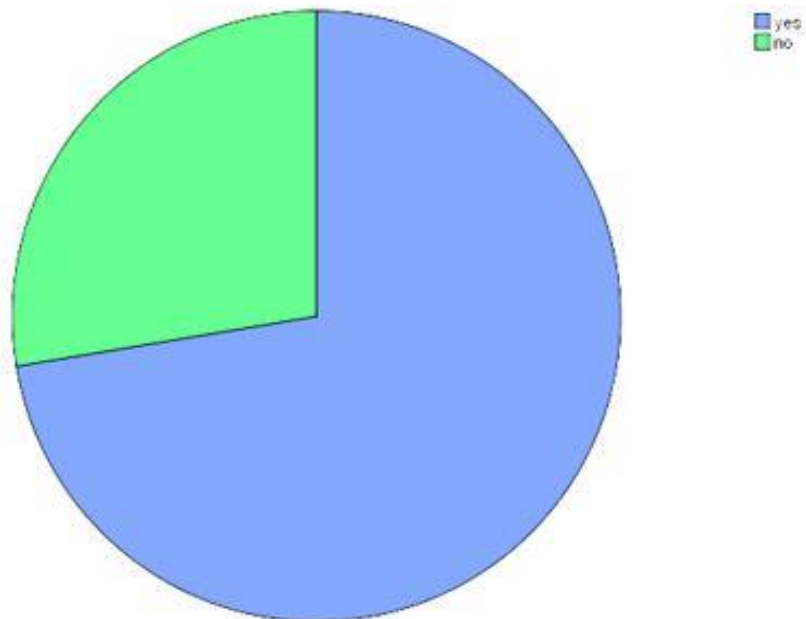


Figure 5:Online test participator (Source: Self-Development)

□ We find that a maximum of students (69.6 percent) are online test participants based on the report, and the remainder (30.4 percent) are still not in contact with any online test.

4.1.4 Online contact trend via social apps

The student's percentage consisted of using online contact trend via popular social apps like WhatsApp's, Messenger, Skype, IMO, Viber, etc.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	75	71.4	71.4	71.4
	No	30	28.6	28.6	100.0
	Total	105	100.0	100.0	

Table 6: Online contact trend via social apps (Source: Self-Development)

Do you contact others online?

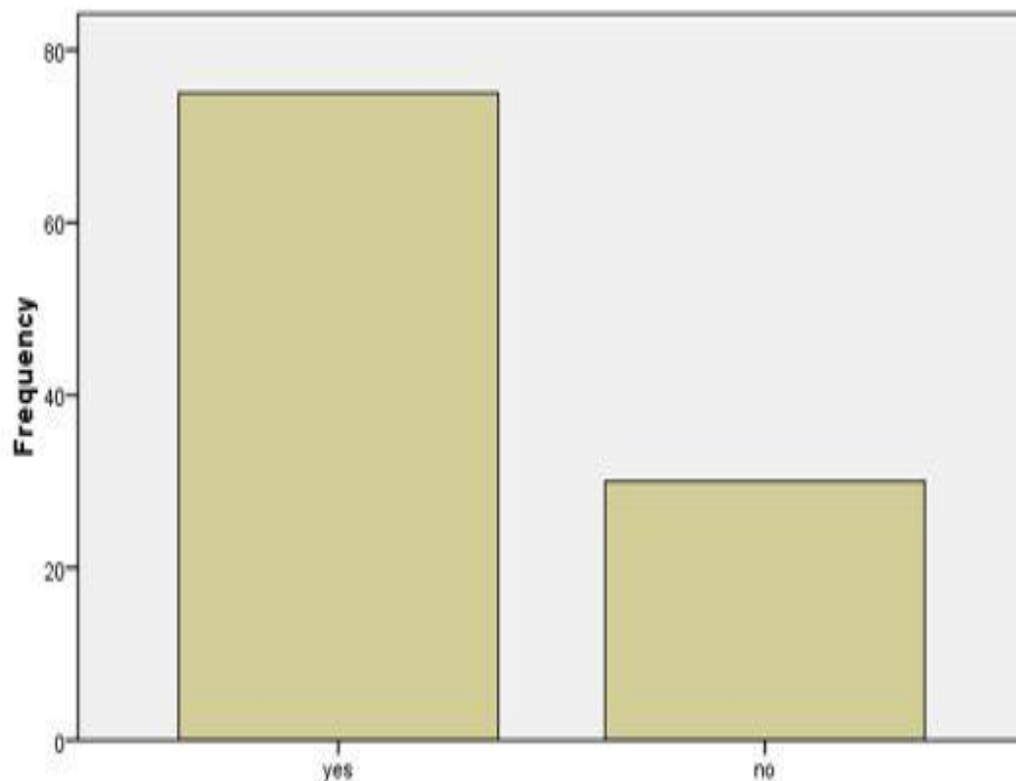


Figure 6: Online contact trend via online (Source: Self-Development)

□ This table & chart shows that the percentage of online communication is increasingly trendy, and the use of online contact platforms such as WhatsApp, Messenger, Skype, IMO, Viber, and other modes is essential for young and aware students.

4.1.5 Internet in semester system

N (Number of observation)	Valid	105
	Missing	0
Mean		1.2476
Median		1.0000

Table 7: Statics of the Internet in semester system (Source: Self-Development)

Opinion Student usage Internet in semester system

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	79	75.2	75.2	75.2
No	26	24.8	24.8	100.0
Total	105	100.0	100.0	

Table 8: Student usage Internet in semester system (Source: Self-Development)

□ The value of the internet in the semester method is too strong, according to the respondent's view, where the mean position is 1.2476, and the median is 1.00, and the complete ratio is shown in the table.

4.1.6 Computer lab position in several determents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	21.9	21.9	21.9
	No	82	78.1	78.1	100.0
	Total	105	100.0	100.0	

Table 9: Computer lab position in several determents (Source: Self-Development)

Is there any computer lab in your department?

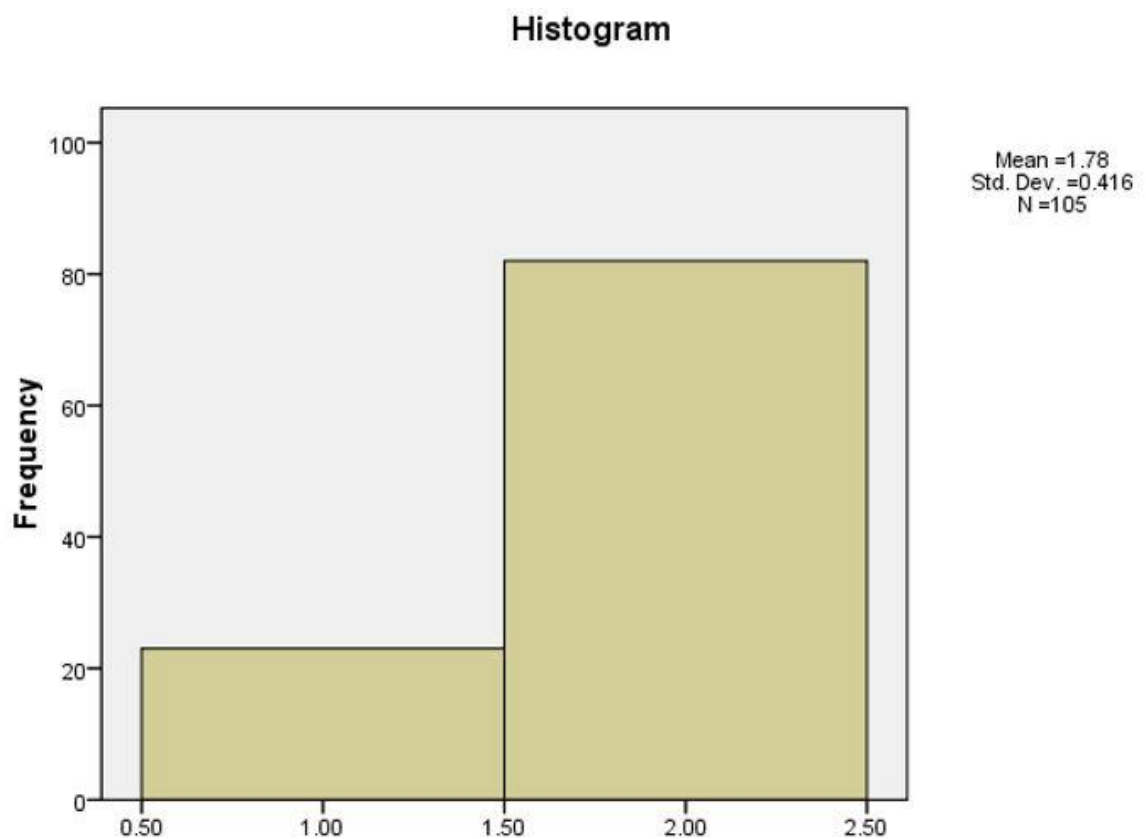


Figure 7: Computer lab availability in several departments (Source: Self-Development)

❑ Surprisingly, according to the respondent's view, it was found that only a few departments (21.9) have a computer lab, and a maximum of departments (78.1) do not yet have computer labs.

4.1.7 The opinion of the respondent about the cultural dilemma through IT

The globalization of world economies has contributed to introducing information technology to other cultures, most frequently established in Western cultures. In the creation and use of these innovations, cultural traditions have been integrated. Sometimes, because of tradition, the receiving community did not adopt the technology. The study is presenting opinions from a respondent student about the cultural dilemma through IT.

Opinion about the cultural dilemma through IT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	78	74.3	74.3	74.3
	No	27	25.7	25.7	100.0
Total		105	100.0	100.0	

Table 10:Opinion of the respondent about the cultural dilemma through IT (Source: Self-Development)

Do you think IT creates a cultural dilemma?

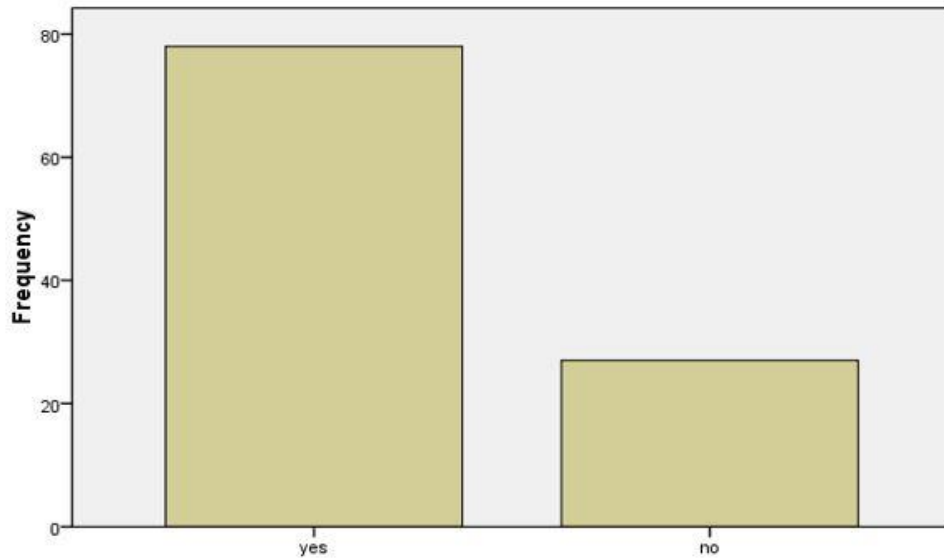


Figure 8:Opinion of the respondent about the cultural dilemma through IT. (Source: Self-Development)

Based on the table and graph, 78 respondents (maximum) agree that IT also produces a cultural dilemma, even though less than 27 individuals believe IT is not a challenge to the cultural dilemma.

4.1.8 The opinion of the respondent about the IT addiction

Through developing a new virtual public space, Information Technology has become an essential tool for social networking and communication and for accessing information. It has also become more popular as new technology types have been created and accessed nowadays through tablets and cell phones, and many apps. This communication network has specific characteristics, such as the ability to gratify rapidly and efficiently, which makes it an instrument with the potential to create psychological dependency, in addition to the growing popularity of the Internet. There is increasing evidence of cases of people suffering from addictive addiction on the internet.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	91	86.7	86.7	86.7
	No	14	13.3	13.3	100.0
Total		105	100.0	100.0	

Table 11: Opinion of the respondent about the IT addiction (Source: Self-Development)

□ According to the table indirectly, 86.7% of respondents argued that students are addicted through IT.

4.1.9 The opinion of the respondent about uses & abuses of IT

Information Technology is a tool that, when properly used, can have many benefits. Also, it may lead to negative consequences like addiction, teenagers can stare down, and some Psychological and physical symptoms, such as eyestrain and difficulties concentrating on important tasks, can lead to social media and mobile devices. They can also contribute, such as depression, to more severe health problems. So, the study has included discussion even student thinking about the use and abuse of Information Tocology.

What do you think about the use and abuse of IT?

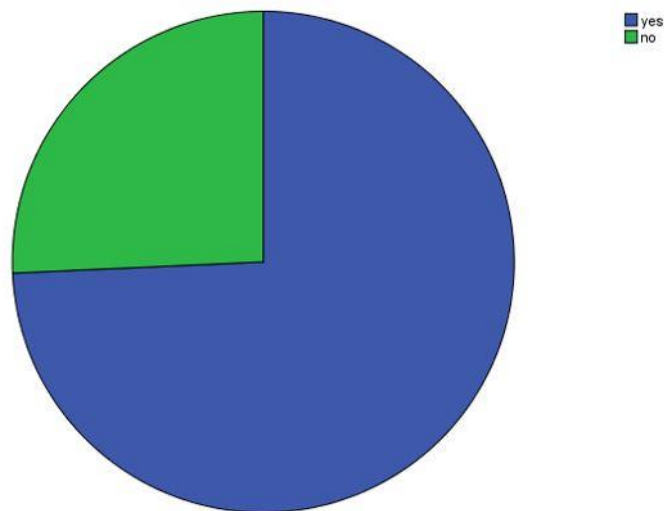


Figure 9:Opinion of the respondent about uses & abuses of IT (Source: Self-Development)

□ The figure focused that almost all respondents are concern about the use or abuses of IT.

4.1.10 Habitual Findings

Here the research presents the use of time ranging from respondent students and various sections across IT.

❖ Range of uses time on internet & computer

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 30-60 minutes	7	6.7	6.7	6.7
60-120 minutes	45	42.9	42.9	49.5
Upper than120 minutes	53	50.5	50.5	100.0
Total	105	100.0	100.0	

Table 12: Range of computer uses time (Source: Self-Development)

How long you use the computer a day on average?

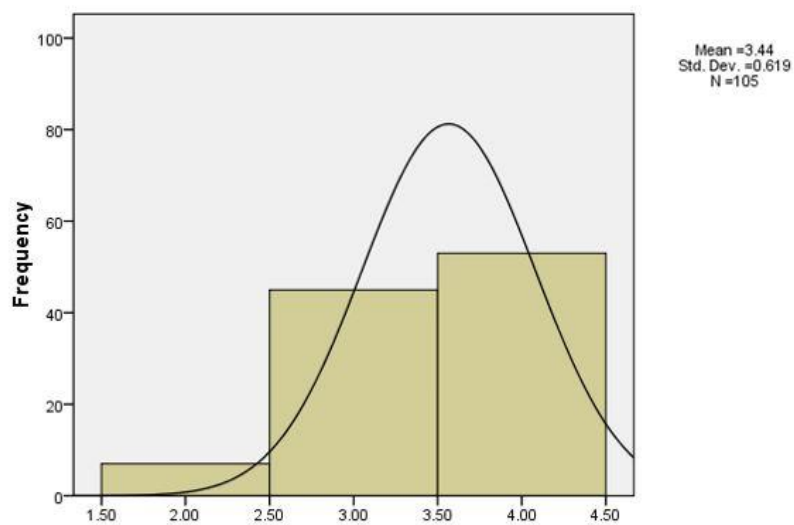


Figure 10: Range of computer uses time (Source: Self-Development)

□ The experiments show 50.5% of respondents use computers for more than 120 minutes, whereas 42.9% use computers for up to 2 hours. Fewer students (7%) use below 1hour.

❖ **Internet Usages Range in Face-booking**

How much time do you spend on Facebooking?

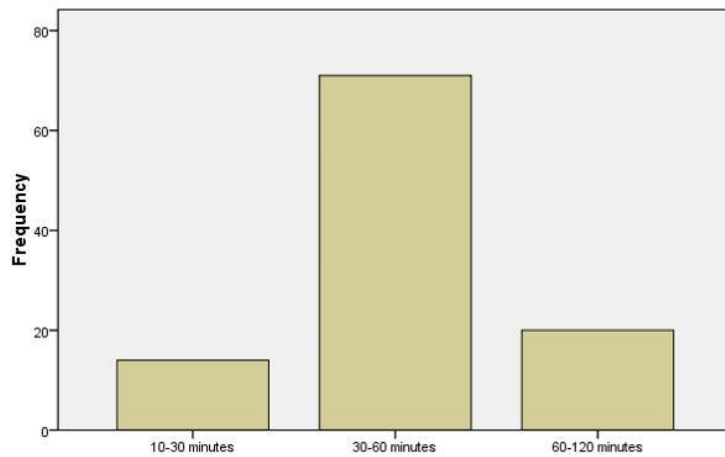


Figure 11: Range of time using Facebook (Source: Self-Development)

□ According to the internet's graph level in face-booking, respondents consume 30-60 minutes above 60% of the total internet usages.

❖ **Range of Chatting**

How much time do you spend Chatting?

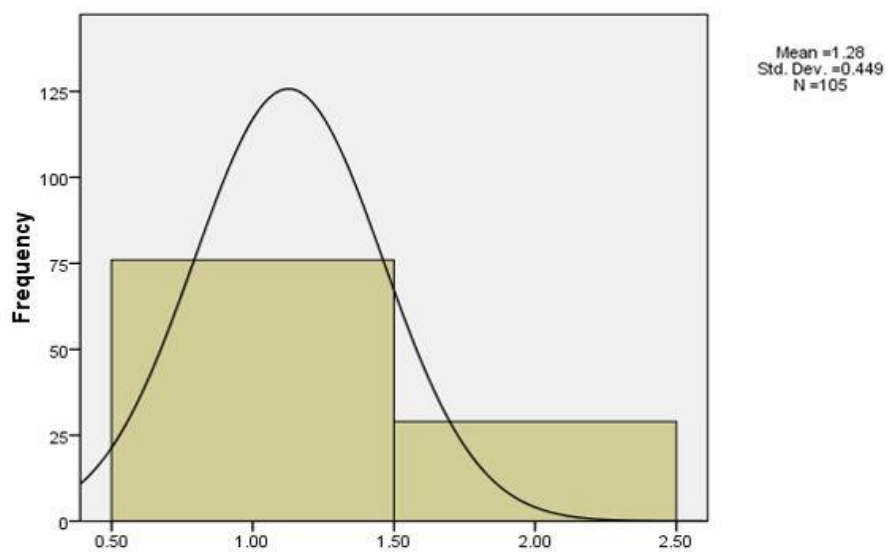


Figure 12: Range of time use through chatting (Source: Self-Development)

□ As the graph shows, the mean value is 1.28, so it may be said that average students spend more than 30 minutes chatting.

❖ Range of time in Blogging

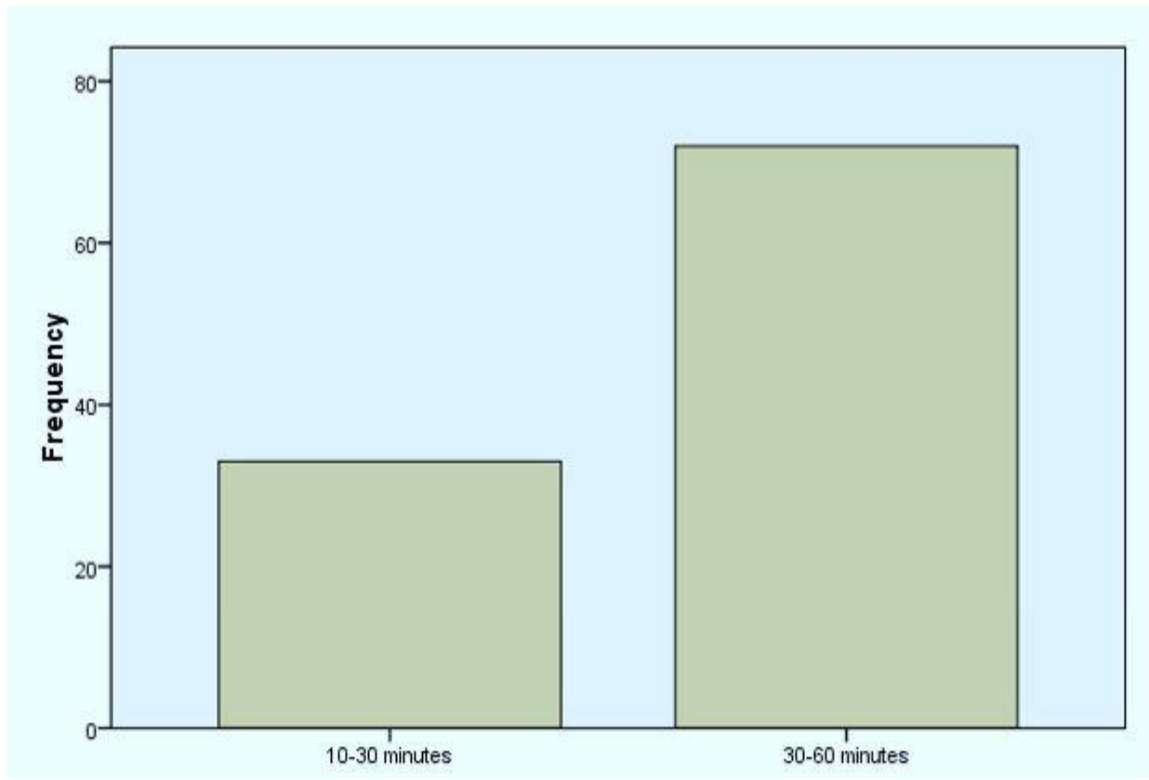


Figure 13: For maintaining the blog/phase (Source: Self-Development)

□ The experiment shows that the average level of the respondents is not habituated in blogging, but fewer respondents use blogging through the internet for more than (30-60) minutes, and very few are in the time range of (10-30) minutes.

❖ Internet uses range in several model test

Information technologies make it easier for worldwide online courses. A computer with an internet connection allows students to learn new things and to understand the subjects quickly and deeply. It allows for online education, distance learning, and up-to-date data access. Since this knowledge is interpreted differently by each student, technology will allow more study into more complex subjects to learn. The study has also experimented to shows that the Internet uses range in several model tests.

For IELTS/ GMAT/GRE test

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Upper than120minutes	23	21.9	21.9	21.9
	.00	82	78.1	78.1	100.0
	Total	105	100.0	100.0	

Table 13: Internet uses range in several model test (Source: Self-Development)

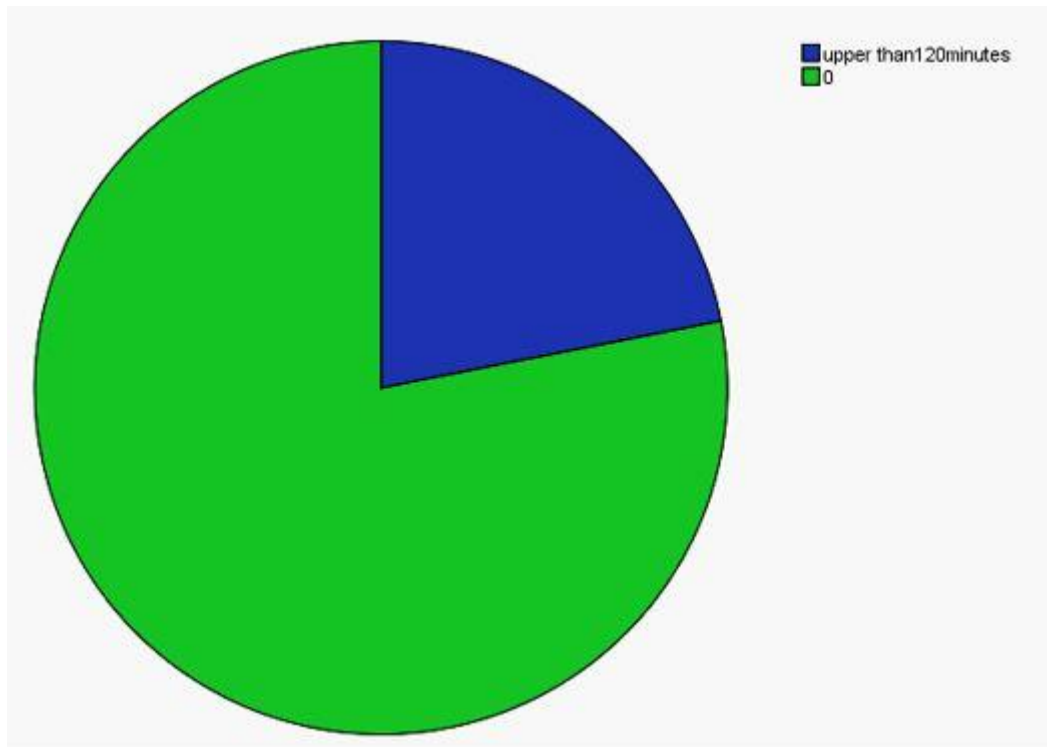


Figure 14: Opinions of the respondents about several model test (Source: Self-Development)

□ Average respondents spend more than 01 hours on multiple model tests, while fewer students (23 out of 105) spend more than 120 minutes on IELTS/GMAT/GRE and some other model tests.

4.1.11 Students attitude and trend about the use of Information Technology

The nation, including students around the world, has been linked by information technology, and it has become the key catalyst for the growth of modern society. Information and communication technologies have evolved rapidly and have shifted the conventional model of libraries to the digital form. The research also takes respondent students to think about Knowledge Tocology attitude and phenomenon.

❖ IT enhances the efficiency of the students

Do you think IT enhances the efficiency of the students?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	36	34.3	34.3	34.3
	Strongly agree	69	65.7	65.7	100.0
	Total	105	100.0	100.0	

Table 14: Opinion about IT enhances the efficiency (Source: Self-Development)

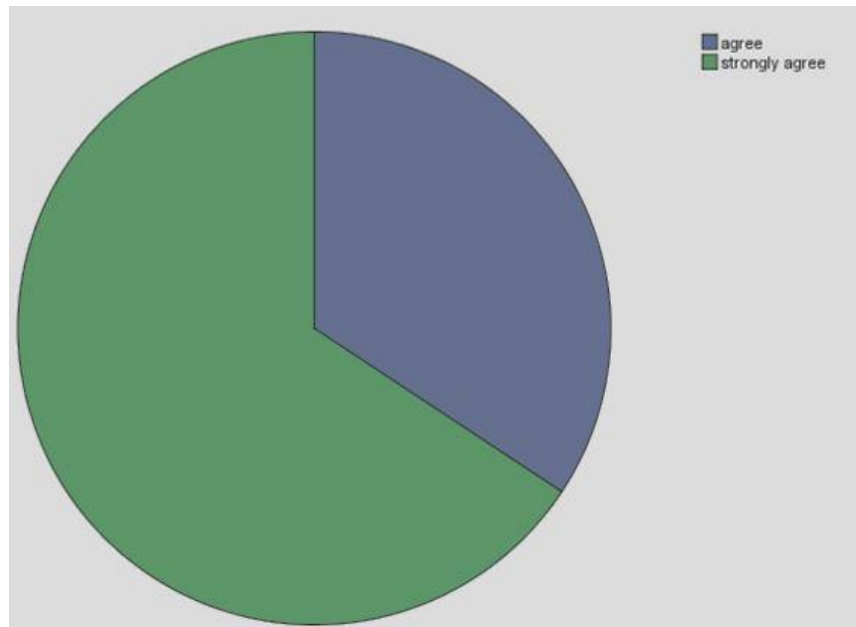


Figure 15:IT enhances the efficiency (Source: Self-Development)

□ The opinion shows that 65.70 percent of the respondents strongly agree that IT increases the students' efficiency, and 34.30 percent agree with the respondents' opinions.

❖ **IT plays a significant role in new inventions and intelligence**

Do you think IT plays a significant role in innovation and intelligence?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	36		34.3	34.3
	Strongly agree	69		65.7	100.0
	Total	105		100.0	

Table 15:Role of IT in new inventions and intelligence (Source: Self-Development)

□ According to the opinion “IT plays a great role in new inventions and intelligence,” 65.7% of respondents strongly agree, and 34.30 % agree with it.

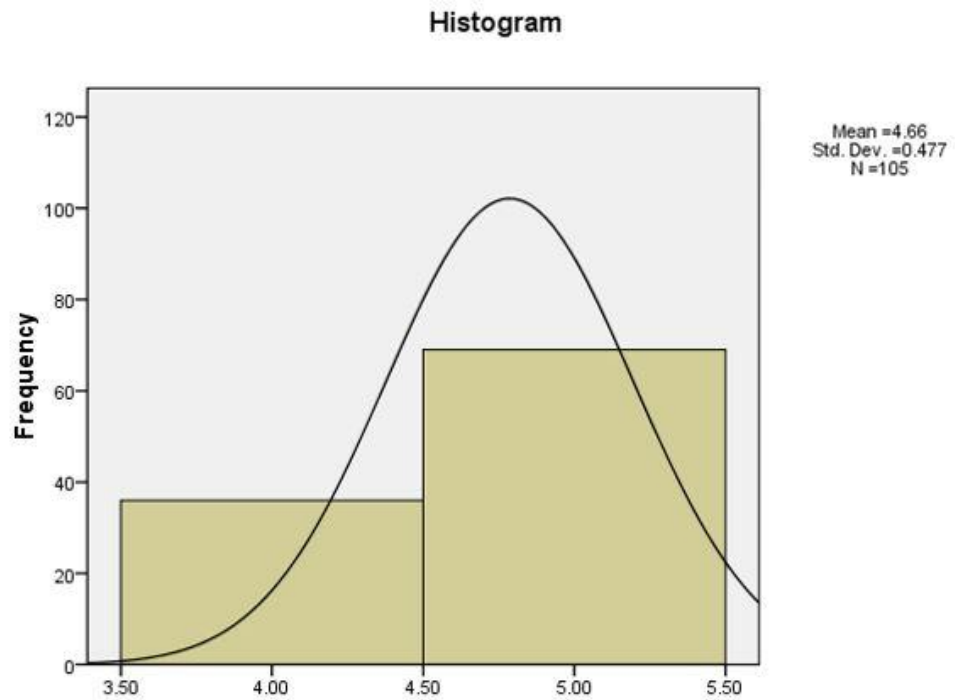


Figure 16:Role of IT in new inventions and intelligence (Source: Self-Development)

□ The graph indicates that, according to the scale, average respondents strongly accept that IT plays a significant role in new technologies and intelligence as the mean value is 4.66.

❖ **The social network is too much important for students**

Is a social network necessary for students?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	19	18.1	18.1	18.1
	Neutral	86	81.9	81.9	100.0
	Total	105	100.0	100.0	

Table 16:Importance of social network for study (Source: Self-Development)

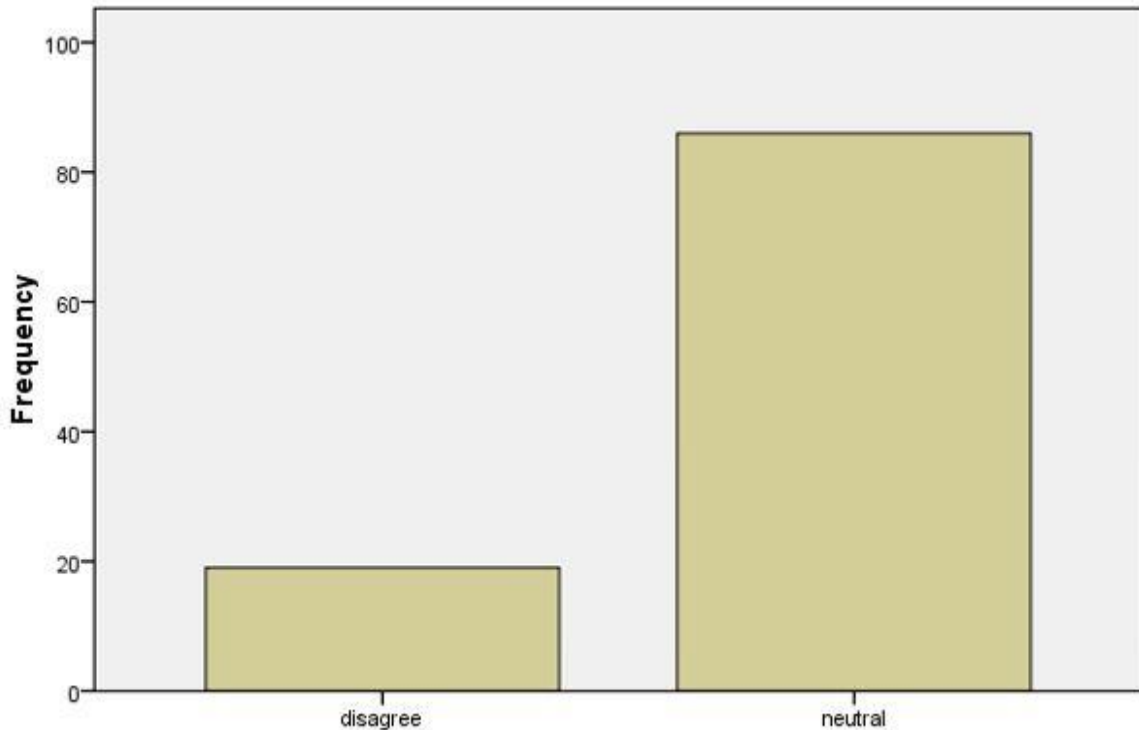


Figure 17:Social network is essential for students (Source: Self-Development)

□ It has surprisingly shown that 81.9% of respondents keep a neutral position about the opinion “A social network is too much important for students,” and 18.10 % disagree with this.

❖ **Most university students do not use IT fruitfully**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	79	75.2	75.2	75.2
	Agree	26	24.8	24.8	100.0
	Total	105	100.0	100.0	

Table 17: Student opinion about using IT in University (Source: Self-Development)

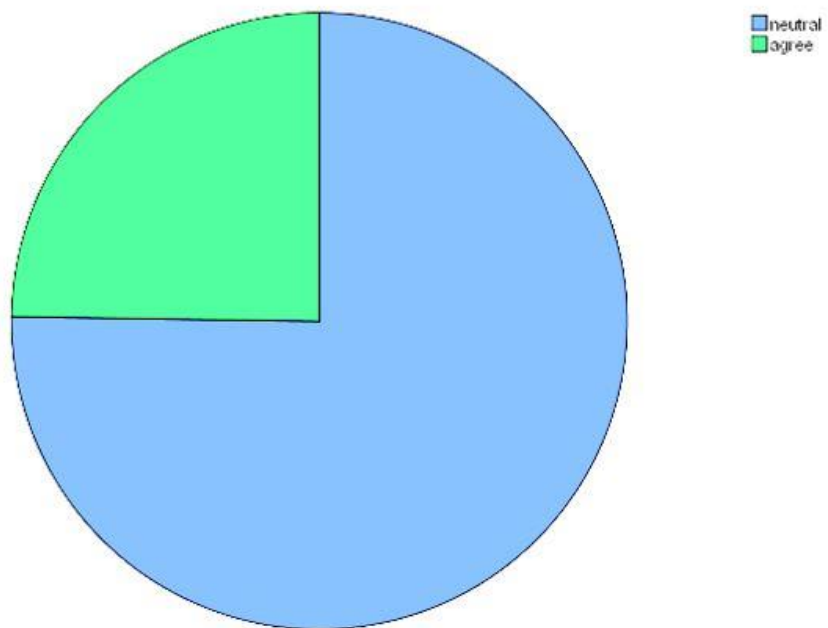


Figure 18: Student opinion about using IT in University (Source: Self-Development)

□ Respondents agree with this, whereas 75.2% keep them in a neutral position. According to the opinion” Most of the university students do not use IT fruitfully”24.8%

❖ **IT creates social awareness**

Do you think IT can play the role of social awareness?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	83	79.0	79.0	79.0
	Strongly agree	22	21.0	21.0	100.0
	Total	105	100.0	100.0	

Table 18:Opinion about IT role make social awareness (Source: Self-Development)

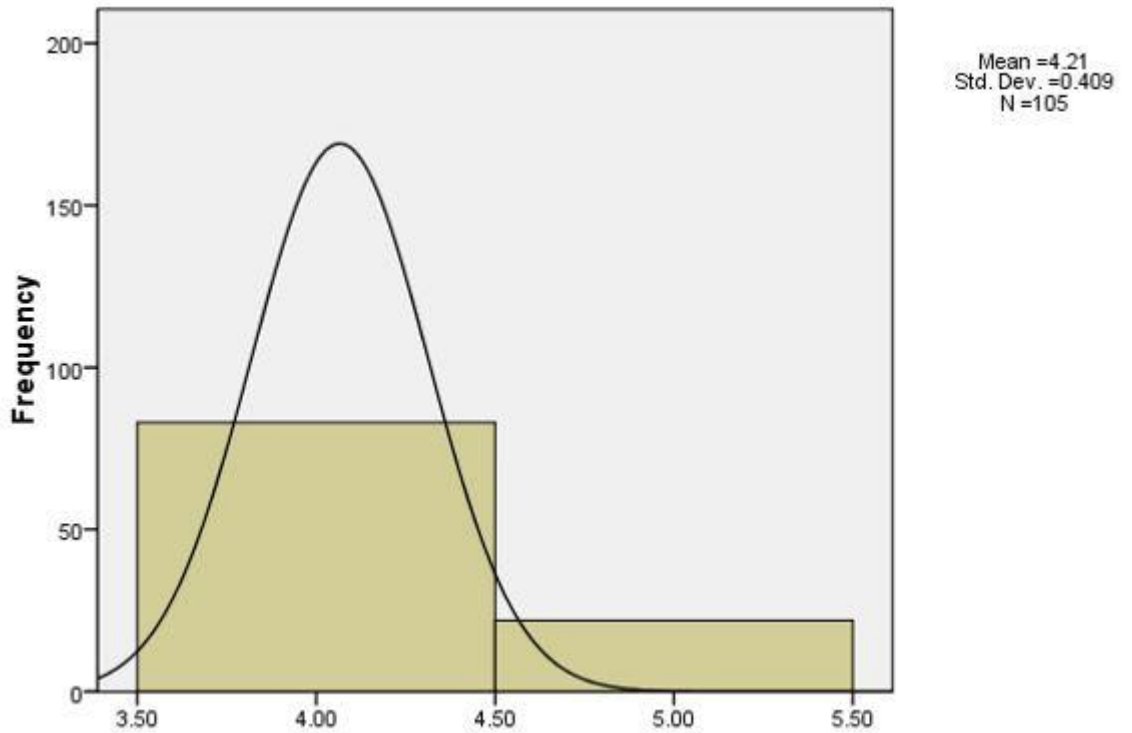


Figure 19:Opinion about IT role make social awareness (Source: Self-Development)

□ The study reveals that 22 out of 105 respondents strongly agree with the declaration "IT creates social awareness," and 83 agree with it.

❖ IT has a significant influence on Bangladesh education system

Information Technology provides the education sector with numerous advantages. If properly implemented, it enhances students' learning experience, improves contact between teachers, students & parents, as well as enhances admin and other staff members' productivity. The study also sees the impact of information technology in the education system of Bangladesh.

Do you think IT has a significant influence on Bangladesh's education system?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	16	15.2	15.2	15.2
	Neutral	89	84.8	84.8	100.0
	Total	105	100.0	100.0	

Table 19: Opinion about IT influence in Bangladesh education system (Source: Self-Development)

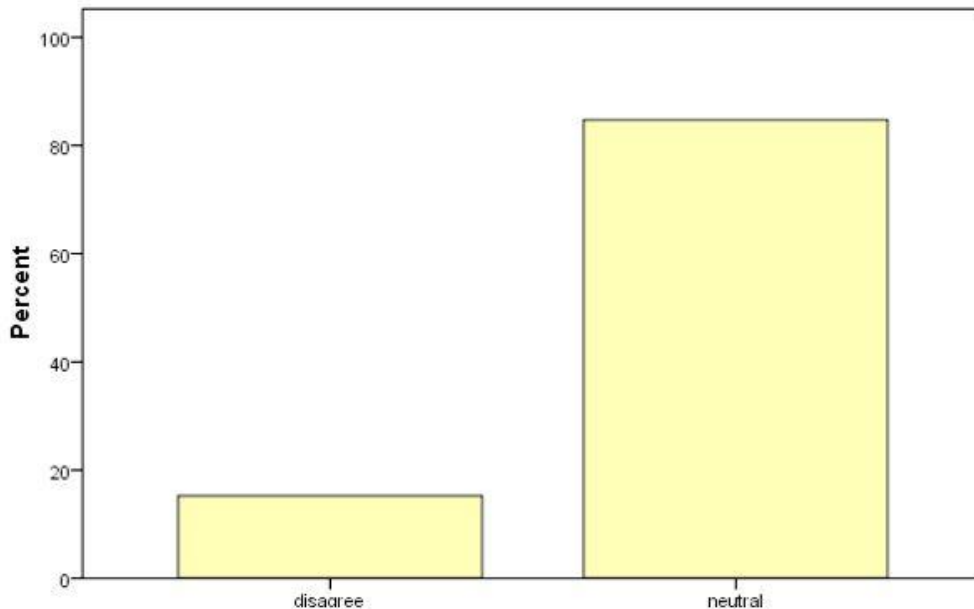


Figure 20: Opinion about IT influence in Bangladesh education system (Source: Self-Development)

□ It has shown that 84.8% of respondents keep neutral about the statement “IT has tremendous influence in Bangladesh education system,” whereas 15.2% disagree with this.

❖ **IT creates a cultural dilemma**

Do you agree that IT creates Cultural Dilemma?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	4	3.8	3.8	3.8
	Neutral	94	89.5	89.5	93.3
	Agree	7	6.7	6.7	100.0
	Total	105	100.0	100.0	

Table 20:Opinion about IT create Cultural Dilemma (Source: Self-Development)

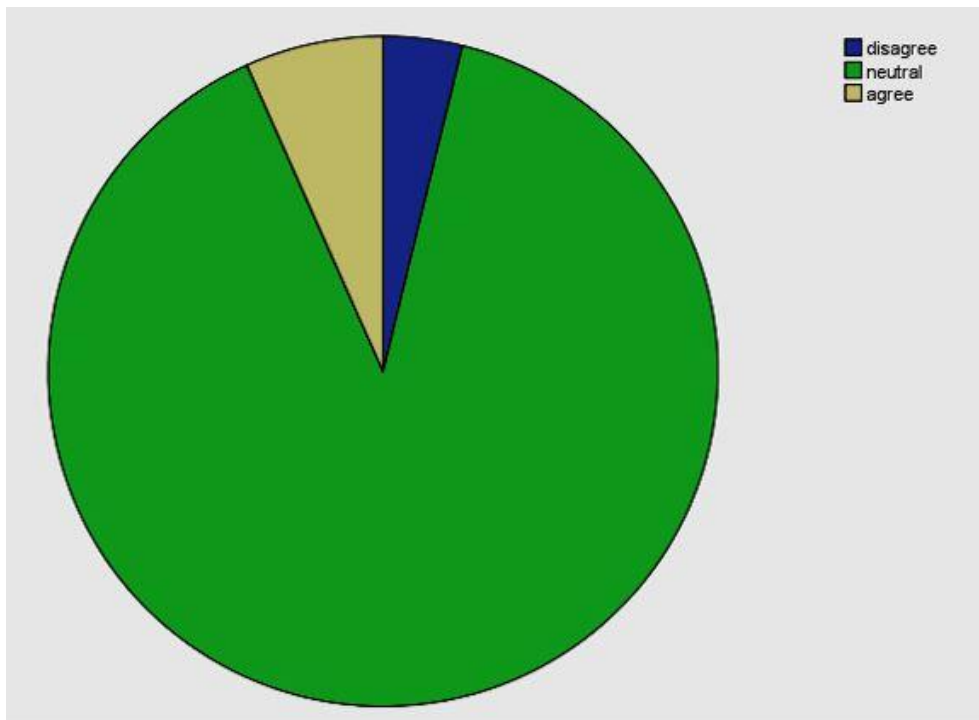


Figure 21:Opinion about IT create Cultural Dilemma (Source: Self-Development)

□ According to the opinion, 3.8% of respondents disagree with the statement “IT creates cultural dilemma” 89.5% keep them in a neutral position, 6.7% agree with this.

❖ **IT almost creates addictions**

N (number of observation)	Valid	105
	Missing	0
Mean		3.0476
Median		3.0000
Mode		3.00
Std. Deviation		.35030

Table 21: Opinion about IT almost creates addictions (Source: Self-Development)

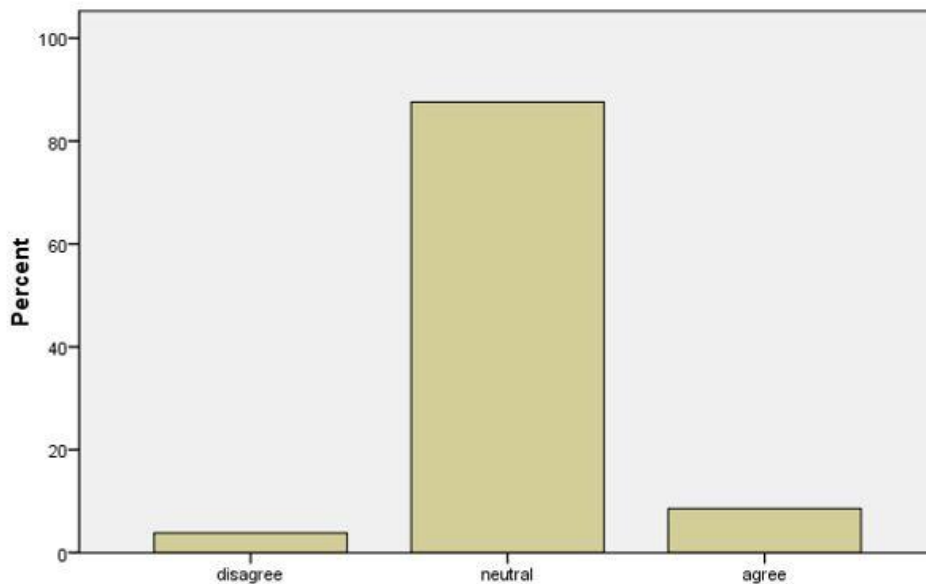


Figure 22: Opinion about IT almost creates addictions (Source: Self-Development)

□ According to the statistics table and graph, maximum students keep a neutral position about the opinion “IT almost creates addiction.”

4.2 General findings of the qualitative study

General findings of the qualitative study presenting based on some case studies of student personal experiences about Information Technology use.

4.2.1 Case study - 1

Pritom Roy, a Jagannath University student (M.S.C 2nd Semester) who is 26 years old, argued that today IT has a significant role in every step of life. However, most of our students are not fully sincere /concern that” IT means not only the computer-based technology but also the other communication device, he argued. He said that our maximum students, including his friends & match mate, use the internet to waste time and only for fun through face-booking, chatting, discussing skype, even watching pornography. He suggested that extra awareness should be built by government or university authorities for alarming our young generation about the abuses of IT. According to Pritom Roy, IT creates a Cultural dilemma, and he faced a religious dilemma for connecting with Facebook friends. He also recommended that if our students use IT to develop their skills, they might develop our collective talents. “IELTS/GRE/GMAT test is too much fruitful for abroad study, and we know that although most of our students are not seriously taking these tests like BCS exam,” Pritom mentioned it. He also said that only online journals or newspapers should be read out because these papers develop student skills too much. Lastly, he argued that we should be aware of the uses or abuses, even excess uses of IT, and use IT to develop our skills.

4.2.2 Case study - 2

Imran Hossain is a first-year student at Dhaka University. His department is Accounting Information System (AIS). He expected to do well in his academic carrier. But he stumbled at the first-year first semester. And then he hardly decided to make a good result and started hard working. But he failed again to score good marks in his exam. After two semesters, he conceived that failure for a good result is a communication gap with his classmates. He confined himself with his college friends through Facebook and chatting. Most of the time, he spends oriented activities but not related to the academic curriculum.

For this reason, he cannot maintain a good relationship with university friends. He was lagging in note collection, seminar study, and computer lab practice. On the other hand, the

friends must maintain well interaction with each other using present IT tools and mechanisms such as sharing notes, lecture sheets, slide presentations. Finally, understand that information technology is an aid for development in all aspects of life, including education and social networking. After that, he enriched his education with first communication with adequate information technology and started learning subconsciously, sharing with university friends. Eventually, the story of his life cycle motioned towards development, and day by day, he is improving in academic results with the blessing of information technology.

4.2.3 Case study - 3

Nishat Sal Sabil is an Economic departments student of Jagannath University, defined IT as a key for developing students' skills better, although IT has some negative impacts. She argued that she can easily make her task & assignments through the internet and easily collect various information. Even she can know about any of her academic schedule or information through IT in advance and the Facebook phase. She also accepted that IT has several negative impacts too. Many university students abuse IT by wasting time watching several pornographies even though they become addicted through Facebooking, chatting, etc. She also mentions that some students directly engaged with several ICT crimes, such as hacking, blackmailing, etc. She suggested that ICT laws should be strictly maintained, and the students' guardians should also be alert about the abuse of IT. She said that except for some disadvantages of IT, there are substantial positive sites for developing the students' skills and uplifting our student's positions under the shed light of world students' views. She hoped that through IT developments, Bangladesh could establish itself as a semi-periphery as well as a core nation.

4.2.4 Case study - 4

Farzana Reza (23) is a student of 4th year of Dhaka University in B.B.A. on Management, who defined IT as a very influential element for development. She mentioned IT as the core element of any civilization, according to her. "It is the core what changes any civilization whereas today's electronic-based information technology plays a great role for advancement development" She hopes one day our country will remain a more developed country in the world through its development & by proper using of information technology our student's night be more advance & skilled too. She also

mentioned the negative impacts of it, such as our students are not properly concern or care about this sight our maximum students use it as well as a social network for fulfilling their interest & become addicted only for their mental enjoyment, some of our students create several dangerous crimes too through it. Our guardians are not concern about these impacts also. She suggested that if we all can be developed awareness in every sphere of society, we might be rich to the top level of success. She exampld the developed countries which became developed through using it. Farzana is also interested in the GMAT test. After completing BBA She will prepare herself for better education through She hopes She will come back & create a great role for country development, where It will be the main core of her creativity. Farzana is also interested in writing several international journal articles through online submission, which is a very cheerful sight. Farzana Reza thinks that our education system & our national critters should be more advanced & developed through its developments & our students should avoid the negative sights & skilled themselves by using more developed it.

4.2.5 Case study - 5

Md Abdulla Al Mamun (24), A student of the Geography & Environment department under the faculty of life & earth at Jagannath University, defined it as the latest modernism criteria. According to Mamun, today's world cannot go through a single moment without information technology. He argued that technology and information technology are the primary elements that make society a better looser/downer. He thinks that it is more important for students because it developed the student's skills. The Internet is an essential part of our life, forgetting any information or knowledge. He also thinks about it that as a criterion for wasting time and as an addiction. He argued that it creates a cultural dilemma that is a significant threat to Bangladeshi culture & the young generation should be more concerned about this. He observed that some of his friends negatively used it by watching pornography or other negative sites or wasting more time through chatting or face booking. He thinks that students should mainly maintain their ethical morality and basic consciousness to avoid the negative impacts. Mamun was not concerned about the IELTS/GMAT/GRE test, so he could not say about this; he participated in other online tests and regularly read online journals & articles. Mamun thinks that Bangladesh will be a more established country by using proper information technology & the students also get a better education through appropriate it. He suggested that the negative sites should be bane

governmentally or administratively so our students will not get that & awareness also should be built for proper use.

5 Results and Discussion

This study aimed to identify the most acceptable level of student use of Information Technology in the field of education and to define its ability, proper use, misuse, knowledge, etc. Presenting its outcome and debate is well below the analysis.

5.1 Analysis of the Quantitative Findings

- The analysis shows that 100% of respondents are used to the Internet, whose age limit is 17-28 years, and the maximum number of respondents' CGPA belongs to 3.1-3.5.
- The primary finding is also showing the result that 100% respondent they use the internet.
- The study found that 66.7% of respondents surprisingly were not used to reading the online newspaper where maximum respondents feel comfort to join several online tests.
- From analysis about the percentage of student Online Test participator, we noticed that, based on the survey, a maximum of students (69.6 percent) are online test participants. The rest (30.4 percent) are still not in touch with any online tests.
- This survey also shows that the percentage of online communication is increasingly trendy, and it is relevant for young and conscious students to use online interaction platforms such as WhatsApp, Messenger, Skype, IMO, Viber, and other modes.
- Maximum students argued that the importance of the internet in the semester system is too much. To achieve this vision for the future, access to the Internet is fundamental. In certain aspects, it will increase the standard of education. It provides access to a wealth of information, skills, and educational services, expanding learning opportunities both within and outside the classroom.

- Surprisingly, the study has found that maximum departments at Dhaka University and Jagannath University don't have computer labs.
- The study is presenting opinions from a respondent student about the cultural dilemma through IT. There 78 student respondents (out of 105) who think that it creates a cultural dilemma.
- It is a very interesting part of the study that 86.7% of respondents are indirectly argued that students are addicted to Information Technology.
- The most significant thing is that almost all students are concerned about its use and misuse.
- Half (50.5%) of the respondents use computers for more than 120 minutes, whereas 42.9% use computers for up to 2 hours.
- Maximum respondents consume the internet through face-booking up to 30-60 minutes, where average students of internet users pass their time through chatting.
- It has shown that the respondents' average level is not habituated to blogging, but fewer respondents use blogging through the internet for more than (30-60) minutes.
- Average respondents are interested in joint with several online tests & spend their time more than 1 hour, where fewer students are spending time for IELTS/GMAT/GRE tests up to 2 or more than 2 hours.
- The most interesting site of the study is the respondents' opinion where maximum respondents strongly agree that 'It enhances the efficiency of the students' & 'It plays a significant role in new inventions & intelligence.
- The study has surprisingly found that 81.9% of respondents keep neutral position about the opinion "Social network is too much important for the students" & "Most of the University students do not use it fruitfully."
- On the other hand, almost all the students argued that it creates social awareness through it almost creates addictions too.
- The study also surprisingly found that, interestingly, maximum students (84.8%) keep neutral about the statement that" It has significant influence in Bangladesh education system.

- The study also found that 89.5% of respondents keep neutral position about the opinion that ‘It creates a cultured dilemma.
- And maximum students keep neutral position about the opinion” IT almost creates addiction.”

5.2 Analysis of the qualitative findings

Through the checklist & online (via video call) interview, the study found that maximum students take it & its impacts positively though they mention some negative effects too. All the respondents hope that Bangladesh will be more developed through proper use of IT & the student's skill will be more respected. In the action of negative impacts, the respondents mentioned mainly the addiction, time-wasting, chatting & watching pornography. But all the students hope that Bangladeshi, as well as Bangladeshi students, will bring Bangladesh more developed by its usage.

6 Conclusion

Information technology plays a significant role in peoples' studies, jobs, and personal lives. The components of the information age are everywhere: computers, networking, digital information, applications. Computer-based technology is being used in modern times, whereas the students could not dream a decade ago. This research aimed to assess evaluate student’s usage level of information technology. This chapter has enabled you to think about the essential role of information technology in proper education for students. We have seen that many issues surrounding the new education system are real issues around information technology dynamics. Introduction chapter gives a brief introduce of the research topic evaluating student usage level of information technology and the current state of educational Information Technology implementation in Bangladesh. Chapter two focused on the study objective of how students utilize information technology in education and their thinking, experience, and satisfaction. And also, this chapter discussed the research methodology. The research approaches to collect data, the research design, data

collection, different sampling, and the data analysis. Chapter three is about the literature review; in this chapter, the study talks about the role of information technology in education along with higher education and emerging information technology. Then reviewed and address the current state of educational information technology implementation and the use of information technology and student belief, attitude, ability motivation, and experience. Finally reviewed information technology in Bangladesh for the education field, information technology challenges, student disabilities, negative effects, addiction, and misuse of information technology. Chapter four is about the analysis; the researcher has analyzed the collected data using different graphs, charts, and tables.

The research found out from the student's questionnaire that pointed out their experience of using information technology for study and other purposes. Chapter five finding the result from analyses and briefly presented this section. According to finding all most all the students at Dhaka University & Jagannath University are used to the internet as well as it & almost all are concerned about the uses & abuses level of it. The implementation position of it is going on in a hopeful position through in some condition (Several Online reading, IELTS/GMAT/GRE test) the situation should be more developed. Like Selina Banu, the study has found that the students think IT creates more implemented sectors & Bangladesh could be more developed through it using sectors. Like A.S.M Asaduzzaman, the study found some students are addicted to using it through chatting, face-booking, and even watching pornography. As a renowned University, the students at Dhaka University & Jagannath University should be developed their usage level & be aware of the abuses of Information Technology.

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8 Appendix

8.1 Appendix-A: Questionnaire

Evaluating of students' usages level of IT (Information Technology):

A study on Dhaka University & Jagannath University

(The information will use for academic purposes. The respondent is rested assured that the information's which are given here will be kept a secret)

Information about respondent:

1. Name:
2. Age:
3. Sex: a) male b) female
4. Semester:
5. Department
6. CGPA:
7. Faculty
8. E-mail Address:
9. Phone/ Mobile No:

Information about the study:

(You are to tick (√) the option that your opinion. Multiple ticks (√) can be given)

Serial	Questions	Yes	No
10	Do you use Computer?		
11	Do you use the internet?		
12	Do you read the online journals?		
13	Do you read online newspapers?		
14	Are you interested to join several competitive exams?		
15	Do you contact others online?		
16	Do you use online education sites?		
17	Do you think that the internet is fruitful for the semester system?		
18	Is there any computer lab in your department?		
19	Do you think that IT creates Cultural Dilemma?		
20	Do you think that IT creates addiction?		
21	Do you ever think about the uses & abuses of IT?		

Habitual information:

Duration of daily uses

1. 10-30 minutes
2. 30-60 minutes
3. 60-120 minutes
4. More than 120 minutes

SL	Questions	1	2	3	4
22	Range of your usages time of computer				
23	Range of your usages time of internet				
24	How much time do you spend face-booking?				
25	How much time do you spend chatting?				
26	In email using				
27	Conversation via apps call				
28	For maintaining the blog/phase				
29	For collecting information				
30	In several model test				
31	For IELTS/GMAT/GRE test				

Opinions:

	Opinion	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	IT is too much needed for the education sector					
	IT enhances the efficiency of the students					
	IT plays a great role in new inventions and intelligence					
	The Social network is too much important for students					
	Most university students do not use IT fruitfully					
	IT creates social awareness					
	IT creates a cultural dilemma					
	IT almost creates addiction					
	IT has a significant influence on the Bangladeshi education system					

8.2 Appendix-B: Case study checklist

Respondent information:

1. Name:
2. Age:
3. Sex: a) male b) female
4. Semester:
5. Department
6. CGPA:
7. Faculty
8. E-mail Address:
9. Phone/ Mobile No:

General findings:

✚ What do you mean by IT?

P	N
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✚ What do you think about the role of IT in the student sector?

P	N
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✚ Please say something about the necessity /advantage of IT.

✚ Do you have any idea about the disadvantages of IT?

1. Wasting time
2. Addiction

3. Pornography

4. Moral Decay

5. Cultural dilemma

✚ Have you any say about IELTS/GRE/GMAT or other online Tests?

✚ Do you think online journals or Newspapers change the living standard?