NEW TECHNOLOGIES AND NEW LITERACIES IN THE ENGLISH CLASSROOM: A STUDY

NOVAS TECNOLOGIAS E NOVOS LETRAMENTOS NA AULA DE INGLÊS

NUEVAS TECNOLOGÍAS Y NUEVAS LETRAMIENTOS EN LA CLASE DE INGLÉS

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ABSTRACT

This article presents and briefly discusses some results of a survey conducted as part of a study on multiple literacies and the use of technology in English as a Foreign Language (EFL) classroom. An online questionnaire has been sent to English teachers of the third cycle and secondary education in Portugal with the aim to investigate their perceptions on the use of new technologies, particularly Web 2.0 tools, in their teaching practice. This article focuses particularly on the results from the questions related to materials and digital tools frequently used, teachers’ general view on the use of technology, as well as the digital and critical literacies approach. It has been found that although technology seems to be part of the teaching practice of this group of teachers – and although further research is necessary to deeply understand the actual use of technology in this particular scenario – it can be assumed that suitable guidance, training and further development of appropriate materials for teachers and students are necessary to facilitate and better integrate new technologies in the EFL classroom.


RESUMO

Este artigo apresenta e discute brevemente alguns resultados de uma pesquisa realizada como parte de um estudo sobre múltiplas literacias e o uso da tecnologia na aula de inglês como língua estrangeira (English as a Foreign Language – EFL) (Cardoso, 2017). Um questionário online foi enviado a professores de inglês do terceiro ciclo e secundário, em Portugal, com o objetivo de investigar as percepções e as opiniões deles a respeito do uso das novas tecnologias, especialmente dos recursos da Web 2.0, em sua prática profissional. O presente artigo enfoca particularmente os resultados obtidos das perguntas relacionadas à frequência de uso de materiais e recursos, à visão dos professores sobre o uso da tecnologia, assim como à abordagem das literacias digitais e críticas. Embora a tecnologia pareça fazer parte da prática discente
This article presents and briefly discusses part of the data gathered from a study on multiple literacies and Web 2.0 in English as a foreign language (EFL) classroom (Cardoso, 2017). As part of the research, a survey with English teachers of the third cycle and secondary education in Portugal was conducted by means of an online questionnaire which was made available from February 7th to March 31st, 2017. The aim of this article is to focus on the results related to materials and digital tools frequently used, teachers’ general view on the use of technology, as well as the digital and critical literacies approach.

The article is organized into four main parts. The first part briefly presents the theoretical background related to multiple literacies, especially multimodal, digital and critical literacies. The methodology of the study is presented in the second part, followed by the...
discussion of the results, in the third part. The article is concluded with additional and final comments on the results including a brief discussion on additional reports and frameworks in the fourth part.

**Theoretical background**

It is a well-known fact that new technologies, especially the Web 2.0, have greatly impacted discourse and social interactions. The internet and the increasing growth of globalization have caused significant changes in communication and meaning-making. It is not possible to ignore that such transformations have considerable impacts on education, literacy, and knowledge. As pointed out by Cope and Kalantzis, “schooling in general and literacy pedagogy in particular, cannot afford to ignore the trajectories of change. They need to be able to justify the pedagogical paths they choose to take” (2009, p. 174).

Over the past years, several efforts in different educational scenarios have been made in order to account for those transformations and provide new learning opportunities; however, it seems that their long-term results on societies and on learning itself are not yet clear. In this sense, many researchers (e.g. Coiro, et al. 2008; Cope and Kalantzis, 2000, 2009; Kress, 2003; Kress and Van Leeuwen, 2001, Unsworth, 2001) have stressed the need to rethink education and the concept of literacy, since it is not possible to limit this concept only to the ability to learn how to read and write, as it was considered in the past.

Since mastering the technical aspects of the new technologies is not enough for new generations, it is essential that the school create practical opportunities for students so that they can become competent meaning-makers, being able to critically analyze and reinterpret the variety of discourses and meanings they receive or produce (Rojo, 2012, p. 29). In this sense, critical literacy (Freire, 1987; Luke, 2000; Luke and Dooley, 2011) is another important concept that is closely related to the development of the new literary...
cies, considering that becoming a critical analyst is essential in our contemporary knowledge society. In general terms, critical literacy refers to the abilities through which may be possible to change cultural and social relations and political power by analyzing and using text (Luke and Dooley, 2011). This concept is not new, has been studied for many decades and applied in many learning contexts – including second language learning settings – and many scholars, educators, and researchers have strongly emphasized the importance of critically approaching digital texts with students. As pointed out by Luke (2000), it is crucial to provide new ways of thinking and interacting with others from different cultures and backgrounds. The author further explains that critical multiliteracies should provide opportunities to analyze also the power-relations of “new institutions and worlds”. (ibid., p. 71). The great dissemination of information from different cultural backgrounds enhanced especially by interactive technologies of the Web 2.0 has emphasized an increasing need to develop a critical multiliteracies approach.

‘Web 2.0’ is a term commonly used to describe the second generation of the World Wide Web, whose main focuses are: enhanced publication, sharing, and interactivity. The fundamental features of many web technologies currently in use focus on facilitating the interaction among people – where it has been increasingly easier to add, edit, and share information on different online platforms – and therefore they have important social implications. The enhanced interactivity among people can be considered a key aspect of Web 2.0, especially when compared to the first generation of the internet, and undoubtedly, causes significant effects in education, and especially in language learning and teaching settings.

Learning technologies have been used for some time now in different scenarios, and some efforts to classify educational digital resources according to their most relevant categories have been made with the aim to facilitate the identification not only of their types but also the resources and possibilities they provide for educators. Bower (2015), for example, conducted a study in which a total of 212 Web 2.0 tools for learning and teaching purposes were identified. These tools, which focus not only on sharing and storing files but also on editing and creating content, were organized into fourteen main areas.

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2 The term was first coined in 2004 by Dale Dougherty, the vice-president of O'Reilly Media Inc., a media company based in the United States.
Both classifications seem to provide useful ideas and ways to choose the best digital tools to better meet learning objectives using technologies and especially Web 2.0 by giving the students more opportunities to engage in their learning while developing digital literacies. It is important to note that editing, creation, sharing, and interaction are at the core of many digital activities proposed in Bloom’s Digital Taxonomy.

As explained by Bustamante, Hurlbut, and Moeller (2012) Web 2.0 offers learners great possibilities to move from consumers to producers of information. In this sense, some researchers point out a number of abilities necessary to communicate effectively in a digital environment. Guinchon and Cohen (2016), for example, highlight three competences, among those listed by Erstad (2011): to communicate through different mediational

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Note: The original taxonomy, known as Bloom’s Taxonomy (Bloom, 1956), was a framework published by the educational psychologist Benjamin Bloom and his collaborators for categorizing educational goals. In 2001, a revised version of Bloom’s taxonomy was published by a group of researchers (Anderson, et al., 2001). This version aimed to convey the dynamic conception of the cognitive processes by which thinkers encounter and work with knowledge. Bloom’s Taxonomy has been widely used by educators all over the world.
means; to cooperate in networks; and to create different forms of multimodal texts (ibid., p. 107). These digital competences highlight the importance of a multimodal literacy approach in language learning, and how it is important to wisely explore and use new technologies in educational settings.

Aiming to provide a detailed classification of the necessary abilities to become digitally literate, Dudeney, Hockly, and Pegrum (2013) propose to organize the new digital literacies into four main areas: language; information; connections; and (re)design (Dudeney and Hockly, 2016, p. 117). According to the authors, language literacy, for example, should involve the abilities of: reading and creating online texts; knowing the conventions of the language used for texting; understanding and effectively producing messages with hyperlinks; understanding and producing messages with a variety of semiotic modes; navigating online worlds; understanding how to use geolocalization and how mobile technology and hyper-connectivity is changing the world; and having at least basic technical knowledge, as well as knowledge of HTML coding, in order to grasp how online tools work. The other areas described are also equally important to be integrated in language learning, since they include the ability to search and identify reliable information, the ability to create and project one’s online identity – which involves issues of online safety – and the capacity to participate in online networks, among other things.

Therefore, educators should be facilitators in the process of transforming the social use of technology into pedagogic use. (Sansone, 2008 as cited in Dudeney and Hockly, 2016, p. 116). In this sense, as explained by Bustamante et al. (2012): “[t]he role of the teacher is to find ways to capitalize on these skills and channel them into learning experiences that are real and engage the learners in problem solving tasks that maximize critical thinking and creativity” (p. 109).

**Methodology**

The study conducted (Cardoso, 2017) aimed to investigate the general picture of the use of new technologies in English classrooms of the third cycle and secondary education
in Portugal. For this purpose, an online questionnaire was conducted with English teachers of these educational levels, namely years 7, 8 and 9 of basic education (third cycle) and years 10, 11 and 12 (secondary education), and the data gathered from this survey has been treated through quantitative analysis.

Although having some limitations, considering the nature and purpose of the research, the online questionnaire proved to be the optimal method of gathering data in this study. Some justifications for its use rely on the fact that this method made it possible for teachers from different parts of Portugal to participate in the survey, allowed them to answer the questions in their free time and in a timely manner with minimum interference in their schedule. Finally, data analysis was also facilitated through the use of the online survey tools provided by the website. The online platform chosen was <www.freeonlinesurveys.com> and the questionnaire included different types of questions such as checklists; multiple-choice responses; ranking questions; and Likert scales. Additionally, all the questions needed to be answered so that the respondent could not skip any of them. The link to the survey was shared via email directly to the English teachers, schools and posted on social media platforms.

The questionnaire consisted of 16 questions and, in general terms, they aimed to investigate the resources available at schools, the materials, and the resources used and their approach to them, teachers’ learning objectives when using technology and teachers’ impressions of the use of technology in their lessons.

As the objective of this paper is to focus mainly on digital literacies, only the results from the questions discussing the frequency of the materials used, teachers’ view on technology, and their digital and critical literacies will be presented.

Results and discussion

The questionnaire was available for almost two months and during this period, 132 valid responses were received. The data collected were treated anonymously and through quantitative analysis, and any potentially identifying information was not associated with the responses.
As expected, most of the teachers, 130 out of 132, indicated that they do use technology in their professional practice, and the demographic results show that the majority of them are between 41 and 60 years old, teach in Lisbon, Setúbal, or between the Douro and Minho regions, have completed Ramo de Formação Educacional⁴, and they teach English in both, the third cycle and secondary education.

In addition to the demographic data, it has been relevant to investigate the resources available at the school where they teach. According to the data, these schools seem to be equipped with internet and computers: 89% have internet connection, 86% have internet connection in the classroom, 80% have a computer in the classroom and 72% have a computer room. On the other hand, slightly over half of the schools (57%) have interactive whiteboards and just a small number have tablets (16%). Since teachers could also include any other relevant items, student’s cell phones, Edulab⁵, and learning platforms, such as Moodle, were each mentioned once by different teachers. It is worth mentioning, however, that these data concern just this small sample of those who took part in the survey, and the scenario can be very different considering other groups or regions. Therefore, these results do not intend to be representative of the schools in Portugal.

Having established the profile of this group of teachers, the results concerning the frequency of materials and resources (including digital apps) used, their view on technology for education, digital literacies, and the critical thinking approach are presented and briefly discussed.

Concerning the materials used, as expected, textbooks and other printed texts are the most pervasive resources: 42% of the teachers indicated that these materials are always used, while another 42% claim to usually use them. Also unsurprisingly, audio materials, videos, and the internet for different purposes (e.g. to access dictionaries, encyclopedias, newspapers, magazines etc.) are other resources frequently used in English classrooms. It is relevant to note, however, that since audio and video are commonly used resources in

⁴ Before 1988 in order to be qualified for teaching, teachers had to complete the Profissionalização em Serviço (an in-service professional training); from 1988 to 2007 they were required to do Ramo de Formação Educacional (a pre-service professional training course following an initial undergraduate degree); and from 2007 onwards, the requirement changed to Mestrado em Ensino (a pre-service professional training course corresponding to a master’s degree), with the first course being offered in the 2007-2008 academic school year.

⁵ Edulabs are classrooms equipped with software and hardware integrated with learning platforms to be used during the school year. (http://www.e-xample.com/CaseStudies/projeto_edulabs. Accessed on March 3rd, 2018).
language classrooms, they may tend to be used with a more traditional approach than a modern one which might involve a more effective use of technology. Digital textbooks and their resources have been indicated by 36% of the teachers as a material they usually use. Conversely, electronic games are at the bottom of the list, as the item least frequently used in those classrooms: 50% of the respondents claim they never use them.

In respect of digital resources and apps, teachers were asked to indicate from a list which ones they use or have already used at least once with their students. According to the results, YouTube is the most popular platform, having been indicated as such by 88% of the respondents, followed by e-mails (78%). Other digital resources fairly popular among this group of teachers are Google Docs (54%); Prezi (46%); Google Drive (43%); blogs in general (42%); text messages (39%); and Facebook (27%). Other remaining tools were indicated by 15% of the respondents or less and include Google Hangouts (15%); Skype and Wikispaces (12%); What’s app (10%), Edmodo (8%), Twitter (4%). None of the teachers indicated Playposit, but, on the other hand, some of them also included other technologies, such as Kahoot, an online educational game, mentioned by ten respondents, and other tools such as Pinterest, Padlet, Google sites, Google classroom, Quizizz, Piktochart, Second Life, Animoto, Classcharts, Edpuzzle, Adobe Spark Video, Aurasma, MindMeister, Thinglink, Sway, Easel, Storybird; Storyboardthat; Goanimate, Voky; Emaze; Neolms, Socrative, and Plicket, which were mentioned once by different teachers. It is interesting to note, however, that the tools which seem to be related to a more effective use of technology for communication, such as editing and creation of content, are not as popular as YouTube which is usually more related to a more “passive” use, i.e. watching videos.

In order to investigate teachers’ view on the use of technology for education, they were presented with nine statements and were asked to indicate to what extent they agreed or disagreed with them. The vast majority of this group of teachers (94%) agree, to different extents, that new technologies are necessary in EFL classrooms, in comparison to a small percentage (6%), which believe technology is not so indispensable. According to the data collected, as expected, a great majority of the respondents strongly agree that new technologies not only motivate students (72%), but they also provide new ways of teach-
ing (71%). Although the vast majority of teachers (95%) feel, to different extents, that new technologies help their work, a relevant percentage (84%) also agree (partially and totally) that such tools demand extra time and work. These figures may indicate that if, on the one hand, new technologies can be demanding; on the other, these teachers tend to believe that integrating technology into their lessons compensates for the effort. This idea seems to become more evident when the majority of teachers also strongly agree that new technologies help students improve their linguistic skills (58%) and that digital resources help the learning process (57%). Additionally, 63% of the respondents believe that new technologies support a multiliteracies approach. However, concerning critical thinking, 35% of the respondents strongly agree that digital technologies may have a positive impact on the development of this type of literacy. It seems interesting to note that, although being a small number, 7% of this group of teachers disagree to some extent that digital tools can encourage critical thinking, while only 2% of the respondents partially disagree that new technologies support a multiliteracies approach.

Considering these figures on critical thinking, it seems relevant to also discuss the data gathered on teachers’ opinions about critical literacy in general (not only through digital tools). Similarly to the previous question, teachers were provided with six statements about critically approaching texts with their students and were asked to indicate to what extent they agreed or disagreed with each one of one them. All of the teachers (except for one, who partially disagrees) agree to different extents that it is important to provide a variety of texts and critically discuss them. Similarly, the vast majority of the respondents (96%) agree that students should express their views in English about the topic under discussion. Interestingly, four out of the six respondents who partially disagree with this statement have also demonstrated concerns regarding the students’ confidence in expressing themselves in English. This fact can certainly be an issue and has been pointed out by slightly over 70% of the respondents who believe, to different extents, that their students do not feel confident in expressing their opinions in English. Conversely, concerning teachers’ confidence in discussing a variety of topics with their students, the results reveal that for more than 80% of the respondents, this is not an issue, while the remaining almost
20% do not seem to feel the same way to different extents; although not being a huge percentage it is considerably relevant to be ignored. Another obstacle, which was instead highlighted by the great majority of the respondents (80%), refers to time constraints. For these teachers, although important, approaching reflexive questions is not always possible due to lack of time.

In addition to critical thinking, which is one of the crucial points in the development of multiple literacies, the respondents were also asked to indicate how often they address other elements related to digital competences with their students. These other elements provided consisted of internet etiquette; internet safety; cultural and ideological issues; and characteristics of different digital texts. The results show that internet safety seems to be the most relevant element for these teachers; 45% of them indicate that safety aspects are always explored. It is worth mentioning that the issue of safety is the only aspect on the list that almost half of the teachers indicate to be always explored. Cultural and ideological issues are also another important element having been indicated by 51% of the respondents as usually explored. Although not as frequently explored as safety or cultural aspects, internet etiquette is claimed to be usually addressed by 32% of the respondents. On the other hand, only 16% of them indicate they always explore the characteristics of digital texts, while 35% sometimes address these features and 33% usually do so. These figures may indicate that further research would be necessary on genres of digital texts in the EFL classroom, so to further verify how teachers could enhance this aspect, which is so relevant for developing multiple and digital literacies. Additionally, this figure related to the characteristics of digital texts might also be an indicator of why digital tools more related to editing and creation of contents are not so popular among this group of teachers.

**FINAL COMMENTS**

The need for integrating digital literacies in many spheres of society and especially in education has been highlighted not only by researchers but also by governmental institutions. The European Commission (EC), for example, has launched different reports disin...
cussing the subject with the aim to establish a set of desirable digital skills for citizens, organizations, and educators, namely:

- *The Digital Competence Framework for Citizens* in 2013, with updates in 2016 and 2017 (DigComp 1.0, DigComp 2.0, and DigComp 2.1 respectively);
- *The European Framework for Digitally Competent Educational Organizations Framework* (DigComp Org) in 2015 and;

At the national level, in 2017, the Portuguese government announced the National Digital Competence Initiative, e.2030 (*Iniciativa Nacional Competências Digitais e.2030 – INCoDe.2030*), which describes the challenges, goals, and actions to be taken to develop digital competences among Portuguese citizens.

Concerning the use of technology for language learning in the EU context, it is important to mention the report *Improving the effectiveness of language learning: CLIL and computer assisted language learning* (Scott and Beadle, 2014), issued by the EC in 2014, in which a discussion of some approaches and studies conducted in the field are presented. The report draws upon a literature review of the use CALL, by providing data which involve the development of language skills (listening, writing, speaking, and reading) and learner’s motivation. The document describes what is understood as digital competences and clarifies that it encompasses not only digital literacies but also the research and production of new knowledge. Additionally, the same institution also launched in 2017 an update to the *Common European Framework of Reference for Languages* (CEFR) in order to include information technology parameters emphasizing the multimodal aspect of online communication that should be addressed in language learning.

In general terms, all the above-mentioned documents and reports include digital competences intrinsically related to communication and interaction. Among the competences to be developed as described in DigComp versions it is relevant to highlight, for instance, the *evaluation of information, interaction through digital technologies, sharing content, collaboration, netiquette, integration, and re-elaboration of digital content, creative use*
of technology and so on. DigiComOrg, which is for educational institutions, highlights areas and the elements that emphasize the importance for students and staff not only to demonstrate digital literacies but also to promote and support social and emotional skills relating to the use of technology. At the same time, DigCompEdu aims to describe the digital competences for teachers and educators. This framework stresses the fact that teachers need to be role models for next generations, being “able to clearly demonstrate their digital competence to learners and to pass on their creative and critical use of technologies” (DigCompEdu, p. 15).

Similarly, the INCoDe.2030, which is based on the core principles of the DigComp versions, describes the digital competence goals to be achieved in Portugal between 2017 and 2030. Among the actions mentioned, for example, it is important to highlight the need to adopt the concept of multiliteracies which, as explained by Halinen, Harmanen and Mattila (2015), focus on “interpreting, producing and evaluating various kinds and forms of text, which will help the pupils to understand diverse forms of cultural communication and to build their personal identity” (p. 142). The adoption of a multiliteracies approach is crucial and closely related to the implementation of a digital literacies policy in education. It also supports the idea that being digitally competent goes far beyond knowing how to technically deal with digital tools. Other significant actions mentioned in the INCoDe.2030 involve the promotion of digital tools to get information and develop creative work; communicating and socializing, and developing critical and analytical thinking.

It is currently widely believed that technology can play a fundamental and supportive role in the development of critical thinking. As shown in some studies, technological tools may help teachers to develop students’ critical thinking in many different ways (e.g. Mohammadkhani, Mazinani, Zandvakili and Fard-Kashani, 2015; Myers and Beach, 2004; Rosen and Tager, 2013). Furthermore, the need to understand and assess content critically and to communicate effectively in contemporary societies has also been highlighted in such reports. Therefore, integrating technology effectively into the curriculum, for example, may help teachers save time and improve their confidence while encouraging and motivating students in the development of critical thinking.
In conclusion, since new technologies are part of contemporary societies and an indispensable resource for communication, the effective and meaningful inclusion of digital resources in EFL classroom seems essential. In this sense, considering that the English syllabi for the third cycle and secondary education in Portugal do not address specifically the use of technology, not only does an update seem crucial in order to provide teachers with further guidance, but also training, and materials are equally necessary, so that educators can benefit from new technologies and be able to better integrate them into their pedagogical practice.

Additionally, it is worth mentioning that these data and comments discussed in this study do not intend to represent the opinions of all the English teachers of the third cycle and secondary education in Portugal. It is possible, however, that the results and conclusions from this survey may indicate some tendencies towards the use of digital technologies in this particular scenario. In this sense, it is expected that the study conducted (Cardoso, 2017) may somehow contribute to future research on the use of technology in language learning, especially in English language teaching.

CONCLUSION

The aim of this article was to present and briefly discuss part of the data gathered from a study on multiple literacies and Web 2.0 in English as a foreign language classroom (Cardoso, 2017), which involved a survey conducted with English teachers of the third cycle and secondary education in Portugal. More specifically, the results examined in this paper are related to the following topics: materials and digital tools frequently used, teachers’ general view on the use of technology, as well as the digital and critical literacies approach. In order to do so, the article started by providing a brief discussion of the theoretical approach, followed by the methodology of the study. Subsequently, it has been provided a discussion on the results of this survey along with additional comments, and an outline of different reports and frameworks issued in Portugal and in the European Union concerning the use of technology in education and digital competences.

Although further research is necessary to deeply analyze the use of digital tools in
these EFL settings, it seems that it is crucial to provide educators with suitable guidance, training, and materials so that they can better integrate new technologies into their pedagogical practice. Ultimately, it is expected that teachers become able to help learners develop multiple literacies so that they become able to communicate critically and effectively in English in contemporary societies.

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