INTEGRATING TECHNOLOGY INTO ELT CURRICULUM

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ABSTRACT

Technology is ubiquitous, touching almost everypart of our lives, including language education. When properly used, technology can be a highly engaging and interactive tool, providing a source of real language in the classroom, and motivating learners to produce more language. However, classroom teachers lag far behind when itcomes to integrating technology into the curriculum, especially into language classroom instruction. In this paper I will attempt to explain how to integrate technology into the English language curriculum. Specifically, I would like to propose a concept for integrating technology into the curriculum, the principles for using technology in learning, the institutional obligations in supporting the use of technology in learning, and the implications for teachers of integrating technology in the curriculum.

Keywords: *classroom activities, curriculum, engaging and interactive tool, language learning, technology*

INTRODUCTION

Technology is everywhere, touching almost all aspects of human life, including the field of (language) education, especially since the emergence of digital technology and the internet in the 1960s and 1970s, commonly known as the birth of Industry 3.0. The influence of technology on the world of (language) education has become even greater since the birth of Industry 4.0 around the year 2011, marked by the appearance of super computers, smart robots, driverless vehicles, genetic editing, and the development of neurotechnology, enabling people to optimize brain function. In these conditions, the use of technology in

education, in particular in schools, is no longer an option but a must.

The results of a number of previous studies show that when used correctly, technology has a positive effect on the process and outcome of learning. As an illustration, technology has the ability to increase motivation and performance in learning (Chen, 2019). The use of technology can also provide accurate feedback about language use (grammar, spelling, and punctuation) in composition activities, which in turn has the positive effect of reducing the time needed for teachers to correct students' work (Lim and Phua, 2019). Research by Pifarre (2019) demonstrates that the use of technology can improve creativity and the level of cooperation between students. In this context, parents strongly support the use of technology in their children's learning activities at school (Chen, Mayall, York, and Smith, 2019).

Nevertheless, research results also show that the use of technology in learning, particularly in schools, is extremely varied, ranging from non-existent to very frequent (Smith and Throne, 2009). This indicates that not all teachers and/or schools have the ability to integrate technology into their curriculum. In connection with this issue, I would like to explain in this paper a concept for integrating technology into the curriculum, the types of technology that can be integrated into the curriculum, the principles for using technology in learning, the obligations of an institution in supporting the use of technology in learning, and the implications for teachers.

FINDINGS & DISCUSSION
Concept For Integrating Technology Into The Curriculum

Integrating technology into the curriculum is an aspect of professional practice which is considered to be one of the factors that determines the quality of learning. Other aspects of professional practice include compiling lesson plans, understanding the learner, managing lessons, mastering the particular field taught, managing available resources, evaluating the process and results of the learning, performing teacher professional development, using inclusive practices, using multilingual approaches, promoting 21st century skills, and understanding education policies and practices that apply today (https://www.britishcouncil.in/ sites/default/cpd_framework_for_teachers.pdf).

Richards (2017: 252) writes that technology changes the way teachers teach and the way students learn; and for this reason, technology plays a central role in curriculum implementation. In connection with this, technology must support learning, especially in

relation to the four main components of learning, which are active engagement, group participation, frequent interaction and feedback, and connection to real-world experts (Stanley, 2015: 9).

Integrating technology,as understood here, includes the following activities: (1) developing effective strategies for locating appropriate digital content, (2) following guidelines for e-safety, (3) evaluating the potential effectiveness and appropriacy of digital content, tools and platforms for achieving desired learning outcomes, (4) using technology in the production of teaching and learning materials, (5) setting up activities that support learning by exploiting appropriate digital content, tools and platforms, (6) developing effective strategies for resolving potential technical issues, (7) using technology for administrative tasks in accordance with data protection guidelines, (8) promoting autonomous learning by exploiting digital content and technologies inside and outside the formal learning environment, (9) promoting collaborative and participatory learning by exploiting online communities, tools and platforms, and (10) reflecting on the effectiveness of integrating ICT into the teaching and learning process.

(https://www.britishcouncil.in/sites/default/cpd_framework_for_teachers.pdf).

In general, curriculum is defined as a set of plans and blueprints for students' learning outcomes, teaching materials, teaching process, and assessments to run courses of study (Regulation of Minister of Education and Culture No. 44 of 2015). Curriculum should be understood not only as a product, as it is commonly perceived, but also as a process. As a product, curriculum is "a document that contains a framework for teaching, materials development, and assessment and that serves to direct and manage the enterprise of language teaching" (Richards, 2017: 13). The development of this type of curriculum can be described as a 'top-down' expert-driven process" (Richards, 2017: 6). As a process, curriculum "refers to the teaching and learning that come about as a result of teacher's beliefs, understanding, teaching philosophy, and experience, and how these shape the choice of activities, tasks, and strategies he or she makes use of in the process of turning course plans and syllabus content into learning" (Richards, 2017: 11). "This way of describing curriculum reflects a "bottom-up" view of curriculum, since it refers to how the teacher creates the curriculum in a specific teaching context through a process of negotiation and interaction with learners as they engage in learning activities" (Richards, 2017: 11).

Technology can be integrated into the curriculum on these two levels: the level of curriculum as a product or document and the level of curriculum as a process. The integration of technology into the curriculum as a product means that before teaching, teachers must plan

lessons that require the support of technology and choose the type of technology most suitable for achieving this goal. The integration of technology into the curriculum as a process means that in the implementation of the lesson the teacher needs to take into consideration the given context, which may differ from the context that was assumed while the teacher was making the lesson plan.

Technology for Learning

The technology referred to in this paper is technology for use in learning activities, in particular in schools. Stanley (2015: 6) divides technology into three groups, namely internet, software, and hardware. The internet category includes automatic translators, blogs, instant messaging, new websites, image-creation software, poster websites, social networks, survey websites, text and voice chats, text and voice forums, and video-sharing websites. The software category includes apps, authoring software, concordancers, ebooks, electronic dictionaries, email, mind-mapping software, presentation software, screen-capture tools, word processors, and social bookmarking. The hardware category includes computer rooms, data projectors, digital cameras, interactive whiteboards, laptops, mobile phones, netbooks, tablets, video cameras, and webcams.

Levy (in Richards, 2017: 254) identifies five levels at which technology can support language teaching.

1. *The physical level,* with tools such as mobile phones, digital cameras, laptops and tablets.
2. *The management level,* which includes learning management systems (LMSs) that enable the administration, delivery, tracking, reporting etc. of a language course.
3. *The applications level,* including word processing software, email and chat clients, social-networking sites and blogs.
4. *The resource level,* which includes access to authentic materials, such as online newspapers, magazines, language tutors and dedicated websites for learners.
5. *The component technology level,* such as spelling checkers, grammar checkers, electronic dictionaries and other support tools.

In language learning, technology can be used to support four language skills, namely listening, reading, speaking, and writing. For listening activities, teachers can make use of various websites that provide authentic listening text types, such as advertisements, movie clips, YouTube videos, news broadcasts, interviews, and TV shows. Teachers can design various listening tasks from these texts. For reading activities, teachers can access websites

which offer a variety of written texts that can be developed for use in reading activities such as skimming, scanning, inferencing, and summarizing. For speaking activities, teachers can utilize synchronous computer-mediated communication, such as chat rooms, which present various characteristics of spoken language and offer practice in conversation. For writing activities, teachers can use a range of sophisticated types of support that assistwriting learning, including web-based writing labs, computer-mediated peer reviews, and web publishing (Richards, 2017: 258-260).

Principles of Using Technology

We use technology in learning not simply because we are surrounded by sophisticated technology or because we are in the age of the fourth industrial revolution, or Industry 4.0. We use technology because we believe that with technology, we are able to implement learning that is of a higher quality than without technology. The use of technology should enhance the learning process, as outlined in the Copy of the Regulation of the Minister of Education and Culture No 22 Year 2016 about "The Standard Process of Primary and Secondary School Education" that learning is conducted in a way that is interactive, inspiring, fun, and challenging, motivating students to participate actively, and allowing adequate space for initiative, creativity, and independence, in accordance with students' aptitude, interests, and physical and psychological development. These are the main principles that we must adhere to.

In relation to this, Stanley (2015: 4-5) elaborates these principles to become six points, as follows:

1. Why do we use technology? We use technology because we are confident that it will enhance student learning, not because "it is there".

2. Who is the technology best for? We use technology because it is appropriate for the learners.

3. What is the technology best used for? We use technology because it better suits the learning objectives.

4. Where should it be used? We use technology because the classroom or the computer room is connected to internet.

5. When should the technology be used? We use technology because it is the best moment for us to use technology.

6. How should the technology be used? The use of technology should make the use of teacher's or the learners' time more efficient.

This explanation by Stanley (2015: 3) reminds us that pedagogical aspects should be given more priority than technological aspects. In line with this, Richards(2017: 261-262) outlines a number of pointers that should be taken into consideration when using technology in learning: What is the teacher's purpose for using technology in learning activities? Is the quality of learning improved by the use of technology? Are the teacher and student skilled in using the particular technology? Is the necessary infrastructure available at the school (a classroom or computer laboratory with internet connection) for supporting the use of technology? Is the necessary equipment available (both hardware and software) for using technology?

In short, it can be concluded that the use of technology must be able to guarantee a better quality of learning in this digital era, or in other words learning that can help the student develop his or her knowledge and skills. In this context, Bates (2015: 371-411) proposes the following nine steps to achieve quality learning: decide how you want to teach, what kind of course or program, work in a team, build on existing resources, master the technology, set appropriate learning goals, design course structure and learning activities, communicate, evaluate and innovate.

The Role of Schools

Schools play an enormous role in the development and implementation of a technology-based curriculum, both in the sense of curriculum as a product and curriculum as a process. In connection with this, Richards (2017) writes that schools should ensure that curricular design, instructional strategies, and learning environments integrate appropriate technologies to maximize learning and teaching. To do this they should:

1. identify, use, evaluate, and promote appropriate technologies to enhance and support instruction and standards-based curriculum leading to high levels of student achievement.
2. facilitate and support collaborative technology-enriched learning environments conducive to innovation for improved learning.
3. provide for learner-centred environments that use technology to meet the individual and diverse needs of learners.
4. facilitate the use of technologies to support and enhance instructional methods that develop higher-level thinking, decision-making, and problem-solving skills.
5. provide opportunities for improved learning and teaching with technology and ensure that faculty and staff take advantage of quality professional learning.

Implications for Teachers

From the explanation above, it is clear that teachers are required to demonstrate a sound understanding of technology concepts and operations, in order to be able to plan and design effective learning environments and experiences supported by technology. Teachers should also be required to implement curriculum plans that include methods and strategies for applying technology to maximize student learning. And finally, teachers should be able to apply technology to facilitate a variety of effective assessment and evaluation strategies (Richards, 2017).

In reality, however, not all teachers have these skills(Smith and Throne, 2009). In order to develop the necessary technology skills for instruction, teachers are required to keep learning and practicing. This is essential because teachers are constantly faced with unpredictable situations in their current workplace (Vangrieken, Meredith, Packer, and Kyndt, 2017: 48). Learning programs do not take place inside a sterile environment but rather in complex and varied situations. Each situation requires a particular approach which may be different from that used in other situations. Therefore, teachers should have a broad range of knowledge and skills about the various strategies for handling different situations in an appropriate and wise manner.

Meanwhile, usually there is a gap between what has been learned in the teacher education program and the real conditions that (novice) teachers are faced with (Crandall and Christison, 2016: 10). The reason for this is that science and technology are developing so rapidly. Teachers are no longer able to rely on what they were taught during their time on pre-service teacher education programs. They must carry out continuous self-development until they retire from the teaching profession. In line with this, Wong (2013) states that becoming a professional teacher does not end with one's pre-service or even in-service teacher education; rather, it is a lifelong endeavor and a way of being. With this in mind, a teacher needs to develop professionally (Wong, 2013).

Teacher professional development is a process of continual intellectual, experiential, and attitudinal growth of teachers, both before and throughout their career (Bailey, Curtis, and Nunan, 2001). From this, it can be understood that teacher professional development is not only concerned with cognitive aspects but also with aspects of skill and attitude. We should even add one more aspect, namely experience. In other words, professional teachers require a broad range of knowledge and experience, not only limited to their own particular field. This can be achieved, in part, by participating in benchmarking activities at schools that

are better than the teacher's own school, whether in their home country or abroad.

The success of teacher professional development can be measured by three indicators. First, after performing self-development, teachers have better competency (knowledge, skills, attitude, and experience). Second, the competency they acquire enables them to improve their teaching methods. Third, these better ways of teaching enhance the learning experience for their students (Stroupe and Kimura, 2013). The quality of student learning (as a consequence of their teachers' improved teaching methods) can also be measured by three indicators. First, students understand what they are learning (cognitive ability). Second, students understand the proper way to study (metacognitive ability). Third, students become autonomous learners, where they are responsible for their own learning, without depending on anyone else.

Numerous methods can be used by teachers for self-development. These include attending workshops, sharing ideas to help others develop, keeping a teaching journal, teaching portfolios, self-observation, peer observation, team teaching, mentoring, reflective teaching, and action research.

CONCLUSION

Integrating technology into the curriculum is not limited to planning, implementing, and evaluating the use of technology in learning but also includes using technology safely and developing autonomous student learning. The complexities involved in integrating technology into the curriculum require the support of schools and more sophisticated competency of teachers. For programs to run effectively, schools need to provide classrooms with internet connection. In addition, schools should make available the necessary equipment for implementing technology-based learning, including both hardware and software. The integration of technology into the curriculum also has implications on the need for continuous development of teachers' competence, not only in intellectual and psychomotoric aspects but also in terms of attitude and experience. The indicator of success in a program that integrates technology into learning can be seen from the use of more effective teaching methods by teachers, which in turn has a positive effect on the development of student learning.

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