International Journal of Literacy and Education

E-ISSN: 2789-1615
P-ISSN: 2789-1607
Impact Factor: 5.69
IJLE 2023; 3(2): 115-117
www.educationjournal.info
Received: 22-07-2023
Accepted: 29-08-2023

Dr. Prativa Patowary
Associate Professor,
Department of Education,
Goreswar College, Assam,
India

Correspondence Author;
Dr. Prativa Patowary
Associate Professor,
Department of Education,
Goreswar College, Assam,
India

Attitude of college teachers towards the use of information and communication technology in higher education in the light of NEP 2020

Dr. Prativa Patowary

Abstract
The main objectives of this study are (i) To study the attitude of college teachers toward the use of ICT; and (ii) To study the problems faced by the college regarding the use of ICT in higher education as per NEP, 2020. The investigator adopts the Descriptive Survey method for this study and the sample of the present study was confined to 80 college teachers (40 males and 40 females) and 6 Principals of the Kamrup (Metro) district who have been selected by applying the Stratified Random Sampling technique. Attitude Scale toward ICT and unstructured interview schedule is used in this study. Major findings of the study are (i) Attitude of college teachers toward ICT is average because only a few teachers' attitudes are under above average category; and (ii) Colleges face different problems related to ICT use like lack of ICT infrastructure, Overcrowded classroom, Lack of properly trained teachers, Poor network of Wi-Fi connectivity, etc.

Keywords: Information and Communication Technology, Attitude, Higher Education, NEP 2020

Introduction
The famous statement of Nelson Mandela is displayed at the entrance of the Stellenbosch University (South Africa) "Destroying any nation does not require the use of atomic bombs or the use of long-range missiles. It only requires lowering the quality of education and allowing cheating in the examinations by the students." The value and quality of education are reflected in the above definition given by Nelson Mandela.
Since independence, for improving the quality of education, different committees, commissions and policies are framed for education in India. Policies are important because they help a school/college to establish rules and procedures and create standards of quality for learning and safety, as well as expectations and accountability. Without education policy, the educational institute would lack the structure and be unable to meet the needs of students. Education policy refers to the collection of laws and rules that govern the operation of education systems. In India, a total of three educational policies are formulated in the years 1968, 1986, and 2020. In the Union cabinet in July 2020 approved the new National Education Policy (NEP), which aims at universalization of education from preschool to secondary level with a 100 percent Gross Enrolment Ratio (GER) in school education by 2030 and aims to raise GER in higher education to 50 percent by 2025. Another special recommendation suggested by this policy is the use of information and communication technology (ICT) in the education system.
As per the NEP 2020, technology in education shall be given major emphasis. It involves several disruptive technologies which are likely to bring major changes in the ways of teaching and learning in the institutions. The vision for NEP 2020 is 'Technology use and integration' to give a pathway for the students to make India a digitally empowered society and knowledge economy around the globe. Further, the integration of ICT makes education accessible to people in remote areas of the country. It helps higher education institutions maintain the standards of NAAC accreditation. The technology infrastructure has a major focus on eliminating language barriers, streaming educational management and planning, and increasing access to Divyang students. Hence, higher educational institutions are required to plan their upgrades and showcase the minimum ICT infrastructure that is required for the new education system.

Significance of the Study
The use of ICT in educational institutions and especially in higher educational institutions is

the need of the hour. The NEP, 2020 also gives importance to the use of ICT infrastructure in higher educational institutions. National Policy on ICT (NCF 2005) has defined ICT as all devices, tools, content, resources, forums, and services, digital and those that can be converted into or delivered through digital forms, which can be deployed for realizing the goals of teaching and learning, enhancing access to and reach of resources, building of capacities, as well as management of the educational system.

Effective integration of ICTs into the educational system is a complex and multifaceted process that involves educational policy and planning, infrastructure, capacity building, language and content, and financing. With the paradigm shift in the curriculum, teacher act as a facilitator in student-centered learning and ICT-based education makes the teaching-learning process effective. NEP 2020, an expert committee led by former Indian Space Research Organization (ISRO) Chief Krishnaswamy Kasturirangan recommended the education policy which has broadened the horizon of the Indian education system mainly focused on technologically based education which will develop students' inventive thinking, higher order thinking and sound reasoning, effective communication, and high productivity. It is justified to study the ICT integrated higher education concerning NEP 2020 as this paper gives an insight into the various provisions of ICT in higher education according to NEP 2020 and the use of ICT in higher educational institutions.

Objectives of the Study

The objectives of this study are:

1. To study the attitude of college teachers towards the use of ICT.
2. To study the problems faced by the college for the use of ICT in higher education as per NEP, 2020.

Plan and Procedure

This study is primarily empirical and the investigator adopts the Descriptive Survey method for this study.

The population of this study consists of all the Provincialized College Teachers and Principals in the Colleges of Kamrup (Metro) District, Assam. The sample of the present study was selected from six (06) colleges in Kamrup (Metro) district by applying stratified random sampling technique. From these colleges, 80 college teachers (40 males and 40 females) and 6 Principals have been selected as samples for this study.

In the present study following research tools have been used

Attitude Scale towards ICT: This self-structured attitude scale towards ICT consisted of 29 items of which 22 items are positive and 7 are negative. The scale was five points having the responses 'Strongly Agree', 'Agree', 'Neutral', 'Disagree', and 'Strongly Disagree'.

Unstructured interview schedule.

The collected data were mainly analyzed by simple percentage and qualitative analyses s also used in this study.

The study was conducted on students of Provincialised Degree Colleges of Kamrup (Metro) district, Assam only.

Results and Discussion

The collected data of this study are analyzed quantitatively as well as qualitatively in the following way:

The attitude of College Teachers towards the Use of ICT

Attitudes play an important role in teaching which is why there have been different definitions of what an attitude is. Attitude may be defined as the predisposition of the tendency to react typically towards a given object situation or value, usually, companied by feeling and emotions. Table no. 1 reveals the attitude of college teachers towards the use of ICT.

Table 1: Range of Scores and Percentage of College Teachers under various categories of Attitude towards the use of ICT

Sl. No.	Descriptions of Attitude towards ICT	% of Range of Scores	No. of Teachers	% of Teachers	% of Males	% of Females
1.	Very High	121-145	03	3.75	7.5	-
2.	High	100-120	09	11.25	12.5	10.0
3.	Moderate	76-99	27	33.75	30.0	37.5
4.	Low	53-75	32	40.0	42.5	37.5
5.	Very Low	29-52	09	11.25	7.5	15.0

Table 1 reveals that 33.75% of the teachers had a moderate attitude towards ICT whereas only 3.75% had a very high and 11.25% had a high attitude towards ICT; 40.0% of college teachers' had a low and 11.25% had a very low attitude towards ICT. 7.5% of male teachers had a very high attitude towards ICT; 12.5% of males and 10.0% of females had a high attitude towards ICT; 30.0% of males and 37.5% of females had a moderate attitude towards ICT; 42.5% of males and 37.5% females had low attitude towards ICT and 7.5% males and 15% females had very low attitude towards ICT.

From the above analysis of table 1, we can find out that-

- The attitude of college teachers towards ICT is average because only a few teachers' attitudes are under the above-average category.
- Not a single female teacher's attitude is under a very high category.

Problems faced by College for the use of ICT in Higher Education as per NEP, 2020

The coming of new NEP 2020 has brought us into an era of the new technology world to meet so many challenges in the field of education. New challenges for preparing students are in need to adapt to the new styles of learning methods in the teaching-learning process. There are numerous problems widespread in the area of higher educational institutions. To meet the needs of these challenges in higher education, there will be holistic development in all the spheres relating to ICT usage in educational institutions such as policy and politics, infrastructure development, human capacity development, culture, equity, financial aspects, curriculum, and pedagogy.

The investigator interviewed 6 college principals to know their opinion regarding problems faced by colleges regarding the use of ICT in higher education as per NEP

2020. Their opinions regarding this issue are summed up below:

- Lack of proper ICT lab facilities in the college as per NEP guidelines.
- Inadequate equipment of hardware and software facilities.
- Lack of properly trained teachers for the use of ICT and resources available for teaching ICT education.
- Lack of basic knowledge for using ICTs among teachers.
- Overcrowded classroom.
- Shortage of computers for access to all the students in the institutions.
- Lack of proper financial support from the administrative department and the government as a whole.
- Lack of proper training for the teachers about the use of ICT equipment.
- Poor network of Wi-Fi connectivity in the institution.
- Need to update ICT-related courses in higher education.
- Lack of study materials for technical knowledge in using ICT equipment.
- Lack of teachers who are willing to integrate technology with education in their teaching.

Suggestions for Effective implementation of ICT in Higher Education

In this present era, developing countries are facing so many challenges in preparing their societies and governments for globalization and the information and communication revolution. Policy-makers, educationists, academics, and concerned citizens are actively working together to make their societies competitive in the emergent information economy. Uses of ICTs in education are widespread and it is generally believed that ICTs can empower teachers and learners, making significant contributions to learning and achievement. The main purpose of ICT implementation in education is to provide the prospect and trends of integrating ICT into general educational activities. Some of the suggestions for successful implementation of ICT in higher education are as follows:

1. Effective implementation of ICT in education requires commitment from the state government of Assam, administrators, teachers, parents, students, and the community. That is, all the stakeholders and responsible authorities including teachers and other staff should be aware of the importance of technology in developing students' learning and should strive to overcome the barriers which prevent the use of technology in classroom settings so that students can benefit effectively from this ICT.
2. The lack of resources within educational institutions is another major hindrance to the implementation of ICT in a developing country like ours. The stakeholders and college authorities need to be provided with adequate facilities and resources for the effective implementation of ICT.
3. Local software companies should be encouraged to work together with teachers to produce Regional Language software programmes suitable for the teachers and students.
4. Moreover, effective implementation of ICT in educational institutions of Kamrup district largely depends on teachers and principals, who require in-depth professional development due to a lack of knowledge and skills. Vigilant attention needs to be given to in-service teacher training for both teachers and principals and pre-service training for newly appointed teachers before joining the regular classes to acquaint them with the important role of technology in college settings and to train them on how to prepare and use ICT competently.
5. Professional training in ICT usage should be organized for teachers to keep the latest technology up to date.
6. Course content for ICT should be re-structuring as per NEP 2020 and should be based on an action-oriented.
7. In higher education institutions proper ICT equipment should be provided in all the classrooms such as computers, LCT projector, internet access, television, e-white boards, etc. for effective use of technology.

Conclusion

New innovative educational technologies are now replacing traditional educational means. These innovations are doing much more than simply delivering regular lectures. Today Higher Educational Institutions are increasingly using ICT as a means to improve teaching and learning. Teachers are change agents in educational institutions. They are key drivers who play crucial roles in technology integration in the classrooms. They need to possess positive attitudes towards ICT since attitudes are linked to usage and intention to use, variables that determine successful technology integration in education. The NEP 2020 recognizes the importance of technology while acknowledging its potential risk and dangers. NEP 2020 also stated that carefully designed and appropriately scaled pilot studies to determine the benefits of online/digital education. The existing digital platform and ongoing ICT-based educational initiative must be optimized and expanded to meet the current and future challenges in providing quality education for all.

References

1. Afshari M, Bakar KA, Su Luan W, Samah BA, Fooi FS. Factors affecting teachers' use of information and communication technology. Int J Instr. 2009;2(1):77-104.
2. Bush M, Mott J. The transformation of learning with technology. Educ Technol. 2009;49(1):3–20.
3. Cuban L. Oversold and Underused: Computers in the Classroom. Cambridge, MA: Harvard University Press; c2001.
4. Government of India. National Education Policy 2020. Ministry of Human Resource Development.
5. ICTS. [Online]. Available: http://online.kennis.org/eva/eva06/ictslu.htm
6. IITMS. [Online]. Available: https://www.iitms.co.in/blog/is-your-ict-infrastructure-ready-for-new-education-policy-2020.html
7. Kothari CR. Research Methodology: Methods and Techniques. New Delhi: New Age International (P) Ltd; c2004.
8. Koul L. Methodology of Educational Research. New Delhi: Vikash Publishing House Pvt. Ltd.; c1997.
9. Sanyal BC. New functions of higher education and ICT to achieve education for all. Paper prepared for the Expert Roundtable on University and Technology-for-Literacy/Basic Education Partnership in Developing Countries to be held in Paris from 10 to 12 September c2001.
10. Sooknanan P. Attitudes and perceptions of teachers toward computers: the implication of educational innovation in Trinidad and Tobago [dissertation]. Bowling Green University; c2002.