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Abstract

Information technology and communication plays an essential role in how individuals work, live and learn. Organizations of all sizes rely on computers to operate more efficiently and effectively. People use computers as a tool to access information and communicate with others around the world. For educators, computers and other technologies serve as a tool, which need to seek information in education and to implement new and developing teaching strategies. Traditionally, technology is the way people use their inventions and discoveries to satisfy their needs and desires. For this purpose of this paper, the word technology is used as a synonym for "information technology" which designed the electronic and digital resources used in education.

Keywords:Information technology,computers.

DEFINITION OF ICT

According to UNESCO, information and communication technology (ICT) is defined as a combination of informatics technologies, specifically communication-technology. Informatics technology is defined as the technological application of informatics society. Informatics has the same meaning as computing science dealing with the design, realization, evaluation, use and maintenance of informatics processing systems. It includes CD-ROMs, laser disc, scanner, the internet, LCD panels, digital cameras, copiers, video and any other format to provide information.

SMART SCHOOL

The Smart Schools Project was started as one of the Multimedia Super Corridor (MSC) Flagship Applications. The smart school is intended to support the MSC in producing knowledgeable workers for the industries within the MSC. The flagship will support the government's plan to obtain the status of a developed nation by the year 2020 and to gain a competitive edge with other developed countries in the global economy. This national project is to build up the human capital for the information age, to reduce the digital divide through various flagships and to increase productivity and export growth. A smart school will evolve over time, continuously developing its professional staff, its educational resources and its administrative capabilities. This will also allow the school to adapt to changing conditions while continuing to prepare for life in the information age.

CURRENT TRENDS IN EDUCATION

Technology has opened doors to more information than was available in the traditional school system. The internet and world wide web also provide a richer variety of media including text, graphics, sound, video and animation. It is possible to retrieve information from many remote locations around the globe quickly. When students cannot find the information they need through traditional means, they may search the web using search engine.There is increasing use of the internet and world wide web. Numerous projects have made it possible for primary and

secondary school children to connect to remote databases, and to their counterparts in other countries. Schools, teachers and students have been able to set up their websites.Furthermore, ICT refers to tools and enablers to make learning more interesting, motivating, stimulating and meaningful to the children. The teaching and learning materials using ICT are designed to accommodate differing needs and abilities, resulting in fuller realization of their capabilities and potential and allowing children to take greater responsibility for managing their own learning.

ICT INTEGRATION AND INFORMATION MANAGEMENT IN THE TEACHING LEARNING

Education in the last twenty years was universal. Teaching was based on information retention, memorization, and standardized procedures and testing. Students are passive learners. Nowadays, the role of teacher has changed from presenter to facilitators, mentor, resource allocator, coach and collaborator. With the use of technology, teachers can accommodate different individual learning styles and abilities more easily. Integrating technologies into the classroom has many ways to adapt. Multimedia applications, computer based training (CBT), entertainment and edutainment and the world wide web are the examples of technology applications that can be used in teaching learning environments in Malaysia smart school education.

INFORMATION MANAGEMENT IN SMART SCHOOL ENVIRONMENT

The Smart School Pilot Project introduced a computerized Smart School Management System (SSMS) to the Pilot Schools. This system allows for complete school monitoring by senior administration. It also facilitates e-communication between teachers and students. The traditional curriculum may be enriched with the use of software resources available through the SSMS.This integrated information management software covers nine areas of school management, namely, Financial, Student Affairs, Educational Resources, External Resources, Human Resources, Facilities, School Governance, Security, and Technology.

BARRIERS AND CHALLENGES

Budget Constraints. Many forms of educational technology, in particular computers, require large expenditures every three to five years. At present, many school districts lack sufficient financial resources to incorporate technology.

Lack of Teacher Training. Some teachers fear using technology. Some of them use trial and error and in some cases, they have learned from students. For many teachers, a lack of personal experience with technology presents an additional challenge. In order to incorporate technology based activities and projects into their curriculum, those teachers first must find the time to learn to use the tools and understand the terminology necessary for participation in those projects or activities.

Computer Placements. Before the students enter the class, teachers make an important decision regarding how computers will be used in their class. Computer placement has a dramatic impact on when and even if students will use the computer. Select a central location and arrange the computers so the students can see the monitors from various points throughout the classroom. Position the computers, then move to various centers, and check at a students' height to ensure the monitors are visible from most of the classroom..

Hardware Theft and Vandalism. For schools, hardware theft and vandalism present a difficult security challenge. To help minimize the theft of technology such as computers and associated equipment, schools can implement a variety of security precautions.

Information Theft. The deliberate theft of information causes as much or more damage than the theft of hardware. Even though information theft is not a major problem in schools, the potential is taken seriously because school networks do contain a great deal of important and confidential information on students, teachers and staff.

CONCLUSION

. The Smart School project is a critical platform for building the right skill base for human resources. These concepts are not merely putting hardware in schools but also getting appropriate technology which is easily integrated and web-based, providing proper training, and running practical applications. The task is indeed daunting and time consuming. With proper planning, positive feedback, continuous support and guidance, the nation‟s knowledge workers as part of the drive to achieve Vision 2020 can be produced.. ICT integration and information management in Malaysian smart school education has thrown up enormous opportunities and challenges. The technology is seen as a ‟vitamin‟ that is present for better educational outcomes. The concept of ICT in education includes systems that enable information gathering, management, manipulation, access and communication in various forms. The role and function of ICT in the classroom is seen as a teaching and learning tool that enables learning to make learning more interesting, motivating, stimulating and meaningful.