Role of ICT in Education

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Abstract

The learning takes place when there is a interaction between to knowledgeable persons. The impact of learning is powerfully imbibed in students when the flow of information is in innovative or in interesting way. The above reasons make the education system to introduce the Information Communication Technology in the field of Education. This paper emphasizes on the analysis of the integration, about the use of Information Communication Technology, also to check what can improve the status of education sector by using ICT and helpful in stress reduction in various aspect among students and teachers. The contribution of ICT for the improvement of teaching learning process is higher in school those who have integrated ICT as an innovative factor. This paper further focuses on the acceptance and place of ICT in Education and Role of ICT in Education.

Keywords: *ICT, Learning, Education System, Teaching Learning Process, Stress Reduction, Acceptance and Place.*

Meaning

ICT Stands for Information communication and Technology which individually has very Narrow Meaning but when they join together they are able to bring the revolution In education system. The Information Communication and Technology generates the number of differentways of flow of instruction or sharing of information in

particular field. It is the mean for flow of information. It is also a means of sharing of data or Knowledge of individual through technology or by means of technology

Objectives of ICT implementation in Education Sector

1. To implement the principle of long lasting education.
2. To increase the variety of educational methods and services.
3. To promote the equal importance to slow and gifted children.
4. To promote the Technology Literacy among citizens.
5. To increase the literacy rate through Distance Education.
6. To support schools in sharing experience and information with others.
7. To maintain the record.

Need of ICT in Education Sector

1. Education is a lifelong process so there is need to access it anytime and anywhere.
2. For the explosion of Information to cope up with ever changing needs of the society.
3. Aim of Education is to meet the need of variety of learners for fulfillment of their needs through ICT.
4. To increase the literacy rate in India.

Acceptance of ICT and its Place in Education

In India, during 2004- 2006, the gross enrollment ratio for children enrolling in class I to VIII was 97%, and the dropout rate was about 46%. In secondary education level i.e in class IX and X the enrollment rate was 53% and dropout rate was higher than 60%. This situation made education committee to think on to the education system. Many efforts were did by the Indian education committee by introducing number of policies like equality of education, Sarva Shikshan Abhiyan (SSA), but got less success in reducing the dropout rate in India.

The new scheme **ICT in school Education** was introduced by the **Government of India, Minister of Human Resource development, New Delhi.** The emergence of various information and communication Technology and their increasing acceptance and adaptation by society provide unique opportunities and could potentially promote education on a large scale. There was no conclusive research to prove the achievements of the students are higher

after acceptance of ICT in education. It is understood that ICT has a positive impact on society, also is the perfect way to reach to maximum number of students.

The following table shows the acceptance and availability of ICT throughout the world:

Sr. No.	Countries	Appreciation of Technology	Availability of Technology
1	Afghanistan	Low	Low
2	Australia	High	High
3	Bangladesh	High	Low
4	Bhutan	High	Low
5	Cambodia	High	Low
6	China	High	Low
7	Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan)	High	No Available Data
8	Democratic People's Republic of Korea	High	No Available Data
9	India	High	Low
10	Indonesia	High	Low
11	Iran	High	No Available Data
12	Japan	High	High
13	Malaysia	High	High
14	Maldives	High	Low
15	Mongolia	High	Low
16	Myanmar	High	Low
17	Nepal	High	Low
18	New Zealand	High	High
19	Pacific Island Countries	High	Low
20	Lao PDR	High	Low
21	Republic of Korea	High	High
22	Sri Lanka	High	Low
23	Thailand	High	Low

24	Vietnam		High	Low

Role of ICT in Education Sector

Information Communication and Technology plays a large role in changing the field of education. With Laptops, desktop and even smart phones findings their way into daily lessons, these devices are changing the way teachers and students share information and the way school communicate both within their own organization and to the community. It plays a very important role in innovate teaching learning process for knowledge society as follows:

1. **It plays role to provide a convenient environment in classroom:**
   Technology like mobile devices, tablets computers, projectors make teaching and learning more accessible for everyone who are involved in it. We think health is wealth for human so internet is the wealth of information for everyone. This provides the collaborative learning environment in institution for staff and students in which communication is easier both in and out of the classroom.

2. **Role of ICT in Management:**
   The recent advance technology has good characteristic i.e. digital ink, which is used by devices with touch screens such as tablet, PC's. the ability to record digitally any data, from test to transcripts, is a feature of information technology that has a long term potential to save money as well as make organization and management simpler and easier administrative work.

3. **Role of ICT in Literacy:**
   The latest technology development had introduced new software and application program which directs educators to select new approach to subject mastery. Rather based on simple lecture method and traditional teaching. It provides facilities of anytime and anywhere learning the content. It allows directly learning through senses, including disabled students in the classroom.

4. **Role of ICT in increasing the potential of Education System:**
   Teachers and students can be connected with many people and place around the globe,which leads to a vast improvement in distance learning courses, and allows the chance to disadvantaged people to get education. It allows the people to get education along with their responsibilities of family.

5. **Role of ICT in Personality Development:**

The personality of the child is developed through ICT as the education changes the behavior of the child. Also changes the proper education helps in the development of the child. The communication between many individuals is possible which allows them flow of information among them. The teacher comes in contact with many other teachers through internet which develops the proper attitude among them. Personality is the mirror of the students and so is the reflection of the school. ICT hence plays an enthusiastic role in developing student's interest. And they while surfing internet they come across many things, contemporary issues, different persons views and are able to generalize their own thinking. ICT develops the linguistic fluency of the students. ICT helps in generating different ideas in the mind of an individual.

6. **Role of ICT in increasing access through distance learning:**

ICT is having many advantages and hence is accepted widely in education system. This helped the people in adopting the education along with their work. Due to this Rural area is developed as the higher education is introduced through distance learning. The literacy rate of rural area is increased to 89% which is still increasing.

7. **ICT Plays a role of motivator for students and teachers:**

ICT provides a number of facilities to students to study at their own pace. ICT develops the interest among the students and make the students to gain the mastery over that content. The doubts of the students are cleared as they can learn anytime through the material. The correct answer will generate motivation among the students. The teachers are also getting motivated through ICT as the reaction of the students and attention of the students is increased to a high level.

8. **Role of ICT in online and On demand Examination:**

There are number of courses in education system but the numbers of employee are less and hence the evaluation and paper correction is difficult in the field of education. ICT plays very important role in such situations which lessen the work load and accuracy, and equality for students.

9. **Role of ICT in Stress Management:**

Stress created among the students about studies during traditional method of teaching leads to raising the dropout rate of students. The stress among teachers in teaching the difficult concept leads to the bad quality of teaching. Both the problems Pulls towards the worst Quality of education in the world. The stress among the librarians, in maintaining the record of the books, availability of the book, New publication etc was stressful work. The Introduction of ICT in the field of education had stressed out the teachers, students and all the other employees.

10. **Role of ICT in Distance Learning:**

ICT is playing a vital role in open and distance learning (ODL) to meet the requirements and expectations of the learners' in large scale. It is difficult to perform the same using any traditional institutional system due to its limited resources. ICT has various proven tools and technologies to meet the requirements of a learner at various phases of learning cycle viz the admission phase, the learning phase, the evaluation phase and finally the certification phase as a service. Due to heterogeneous requirements in open distance learning, there are issues and challenges that are to be addressed in usage of the technology and the service(s) being provided through ICT. The paper emphasizes the issues and challenges on the computing & network infrastructure, portability with respect to hardware & software and various learner support services. The paper also presents on security issues of a service in terms of its availability, authenticity, confidentiality and access control so that one can ensure a service to the utmost satisfaction of a learner in open distance learning system.

Adult Population	Adult Population	Internet Users	Percentage of Internet users
Singapore	2.66	1.06	39.92
Hong Kong	5.34	.075	14.06
Japan	102.64	10.3	10.44
Taiwan	16.09	1.8	11.19
S.Korea	34.2	0.9	2.63
Malaysia	12.58	0.16	1.27
China	869.93	2.47	0.28
Philippines	44.69	0.12	0.27
Thailand	42.72	0.11	0.26
India	598.88	0.27	0.05
Vietnam	46.25	0.01	0.02

Source: Technology - Pedagogy Combine: Need for Quality in Distance- Open Learning

The low levels of Internet penetration in India are clearly visible from the data presented in the table. The percentage of Internet users is just .05%, which compares unfavorably with countries like Thailand (.26%) and China (.27%).

Advantages of ICT:

1. ICT is the best tool for increasing the retention, attention and concentration of the Students.
2. ICT helps in motivating Students and Teachers which increases their level of confidence,
3. ICT helps in enhancing the knowledge of the Students and Teachers.
4. It also develops the personality of the Students and Teachers.
5. It reduces the stress among the Students and Teachers.
6. It enhances the Quality Education.
7. It helps in making difficult concepts easier.

Limitations:

1. It is limited to the area where the facilities are still lacking.
2. It is limited to the teachers and students who lack behind in using the technology.
3. Unawareness of upcoming technologies in the techno track world.
4. Unavailability of infrastructure Facilities of the school.
5. Undeveloped rural areas.
6. Lack of knowledge about the technology.

Conclusion:

ICT should be introduced in the education system, as the acceptance rate of ICT by the students and teachers is high. This is definitely going to bring revolution in teaching learning process by increasing the literacy rate up to 100%. Along with the keen interest in studies by making difficult concept easier one by making students stress free. ICT is one of the source of rural development as it helps in reaching the education to rural areas and hence develop it. Introduction of New policies and technology in world has raised the Level of education in India. The raising standard of education system helps deeply in development of Human and directly the Nation.

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