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School Education and Use of ICT: A Case Study of an Urdu Medium School Located in Central Dist. of Delhi

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ABSTRACT

Today's society is knowledge-based society. The countries would be in better state only if they would be able to get ICT leverage at greater extent. Recent National Policy on ICT for school education has very straightforward mandate to transform society into knowledge society by meaningful induction of ICT in education. Because, our millions of tiny minds are in the process of becoming citizen and potential Nation-builder whose fate is solely shaped in our classrooms. A teacher is an important agent of change and need be equipped with essential skills of ICT. This study provides an in-depth analysis of teaching and learning discourse of a three-century-old school where learners have opportunity to learn in Urdu medium. This piece of small investigation has been trying to focus over integration of ICT in many school subjects and its preferences over past practices. Besides this, study is also trying to gauge out obstacles faced by Urdu medium teachers in integration of ICT in their teaching and their immediate possible solutions, which is necessary to fulfill mandate of National ICT Policy aspirations from school education. The major findings of the study are: ICT enabled teaching simplifies complex learning, make learning permanent, easy to retain, recall, assess learning and also helpful to employ same in real life situation. Second, no previous exposure of ICT, age factor, administrative inertness, orientation of computer applications in English language were found as major obstacle to integrate ICT in teaching among Urdu medium teachers.

Keywords: Urdu medium schools, ICT in school Education, ICT and challenges, implementation of ICT tools in Education

Education is the key to emancipate human from any kinds of ignorance. In past times, countries who had been capable enough to maintain warheads considered as superpower.

Conversely, today's society is knowledge society, now countries who are educationally sound and able to leverage benefits of technological innovations across the globe is called educational superpower. Indian education has been in process of continuous development since independence.

Number of policies has been initiated since independence for becoming qualitative and quantitative development of education. In 1984, the then Prime Minister stated informatization of Indian society as an effective route to development. As a result, massive programs of computerization launched in public sectors as well as in the commercial undertakings, and administrative departments. In 1998, a high power National Task Force on Information Technology and Software Development was set up. In 1999, the Ministry of Information Technology was established by bringing together Government agencies involved in different aspects of IT for creating jobs to harness opportunities provided by convergence of communication technologies to facilitate the use of IT in use of electronic governance (Bajwa). In today's context, Government of India has initiated number of programs to familiarize Information and communication technology, which ultimately helpful to reap advantages of technology in long term.

WHAT IS ICT?

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, which can be deployed for realizing the goals of teaching learning, enhancing access to and reach of resources, building capacities, as well as management of the educational systems (NP-ICT, 2012).

VISION AND MISSION OF ICT POLICY ON SCHOOL EDUCATION

The National Policy on Education 1986, as modified in 1992, stressed the need to employ educational technology to improve the quality of education. With the convergence of technologies, it has become imperative to take a comprehensive look at all possible information and communication technologies for improving school education in the country. The initiative of ICT policy in school education is inspired by the tremendous potential of ICT for enhancing outreach and improving quality of education. ICT policy of school education aims at preparing youth to participate creatively in the establishment, sustenance and growth of a knowledge society leading to all round socio-economic development of the nation and global competitiveness.

ICT can play vital role to improve quality of education. It is being noticed across the globe that countries that have been using technology are in better position. Govt. of India since 1980 has been doing very sincere effort to integrate in governance and education. In this

connection various task force and committees has been come into existence. National Policy on ICT in school education clears national mandate and stated ICT as means to improve quality of education.

REVIEW OF RELATED LITERATURE

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research (Yusuf, 2005). ICTs have potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economics viability for tomorrow's workers as well as strengthening teaching and helping schools changes (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005). Conventional teaching has emphasized content. For many years course have been focused around textbooks. Teachers have taught through lectures and presentations interspersed with tutorials and learning activities designed to consolidate and rehearse and content. Contemporary ICTs are able to provide strong support for all these requirements, there are now many outstanding examples of excellent settings for competency, and performance based curricula that make sound use of the affordances of these technologies (Oliver, 2000). ICT increases the flexibility of delivery of education so that learners can access knowledge any time form anywhere. It can influence the way students are taught and how they learn as now the processes are learner driven and not by teachers. This in turn would better prepare the learners for lifelong learning as well as to improve quality. Technological-facilitated educational programs also remove many of the temporal constraints that face learners with special needs (Moore &Kearsley, 1996).

India has billion plus population, 100% literacy is still challenge before country. There exists infrastructure, socio-economic, linguistic and physical barriers in India for people who wish to access education (Bhattacharya & Sharma 2007). ICT has the potential to remove the barriers that are causing the problems of low rate of education in any country. It can be used as a tool to overcome the issues of cost, less number of teachers, and poor quality of education as well as to overcome time and distance barriers (McGorry, 2002). Teacher needs to be acquainted themselves with technology and same need to integrate in teaching learning process. There is dire need to deploy meaningful policies in pre-service and in-service teacher preparation programmes in India. Infrastructural concerns can be met if we are able to build in-house software, teacher made teacher modules and if there is collaboration between government and educational institutions (Nair, 2015).

The importance of ICT is being universally accepted. All studies cited above imply that ICT in every sphere of life can play decisive role. It is helpful in governance because it enhances access and transparency. It can play leading role to improve quality of education because of its flexibility characteristics. It can remove infrastructural barriers due to its low cost functionality.

BRIEF PROFILE OF INSTITUTION

This is an oldest institution, established in the year 1692 in form of *Madarsa Ghaziuddin*, for catering the educational needs of the elite class of this area. When British came into power, this institution turns into Anglo Arabic Delhi College, and started English and science education along with Urdu, Arabic and Persian. This institution is live witness of 1857 uprising and Indian freedom struggle. Since independence, it was offering modern education including languages Arabic, Persian and Urdu. Currently, around 1900 students enrolled from 6-12th standard, majority of them having Urdu as their first language. This institution is open for Girls since 2012.

RATIONALE BEHIND THE STUDY

In the competitive age, along with quantitative, qualitative changes in education are prime concerns of policy makers. It has been cited by number of researches that ICT remove many obstacles in education system, i.e. physical and human. It can be easily noticed many software and ICT components have been efficiently used in English language. Notwithstanding, various stakeholders trying to build ICT related materials in regional languages too, but these materials are not available in regional languages in sufficient quantity. As a result, teachers and learners are not able to take leverages of ICT at maximum extent. This study will shed light over ICT possibilities for children with specific reference to Urdu medium teachers and learners.

Objectives

1. To study the teachers' willingness to integrate ICT in teaching-learning for Urdu medium learners;
2. To study the ICT integration possibilities in commerce stream with special reference to Urdu medium;
3. To study the learners perceptions over use of ICT with special reference to Urdu medium.

METHODOLOGY

This study is a case study of an Urdu medium school with reference to ICT integration in various subjects. The population for this study comprises the following: (i) teachers' who taught commerce stream subjects in Urdu medium from 11th & 12th classes; (ii) and entire Urdu medium students enrolled in commerce stream. Investigators prepared an interview schedule for Urdu medium teachers', which encompasses issues to integrate ICT, and its benefits in their teaching and institution support related to ICT with special reference to Urdu medium. Besides this, investigator also interviewed Urdu medium students enrolled in 11th & 12th standards only.

DATA ANALYSIS

Total fifteen teachers were interviewed, only three teachers were having previous experiences of ICT, it means they completed computer courses before joining the school. Four teachers were such who were not having previous experiences of ICT related courses before joining the school but they found very eager and enthusiastic to integrate ICT in their teaching subjects. Remaining interviewed teachers' did not have any previous exposure of ICT. Besides teachers, around 50 students of Urdu medium enrolled only in 11th and 12th standard belongs to commerce streams were interviewed.

TEACHERS WILLINGNESS TO INTEGRATE ICT IN URDU MEDIUM

In Urdu medium, ICT material is available in negligible quantity as compare of others. Therefore, teachers as well as learners have lesser chance to interact with ICT components in their teaching and learning. Despite, all teachers' uses android phones and acquainted with search engines and its uses in their day-to-day teaching and learning but they still stuck on everything minus ICT. Teachers who were below forty years found more eager to integrate ICT components in their teaching along with who completed any kinds of technical course before joining the institution. This tendency of teachers also supported by study of (Devi S., Rizwaan, M. & Chander, S., 2012) "Teachers lack adequate qualification and training and their lesson plans are most often outdated or irrelevant. Setting up the ICT devices can be very troublesome. It is expensive to afford it is hard for teachers to use with a lack of experience using ICT tools. These reasons destroy the available quality of education. ICT enabled distance education, to a great extent, can combat this problem. One of the important barriers is lack of trained teachers to exploit ICT proficiently. Most of the teachers are not willing to introduce new technologies to themselves first and subsequently to their students. There is resistant from teachers, basically from older teachers as compared to younger ones, to apply ICT in their subject". All teacher stated integration of technology improves quality of their teaching, but preparing ICT related material needs an expertise, and should be developed through professionals of their field. If ICT material is accessible to them, they will employ this in their teaching. In addition to this, they stated that in school syllabus, in each subject topics, which appeals most to technology needs to identified and should be recommended to deals with the help of technology. Appropriate media should be developed and accessible to all stakeholders. Few teachers were aware with NCERT's initiative in the form of E-Pathshala, E-basta, National Repository of Open Educational Resources (NROER) but reported that poor connectivity of internet, poor ICT infrastructure in school, pressure for completion of syllabus are the major challenges to use them in teaching.

Administrative inertness is the second major challenge admitted by teachers. The extra-ordinary effort of teachers must be acknowledge by the HOS of the schools. There should be a

meaningful effort to make labs and peripheral components in place so, it can use without any obstacle. In addition to this, 100% results in CBSE examination is still considered the criteria for best teachers' and it is irrespective to your extraordinary efforts to take transformative steps to improve quality of education. This tendency of administrators de-motivates teachers.

ICT INTEGRATION EFFORTS IN TEACHING AND LEARNING ECONOMICS

Economics is one of the social sciences, which has great influence on every human being. As economic life and the economy go through changes, the need to ground education in children's own experience becomes essential. Therefore, it is imperative to provide them opportunities to acquire analytical skills to observe and understand the economic realities. Integration of ICT did not advocate technology as substitute for teacher anywhere but it improves quality of education **(NP-ICT, 2012).**Economics syllabus divided into four parts at senior secondary level i.e. Statistics for Economics, Indian Economic Development, Introductory Micro Economics, Introductory Macro Economics. The ICT activities planned to deal with economics are given following.

Activity Planned for teaching *Statistics for Economics*

This was the first paper, which is planned to integrate ICT components by investigator. To make learning a permanent and pleasant affair to learners, a regular computer lab visit was planned during entire session. At the end to the every chapter in statistics, students were given opportunity to interact with MS Excel. Topics i.e. presentation and organization of data, measure of central tendencies, measure of dispersion, correlation and index numbers were planned to discuss with the help of MS Excel. Process to formulate graphs and diagram, formula for computation of measure of central tendencies, measure of dispersion, correlation and index numbers were elaborated. Students were given their own data set and individually assisted by investigator himself. While practicing with data set students were able to draw diagrams, graphs with multiple variables in attractive manner, tabulations, measures of dispersion, measures of correlation and index numbers. Students were supplied interpretations of various statistical concepts during class and same were also repeated to them while they were in lab practice. However, learners with Urdu medium have been facing difficulties to understand concepts due to language barriers. Difficult terminologies used in statistics explained to Urdu medium students before they go to lab practice. These practices stimulate Urdu medium learners while they were in lab practice.

Activity Planned for teaching *Indian Economics Development*

In this paper, teacher required to plan meaningful activities due to its theoretical orientation. At the beginning of the every chapter important terminologies used in English was translated

in Urdu. First two chapters deal with state of Indian economy during colonial period and starting of economic planning in India and its analysis. Next unit of this paper deals with current challenges before Indian economy, i.e. poverty, rural development, human capital formation, problem of unemployment, inflation, infrastructure, sustainable development. In the last unit, it is development experiences in India and its neighboring countries. Investigator himself has previous year experiences that Urdu medium learners' cannot understand any issue clearly until unless they were not given dictation in their own language. Therefore, every terminology used in this paper enlists clearly and translated in Urdu at the beginning of the chapter. In this paper, Investigator got tremendous support from NCERT open learning repository NROER and YouTube. Relevant videos were downloaded and shown offline to the student and the same time reflections of students were sought on these videos. In sustainable development chapter, at the beginning oral inputs were given to students. Some movies: ***Day After Tomorrow, Peepli Live, Mother India*** and ***Inconvenient Truth*** were shown. A discussion was initiated, conclusions were drawn and learners were aware about best practices to save environment, Inflation, Poverty in India. This exercise in classroom enhanced learners' participation, enthusiasm and motivation during learning. So, it can be concluded that if anyhow teacher is able use his/her insight to integrate ICT in teaching then it possible to maximize learning goals.

Activity Planned of Teaching *Micro and Macroeconomics*

Both of these papers are very conceptual in nature. Little bit complexity increases due to extensive use of graph, diagram and basic mathematics. In macroeconomics, national income and its computation is perceived as and complex required regress practice. This investigator's personal experiences attempt right procedure for computation of national income. So, it is highly recommended that alternative strategies should be used to deals with this unit. National Income and related concepts were elaborated in both English and Urdu separately. A concepts explanation tree was prepared and shown through MS Power Point with color variation. Do's and don'ts of national income with their explanation was shown in tabulated form with color variation. Sufficient practice of this routine was done. At the end of the chapter investigator prepared some true and false, multiple-choice type, do's and don'ts in *Google Forms* utility in *Google's* applications. These prepared Google forms were mailed to students who were having android phones and requested to fill them. The responses of Google form received on investigator's Email and same responses were analyzed and their organized feedback was provided to concern students. Through this practice students were comfortable to distinguish between components of National Income. In addition to this, students in this exercise having additional time to interact with evaluation, which was exciting and different from pen-paper assessment. Urdu medium students' could not get benefited with this practice because of English orientation of this application.

Integration of ICT in *Accountancy and Business Studies*

Use of computer and applications is highly integrated in commerce subjects. Investigator tries to record day-to-day ICT experiences of commerce teacher in their teaching. He suggested the topics, which have been successfully dealt with use of ICT components in commerce stream. In 11th and 12th standard *Emerging Modes of Business, Computers in Accounting, Capital Market-Primary and Secondary Market, Features of Primary Market, Methods of issuing Securities in Primary Market, Stock Exchange, National Stock Exchange, Demat Account, Options Call and Put, Issue of Shares at Par, Issue of Share at Premium, Issue of Debentures at Par, Issue of Debentures at Premium, Ratio Analysis and Comparative Balance Sheet*. This is affirmed by the subject teacher that integration of ICT components in various topics makes students more comfortable. Following will be advantages of integration of ICT components in teaching commerce: Learners will be able to understand, retain, recall and reuse this knowledge in efficient manner if ICT components were logically employed in teaching commerce. They will be able to distinguish between ready made and customized software their advantages and disadvantages, prepare ledger groups in tally, how shares are issued in primary market, how to operate Demat account for sales and purchase of shares and securities on live platform?

Activity Planned for Understanding *Sales and Purchase of Shares through Demat Account*

Sales and purchase of share and securities will be easy to understand if it is done at live platform. Commerce teacher himself owned Demat Account where he could demonstrate sales and purchase of share from his account. All concepts explained to students before starting online sales and purchase of shares. Learners were shown execution of sales and purchase of share in primary market. In addition to it, learners were also told how capital market works? How call and put option works? During this exercise, learners were very curious, enthusiastic and energetic. They put relevant questions and their curiosity level was very high during entire session.

LEARNERS FEEDBACK TOWARDS ICT INTEGRATED TEACHING

In this institution, at senior secondary level, all medium students sit together. Learners in Hindi, English and Urdu medium gave their feedback towards ICT integrated teaching. All learners found agreed with the fact that integration of ICT in every subject opens alternative venues of learning. It boosts their participation in learning activities. It helps in retention and recall of various concepts studied. Learning through ICT components gave new experience to them. On the other hand, Urdu medium students have been facing difficulties related to various terminologies because of applications' English orientations and admitted that it will be a great help to them if same learning platform are available in their own languages.

Commerce stream's learners found highly motivated when they gone through ICT integration experience of sales and purchasing shares and securities. They stated that it is new experience to them, earlier the concepts of share market, national stock exchange and commodity market were having theoretical orientation in their minds but now integration of ICT in teaching made it possible them to understand it practically.

RECOMMENDATIONS

Following are the recommendations of the study:

1. Teaching learning material merely not a video recording but it must include themes in its background i.e. if sectors of economy supposed to be delivered then along with text there must be video related to sectors. In addition to this, video recording must be available in regional languages through which large number of population can be benefited.
2. Besides libraries, schools at local level need to manage an ICT resource centre with designated resource person. Teaching learning materials developed at local level must be available in these resource centers for its further use.
3. There should be an arrangement of compulsory in-service training programs for teachers, because teachers who were young and having previous exposure of ICT tend to use ICT in teaching.
4. Last but not least technology is not panacea and should not be laden unnecessarily over learners. In Indian situations, so many schools are such where basic amenities are not available. It will be baseless to discuss benefits of technology to them where such infrastructural facilities are lacking.

CONCLUSION

In previous policies of education, an issue of essentiality of ICT and its integration in education at all levels to enhance access and quality has been raised. In last two decades, immense developments are seen related to ICT and its integration day-to-day affair of society but India as a Nation not able to leverages benefits of ICT at fuller extent as compare to other countries. In this study, following are the conclusions:

1. Use of ICT is being considered means to improve quality of education through its meaningful and logical association with activities planned for proceeding teaching learning activities in school system.
2. India is the plural society, here different cultures exists peacefully together since more than thousands years. Every religion and culture have their own strength and weaknesses, so, keeping in minds this, steps needs to be taken in such way that

minorities and culture specific population is also equally benefited from evolution of technology.

3. Keeping in minds Urdu medium learners needs, as NCERT doing its effort to maintain pool of content (NROER), it should also be in Urdu language through which Urdu medium teachers and learners across the nation can get benefited.
4. Urdu medium teachers in school found reluctant to induce technology and mainly relied upon text books and printed materials in their teaching, this attitude of teachers towards technology may be due to lack of previous exposure of ICT, and unavailability of ready-made ICT materials to them.
5. Learners felt that ICT integrated teaching enable them to understand, recall, reproduce and use it in real life situation. In addition to this, learners also reported that ICT integrated teaching boost their confidence while in classroom, increase their participation, and enhance their concentration. Urdu medium learners also gave same kinds of feedback but it also acknowledged by them technologies orientations in their own languages may enhance their understanding in classroom. They also felt that they could overcome language barriers if teachers facilitate them.
6. Technology in assessment can play meaningful role in education where facilities are available. Because large number of population has access to android technology, free applications i.e. Google forms, etc. can used for assessment even when learners are out of the class. In addition to this, same kinds of assessment tools can be pooled and reused in education in other setting too.

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