



The Impact of Information and Communication Technology (ICT) in Effective Learning

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Abstract: *Information and Communication Technologies are defined as all devices, tools, content, resources, forums, and services, digital and those that can be converted into or delivered through digital forms, this can be deployed for realizing the goals of teaching learning, Enhancing access to and reach of resources, building of capacities, as well as management of the educational system. These will not only include hardware devices connected to computers, and software applications, but also interactive digital content, internet and other satellite communication devices, radio and television services, web based content repositories, interactive forums, learning management systems, and management information systems. These will also include processes for digitization, deployment and management of content, development and deployment of platforms and process for capacity, development and creation of forums for interaction and exchange. India has been a cradle of knowledge for thousands of years. Presently it has significant advantages in the 21st century knowledge race due to one of the largest higher education system in the world. It generates a lot of information to the learners in the form of research papers, project reports, books, conference papers, theses, dissertations, articles, and so on. However, ICT has been conceptualized mostly as a monolithic and homogeneous entity. To a great extent, the ambiguous findings and diverse opinions on the role of ICT in national development can be attributed to this limited focus. In order to better understand the role ICT can play in national development, we believe that the ICT artifact needs to be examined in finer detail. We propose that ICT needs to be conceptualized in its many facts, perceptions, and in its manifold impact in societies. We use recent concepts from the IT literature to propose an integrative framework to study the role of ICT in development.*

Keywords: *ICT, New Media, Effective Learners, Computer Application & Software's,*

I. INTRODUCTION

Globalization and technological change - processes that have accelerated in tandem over the past fifteen years - have created a new global economy "powered by technology, fueled by information and driven by knowledge [7]. ICTs have become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. However, there appears to be a misconception that ICTs generally refers to 'computers and computing related activities'. This is fortunately not the case, although computers and their application play a significant role in modern information management, other technologies and/or systems also comprise of the phenomenon that is commonly regarded as ICTs [2]. ICT can be defined as anything which allows people to get information, communicate or have an effect on the environment using electronic or digital equipment. One of the most critical issues in education is the impact of technology. ICT comes into the educational environment to support the existing resources and extend the traditional material in a valuable way [1]. The development of multimedia technologies for learning offers new ways in which learning can take place in schools and the home. The multimedia technologies that have had the greatest impact in education are those that augment the existing curriculum, allowing both immediate enhancement and encouraging further curriculum development [6].

Knowledge is very important for the development of a society and its people. The fact that knowledge plays a significant role in empowering people to achieve the sustainable development has been long recognized in India. The ones that defend role of ICT for the development of a nation argue that we cannot ignore the role of ICT since its significance lies not only on the easier exchange of information and communication but the growth and development it brings to the society through knowledge sharing which is a crucial component for the development of a society [4].

II. RELATED WORK

Many researchers have been done in the field of Information and Communication Technology in New Media Learning. Some of the recent research work done in the field of software quality improvement is given below

Today in the age of information and communication where the information societies are rapidly transforming themselves from information society to knowledge society. In India the significance of communication in various development programmes and activities has been well known and has been time and again emphasized in the country's blueprint policy, the five year plans. A country's growth and its inner strength along with its competitive edge all depend

greatly on communication power. In the past decade the country witnessed an array of communication technologies baffling and confusing the generations alike. Presently the country was riding high on media which has ushered with a range of opportunities and with its immense potentiality was expected to bridge the gap created by the traditional media. Communication has knit the whole world together and with the constraints of time and distance disappearing, it has been a bane for humanity at large to be integrated at intellectual, economic, cultural and emotional levels, by exchanging and sharing a global wealth of information resources. Mou [8] have presented paper takes a look at the different challenges and prospects on the role of media communication technologies enroute information society to knowledge society in India.

The knowledge economy was dependent on people's ability to adapt to situations, update their knowledge, know where to find the knowledge (networking), and to apply it to situations. Globalization was another factor emerging within the knowledge economy, which have been led by an increasing awareness of interdependence in world affairs, and partly attributed to advances in communications and information technology. ICTs refer to a set of diverse technological tools and resources to create, disseminate, store, evaluate, circulate and manage information. With the advent of ICT they have acquired dimensions such as that of ICT access, ICT capacity-building, ICT facilities, ICT employability and these technologies could be used to facilitate the development of online communities in which all participants collaborate to discuss, reflect on deepen their understanding of learning. The communication technology especially Internet and mobile technology, leads to publicize the information. Tok and Sora [9] was how ICT based teaching in classroom activities could produce significant changes both in the nature of the knowledge imparting and in the nature of the processes involved in acquiring it. The purpose was to give a brief idea about this trend in higher education to boost towards utilizing information and communication technologies (ICT) to the fullest extent.

The Web 2.0 and e-learning technologies of today have enabled digital learning resources that enhance the learning experience of scientists and students from different fields. Smita Chandra [12] have explored the ways e-learning is being used in the geoscience domain and how geoscience libraries are placing their systems and services around them. After studying the worldwide scenario in this regard, the paper then reviews the Indian scenario. It proposes ways to enhance the role of the various institutions and agencies and the libraries affiliated to the Geoscience domain in India to gain from this technological development.

III. PROBLEM DEFINITION

Knowledge and information are considered as the most important resources in today's world that leverage a nation's wealth and prosperity. This knowledge-based society is not only changing the global economy but also the status of education. The use of information and communication technology (ICT) in education has resulted in expanding access, promoting efficiency, improving the quality of learning, enhancing the quality of teaching, and improving management systems. In the midst of all these advantages some of the problem that are faced in the field of ICT in new media learning are,

- Identifying behavior patterns and attitudes based on input from the field.
- Identifying challenges, opportunities and trends based on user and expert input
- Outreach and communication with companies and organizations should be instigated at national, regional and local levels via relevant networks.

IV. PROPOSED METHODOLOGY

In several countries, a crest national goal is to guarantee widespread service and access to information and communication technology, frequently preserved in laws that govern the sector. One of the distinguishing features of human beings is their ability to acquire knowledge, and what makes this knowledge an ever-thriving entity is man's ability to 'impact' this knowledge to others. Transfer of knowledge, which is one of the foundations of learning, is among the most fundamental social achievements of human beings. The aim of the study was to investigate the impact on language learning of ICT and new media, as a complement to 'traditional', face-to-face learning and teaching within and beyond the framework of formal education systems. We have survey across the field to assess the potential use of ICT and new media for language learning, and the 'impact' in relation to the interplay of technologies, their applicability to and perception of value for language learning purposes. The trends and practices beyond schools and universities, in working and personal life, including the use of ICT and new media in formal, non-formal, and informal language learning where analyzed throughout the research. Also we have determined future potential in improving outreach to new learners and indicate the opportunities for exploiting the learning potential of new technologies. Samples were collected across different sectors of new media learning in order to analyze the effect of ICT.

V. RESEARCH METHODOLOGY

Research is voyage from known to unknown

Research is a procedure of logical and systematic application of the fundamentals of science to the general and overall questions of a study and scientific technique which provide precise tools, specific procedure and technical rather than philosophical means for getting and ordering the data prior to their logical analysis and manipulation. Different type of research designs is available depending upon the nature of research project, availability of able manpower and circumstances.

Methodology

Research Design: The research design is the blueprint for the fulfillment of objectives and answering questions. It is a master plan specifying the method and procedures for collecting and analyzing needed information.

Descriptive Research is used in this study as the main aim is to describe characteristics of the phenomenon or a situation.

Data Collection Methods: The source of data includes primary and secondary data sources.

Primary Sources: Primary data has been collected directly from sample respondents through questionnaire and with the help of interview.

Secondary Sources: Secondary data has been collected from standard textbooks, Newspapers, Magazines & Internet.

Research Instrument: Research instrument used for the primary data collection is Questionnaire.

VI. SAMPLING

Sample design is definite plan determine before any data is actually obtaining for a sample from a given population. The researcher must decide the way of selecting a sample. Samples can be either probability samples or non-probability samples.

Sampling Technique: Convenience

Sample Size: 100 Respondents.

Area of Study: Karur District School Teachers, College Professors & College Students

VII. RESULTS AND DISCUSSIONS

Table 4.1 Respondent's Classification According To Age

| Age (in years) | No. of respondents | Percentage |
|----------------|--------------------|------------|
| 18-20 | 22 | 44 |
| 21-40 | 25 | 50 |
| 41-60 | 3 | 6 |
| Total | 50 | 100 |

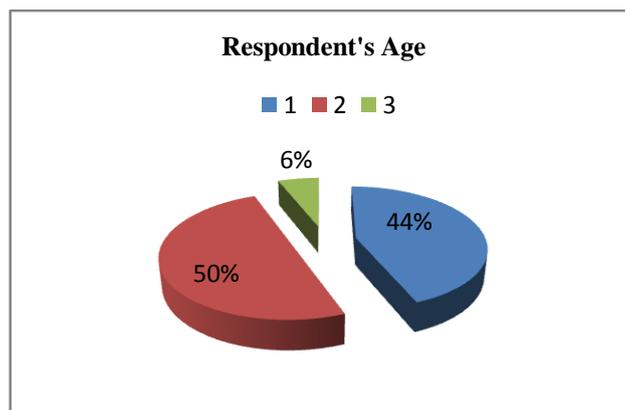


Table 4.1 shows that 44% of the respondents are in the age group of 18-20, 50% are in the age group of 21-40 and 6% are in the age group of 41-60.

Table 4.2 Respondent's Classification According To Sex

| Sex | No. of respondents | Percentage |
|--------------|--------------------|------------|
| Male | 30 | 60 |
| Female | 20 | 40 |
| Total | 50 | 100 |

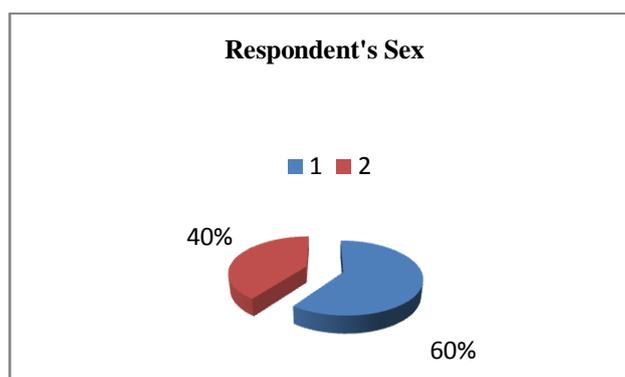


Table 4.2 shows that 60% of the respondents are males and 40% of them are females

Table 4.3 Respondent's Classification According To Educational Qualification

| Qualification | No. of respondents | Percentage |
|---------------|--------------------|------------|
| Graduate | 5 | 10 |
| Post graduate | 29 | 58 |
| Researcher | 16 | 32 |
| Total | 50 | 100 |

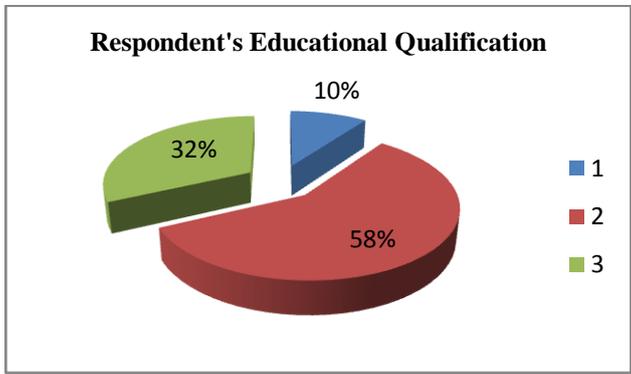


Table 4.3 reveals that out of 50 respondents 5 are Graduate and 29 are Post Graduate and rest of them 16 are Researcher.

Table 4.4 Awareness of ICT & New Media Tools in Educational Department

| Do you know ICT & New Media Tools | No. of respondents | Percentage |
|-----------------------------------|--------------------|------------|
| Yes | 50 | 100 |
| No | - | - |
| Total | 50 | 100 |

Table 4.4 reveals that all the respondents are drinking cold drinks.

Table 4.5 Preference of ICT Tools

| Which cold drink you like most | No. of respondents | Percentage |
|--------------------------------|--------------------|------------|
| Internet | 12 | 24 |
| EduSAT | 12 | 24 |
| E- Learning | 1 | 2 |
| Educational Channels | 7 | 14 |
| Education Games | 1 | 2 |
| Mobile Learning | 10 | 20 |
| Language Learning Tools | 4 | 8 |
| Social Media Networks | 3 | 6 |
| Total | 50 | 100 |

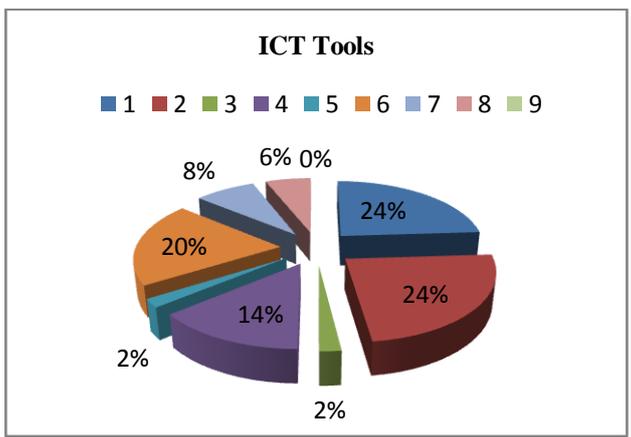


Table 4.5 indicate that out of 50 respondents 12 Members Using Internet & EduSAT, 7 Members are watching Educational Channels, 1 Member playing Educational Games, 1 Member for E-Learning, 10 Members are Learning in Mobile, 4 Members are using Language Learning Tools and 3 Members are using Social Media Networks.

Table 4.6 Reason For Liking The ICT Tools

| Why you like Tools | No. of respondents | Percentage |
|----------------------|--------------------|------------|
| Audio & Visual | 30 | 60 |
| Animation & Graphics | 7 | 14 |
| Chart | 7 | 14 |
| Other reasons | 6 | 12 |
| Total | 50 | 100 |

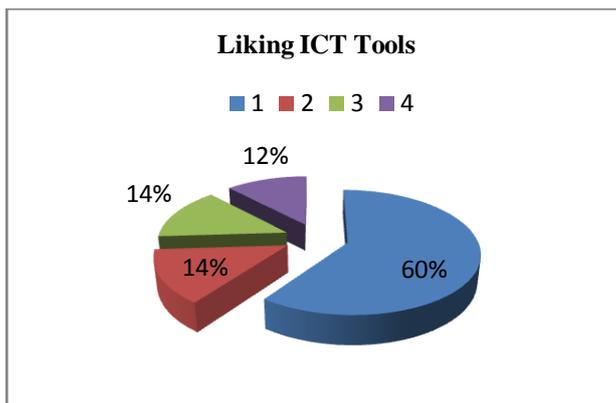


Table 4.6 shows that majority of the respondents like the ICT Tools due to its Audio & Visual Concepts while majority of the respondents like the ICT Tools due to its Animation & Graphics and Chart.

Table 4.7 Necessity Of ICT Tools

| Do you think the ICT Tools is necessary for Effective Learners? | No. of respondents | Percentage |
|---|--------------------|------------|
| Necessary | 14 | 28 |
| Very necessary | 34 | 68 |
| Can't say | 2 | 4 |
| Total | 50 | 100 |

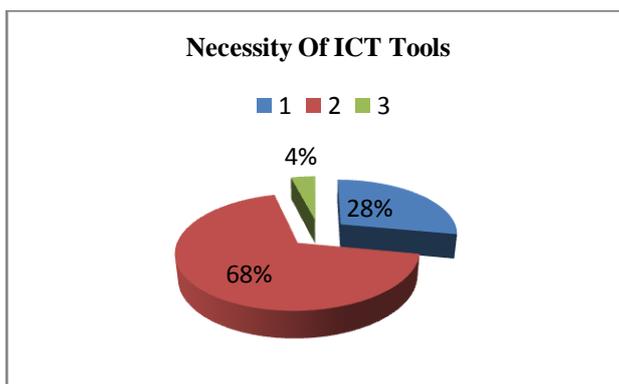


Table 4.7 shows that highest number of respondents are of ICT Tools is very necessary for Effective Learners while few respondents are of ICT Tools is necessary.

Table 4.8 Users Of ICT Tools Effectiveness

| The Use Study Of Effectiveness Is For Whom? | No. of respondents | Percentage |
|---|--------------------|------------|
| For Student | 34 | 68 |

| | | |
|----------------------|----|-----|
| For Others | 1 | 2 |
| For Teachers | 15 | 30 |
| None of these | - | - |
| Total | 50 | 100 |

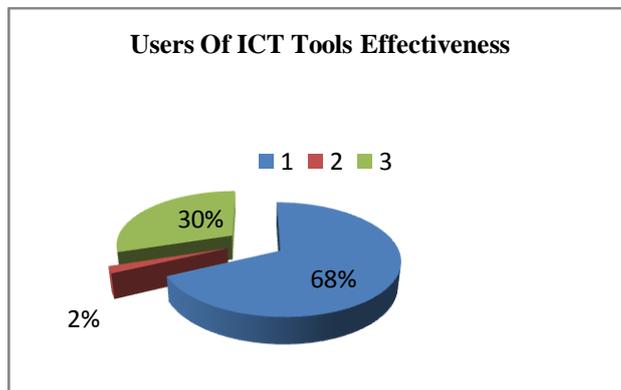


Table 4.9 indicates that 68% of the respondents are of the view that the study of effectiveness is meant for Students while 30% say that it is meant for Teachers.

Findings

- ❖ After going through all the project and the collected data, I found that:
- ❖ 84% of the respondents said that Internet & Mobile Learning is the most effective ICT Tools.
- ❖ 60% of the respondents said that they like the advertisement of cold drinks because of its theme whereas, 14% said that they like celebrities in advertisement.
- ❖ Majority of respondents are of the ICT Tools is very necessary for Effective Learners.

Suggestions

We reached some suggestions:

- ❖ ICT Tools should not be too expensive, because the ICT Tools leads and increase the Education Levels.
- ❖ Students should be selected according to the choice of ICT Tools.
- ❖ In rural area students should be according to the choice of the School Teachers.
- ❖ To give more attention in using the ICT Tools to use it effective for the Effective learning .

Limitations

- The project relied mainly on the primary data.
- Responders give very unclear picture.
- We have a limited time.
- The study is based on limited sample.
- It begin my first attempt to undertake such a study, thus the inexperience is also a obstacle to accomplish the project in a proper way.
- It was also difficult to get proper information from the students, teachers & professor because they were indulging in some other activities.

VIII. CONCLUSION

To "tech" or not to "tech" education is *not* the question. The real question is how to harvest the power of technology to meet the challenges of the 21st century and make education relevant, responsive, and effective for anyone, anywhere, anytime. Technologies have great potential for knowledge dissemination, effective learning, and efficient education services. Yet, if the educational policies and strategies are not right, and if the prerequisite conditions for using these technologies are not met concurrently, this potential will not be realized.

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