EDUCATION

WEB BASED LEARNING – A MEANS TO INCREASE LEARNER ACHIEVEMENT

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ABSTRACT As the use of Web-based instruction increases in the educational and training domain, many people have recognized the importance of evaluating its effects on student outcomes such as learning, performance, and satisfaction. Often, these results are compared to those of traditional classroom instruction in order to determine which method is "better". However, major differences in technology and presentation rather than instructional content can obscure the true relationship between Web-based instruction and these outcomes. Computer-based instruction (CBI), with more features similar to Web-based instruction, may be a more appropriate benchmark than traditional classroom instruction. Furthermore, there is little consensus as to what variables should be examined or what measures of learning are the most appropriate making comparisons between studies difficult and inconclusive.

KEYWORDS : Effectiveness, Web Based Learning, Higher Secondary

INTRODUCTION:
The traditional teaching-learning methods in Higher Secondary School have been questioned as majority of the educators search for alternative ways of presenting material, engaging students, and improving academic performance (Jain, 2006) As a result of such enquiry, the use of computers and the internet have become integral part of today's classroom. Bliwise (2005) defines Web-based tutorials as computerized demonstrations that are used for active learning exercises. The Web-based learning has become acceptable as a complement to lecture method as it improves students' level of understanding of materials and allows learners to control the sequence and pace of the instructional materials.

There are many ways in web based learning, such as tutorials, online discussion groups and online evaluation. Online tutorials are similar to face-to-face teaching. Tutorials are often enhanced by features such as multimedia (sound, Pictures, movies, and animations), links to online resources (full-text Journal articles etc.) and self-assessment tools. In online discussion, teachers act the role of facilitators, monitoring and guiding the discussion as needed and helping students to find additional resources. Communication among group members can be asynchronous (delay between sending a message and receiving the response) or synchronous. The most obvious advantage of WBL (Web-based Learning) is that it overcomes Physical distances. This is the cardinal feature separating WBL from other computer-assisted instructional methods, and enables WBL to facilitate the teaching the students scattered across different places in the same city, different cities and even different countries. The result of distance independence is that learners have the opportunity to participate in the same instructional activities regardless of the real location. The influence of web-based learning in case of distance education is immense because of its physical distance independence.

Potentially, computer-based education can increase effectiveness and efficiency in the education of Students, while increasing student interest. When students are involved and interested in a particular subject their learning most likely will be effective.

TRADITIONAL TEACHING - LEARNING:
The definition of traditional education varies greatly with geography and by historical period.

The chief business of traditional education is to transmit to a next generation those skills, facts, and standards of moral and social conduct that adults consider to be necessary for the next generation's material and social success. As beneficiaries of this scheme, which educational progressivist John Deway described as being "imposed from above and from outside" the students are expected to docilely and obediently receive and believe these fixed answers. Teachers are the instruments by which this knowledge is communicated and these standards of behavior are enforced.

Traditional education is associated with much stronger elements of coercion than seems acceptable now in most cultures. It has sometimes included; the use of corporal punishment to maintain classroom discipline or punish errors; inculcating the dominant religion and language: separating students according to gender, race, and social class, as well as teaching different subjects to girls and boys. In terms of curriculum there was and still is a high level of attention paid to time honored academic knowledge.

TECHNOLOGY AS A TOOL FOR CURRICULUM
Curriculum is the academic manual that defines the learning objectives to be achieved by learners within specific time framework. Technology can be of great advantage not only to deliver the core content but also to enhance the learning through multifarious interactive activities on interdisciplinary themes.

TECHNOLOGY AS A TOOL FOR ASSESSMENT
Assessment is a form of communication and should be seen as an integral part of learning and teaching. Assessment can be diagnostic, formative or summative. The overall goal of assessment is to improve student learning. Technology can facilitate the teacher to become an effective evaluator by continuously tracking the progress of every learner.

TECHNOLOGY AS A TOOL FOR PROFESSIONAL DEVELOPMENT OF TEACHERS
Effective implementation of technology needs a strong support system, especially by way of intensive training programme for all stake-holders to develop a positive outlook towards embracing technology into education. Professional training Programmes for teachers to help them understand how various tools and techniques of technology can be used is of utmost importance.

TECHNOLOGY AS A TOOL FOR LEARNING ENVIRONMENTS
Current trends of education transform the pedagogy by a shift from "Instructivist" to "Constructivist:" education philosophies; a move from teacher centred to student centred learning activities; from a focus on local resources to global resources and an increased complexity of tasks with use of multi model information.

Audio visual aids, simulations, virtual manipulative, multimedia and on line resourses can be used to create learning environments that engage learners in experimenting, exploring and applying skills of analysis, interpretation, synthesis to create new concepts and validate their experiences.

TECHNOLOGY AS A TOOL FOR TEACHING STRATEGIES

- INDIVIDUAL/TEAM
- SKILL BASED
- MULTIMEDIA
- VIRTUAL
- MANIPULATIVE

- DELIVERY MECHANISIM
- TIME MANAGEMENT
- ENRICHED LRC
- ENHANCED LEARNING
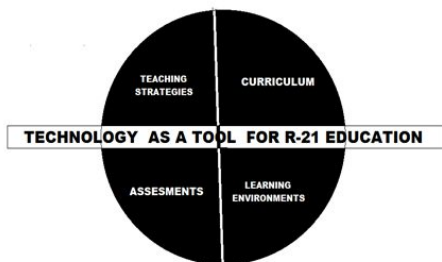
- SCHOLASTICS
- CO-CHOLASTICS
- ACTIVITY BASED
- QUIZ/VISUAL/
- SIMMULATION
- FEEDBACK
- REINFORCEMENT

- PERSONALIZED/GROUP
- SELF PACED
- SELF DIRECTED
- SELF ASSESSED
- GLOBAL COMMUNITIES

COMPARISON OF TRADITIONAL BASED TEACHING WITH WEB BASED LEARNING

Topic	Traditional Approach	Web-Based Learning
Person	Teacher-centred instruction: • Educational essentialism • Educational perennialism	Student-centred instruction: • Educational Progressivism
Main Objective	High test scores, grades, graduation	Learning, retention, accumulation of valuable knowledge & skills
Classroom	Students matched by age, and Possibly also by ability. All students in a classroom are taught the same material.	Students dynamically grouped by interest or ability for each project or subject, with the possibility of different groups each hour of the day. Multi-age classrooms or open classrooms.
Teaching methods	Traditional education emphasizes. • Direct instruction and lectures • seatwork • Students learn through listening and observation.	Progressive education emphasizes: • Hands-on activities • Students-led discovery • Group activities.
Materials	Instruction based on textbooks, lectures, and individual written assignments	Project-based instruction using any available resource including internet, library and outside experts.
Subjects	Individual, independent subject, Little connection between topics	Integrated, interdisciplinary subjects or theme-based units, such as reading a story about cooking a meal and calculating the cost of the food.
Content	Memorization of facts, objective information; Correct knowledge is paramount.	Understanding the facts, application of facts, Analysis, Evaluation, Innovation; Critical thinking is paramount.
Social aspects	Little or no attention to social development Focus on independent learning, Socializing largely discouraged except for extracurricular activities and team work based projects.	Significant attention to social development including teamwork, interpersonal relationships, and self-awareness.

Multi tracks	• A single, unified curriculum for all students regardless of ability or interest. • Diverse class offerings without tracking, so that students receive a custom-tailored education. • with school to work, academically weak students must take some advanced classes, while the college bound may have to spend half-days job shadowing at local businesses.	Students choose (or are steered towards) different kinds of classes according to their perceived abilities or career plans. Decisions made early in education may preclude changes later, as a student on a voice-tech track may not have completed necessary prerequisite classes to switch to a university-preparation program.
Equity	• Present and test methods favor students who have prior exposure to the material or exposure in multiple contexts.	• Context learning integrates personal knowledge within the school environment. • Individualized expectations simplifies
	• Requirements to study of memorize outside school inadvertently tests homes not students. • Students from homes where tested subjects are used in common conversation, or homes where students are routinely given individual help to gain context beyond memorization, score on tests at significantly higher levels.	individual supports and keeps focus student based. • Community study settings include multiple cultures and expose all students to diversity.
Student and Teacher relationship	Students often address teachers formally by their last names. The teacher is considered a respected role model in the community, Students should obey the teacher. Proper behavior for the university or professional work community is emphasized.	In alternative schools, students may be allowed to call teachers by their first names. Students and teachers may work together as collaborators.

ADVANTAGES OF MOVING FROM TRADITIONAL TEACHING TO WEB BASED LEARNING

- Helps Students to Learn More Efficiently at their own convenience of time and place.
- Improves effectiveness, interest and understanding.
- Encompass Engaging Students actively in learning
- Gives students the opportunity to Masterly learning, do research, upgrade their knowledge, skill, learning-ability.
- Supports self-regulated learning
- Learns better, faster and easier
- Reduces cognitive load
- Can engage and guide for more students a class of 100 or 200 students at a time.

CONCLUSION:

Summarizing all the above facts, it could also be extended that effectiveness of web based learning in Higher Secondary classroom was better than that of the traditional teaching-learning. The study also demonstrated that an online learning or tutorial had a positive impact on student learning. The ability of the web based learning to incorporate information, images, animations, interactive problems, quizzes provides variety to maintain student interest. In addition, students may feel a greater sense of engagement in the learning process. Attitudes towards subject matter improved in a computer-based instruction class to a greater degree when compared to a traditional lecture class.

REFERENCES
1. Agapova, O, Jones, L. Ushakov, A., Ratcliffe, A; & Martin, M (2002) E n c o u r a g i n g

Independent Chemistry learning through multimedia design Experiences, Chemical Education International 3 (3) 1-8.

2. Ardac. D.& Akaygun, S (2004) Effectiveness of multimedia based instruction that emphasizes molecular representations of students' understanding of Chemical change. Journal of Research in Science Teaching, 41(4), 317 – 337.

3. Barnea, N. & Dori.Y (1999). High School Chemistry Students performances, a n d gender differences in a computerized molecular modeling learning environment. Journ al of science education and Technology, 8 (4) 257- 271.

4. Carl Wieman Science Education Initiative (2015). Videos showing research based methods.

5. Collins Betty (1996). The Internet As An Educational Innovation, Educational Technology, 36 (6), P 21-30.

6. E Garrison, D. Randy. Learning in the 21st Century.

7. http://www.cwsei.ubc.ca/resources/SEI. video. html

8. Milovanovic, Marina; Obradovic, Jasmina; Milajic, Aleksandar (2013). Application of Interactive Multimedia Tools in Teaching Mathematics.

a. Oct – Dec 2014.

9. Singaravelu, G (2014)."Efficacy of Multimedia Package in Communicative Skill in English", Journal on English Language Teaching, V4, n4, Page 50-55.

10. Web 2.0, http.//en.wikipedia.org/wiki/AGNGLE learning.