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## **Developing Electronic Materials for Language Curriculum Development: Issues, Obstacles, and Implications**

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### **ABSTRACT**

ICT Developments have given acceleration to technological language teaching in a digital context. We can see the widespread use of such teaching in many educational context including schools, institutes and online language learning. The development of E-learning materials is usually considered as being complex, time-consuming, and expensive which leads to producing materials that are difficult to adapt and maintain. It has always been a challenge to identify proper e-learning materials that can be reused at a reasonable cost and effort and this issue needs further attention. Considering the material development process, more information should be provided for language teachers to use technology in language teaching process. The use of technology in language teaching is increasing and as a result online courses will be more provided by ELT teachers in the future. This rises new issues about the curriculum of such courses. This paper aims at investigating the main issues concerning the development of electronic materials for language teaching and the roles and responsibilities of teachers in this regard in relation with a digital curriculum with the bigger framework of a digital culture.

**KEYWORDS:** ICT, electronic materials, curriculum, digital culture, multi-literacy

## INTRODUCTION

Educators today are working hard to develop capacities to integrate technology and learning, which emphasize areas including technology, pedagogy, human communication, and teaching strategies. Such efforts are now opening doors beyond the classroom to create virtual communities for life-long learning and professional development. We see this in a variety of projects and programs that provide such things as online discussion groups and cross-cultural school development (Harasim, 1989). One of the growing challenges with this expanded use of ICT is the emerging dimensionality of integrating technology into the daily fabric of life-long learning. We are no longer talking just about course development to serve individual learning. Today, ICT is being used to connect people and organizations across cultures to promote, among other things, democracy through professional and educational development. This shift from the classroom to open learning spaces adds new dimensions to the development, use and integration of technology in education and professional development and hence can cause autonomy on the part of the learners (Maftoon, Hamidi, & Sarem, 2012; Montazeri & Hamidi, 2013; Salmon, 2000).

The research on ICT and education has highlighted exemplary courses, as well as the challenges of developing online learning. Many pedagogical researchers espouse the importance of more community-oriented theories of teaching and learning (Sorensen & Takle, 2002), while the methodologists focus on ways to structure online learning activities (Paloff & Pratt, 1999). While these studies have helped to advance the development of technology and learning, most examine a single dimension in relation to online classroom learning, for example, pedagogy, teaching methods, or the technical use of communication tools. Fewer focus on the multi-dimensionality of online communities and the challenges for development and organizational change that accompany this growing life-long learning environment.

Learning technologies can provide support for constructivist pedagogical practices, which encourage learners to construct their knowledge on the basis of their individual experiences, cognitive structures and social identity. The usefulness of ICT for constructivist pedagogies is evident in its potential for the enhancement of autonomous learning, one of the basis of such pedagogies. ICT can help design pedagogical environments which meet the principles of autonomous learning, e.g., learner responsibility and control over the learning process, support to help the learner develop cognitive and metacognitive strategies, respect for learners' differences. However, ICT does not generate by itself autonomous learning (Simpson, 1999). In order to help students harness the potential of ICT for the development of an autotomizing competence, it is necessary to carefully design learning environments or learning tasks that promote the active use of metacognitive strategies, that is, that prompt students to plan, monitor and evaluate their own learning.

## **E-LEARNING AND THE CREATION OF DIGITAL CULTURE**

During the past 10 years or more, innovation in technology has taken place in almost all branches of society from the micro to the macro. In education, emphasis has grown from initial thoughts of using technology in the classroom to building a digital culture for learning and that includes among other things “digital literacy”.

By year 2006, the E-learning plan strives to meet four primary goals: 1) promoting digital literacy, 2) building European virtual campus, 3) e-twinning of schools in Europe and promotion of teacher training, and 4) transversal actions for the promotion of e-learning in Europe. This action plan, along with others such as the Bologna process (1999) is calling for fundamental shifts in the organization and delivery of education from compulsory to professional development and life-long learning.

However, to stop at the pedagogical level, which is how most of these changes have been classified for years, would be to sell us short of understanding the true implications of the digital culture. We need to see that the discussion on ICT once reserved for teachers, is no longer a special subject: it is our collective life of living and working. It is a multi-dimensional culture, which includes technology, pedagogy, communication, and organizational life (Castells, 1996).

The advancement of ICT through pedagogy into organizational theory is creating an interesting social cultural phenomenon, which transforms human dynamics, and expands the role of online communication beyond the classroom. No longer are we living in an era where “online communication” is a separate phenomenon from our daily lives. It now permeates our organizational walls and human systems to create a digital culture, which is reflected by the integration of technology into everyday life such that our human systems of interaction and work transpire in a physical and virtual space interchangeably.

Technology changes in ICT can thus enable students to read, write, and rewrite the world in their English classes as never before, but only if we too enable our students to use the full power of these technologies. As Pimienta (2002, as cited in Warschauer, 2003) suggests, we need to view our students as being “in front of a keyboard” rather than “behind a screen”. In the end, the most important developments may not be those that occur in the technological realm, but rather those that take place in our own conceptions of teaching and learning.

## **ICT AND MULTI-LITERACIES IN LANGUAGE LEARNING**

When defining Cope and Kalantzis (2000) define “multi-literacies” by referring to two closely related changes: a. The increasing significance of cultural and linguistic diversity, resulting in a wide variety of texts, and b. The influence of new communications technologies (e.g., multimedia, the Internet), where texts are often multimodal, combining written-linguistic modes of meaning with visual, audio and spatial modes.

It is increasingly difficult to function in the worlds of education and work without mastering the new literacies of today society. Students need, therefore, to become multi-literate and be able both to manage cultural and linguistic diversity and to access and use information in different modes. There is general agreement that, since electronic or digital literacy is a basic component of multi-literacy, pedagogy must rely on a careful analysis of digital texts and of the processes that students need to engage in to use and produce such texts (Coiro, 2003; Anstey & Bulls, 2006).

As Coiro (2003) rightly points out, these electronic text environments require new thought processes for making meaning and, thus, multi-literacy pedagogy must promote the development of new literacy skills. The following list of new literacy skills is distilled from work on multi-literacies and digital literacy (Leu, 2000):

- Working in non-linear environments to skillfully navigate hyperlinks so that the required information for easy locating and access.
- Using new search techniques (e.g., multiple search engines, manipulation of databases) for finding information and drawing on multiple strategies to find information
- Reading textual and visual text to understand and make meaning from multimodal, multimedia texts.
- Understanding and using the language and the pragmatics of various forms of synchronous and asynchronous communication, both in one-to-one interaction and "many-to many" electronic discussion forums
- Evaluating the information critically drawing connections and synthesizing pieces of information from different sources and multiple perspectives
- Using text in real-life situations, e.g., online negotiations around a written text, using instructions to assemble a machine, or collaborative tasks in the workplace

## **E-LEARNING MATERIALS FOR LANGUAGE CURRICULUM**

Language learners need appropriate materials to learn a language effectively (Mutiar, Zuhairi & Kurniati, 2007, as cited in Basal, 2013). EFL materials producers and curriculum developers have taken interest in the inclusion of computer-based and electronic materials in their syllabi since technology has revolutionized the ways materials are produced and employed in EFL classrooms. Chapelle (2010) believes that EFL materials developers should be aware of the spread of CALL and strive to take it into consideration when producing EFL materials.

Since the Web provides an unlimited panorama of engaging in authentic and multimedia English materials and there are tremendous search capabilities of the Web, which allow instant access to up-to-date information on just about any topic imaginable, EFL teachers can explore and select relevant materials to fuel their class discussions by exposing their students to real tasks of future professions. These kinds of authentic tasks not only develop the learners' language skills, but also contribute to cultural understandings of various polities where English is used as an ENL, ESL or EFL.

Online materials are advantageous when compared to those text-based materials in traditional learning-teaching environment (Basal, 3013, p. 9). Although some digital texts share purposes and forms with their printed counterparts, they usually have features that are unique to texts in the digital medium, e.g., they can link to many other documents in multiple media forms, they have fuzzy boundaries, they are dynamic and can be changed any moment. Thus, resources should simultaneously show the inter-textual relations and generic echoes in digital texts and reflect the textual complexity of the web, that way training students into multi-literacies.

## **STAGES OF IMPLEMENTATION**

According to Crook and Light (1999), there are three stages related to the introduction of ICT in FL teaching and learning:

- A general awareness of the technical possibilities coupled with the purchase of equipment and ready-made resources.
- The realization of the need for and implementation of support structures: teacher-training, technical support and senior management commitment to the integration of ICT in (language) training.
- The establishment of resource centers/persons and networks to adapt offers to needs, leading to a principled approach to a meaningful integration of the new media into the teaching/learning process.

## **LANGUAGE TEACHER'S ROLES IN A DIGITAL CURRICULUM**

Teachers have different roles in a digital curriculum as mentioned by Howard and Major (2004). They include the following:

### ***The teacher as integrator (of media)***

Teachers must not only know and understand the functions of different media available in a media-rich environment, they should also know when best to deploy them. In the joint construction of projects with their learners, they need to guide learners in the use of word-processing, graphics and presentation programs. Integration of audio-visual elements will bring home to learners the fact that the foreign language environment of the target language is as vibrant and multi-faceted as the society in which they live.

### ***The teacher as designer of (complex) learning scenarios***

In order to orchestrate successful learning scenarios, teachers need to learn how to put together tasks and materials to guide their learners to successful execution and conclusion of their projects. Unlike work with conventional teaching materials (textbook, workbook, audio and video materials), which have been graded, preassembled and collated in a chronological order, the design of learning scenarios is much more complex, requiring higher order skills involving

researching and evaluating source materials, setting overall aims and objectives and breaking down tasks into meaningful and manageable sequences (Mutiara, et al., 2007).

For the teacher tackling this for the first time, the task is very daunting indeed. Encouragement, help and advice is needed in terms of examples of good practice which may be emulated or serve as sources of inspiration for similar undertakings. If this new role of language teachers is accepted and encouraged by educational authorities, the implications in terms of duties and responsibilities need to be considered. Lesson preparation time increases as these tasks are taken on and this fact must be honored in teaching contracts, if teachers are to adopt and accept the approach.

### ***The teacher as orchestrator (technology, learners, curriculum)***

Teachers will need to develop fairly sophisticated management skills in order to be able to provide a healthy balance between the different elements which make up the new learning environments. Mastery and confidence in the use of technology needs to be applied to the learning inclinations and abilities of individual learners whilst covering the prescribed syllabus or curriculum which is often set by outside authorities. Because of the immediacy of ICT, many decisions have to be made on an ad hoc basis and time budgets need to be constantly reviewed if optimal results are to be attained. Present indications are that traditional time frameworks of 45–60-minute lessons drastically need revising, if the potential of the new media is to be exploited to the full.

## **CONCLUSION**

This paper aimed at investigating the current developments in ICT, to measure its impact on language teaching and to predict possible future developments. ICT allows language teachers to take into account how users may interact with the system, what kind of comprehension processes may be involved in the different interactions, and which way(s) may best anticipate and supply for both. In sum, it allows process-oriented teaching and learning practices, mainly focused on training users to understand and effectively “dialogue” with the hyper-textual dimension (McLoughlin, 2002).

One important fact that has emerged from this study is that foreign languages as a subject area is “different” from most other subject areas in the curriculum, namely that it is skill-based as well as knowledge-based, and in this respect it has more in common with Music than, say, History or Geography. This has implications both for the types of hardware and software that are used in language teaching, but also for FLT pedagogy and methodology.

Basam (2013) states that we can use technology- oriented approach for designing and developing online language teaching materials to be integrated in developing material courses. Paloff and Pratt (1999) state that the acquisition of new skills, referred to in the report as “the new literacies” (technical, critical, linguistic and cultural), plays an extremely important role in the acceptance, adoption and use of ICT in language teaching. Teacher training is shown

to be the key to the successful introduction and deployment of the new media. Special efforts are required to overcome observed gender and generation divides and to redress the balance by providing specific training programs which encourage female teachers and older faculty to become acquainted with ICT and its attendant advantages.

It seems obvious that the effective design of E-learning materials for language learning should involve placing the learner at the center of the learning process. In this sense, ICT can help in the design of electronic language learning activities which meet the principles of learner autonomy. ICT has positively influenced language teaching, but constant teacher training is required to develop effective E-learning materials by practicing new multi-literacies in a digital culture.

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