**6.1 TECHNOLOGY BASED EDUCATION**

Technology based education is the integration of instructional technology into the teaching-learning environment of the classroom.

* In the past, teachers may have had little choice but to lecture because of the large size of their class.
* But now they have the option to explore online—learning experience where students can learn independently.
* Students are now able to do web-search at home, watch a video, or discuss with their peer on line.
* There are countless reasons why technology is a key aspect of learning in the schools.
* Technology is everywhere; and in order for our students to survive in post secondary education and the business world they must know technology.

**Use of technology in education**

* As demand for technology in education and skill increases, there is a growing emphasis for students to become digital citizens.
* Technology enables the teachers to deliver personalized feedback to students more easily; as a result this is giving rise to two-way stream of communication, and allows teachers to adapt their teaching style in order to maximize the learning outcomes for students.
* It also helps teaching staff to consider how they can most effectively provide audio and visual feedback in order to inform learners how to further improve their work.
* In US and other advanced countries the use of Virtual Reality (VR) headsets is becoming more common place in the classroom.
* This is because edtech companies want to utilize the potential benefits of this technology for education.
* It is based on its use in the commercial gaming world.
* Blended learning tools are in the process of developing to accelerate understanding and enable the application of learner’s knowledge to be developed during classroom activities.
* Another way the edtech is supporting pedagogy is that it also allows teachers to share their learning designs with other staff members.
* Over the last 10 years, the edtech sector has changed dramatically, with teachers, students and parents realizing the growing impact that technology will have on the way we learn, develop skills and teach.
* Mobile connectivity in particular has provided the sector with a number of new opportunities for operators globally to change the future of education through developing the skills of 21st century digital workforce.

**Reasons to adopt technology in education**

* **We use technology** to make education work effectively for the needs of 21st century work-force and support students in their journey to becoming digital citizens?
* **Students demand it:** students engaging in technology outside the classroom constantly demand it. Kids like to be interactive, and learning through technology has now become a part of their lifestyle.
* **New teachers are demanding it:** in schools who have adopted the technology and the teachers who have learned to teach through it, and for new teachers technology is considered a necessity for the learning environment
* **Kids are the digital native:** kids know better than most adults. It has become the easiest way they learn, because it is such an integral part of their life. Engaging with technology in classroom has not only helped them learn better, but they also acquire multi tasking skills.
* Kids can learn at their own pace:
* **With technology there are no limitations:** having access to other information outside of the book gives students many different ways to learn a concept. Teachers can come up with creative ways to teach their students that keep them engaged.
* Technology has the ability to enhance relationships between teachers and students.
* Technology is necessary to succeed outside of school education.
* **More educational opportunities:** The effective use of technology in education has changed the face of education and it has created more educational opportunities.
* Both teachers and students have benefited from various educational technologies.
* Teachers have learned how to integrate technology into their classrooms and students are getting more interested in learning with technology.
* The use of technology has removed educational boundaries; both students and teachers can collaborate in real time using advanced educational technologies.
* Technology has helped in the growth of mobile learning and long distance learning.
* The use of internet technology has enabled teachers to reach students across borders and also students from developing countries have used internet technology to subscribe for advanced educational courses.
* Many universities and colleges have embraced on line education by creating virtual classrooms.
* On line education is flexible and affordable.
* Students can attend classrooms in their free time, and they can have a chance to interact with other students virtually.
* This new educational technology is supporting both teaching and learning processes.
* Recent advancement in educational technologies has yielded positive results in our educational sector.
* Technology has digitized classrooms through digital learning tools like computers, iPads, smart phones, smart digital white-boards; it has expanded course offerings.
* It has increased student’s engagement and motivation towards learning.
* Technology should not and cannot replace teachers. Its main use is to enable students learn better through increasing their engagement in educational activities.
* Technology has to improve the learning process and aim at improving students’ grades.
* Technology is not having cool iPads or expensive gadgets.
* Technology has to facilitate and stimulate individual learning. Students should use technology to learn on their own with limited help from teachers.

**Importance of use of technology in classroom**

* Students while at the off campus interact with each other through technology. So, integrating this technology into classroom will simply make it very easy for them to learn.
* Teachers have to learn how to use the latest new educational technology so that they also simplify the way they do their job.
* Technology provides educators effective ways to teach and reach different types of students.
* Technology can also bond the relationship between teachers and their students, because teachers will have to interact and guide students on how to use this technology.
* This will bring teachers closer to students, since these students can use technology platforms like Piazza.com to ask questions and get instant answers from their teachers.
* It is also important to incorporate modern technology in classrooms a way of preparing students for tech demanding jobs and tasks. Now every job will require some skills of technology, so it is very important to bring this technology in the classroom and also incorporate it into the curriculum.
* Beside that technology is much cheaper than what we think.
* Technology has played a big role in changing the education environment in so many schools which have implemented it, but with the active co-operation of teachers.
* However, every school is not so fortunate of using this technology in their classrooms or education system because of its high cost. By the grace of ALLAH we are in a position to afford and introduce it for easy access to academic information and ability to learn.
* Encourage students to use various multimedia technological tools to demonstrate themselves in classrooms. In this way students get more involved in this process and learn better.
* It is very easy to learn new subjects using a computer and internet. Many computer applications have been created to make learning of new subjects easier

**Need for Training the teachers**

* Integrate new educational technology in classrooms.
* Teachers will have to be trained on how it works.
* To some extent this is a difficult task, because we are used to teaching the students, not them getting taught.
* Most of them have less time to learn new technologies.
* As for the students, they will find it difficult to learn these technologies without the guidance of their teachers.
* If we intend to enjoy the benefits of technology, (that seems to be a bit difficult tool), we will have to find a way to integrate it in our curriculum, so that in every subject taught, students and teachers find its great use.
* Refusing to learn technological tools and how to use them in classroom, may leave us backward and this can also effect on the grade of students.
* As the world develops, more technological jobs will pop up.
* Our students need to be prepared for this new era of tech demanding jobs.
* Most of the jobs we have today will not be worth in 5—10 years.
* Technology will prepare the present day students to capture the opportunities which will be more rewarding than the present jobs.
* If we are reluctant to use the modern technology, it means that *“we are denying our students the chance to compete tomorrow.”*

**Barrier to the effective use of technology**

* To a great extent, the lack of professional development and support has acted as a barrier to the effective use of technology in education.
* Teachers feel unprepared to learn and integrate technology in their classrooms.
* Yet for the students, they have the knowledge of this technology for educational purposes.
* There is a lack of training programs to teach these teachers the ways they can use technology to simplify their job and also make it easier for their students to learn better.
* So, if teachers have no teaching skills for using technology for educational purposes, then students will also miss out on these skills.
* We are thus required to emphasize the use of technology in the class and the teachers should be well trained and well equipped with technological tools for education.
* ‘Resistance to change’ seems to be another barrier.
* Some teachers have refused to change from the old teaching style, even though they might have a sense of technology in education.
* Students require the help of teachers in understanding their lessons through education, especially during the introductory phase of technological classroom teaching learning process.
* To integrate new educational technology in classrooms, teachers will have to be trained on how it works.

**Start technology based learning for all classes in order to make learning easy, motivated and complete**

* CBSC has advised its all affiliated schools to set up at least one (may be more) classroom in their schools equipped with technology to enable usage of digital instruction material. It will be good beginning as on line learning is the first step toward digital information.
* To establish smart class-rooms.
* To ensure the maximum utility of inter-net.
* To make on-line learning through videos available for free.
* To keep watch on academic web site launched by CBSC.
* To install digital boards in place of existing black-boards in the year to come.
* Procurement of projector and handy cam, tools required for smart classes.
* What is stopping teachers from using classrooms and education is the lack of technological training and support and inadequate professional development.