

Paper Title: Role of ICT in reinforcing the Concepts

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Technology and the British School

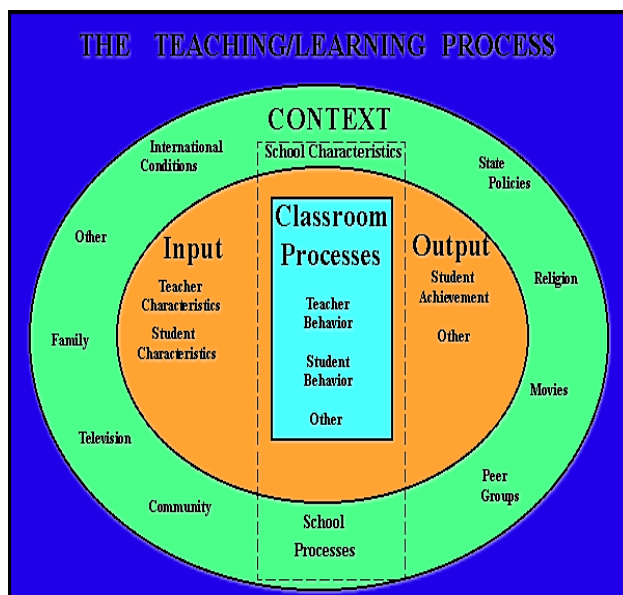
Change is the only constant in this world. We at The British School believe in this philosophy and takes continuous steps to keep The British School abreast with technology. We have 2 fully dedicated Computer labs and 200 laptops for students and teachers. Teachers use Promethean boards for teaching and learning. The school has centralized database for recording and maintaining the school data. All students and teachers have their unique user names and passwords to access the school computer and intranet facilities. The school server maintains a broadband connection throughout the 365 days of the year, giving each student monitored and continuous access via the school's intranet to the resources of the Internet.

Objectives of using technology:

1. To foster attitudes of curiosity, enquiry and initiative.
2. To foster awareness, understanding and expertise in the areas of creative and critical thinking.
3. To foster technological awareness by encouraging students to view technological developments.

Introduction

In the teaching learning Process, There are four factors which affect the learning and teaching. These are Teachers, Students, parents and Environment. By modifying learning environment, teacher can leave marvelous effects on students.



Teaching and learning is a process that includes many variables. These variables interact as learners work toward their goals and incorporate new knowledge, behaviors, and skills that add to their range of learning experiences. Over the past century, various perspectives on learning have

emerged and the rapid changes and increased complexity of today's world present new challenges and put new demands on our education system. There has been generally a growing awareness of the necessity to change and improve the preparation of students for productive functioning in the continually changing and highly demanding environment. Clearly, no simple, single uniform approach can be applied with the expectation that significant improvements of the system will occur. Among the most difficult problems faced by the education system are with teaching effectiveness.

Technology has long been used as a support for learning, for example, the use of radio, film, film strips, and overheads. During the past several decades, however, the advancement of technology has led to comprehensive meeting and teaching via more advanced technologies like audio conferencing, videoconferencing, web conferencing and online learning management systems (LMS). Technology when used appropriately and with guidance—it can become tools for the development of higher order thinking skills (critical thinking).

Teachers can use multimedia technology, Power Point presentations, flip chats to give more colorful, stimulating lectures. Computers can be used to stimulate and develop writing skills, collaborate with peers in foreign countries, do authentic kinds of research that is valuable to the adult world, and do complex kinds of problem solving that would otherwise be impossible. Use of computer in classroom solves number of above stated purposes. Research on technology's benefits for teaching is generally positive, with a shift from the traditional direct approaches to a more student-centered approach. Research specifically shows that educator-use of technology results in:

- Increased emphasis on individualized instruction
- More time engaged by teachers advising students
- Increased interest in teaching and learning
- Interest in experimenting with emerging technology
- Increased administrator and teacher productivity
- Increased planning and collaboration with colleagues
- Rethinking and revision of curriculum and instructional strategies
- Greater participation
- Increased teacher and administrator communication with parents
- Increased communications among teachers

Students engage *in "hands-on, minds-on" learning activities*". There are numerous and yet not defined particular techniques which a teacher can use in the class room to introduce or reinforce any concept. The aim of using different teaching strategies is to make learner confident in the content knowledge and enable the learner to apply it in practical aspects. These strategies can be use of differentiation technique, reinforcement methods, Brainstorming, Critical thinking etc. Generally teachers are using one or all techniques in the classrooms.

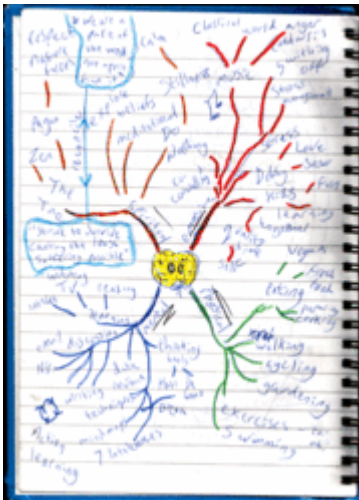
Some strategies, I use in class are:

Example 1: Mind Maps in the classroom

A **mind map** is a diagram used to represent words, ideas, tasks, or other items linked to and arranged around a central key word or idea. Mind maps are used to generate, visualize, structure, and classify ideas, and as an aid in study, organization, problem solving, decision making, and writing.

The elements of a mind map are arranged intuitively according to the importance of the concepts, and are classified into groupings, branches, or areas, with the goal of representing semantic or other connections between portions of information. Mind maps may also aid recall of existing memories. Mind maps (or similar concepts) have been used for centuries in learning, brainstorming, memory, visual thinking, and problem solving by educators, engineers, psychologists, and others. Educators/ teachers provide this to reinforce the concepts or for differentiated students.

Mind map is a vastly superior note taking method because the mind map utilizes the full range of left and right human cortical skills, balances the brain, taps into the alleged 99% of your unused mental potential.



Example: Rough mind map notes taken during a class.

Use of technology

The same is done using technology in the class, in **The British School** i.e. by using computer and mind mapping softwares.

We allow students to use a mind mapping software and to take notes using the software.

This help people to rapidly build up an enhanced understanding of any problem, challenge or situation as volume of information can be recorded in form of points using MIND Maps. It provides a great way of capturing the thinking that happens during a class. It also helps in Brainstorming, Presentation, collapsing or expanding ideas and team building.

Example 2: Use of learning diaries in the Classroom

Learning is not just storing facts in your brains and updating old ones. It is a dynamic process, which is repeated again and again. One method to improve students' thinking and learning methods is to write a **learning diary**. It is useful in analyzing their feelings and experiences in relation to the theoretical knowledge.

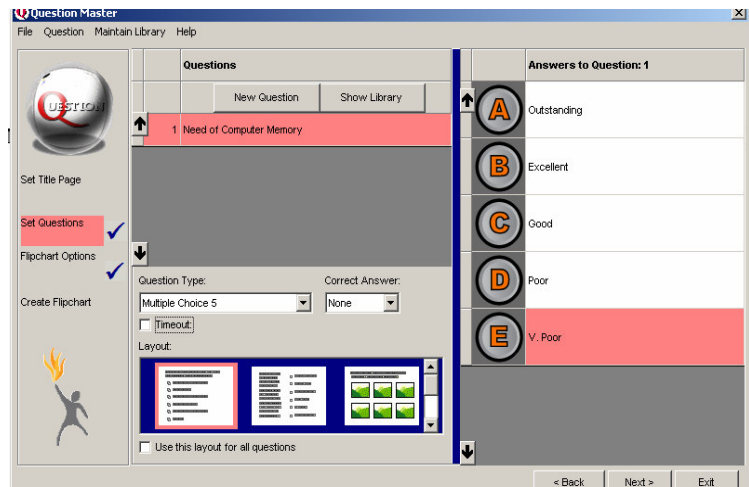
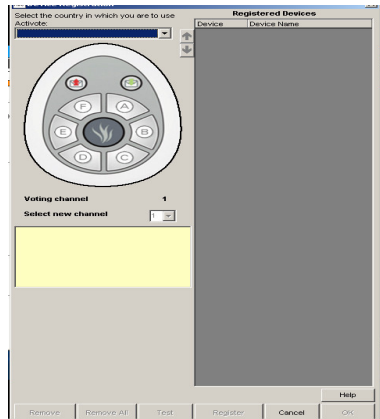
On their shared drive, learning diary of one topic is given to the students. Students are asked to fill the part of learning diary in the end of the lesson as a plenary activity. Then it is saved by the students on their shared drive, which is checked by the teacher

after the lesson to plan to know/check the students' knowledge gained in the lesson and to plan the next lesson accordingly. Learning diaries are used as AFL (assessment for learning).

Use of technology:

Question Bank

Active Votes



To collect feedback from students, Promethean Board's Active Vote facility is used.

Observations

It is observed that a class taught using different teaching strategies and technology, is more stimulating and understand the concept in detail and can apply in real situation. The use of technology results in impressive results for students, including improved achievement, higher test scores, improved student attitude, enthusiasm, engagement and richer classroom content.

I have collected the feedback form of learning diaries from the students to know their understanding level of the topic (discussed with the use of technology). Result was calculated and analyzed. It shows the concept clarity is more with the use of mind map software and reflections.

Feedback form

Rubric for Analysis:

Outstanding: 5.0

Excellent: 4.0

Good: 3.0

Poor: 2.0

V. Poor: 1.0

Topic	Outstanding	Excellent	Good	Poor	V. Poor	Score
1. Need for Memory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Types of Memories	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Importance of Formatting a disk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Compare RAM and ROM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Internal structure of floppy disk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Internal diagram of magnetic tape	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. IBG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Optical devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

The average result of the class was 3.8 (nearly excellent).

Conclusion

So, Teaching can be very effective if used with technology. In the words of Malcolm X, “education is our passport to the future, for tomorrow belongs to the people who prepare for it today. “ One such passport for educators grappling with the preparation of their students is the use of technology applications as tools for learning. Not only will children need these tools to successfully navigate their years of formal schooling, but they will also need these tools to successfully navigate their lives in the 21st century. To effectively use these tools educators and their students must become comfortable via on ongoing daily integration of the major instructional technology applications in the classroom.

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