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THE IMPORTANCE OF ICT IN EDUCATION

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Abstract

In the modern-day society, information means power. The better and faster informed one is, the more proficient, effective, and powerful he is. Therefore, the access of the teacher to Information and Communication Technology (ICT) is a must for personal professional development as well as for fruitful class activity reflected in the students' level of acquired knowledge. Of the actors involved in the educational process, namely the teacher and the student, the teacher is the one who is naturally expected to "adjust" the educational environment and "overcome" any teaching obstacle.

In the light of these ideas, teaching English as a foreign language (EFL) within the global context of increased use of Information and Communication Technology (ICT) both by language knowledge "providers" (teachers) and language knowledge "beneficiaries" (students) has become a modern educational challenge. It strongly imposes the reassessment of methods and approaches, a balanced consideration of the amount of ICT tools to be used effectively to enhance skills as well as a common agreement on the optimum means to integrate them in the educational process.

Keywords: foreign language (EFL); education for school; ICT in Education.

ICT in Education

The paper aims at analyzing the extent to which ICT can be used in teaching EFL to develop receptive as well as productive skills and at providing an image of the way in which teachers and students can benefit from technologies and digital means of getting information and communicating. It will mainly bring forth advantages of ICT use in teaching and enhancing English language skills while also attracting attention to possible drawbacks of

integrating ICT in teaching. Additionally, the more practical part of the paper will introduce readers to some instances of the use of ICT in the classroom.

With English being an international language and with English language skills on demand worldwide, we want to teach our students this language not as a simple subject in the curriculum but as a tool for succeeding in life. Since ICT is part of their lives, we had better make it part of our lives as well and use it to teach them the language of their future. This may be seen as an extreme change by many but it should be regarded as a positive change leading to improvement of educational methods, approaches, techniques, and pedagogical strategies.

Although the controversy over technology being a blessing or a curse is far from reaching an endpoint, we can surely state that the fast pace at which technological advances have been revealed has a dramatic effect on the society, on the world as a whole. Technology has had huge repercussions over the manner in which activities in various fields are performed. Health and medicine, environmental research, industry and agriculture, business or science, to name but a few, have been improved through technological means in order to increase efficiency and task performance or to facilitate access to and use of data in a faster, more lucrative way. Since working with data and information is the core of the teaching process, education could not have been disregarded when the time came for introducing and embracing new technologies in various domains.

Adjusting the educational systems is a crucial objective of the European countries and not only, as the many educational projects to integrate ICT prove it. For example, in Indonesia, ICT is part of the curriculum and schools have been required to make all efforts to equip their educational environments with ICT tools to improve teaching and learning.

In other terms, more and more evolving technologies create a new spectrum of challenges within the educational environment. To start with, computer illiteracy of the actors involved in education is a handicap since new trends such as platform e-learning and computer or mobile assisted language learning are increasingly thought to be building blocks of future education. As a result, schools have been making efforts to purchase and integrate such ICT tools as CD-ROMS, multimedia computer labs, the Internet or smart boards. Additionally, handled devices as mobile and smart phones, tablets, iPods, and laptops have been thought to be effective means to improve communication skills, thus being made use of in various listening or speaking activities to simulate real-life situations.

Whatever path or plan is adopted to integrate ICT in education, it is important to never lose sight of our primordial outcome, namely to give proper education for our modern

days. As the results of the students are defining of an educational program's efficiency, it needs to be taken into account that the more ICT is used, the better the scores of students may be. Nevertheless, as in the case of any novelty to be implemented, there may be both upsides and downsides to integrating ICT in education for teachers and students together play distinct parts and their perspectives take on new connotations.

1.Defining the concept

ICT stands for Information and Communication Technology. The separate meanings of these words work jointly to give the very essence of the concept. "Information" is data which is accurate, specific and organized for as certain aim, often acting as stimuli in a given context, thus having meaning and relevance to a receiver. It eventually enhances level of understanding and decreases level of uncertainty. The other two words included in the concept can take both singular and plural forms. "Communication" in the singular form refers to human interaction, more precisely to the process of transferring understandable information from a sender to a receiver with the purpose of achieving shared understanding. The plural form "communications" refers to the field of data communications infrastructure. Similarly, the term "technology" can be found pluralized as part of the concept. Etymologically, "technology" can be defined as the scientific knowledge of art or skill: "techno" means "technique" while "logos" means "science". "Technologies", on the other hand, encompasses all devices, gadgets or processes which constitute technology as a whole.

Ron Toomey from the Center of Lifelong Learning at the Australian Catholic University gives a definition of ICT which is related to the separate meanings of the words forming the concept:

"… generally relates to those technologies that are used for accessing, gathering, manipulating and presenting or communicating information. The technologies could include hardware (e.g. computers and other devices); software applications; and connectivity (e.g. access to the Internet, local networking infrastructure, videoconferencing). What is most significant about ICT is the increasing convergence of computer-based, multimedia and communications technologies and the rapid rate of change that characterizes both the technologies and their use." (Toomey, 2001)

Since, in a nutshell, the act of teaching and learning itself supposes communication, management, storage, dissemination, and even creation of information, ICT comes to improve quality and effectiveness of education no matter the subject of study. With language

teaching and learning in particular, combined ICTs are the perfect back-up in terms of accessibility to and delivery of language knowledge, communicative efficiency, interaction, timely task fulfillment and feedback or assessment techniques.

The existence and unstoppable development of ICT have naturally led to the coming into being of the new concepts below. They have been integrated in pedagogy and methodology to be exploited to the benefit of the educational systems.

E-learning or **online learning** is widely recognized as formal and informal learning applicable at all levels. It makes use of an information network such as the Internet for course delivery, interaction and facilitation. *Web-based learning* is part of online learning. Its main feature is that an Internet browser is used to enable learning.

Blended learning is defined as the combination of traditional methods with e-learning ones. Printed and online input altogether, classroom speaking sessions with online debates on forums, regular face-to-face interaction as part of an online, web-based English course are just a few examples of blended learning. As entertaining and involving as it may seem, this type of learning has been challenging due to the need of rethinking objectives and outcomes as well as the way different types of learners and content cope to achieve the best results. Usually those activities for which a teacher's presence is mandatory cannot be turned into online interaction while some amount of online input may be more time consuming and less effective if processed in the classroom. Therefore, mixing instructional and delivery methods must be carefully analyzed before implementation.

Open and distance learning is another type of electronically-mediated instruction characterized by the tutor (teacher) and the student being in different places and operating hardware and software at different or similar times. It is a special type of training program recognized and certified by different educational institution. ICT means come to support and ensure open and distance learning through various media and electronic interaction environments enabling teachers and learners to participate in courses.

The **learner-centered environment** is a concept worthy of mentioning in relation to Information and Communication Technology. It is based on constructivism, a theory which emphasizes that, while learning, students make use of previously acquired knowledge and experience to "construct" meaning. The learner progresses throughout learning by getting actively involved in interpreting information, hypothesizing, decision-making with the help of familiar models and schemas. In this manner students are urged to reflect on what they learn and how to learn it, thus gaining a certain degree of autonomy. The best setting for this approach is a group in which the teacher is a guide and there is intense collaboration among

learners. Technologies at hand can facilitate the design of a learner-centered environment favorable to students' awareness and control of the learning process. Within a dynamic, colorful and comprehensive setting provided by the Internet or computer software, the students is more actively engaged, more motivated and self-aware, which inevitably leads to positive outcome.

1.1. A New Profile of the Student

The 21st century students are mainly subject to extensive computer interaction and Internet exposure. They surf for information, chat and share knowledge, socialize, play computer games and create virtual environments, keep in touch with or rediscover old acquaintances. Modern-day student is insensibly connected to a technology. His or her world spins around clicks, touch-screen, SMS, and e-mail, hardly ever being able to disconnect and join a different, less dynamic and energetic medium. Eager to find out more and faster, bewildered by an avalanche of information but not always aware of its utility, rather practical than passively listening, and anxious about what there is to follow in class – this is today's student.

1.1.1. Student's Modern Environment

The modern world is politically, economically, socially, and culturally the product of the ideology of being more alike than different or of globalization and standardization. With newly emerged concepts like culture shock and cultural awareness, cross-cultural understanding and interaction as well as cultural education the world around our students has been stretching borders and broadening their outlook of life. It is an ever-changing world which can even trigger confusion, it is a world that must be reflected in schools, a world governed by creativity, innovation and finding suitable solutions to experience the unknown. I might even venture to say that it is a world put into English words since English is thought to have become the world language of technology.

1.1.2. Student's Needs and Expectations

Given the above description of a world of rapid change, the student needs to be capable of embracing change and facing the confusion by navigating and not memorizing, in order to find the best solutions to various problems. Confidence in achieving this would open new doors for him to make this world his own. Moreover, the environment surrounding our students needs to be reflected in schools so as to teach them problem-solving in real-life situations. In the light of these ideas, strictly related to technology, the expectations and needs

of the students have been re-defined as rather practical, social and cultural as well as communicative.

Students need to be stimulated and motivated to learn in an innovative manner to adjust to rapid social changes. Also, self-assessment and competitiveness should be focused on while developing critical thinking and imagination. Teacher-student relationship is expected to be more humanistic, based on understanding and aiming productivity, rather than systematic, based on set rules and rigid attitudes. Students these days expect to be awarded more freedom of expression. How else could we encourage and assess creativity? And being creative and imaginative cannot be separated from technologies which render themselves extremely helpful in designing, drawing, presenting information, playing educational games, and analyzing solutions. But probably, above all, given the large amount of information at hand, students need and expect to be guided in selecting, processing and using the data to their own benefit.

1.2. A Modern Image of the Teacher

Modern education emphasizes the importance of teaching/learning what to know and how to perform activities, live among others, and to be a distinct individual. Taking these into consideration as well as the implications globalization and contemporary world issues might trigger in relationship to modern man, teachers themselves need to play new challenging roles in the educational process. The traditional roles of teachers seem to trade with modern roles, the latter gaining more and more ground. And, once again, technology is at fault for this. The use of more or less sophisticated ICT in the classroom has urged teaching personnel reassess their status and position in their relationship with the trainees and teaching sessions. Not to mention that Technological Training in itself is a must for teachers depending on their acquired technological skills and personalities. Catching up with the ICT that can make classes and teaching more effective and attractive should be top priority in schools.

1.2.1. Teacher Roles

Teacher's roles and responsibilities have evolved in the same manner education has. One of the main reasons this is applicable is the fact that nowadays technology forces instructors and educators to adjust and overcome the obstacles it might implicitly build. Hence, their roles have become considerably different from the traditional ones. In fact, no matter the overall aims of lessons or sequences of lessons, teachers and methodologists have

always targeted improvement and effectiveness. If the Grammar Translation Method to work with grammatical rules and to teach vocabulary and the Audio-lingual Method, Suggestopedia, Community Language or the Communicative Approach to practice with spoken production of language are some of the already developed methods and techniques which have earned their due credit, it is the turn of Computer-Assisted Language Learning (CALL) to prove reliable and worthy of being fully implemented in schools. It is the "one best method" (Hartoyo, 2008) which we have been looking for to reshape the manner of teaching. Language learning and CALL seem to be like the two parts of a coin inseparable as they both support and complete each other. (Hartoyo, 2010)

In an era of computers and student-centered teaching, are educators still needed? If about 30 years ago the teacher was a resource of knowledge, sitting at his desk and lecturing while supervising class activities and the extent to which they were being done by the book, the teacher is currently a facilitator for knowledge. He does not provide information and knowledge; he only facilitates access to them. He is a master presenting the student with knowledge standards and patiently waiting for him to gain information and develop skills and abilities, while giving him the needed support in overcoming obstacles in learning. Moreover, the teacher is the partner of the students on their journey towards knowledge. In the first, he is the role model offering the apprentice the guidelines to reach set objectives. Second, he is the friend whom students can approach for support and help as well as for being listened to and understood. Third, he is the guide throughout this journey. He puts forth a multitude of best alternatives and solutions for reaching a goal as he knows the essential points of the matter. Next, based on mutual respect, the teacher does not give the answer key but gives directions to reach the destination, thus engaging students in critical thinking and productive reasoning. Last, but not least, the well-trained teacher of the 21st century guides the students throughout using ICT tools and instruments to their own educational advantage. Obviously, his roles of planner, organizer, coordinator, or evaluator are still applicable. But he needs the open-mindedness and skill to build a joint between his teaching principles and methods and the technology leading every second of the students' lives. Consequently, unlike in the past, the teacher carefully considers his "audience" and turns into a kind of a performer, making use of gadgets and technologies to attract attention and raise interest during teaching sessions. All of these converge to ensure success in the classroom and fulfillment of lesson objectives.

1.2.2. Teacher Training

The implementation of ICT in education is, not only in our country, in a rather incipient phase. One of the crucial steps to be taken is the ICT training for the teaching staff

as professional development is essential. There are various ways from which educators can benefit to develop ICT skills. Information and Communication Technology facilitates the building of relationships and the collaboration with different associations and communities of teaching personnel all around the world. In-service teachers can tackle the matter with younger teachers-to-be. In other instances roles reverse, students become facilitators, if not experts, cooperating with the teachers, ICT thus motivating and engaging students in a new type of activities. But probably a more adequate and effective remedy required is the planning and organization of systematic ICT trainings and seminars for teachers in different universities, training centers, schools or other institutions in order to develop the educators' basic skills and abilities in ICT. Yet, it is not enough for teachers to know how a particular soft or technology works or can be operated. They need to become aware of the fact that such knowledge does not improve the educational system unless they also learn about and put into practice ICT strategies and approaches meant to increase performance of the beneficiaries not only during schooling but also in coping with the modern world they will live in.

Conclusions

While traditional education emphasized the need for information to be transmitted for the purpose of developing skills and abilities sufficient for the individual to make use of throughout most of his life, modern-day education stresses the importance of information input that is expected to shape and reshape the individual to respond to challenges anytime and anywhere during his entire existence. Educational systems are nowadays expected to provide continuous, lifelong education, which cannot be achieved unless information and communication technology is incorporated and wisely exploited. This is due to our living in a global society relentlessly disclosing unexpected, extraordinary expectations and promises, as well as desirable courses of action and uncontrolled evolutionary and technological breakthroughs. Therefore, the educated man himself is responsible either for his progress or regress.

References

1. Information and communication technologies in teacher education. A planning guide. UNESCO, 2002. http://unesdoc.unesco.org
2. Traditional Teaching Strategies. http://www.umdnj.edu/meg/tradiţional.htm.
3. Focus on Student-Centered Learning. http://www.ncrel.org/tplan/handbook/foc.htm.
4. Cole and Wertsch. Beyond the individual-social Antimony in discussions of Piaget and

Vygotsky. http://massey.ac.nz/~alock/virtual/colevyg.htm.

5. Jean Piaget Society. http://www.piaget.org/.

6. Computer Support for Collaborative Learning (CSCL) theories.

http://www.edb.utexas.edu/csclstudent/Dhsiao/theories.html.

7. International Society for Technology in Education. http://www.iste.org.

8. Society for Information Technology and Teacher Education, basic principles, 2002.

http://www.aace.org/site/.

9. Teacher Education through Distance Learning: Technology-Curriculum-Cost-Evaluation.

UNESCO, 2001. http://unesdoc.unesco.org.

10. The MirandaNet Community. http://www.mirandanet.ac.uk.

11. Multimedia Applications for Telematic Educational Networks (MATEN).2002.

http://www.telematics.ex.ac.uk.