PERCEPTION OF STUDENT-TEACHER TOWARDS ROLE OF ICT IN TEACHING LEARNING PROCESS AT DAV UNIVERSITY, JALANDHAR

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ABSTRACT

The swift growth of information and communication technologies (ICTs) has turned students into digital learners, necessitating the incorporation of technology into pedagogical strategies. The teachers' attitudes, technological expertise, and skills are key to effectively integrating technology. From this perspective, the current paper studies the perception of student-teacher towards the role of ICT in the teaching-learning process. Also, it highlights the major ICT initiativesthat are taking place at all levels of education and how they are promoting academic success and helping students and teachers improve the teaching-learning process. The study was conducted at DAV University in which 50 student-teachers were selected using a simple random sampling technique. Self- prepared questionnaire was used by the investigators to study the perception of student-teacher regarding the role of ICT in the teaching-learning process. The percentage was used to analyze the data given by the student-teacher. The findings of the study reveal the majority of student-teachers use various hardware and software technologies to make their lesson plans and practice of teaching more interesting and attentive and the majority have a positive and favourable perception towards the role of ICT in the teaching-learning process.

Keywords: ICT, Teaching- Learning, Perception

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INTRODUCTION

Education has been and still is one of the most fundamental needs of humanity. Education is a sign of human development. It has long been considered a means of enacting social change.

It is the most dynamic force in a person's life and has an impact on their social, emotional, intellectual, and physical growth. Giving people the skills they need to raise society's level of living is the goal of education. Teaching and learning have become more flexible as a result of the rapid advancements in information and communication technology (ICT) in recent years. Information and communication technology integration may energize both educators and pupils. By offering curricular support in challenging topic areas, can aid in improving and developing the quality of education.

The use and integration of information and communication technology to improve multiple aspects of education is also supported and adopted by NEP 2020, In this context policy stated that India is a world innovator in fields like space exploration and information and communication technologies. The Digital India Campaign is assisting in the transformation of the entire country into a knowledge-based society and economy. The relationship between technology and education at all levels is reciprocal because, while education will play a crucial role in this transformation, technology will also play a significant role in improving educational processes and outcomes, evaluation processes, supporting teacher preparation, enhancing educational access, and streamlining educational planning, management, and administration (NEP,2020.p.56).

Major ICT Initiatives in Teaching- Learning Process

EDUSAT: Since the 2005 introduction of EDUSAT, a significant percentage of rural India has access to satellite Internet, and Indira Gandhi National Open University employs satellite, television, and internet technology to offer online support in India and overseas.

INTERNET RADIO:E-radio, also referred to as internet radio, is a broadcasting service. It is economical and effective for conferencing. IGNOU now uses it fairly frequently to communicate with and share information about student support with its RCs distributed across the country from Kargil to Kanyakumari and Kutch to Itanagar.

E-CONTENT: The best program for e-content is the National Programme on Technology Enabled Learning (NPTEL). Funding for NPTEL, a joint project of the IITs and IISc that supports the delivery of e-learning through online Web and video-based courses in the engineering, science, and humanities streams, is provided by the National Mission on

Education through ICT (NMEICT). More than 810 courses have been finished, according to the NPTEL website. For 996 courses in engineering, science, technology, humanities, and management, IIT Madras developed e-content. **(MHRD report 2014-15)**

E-PGPATHSHALA: 77 post-graduate NMEICT courses will have electronic content created as part of a UGC effort. The objective of the strategy is to provide PG programmes offered by Indian universities with access to top-notch electronic content for teachers and students.

E-BOOKS AND E-JOURNALS: In order to advance research across the nation, INFLIBNET, which is administered by the National Mission on Education through ICT (NMEICT), share high-quality e-books and e-journals with colleges and universities.

E-GYANKOSH: IGNOU launched a new project in 2005 to construct e-Gyan Kosh, a digital repository with video streaming capabilities, as an open source created by the nation's open and distance learning institutions.

MOOCs: Massive Open Online Courses were developed by the Indian government as part of the SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) initiatives to provide free education to everyone. In the first phase, four central universities—Delhi, Punjab, Manipur, and Banaras Hindu University—as well as seven institutions, including the IITs at Bombay, Chennai, and Guwahati, participated in the provision of courses in engineering, social sciences, agriculture, energy, management, and basic sciences. (Kour& Chirotra, 2017).

HYBRID LEARNING: Halverson, Graham, Spring, and Drysdale (2012) defined hybrid learning is a broad and developing field of design and research that blends in-person and online learning modes. Higher education students are part of a generation that is comfortable using technology, likes to read, write, and share ideas online, and is known for its independence in learning.

REVIEW OF RELATED LITERATURE

Akram, et.al (2022) affirm that at all educational levels, teachers must demonstrate adequate acceptance of ICT in the teaching-learning process and help studentsachieve learning goals in various methods.**Envi & Otu (2021)** revealed that teachers are ready to adopt and integrate

ICT into their teaching of Biology. This will be in line with almost every sector of society like industries and offices where all forms of ICT are in use. **Guven &Gulbahar (2008)** reveal that, despite teacher's willingness to use ICT resources and awareness of the possibilities, they still have issues with access to these resources and a lack of in-service training opportunities.

OBJECTIVE OF THE STUDY

The objective of this paper is to study the perception of student-teacher towards the role of ICT in teaching teaching-learning process.

SAMPLE AND SAMPLING TECHNIQUE

There are 230 student teachers at DAV University, Jalandhar, who are doing a four-year Integrated program, in which the investigator selected 50 student teachers by using a simple random sampling technique (lottery Method).

TOOL AND STATISTICAL TECHNIQUE

The self-prepared questionnaire was used by the investigators to gather information from the students -teachers. The investigator established the content and face validity of the questionnaire tool by consulting subject specialists and language experts, in the development of the questionnaire. The percentage was used for analyzing the data.

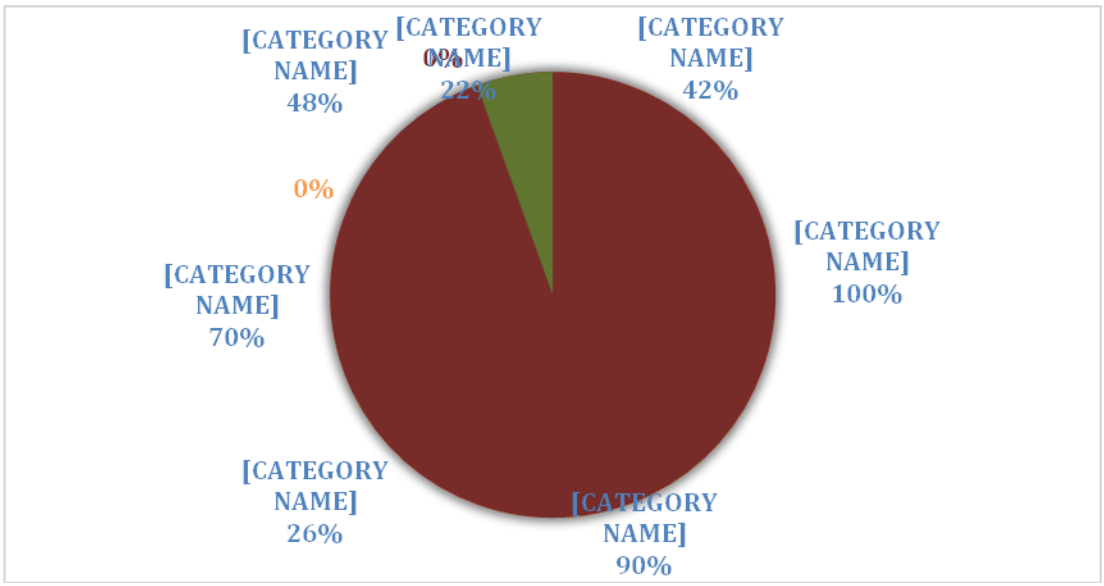
ANALYSIS AND INTERPRETATION OF THE DATA

Table 1: Responses of the Students- Teachers Regarding the Use of Hardware and Software Technology

S. No	Responses	Yes	%	No	%
1	own computer/Laptop	21	42	29	58
2	Computer Laboratory	50	100	0	0
3	Use a computer/laptop with internet to search for information	45	90	5	10
4	Use a computer application/ software program	13	26	37	74
5	Use an Interactive whiteboard/projector	35	70	15	30

6	Use television/Video or slide projector	24	48	26	52
7	Done any short-term course related to ICT	11	22	39	78

Figure 1:Percentage of the Students- Teachers Regarding the Use of Hardware and Software Technology

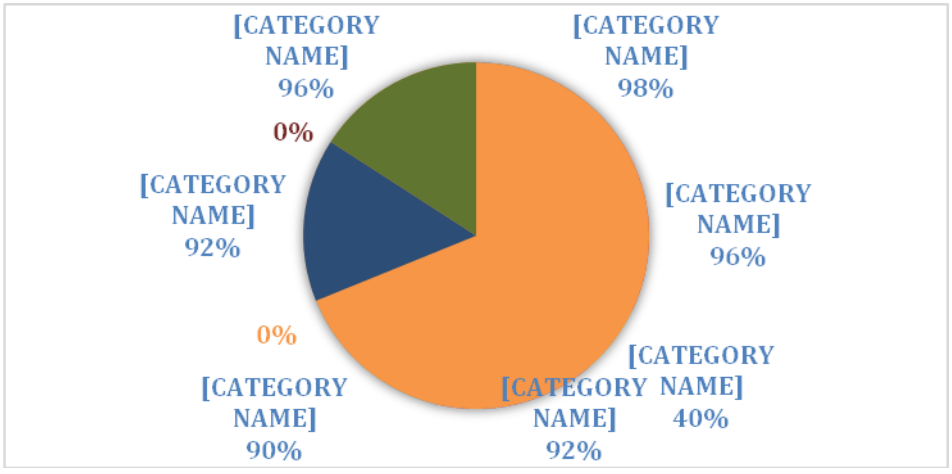


The table and figure No. 1 indicate that only 42 percent student- teachers have their own laptops and all the student-teacher which is 100 percent accepted that they have a computer laboratory in their department and 90 percent have used computers with the Internet to search for information during lesson planning and preparation.26 percent of student-teachers accepted that they use MS Word, PPT, and MS Excel in their teaching practices. 70 percent of Student-teachers use whiteboard/projector to make teaching-learning more interesting. 48 percent use Television/ videos and only 22 percent have done any short-term course related to ICT.

Table 2: Perception of Student Teachers towards the Role of ICT in Teaching Learning

S. No	Responses	Yes	%	No	%
1	The Internet is helpful as an information resource forteaching-learning	49	98	1	2
2	ICT as an instructional technology makes it easier to prepare course materials	48	96	2	4
3	Information from print material/books is better than using ICT	20	40	30	60
4	ICT promotes innovation and problem-solving skills in learners	46	92	4	8
5	ICT enhances collaborative learning among learners and teachers	45	90	5	10
6	The lack of ICT makes it difficult for student teachers to keep up with the current trends in education	46	92	4	8
7	ICT helps in creating digital learning resources Like web pages, blogs, mind maps, etc	48	96	2	4

Figure 2: **Percentage of Perception of Students Teachers towards the Role of ICT in teaching-learning**



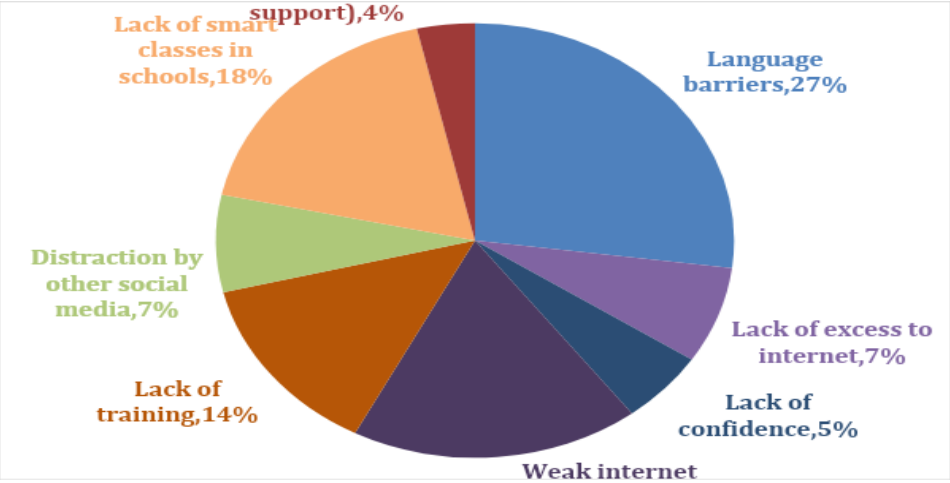
The table and figure No. 2 indicate that the Majority of the student-teachers have a favorable perception regarding the role of ICT in the teaching-learning process, they accepted that ICT promotes innovation and problem-solving skills, enhances collaborative learning among learners, helps create digital learning resources like web pages, blogs, mind maps, and ICT as

an instructional technology helps in preparing assignments, handouts. On the other hand, only 40 percent of student-teachers accepted that information obtained from books or print materials is better than using ICT.

Table 3:Barriers faced by student-teacher during technology usage in the teaching-learning process

S. No	Responses	Percentages of Responses
1	Language barriers	27
2	Lack of access to the Internet	7
3	Lack of confidence	5
4	Weak internet connection	18
5	Lack of training	14
6	Distraction by other social media	7
7	Lack of smart classes in schools	18
8	Lack of resources (time, technical support)	9

Figure 3:Percentage of various barriers faced by student-teacher during technology usage in the teaching-learning process



The Table and Figure No. 3 show that the student-teacher faced varied problems while interacting through ICT, 27 percent of student-teachers indicate that language is one of the

important barriers in the usage of ICT in the teaching-learning process because many students –teacher are not well versed in the English language and most of the ICT content is in English. This may constitute an important barrier to ICT diffusion. Lack of Access to the internet is considered by 7 percent of student teachers, and 5 percent reveal that lack of confidence leaves student-teacher doubting their ability to use ICT in their teaching-learning process. Weak internet connection in many areas is one of the barriers considered by 18 percent of student-teachers, 14 percent talked about lack of training, and 7 percent considered distraction by other social media while preparing lesson plans as also a barrier for student-teachers. 18 percent affirm that the lack of smart classrooms in the practicing school and 4 percent said the lack of resources and technical support in these schools are the main barriers to the usage of ICT in the teaching-learning process.

Suggestions were given by Student-teacher regarding the barrier they faced during technology usage in the teaching-learning process.

- Nowadays ICT is a very well-grounded pedagogy and primarily rests on a lot of skills hence there is a need to include this skill in the different training programmes.
- Professional development workshops for the teachers should be arranged on how to incorporate ICT in classrooms, and how to develop a lesson plan by using ICT so that they can prepare their students as well.
- ICT should be a compulsory part of the curriculum right from the preparatory stage so that students acquire basic knowledge and skills regarding the usage of ICT and develop confidence and self-esteem in their later life.
- Proper resources, infrastructure facilities, smart classrooms, and technical support should be provided at every level of education so that ICT can be integrated as a main component in the teaching-learning process.
- There should be effective implementation of NEP 2020 at all levels of education because NEP 2020 highlighted the importance of ICT for future teachers by saying”The thrust of technological interventions will be to improve teaching-learning and evaluation processes, supporting teacher preparation and professional development, enhancing educational access, and streamlining educational planning, management, and administration including processes related to admissions, attendance, assessments, etc” (NEP, 2020. p 57). Due to the advancement of technology, there is a need for changes in the education system through investing in ICT.

CONCLUSIONS

The classrooms of today require the best instructors who can innovate in their pedagogical approaches. This involves introducing innovation to the way teachers teach, and when technology is effectively integrated, it aids students in achieving their learning objectives. Instructors favour technology tools that support their pedagogical philosophies and pre-existing beliefs about effective teaching and learning procedures because pedagogical perspectives have a significant impact on their instructional practices. ICT is a significant force for change in several educational practices, including online test administration, online payment processing, and online access to books and journals. ICT integration in education therefore improves the teaching and learning process at all educational levels.

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