TECHNOLOGY-SUPPORTED CLASSROOM AND ITS IMPACTS ON TEACHERS' ROLES

EVELYN SHARMINNIE S. VASUTHAVAN

One of the main characteristics of education in the 21st century is the incorporation of technology in teaching and learning. Apart from its ability to make teaching and learning more convenient, efficient and effective, technology is also crucial for equipping learners with the necessary skills to survive in the current world. The Malaysian Ministry of Education has spent more than RM6 billion on Information and Communication Technology (ICT) over the past decade for education initiatives (Malaysian Education Blueprint, 2013) to scale up quality learning and increase exposure towards technology-based tools, in order to produce manpower whose skills and knowledge is relevant to the dynamic global era. Hence, the emergence of technology-supported classroom.

According to Dorota Domalewska (2014), a technology-supported classroom is a classroom that incorporates technology like Web 2.0 tools to address learning outcomes. From blogs and wikis to video sharing and social networking, these technological tools allow active and interconnected processing, digestion and evaluation of information, which is the goal of a technology-supported classroom. McGhee & Kozma (n.d.) addresses the technology-supported classroom as a classroom that uses educational technology to provide students with tools and information that support problem solving, communication, collaboration, and knowledge creation. Technology-supported classroom has produced a significant gap between conventional approaches and new technology-supported approaches, which in turn has greatly impacted the role of teachers.

The most substantive impact brought by the technology-supported classroom upon teachers' roles is the shift from being a knowledge imparter to a learning facilitator. By bringing the vast internet into the equation, teachers are no longer the sole keeper of knowledge. The internet has made information so freely available and accessible for learners that they can access information by themselves. This has decreased students' dependence on teachers to make learning more learner-centered, whereby the role of the teacher is as a learning facilitator who guides learners on the organisation and reflection of information gained. As a technology-supported classroom contains learners with capable resources and facilities, the teacher only needs to give assistance, advice and suggestions that enable students to make sound decisions and find the information they need to complete a particular task (McGhee & Kozma, n.d.). Such assistance and suggestion can be in the form of asking the right questions to guide students in finding relevant information. For example, a teacher can provide students with a problem, and then ask open-ended questions that relate to their prior knowledge or questions that pique their interest. This is to guide students in the direction in which they should explore to find the information needed. As a facilitator, teachers now have to show students how to follow the trails to learning for themselves, as opposed to the passive and conventional spoon-feeding of second-hand knowledge.

In addition to that, the role of the teacher as a team coordinator has also emerged as important now more than ever. Technology has enabled the availability of information through simulations, demonstrations and other multimedia modes, which have directed technology-supported classrooms to a more discovery-based constructive learning. Therefore, in order for technology-supported learning to be used to the best benefit of the students, it should be turned into a collaborative task (Dorota Domalewska, 2014). Collaborative learning is a group-based learning where learners join to work in educational endeavors. This would require teachers to assign group projects that optimally create opportunities for students to interact and communicate meaningfully. During the implementation of group work or team activities, the teacher plays the role as the mediator between groups.

Collaborating does not only happen within each group, but also between groups. For example, groups can be asked to gather information and present their findings to the whole class using PowerPoint presentations. Here, the teacher plays the communication mediator to help groups communicate with each other in new meaningful contexts. This is important not only to aid effective communication among groups, but also to sustain the social aspect of learning which can be easily looked pass in technology-supported classrooms (Uibu & Kikas, 2008).

Apart from that, the role of an instructional designer has emerged for teachers due to technology-supported classrooms. This role requires teachers to design, plan, and organize learning experiences in order to effectively use and integrate technology in their classrooms. The instructional designer also takes into account of all the resources available to meet students' various needs and implement well-designed activities to address those needs (McGhee & Kozma, n.d.). When teachers are planning the objectives and selection of media and materials, they should remember to take academic material that will lead students into the required content while developing high-level thinking skills to solve the problem (Jukes, McCain & Crockett, 2010). This is because it is important for teachers to emphasize learning as problem-based since technology-supported classrooms embrace the new age of automation and outsourcing, which centralizes on information processing and problem-solving skills.

In conclusion, the integration of technology into classroom learning is no longer a luxury; it is a means of survival in a future that will be driven and supported by technology (Barron, 2006 in Ramadan Eyyam, 2014). This means that technology-supported classrooms are no longer about being progressive but about being relevant to the current reality which revolves around a digital network culture. Thus, it would be impossible for such changes to be brought into the learning classrooms without first bringing changes to the role of teachers because technology-supported classrooms have impacted teachers' roles from redesigning the learning environment to enhancing student-teacher relationship.