ICT IN ASSESSMENT AND EVALUATION

Harshaben J Patel

Research Scholer, Center of Education,
Children's University, Gandhinagar

Dr. Minalba B. Jadeja

Assistant Professor, Children's University, Gandhinagar

Abstract

The innovations that ICT has brought in teaching learning Process include: E-learning, e-communication, quick access to information, online student registration, online Advertisement, reduced burden of keeping hardcopy, networking with resourceful persons, etc. However, the presence Of all these factors increased the chance of excellent integration of ICT in teaching-learning process. It can also Provide the means of gathering, connecting and analyzing data about Teaching and learning in ways that enable us to more accurately Diagnose student need and evaluate programs. In this paper, a literature review regarding the use of ICTs in education was provided. Effective use of ICT for Education, along with ICT use in the teaching learning process; quality and accessibility of education; Besides, an overview of the ICT and scholastic performance.

Key Words:- *ICT, Assessment, Evaluation, Testing Learning Process, Rubrics & Portfolios*

Introduction:

ICT is an electronic means of capturing, processing, storing, communicating information. The use of ICT in the classroom teaching-learning is very important for it provides opportunities for teachers and students to operate, store, manipulate, and retrieve information, encourage independent and active learning, and self-responsibility for learning such as distance learning. Pupils are responsive that some ICT is used in everyday life and beginning to talk about ICT. They show some awareness that input devices have an effect on screen, making choices and beginning to notice what happens. They are beginning to use text, images and sound to share ideas and can to some extent use simple software to model real life activities The procedure starts from the needs analysis, database development assessment, assessment database feasibility test, first database revision, limited field test, the second revision of the database and the final product. The research results is the development of assessment with the specifications database containing personal data of students, have a variety of questions, provide reinforcement and display the report in the form of scores obtained by the students, the entire student scores, average result and desirable time diagrams by the students. The assessment database for the existing hosting capacity should be upgraded in order to contain more materials, protect on other websites when students are accessing the website for this ICT based assessment database with reinforcement and if this database is used simultaneously, then each laptop and connection used have the same condition.

Need for Assessment:

The assessment and accreditation process helps institution to carry out their strength, weakness, opportunity and threat analysis and in making their programmers more attractive to the students and to their potential employers. Assessment accreditation is broadly used for understanding the "quality status" of an institution. The accreditation process helps the institution to know. Funding agencies look for objective data for performance identification of internal areas of planning and resource allocation.

The Purpose of Assessment:

❖ To inform and guide instruction.

❖ Allows a teacher to determine which instructional strategies are effective and which need to be modified.

❖ Improve classroom practice, plan curriculum, and research one's own teaching practice.

❖ To provide information to children, parents, and administrators.

❖ To measure student achievement, examine the opportunity for children to learn, and provide the basis for the evaluation of the district's science program.

❖ Assessment is changing for many reasons. The valued outcomes of science learning and teaching are placing greater emphasis on the child's ability to inquire, to reason scientifically, to apply science concepts to real-world situations, and to communicate effectively what the child knows about science.

❖ Assessment of scientific facts, concepts, and theories must be focused not only on measuring knowledge of subject matter, but on how relevant that knowledge is in building the capacity to apply scientific principles on a daily basis.

❖ The teacher's role in the changing landscape of assessment requires a change from merely a collector of data, to a facilitator of student understanding of scientific principles.

Assessment Students Leaning:

It is often valuable to know whether students are keeping up with a particular difficult lecture or have understood complicated reading assignment at various points in the semester. While the ability to understand key concepts should certainly increase as the semester progresses, level of understanding and learning can also rise and fall throughout the semester based on the material being covered at any given point in time. In this way, "at-the-moment" assessment can be an important teaching tool that allows you to adjust your instruction as the semester continues to accommodate fluctuations in student process.

❖ Minute paper

❖ Muddiest point exercises

❖ Primary trait analysis (scoring rubrics)

❖ Reflective thinking activities

❖ Background knowledge probes

New Assessment Methods:

❖ Forms of exam such as open-book and talk-away exams

❖ Projects and investigations

❖ Varied writing tasks

❖ Multiple choice and objective tests

❖ Oral assessment

❖ Realistic or problem-solving tasks

❖ Assessment based on simulations or role play

❖ Computer assisted assessment

❖ Group assessments

❖ Self, peer and co-assessment

Stages of Assessment:

Assessment can be divided into three stages: Baseline assessment, Formative assessment, and summative assessment.

I. Baseline Assessment:

It establishes the "Starting Point" of the student understands.

II. Formative Assessment:

It provides information to help guide the instruction throughout the unit,

III. Summative Assessment:

It provides both the student and the teacher about the level of conceptual understanding and performance capabilities that the student has achieved.

Effective Teaching Assessment Methods:

❖ **Rubrics:**

Rubrics are a way to assess a teacher's performance in a variety of areas. Rubrics show to what level a teacher shows evidence of specific skills within the classroom setting. This type of assessment contains some type of point scale that reflects levels of performance. Administrators can use rubrics while observing teachers to evaluate areas such as classroom management, addressing multiple learning styles and engaging the learners.

❖ **Self-Assessment:**

Self-assessment occurs when a teacher is directed to reflect on his or her own performance. This can be effective assessment tool because it encourages internal motivation and personal accountability. A method of leading teachers in self-assessment can be conducted by giving period questions to be answered in writing.

❖ **Portfolios:**

Portfolios are a way to assess a broad picture of a teacher's performance. Administrators can give guidelines for what should be included in a portfolio. Portfolios offer a comprehensive view what a teacher is doing, which can lend a more accurate picture rather than a brief observation that only offers a glimpse of a performance on a certain day.

Information And Communication Technology:

IT was limited only to the textual mode of transmission of information with ease and fast. But the information not only in textual form but in audio, video or any other media is also to be transmitted to the users. Thus, the ICT = IT + Other media. It has opened new avenues, like, Online learning, e-learning, Virtual University, e-coaching, e-education, e-journal, etc. Third Generation Mobiles are also part of ICT. Mobile is being used in imparting information fast and cost effective. It provides e-mail facility also. One can access it anywhere. It will be cost effective. The ICT brings more rich material in the classrooms and libraries for the teachers and students. It has provided opportunity for the learner to use maximum senses to get the information. It has broken the monotony and provided variety in the teaching – learning situation.

ICT enhancing teaching and learning process:

Teaching at School as well as Higher Education, mostly, concentrates on giving information which is not the sole objective of Teaching. Along with giving information, the other objectives are:

❖ developing understanding and application of the concepts

❖ developing expression power

❖ developing reasoning and thinking power

❖ development of judgment and decision making ability

❖ improving comprehension, speed and vocabulary

❖ developing self-concept and value clarification

❖ developing proper study habits

❖ developing tolerance and ambiguity, risk taking capacity, scientific temper, etc.

ICT enhancing the quality and accessibility of education:

ICT increases the flexibility of delivery of education so that learners can access knowledge anytime and from

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 the quality of learning. In concert with geographical flexibility, technology-facilitated educational programs also remove many of the temporal constraints that face learners with special needs (Moore &Kearsley, 1996). Students are starting to appreciate the capability to undertake education anywhere, anytime and anyplace.

One of the most vital contributions of ICT in the field of education is- Easy Access to Learning. With the help of ICT, students can now browse through e-books, sample examination papers, previous year papers etc. and can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers-all over the world. This flexibility has heightened the availability of just-in-time learning and provided learning opportunities for many more learners who previously were constrained by other commitments (Young, 2002).

ICT enhancing the scholastic performance:

ICTs are said to help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality. However, the experience of introducing different ICTs in the classroom and other educational settings all over the world over the past several decades suggests that the full realization of the potential educational benefits of ICT. The direct link between ICT use and students' academic performance has been the focus of extensive literature during the last two decades. ICT helps students to their learning by improving the communication between them and the instructors (Valasidou and Bousiou, 2005). Kulik's (1994) meta-analysis study revealed that, on average, students who used ICT-based instruction scored higher than students without computers. The students also learned more in less time and liked their classes more when ICT-based instruction was included.

ICT In Diagnostic Testing:

The common observation is that the quality of teaching in the classroom is on the decline. More and more students are depending on the private tutorial classes. The private tuition also has become a business. This phenomenon is not only in India but in other countries too. There are about 800 students from USA who have enrolled themselves for Private tuition in Mathematics. It means tuitions are also being outsourced. This is being done through the use of ICT. There are students who fail to understand certain concepts or retain certain information. This can be assessed by introducing the diagnosis in the process of teaching – learning. Today, t his is not being done. The reasons might be large class size, non-availability of diagnostic tests in different subjects, lack of training, money and desire on the part of teacher, etc. This is the age of technology. These difficulties can be easily over come with the help of ICT. The student progress can be monitored and his performance can be improved. This will develop confidence in students and may change their attitude towards the subject. It may also help in reducing the suicidal tendency among students. Students may start enjoying learning. Further, the following are the main advantages of Computer Based Diagnostic Test.

→The learner might find it uninteresting or monotonous as compared to paper pencil test.

→The teacher might find CBDT difficult to administer if he / she is not a computer savvy.

→It faces certain constraints, like, power cut, when it is being administered.

→The learner might not take it seriously as he / she is used to the traditional paper and pencil tests.

→The development of CBDT is costly and tedious as compared to paper and pencil test.

→The use of CBDT requires many computers which may not be available in all the schools.

→The learners who are not computer friendly might not feel at ease while giving the test on Computer.

→Certain technical problems might crop up which can distract the learner while giving the test.

→All teachers may not be competent to develop diagnostic test and especially CBDT.

→Teacher may not know computer languages that may be used for developing CBDT.

ICT In Remedial Teaching:

Once the ICT is used for diagnosis purpose, the next step is to organize Remedial Teaching Programme. The Remedial Teaching can be done by the teacher if some common mistakes are identified. It may not be feasible to organize Remedial programme for individual students. At this point, the ICT can be used for giving individual Remedial Programme. It may be Online or off line. The instructional material if designed specifically for meeting the individual needs of students and uploaded on the School website and then the ICT can be used for providing Remedial teaching Programme.

Use Of ICT In Evaluation:

At present the paper pencil tests are conducted for evaluating the academic performance of students. These tests are conducted in the group setting. The content coverage is poor and students cannot use them at their own. These tests are evaluated by the teachers and they may not give feedback immediately to each and every student. It may be due to this that students are unable to know their weakness and do not make any attempt to improve upon them. This test can be used by individual student to evaluate his learning. The student can instantaneously get the feedback about the status of his understanding. If the answer is wrong, he even can get the correct answer. It goes a long way in improving the learning and teacher has no role to play in it. It is left up to students to use it. Such tests can be uploaded on the website for wider use. The students from other institutes can also make use of it. Not only the students even the teachers can also use it to assess their own understanding of the subject. If used by teachers before teaching the topic, they can prepare the topic properly (Ankney,1987). Such software can be used for internal assessment. Thus, ICT can be used to improve the quality of pre as well as in-service teacher's training.

The evaluation can be made effective by keeping exercises and MCQs on the institutional websites with increasing level of difficulty. The online examination process is made available for the students at anytime and it is then possible to assess the competency of the students themselves objectively. The progress of the students can be monitored by expertise teachers which are made available for guidance 24/7 via e-content. The one to one conversation or question answer sessions can be effectively brought in by employing the technique of video conferencing. The teachers far away from the institution can be made available for the guidance. The syllabus, notes, practical sheets and study material framed and designed by the expertise teachers are published on the institutional website for the registered students of the institution. The results of the exams in the form of evaluation charts of every student also can be displayed on the website. The well equipped computer lab this way, may serve as a study cum evaluation and information centre.

Use of ICT in Online Tutoring:

The digital technology has broken the foundries between countries. Human beings do not feel any type of restriction in communicating with people all over the globe. The access has become easy. It is a well known fact that all students do not understand all subjects to the same extent. Some students find subjects, like, Mathematics, Physics, English, Chemistry, Accountancy, etc. difficult. All educational institutions do have well equipped laboratories and qualified & competent Faculty. Consequently students do feel the need of academic support out of the school. Therefore, students go for tuition. These days students from USA & other countries are enrolled in private tuition classes in India. That is they are being taught Online. This has become possible only due to ICT. In Online tutoring the student stays at his home. The student asks the

question and teacher replies it by writing on soft board or using power point presentation. This interaction is normally one to one. It has made the academic life of many students easy.

Conclusions:

The rapid growth in ICT has brought remarkable changes in the twenty-first century, as well as affected its adoption and integration by teachers in teaching-learning process. ICTs for education refers to the development of information and communications technology specifically for teaching/learning purposes, while the ICTs in education involves the adoption of general components of information and communication technologies in the teaching learning process. The adoption and use of ICTs in education have a positive impact on teaching, learning, and research. It would provide the rich environment and motivation for teaching learning process which seems to have a profound impact on the process of learning in education by offering new possibilities for learners and teachers. These possibilities can have an impact on student performance and achievement.

References:

▪ Ankney, B.R. (1987). The use of Computer Aided Instruction with Educable Mentally Handicapped students. Implications for Administrative Decision making. Dissertation Abstract International, Vol. 49, No. 3.

▪ Kulik, J.A. (1994) Meta-analysis study of findings on computer-based instruction. In E.L.Baker and HF. O'Neil Technology Assessment in education and training, Hillsdale, NJ: Lawrence Erlbaum.

▪ Valasidou A, Sidiropoulos D, Hatzis T, Bousiou-Makridou D (2005)."Guidelines for the Design and Implementation of E-Learning Programmes, Proceedings of the IADIS". International Conference IADIS E-Society 2005, 27 June- 30 June, Qawra, Malta.