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NEED OF TECHNOLOGY IN CLASSROOM TEACHING

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Abstract

Technology is nothing but the purposeful application of information in the design, production and utilization of goods and services, and in the organization of human activities. Technology also allows for the repurposing of pre-existing educational materials across media formats: print, static illustrations, still and digital photographs, digital audio, still and motion video, still and motion film, animations, computer graphics, and hypermedia can all be accessed and combined in novel ways. Computers, video, and other technologies engage children with the immediacy they are used to in their everyday lives, and bend it to a new pedagogical purpose. Really, it is not what equipment is used in the classroom, but how that equipment is used that will make the difference. We think that technology must be thought of as an integral component of the curriculum, Teachers are responsible for manage knowledge of where students are and where they need to go; having insights into students' special needs and progress; choices of curricular activities and materials; rules that govern children's participation; expectations from parents and communities; and the norms and rules that govern them as teachers. This paper deals the need of technology in classroom teaching so as to meet the present students in a challenging way.

Introduction

Technology in the classroom has transformed education into a more interactive and exciting experience for students today. Technology makes possible the instant exchange of information between classrooms as well as individual students; it allows instant access to databases and online information services, and provides multimedia technical resources such as interactive audio and video. In the past classrooms were stale environments where teachers would just give the information while students tried to gatherer it. Today's learning environment has evolved into more of a cooperative effort to share information and ideas among teachers and students. This enhanced teaching approach has been proven to creative and critical thinking skills further as well as student engagement and understanding. This learning method is most effective in collaboration rooms created with classroom technology.

Technology Integration in Education

Today's technology can provide teachers and students with opportunities for teaching and learning that were impossible in the past. Computers can be used as devices for communicating with people literally a world apart. They can be used as tools to create instructional materials or as presentation devices to provide information in ways never before possible. Integration of technology in education is no longer a new idea,

because technology has become such an integral part of society, it is necessary to integrate its use in education in a variety of ways. The simple fact that students exposed to technology will be more comfortable with it later in life is only one of the many reasons to use it in hopes of preparing them for the future. Technology helps teachers improve their classroom practice by expanding their opportunities for training and by fostering collegial work with other teachers and professionals.

Advantages of Technology in Classroom Teaching

The advantages of technology in the classroom are broad and deep. Some of them are:

- Technology can help to prepare students to become successful members of the 21st Century workforce. It is not just about learning facts and figures, but learning about collaboration, problem-solving, communication, leadership, motivation, productivity, and self direction.
- Counterpoints can be examined, debate encouraged, and critical thinking helped to flourish with the use of the computer technology in a smart classroom.
- When students are invited to participate in interactive technology-based learning, they take ownership of their educational process.
- Students feel proud when they learn to how to use the computer technology in their classroom, and they are also motivated to help their peers learn how to use the interactive whiteboard and other smart technology.
- When students are motivated to learn and to work cooperatively, the advantages of technology in the classroom are clear for all to see.

Role of Technology in Curriculum

In this techno-world, no one can think their life without technology in all aspects. Technology in Education made education is effective and productive in all its dimensions. Hence, the curriculum construction itself should be consisted of all available and applicable technology and its applicability with respect to the standard of instruction concerned.

- Technology integration must happen across the curriculum in ways that research shows deepen and enhance the learning process. In particular, it must support four key components of learning:
  i. Active engagement
  ii. Participation in groups
  iii. Frequent interaction and feedback and
  iv. Connection to real-world experts.
- Technology integration is achieved when the use of technology is routine and transparent and when technology supports curricular goals.

- Learning through projects while equipped with technology tools allows students to be intellectually challenged while providing them with a realistic snapshot of what the modern office looks like.
- Immeasurable resources of the online world also provide each classroom with more interesting, diverse and current learning materials. The web connects students to experts in the real world and provides numerous opportunities for expressing understanding through images, sound and text.
- New technology tools for visualizing and modeling, especially in the sciences, offer students ways to experiment and observe phenomenon and to view results in graphic ways that aid in understanding.
- With technology tools and a project-learning approach, students are more likely to stay engaged and on task, reducing behavioral problems in the classroom.
- Effective technology also changes the way teachers teach, offering educators effective ways to reach different types of learners and assess student understanding through multiple means. It also enhances the relationship between teacher and student.
- If technology is effectively integrated into subject areas, teachers grow into roles of adviser, content expert, and coach. Technology helps make teaching and learning meaningful.

Barriers in Using Technology in Classroom

- Lack of technology
- Insufficient access
- Scarcity of time
- Inadequate technical support
- Lack of knowledge of specific technology
- Inadequate knowledge of technology-supported pedagogy
- Insufficient knowledge of technology-related-classroom management
- Leadership
- School time-tabling structure
- Planning

Ways to Overcome Barriers in Using Technology in Teaching

i. East to Access

Accessing available technology is an important issue for teachers and students. Hence, the accessibility is the primary step to use technology in teaching learning process.

ii. Technical Support Provision

Most of the teachers are in faith in traditional methods of teaching since they are not confident and competent enough to repair the equipments or electronic resources using

for their teaching. Hence, it important to provide appropriate technical support to the concerned field of study and there should be a provision to rectify the fault if arises frequently.

iii. Goal Determination in Effective Use of Technology

Technology in learning allows students to work on authentic, meaningful, and challenging problems, similar to tasks performed by professionals in various disciplines; to interact with data in ways that allow student-directed learning; to build knowledge collaboratively; and to interact with professionals in the field. In the classroom, teachers can develop a myriad of technology-supported engaged learning projects that enable students to solve real-world problems, retrieve information from online resources, and connect with experts.

iv. Effective Roles of Teachers

Technology integration brings changes to teachers' instructional roles in the classroom. As students become more self-directed, teachers who are not accustomed to acting as facilitators or coaches may not understand how technology can be used as part of activities that are not teacher-directed. This situation may be an excellent opportunity for the teacher not only to learn from the student but also to model being an information seeker, lifelong learner, and risk taker.

v. Professional Development of Teachers

Teachers need time to acquire technology skills and develop new teaching strategies for integrating technology into the classroom. Except for occasional in-service programs, teachers often have no time built into the school day for their own professional development. Some researchers suggest that the ideal time for teachers to participate in professional development activities is during the summer, when students are not a consideration and teachers do not have as many demands on their time. But teachers are more likely to apply new instructional strategies if they receive feedback and support while trying the new strategies in their classrooms.

vi. Different Skill Levels Coaching for Teachers

A school may be home to educators with a wide variety of skill levels in technology: computer gurus anxious to put the capabilities of the newest hardware and software to use; moderate technocrats, who implement basic computerized tasks; and the technologically limited. After the teachers' skill levels are identified, administrators, teachers, and the technology specialist can brainstorm to determine what support and resources teachers need to advance to the next stage. Teachers can develop personal plans for professional development that include goals for using technology.

vii. Incentives for Teachers

Offering incentives is an important aspect of a technology professional development program. Incentives help ensure that teachers who face escalating demands on their limited time receive the training they need to prepare their students for the

technological workplace of the future. Financial incentives are a time-tested method of encouraging teachers to devote their time to professional development. Teachers can earn credit for hours spent in technology professional development; they then can use that credit to acquire classroom technology, to receive loans of hardware and software for use at home, or to negotiate discounts on personal equipment.

viii. Choosing Appropriate Software

Teachers at apprenticeship stages of technology integration may need guidance in locating multimedia software and Internet sites to support the school's learning goals, either because they are unfamiliar with these media or because they feel overwhelmed by the profusion of software on the market and sites on the Internet. Whenever possible, software-selection activities should involve teams of teachers. Teachers working together can plan curricular projects, develop and apply criteria for selecting software or Internet sites, engage in action research to evaluate the use of specific software or Internet sites, and reflect upon how their teaching is changing through technology integration.

ix. Sustainable Funding for use of Technology

Consideration should be given not only to initial costs but also to a means of providing a varied and constant source of revenue that will continue into the future. Care also must be taken to ensure that funds are available to provide the educational staff with support so they are comfortable using the technology and integrating it into the existing curriculum. Schools need to determine essential components of their technology plan and provide a permanent source of funding for those components. Technology implementation is not simply putting computers in every classroom or linking every classroom to the Internet. It also means obtaining sustained funding for ongoing professional development, technical support, equipment upgrades, and regular maintenance. Funding should be addressed at the beginning stages of technology planning.

Teachers' Role in Using Technology in Teaching

In this techno-teaching environment, the role of teacher is entirely changed; he/she is termed as;

- Co-learner
- Facilitator
- Guide
- Supervisor
- Team-leader
- Project-manager
- Instructional designer
- Trainer
- Collaborator
- Team coordinator

- Advisor and
- Monitoring and Assessment specialist

Each role is linked with specific activities and is made possible by the use of technology in an effective way based on the content prescribed for their level of study.

Conclusion

The use of technologies in classroom teaching make the students to develop higher-order thinking skills, increased student motivation, improved teaching and learning, and higher levels of student achievement. In order to incorporate technology more effective into the classroom, several changes are needed; Teachers must be provided with the time and support to explore technology on their own, administrators must provide the time and space for teachers, who now suffer from larger classes and more responsibility than ever, to take a break from teaching to start learning. Teacher creativity in use of technology in classroom teaching is a powerful force for positive educational change, actions and measures are needed to incorporate technology effectively in the classroom to meet the need of the current students successfully.

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