FOREIGN LANGUAGE LEARNING DEVELOPMENT: REFLECTIONS ON THE CONTRIBUTION OF DIGITAL TECHNOLOGY

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ABSTRACT

Recently, the advent of technology has affected teaching and learning languages. In this context, opportunities have arisen, especially with various digital technologies available, which have allowed learners to experience the learning process in different ways and with more resources. Considering this trend, studies have been concerned with reflections on the use of digital technology for the processes of teaching and learning foreign language (L2). This study has the objective of presenting three digital resources, namely webconferencing, digital games and digital stories, as well as telecollaboration. In addition, it aims at discussing how these digital resources can contribute to L2 learning development.

Keywords: digital technologies, foreign language learning, L2 development.

Introduction

The constant and ubiquitous advent of technology has affected the ways how people learn and teach nowadays. The potential impact of digital technology, and more specifically of the Web 2.0 tools (e.g., blogs, wikis, social networking sites, video-sharing sites, among others) for teaching and learning is understood to be revolutionary due to the massive number of educators and learners who have started to use them (WANG; VÁSQUEZ, 2012). In a similar way, O’Dowd (2013, p. 123) underlines that

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“One of the major contributions of the internet to foreign language (FL) education has been its potential to bring language learners into virtual contact with members of other cultures and speakers of other languages”.

Opportunities for language development have grown, especially with various digital technologies available, which have allowed learners to experience the learning process in a plurality of resourceful ways. By making use of communication devices, such as chats, forums and video or teleconferences, for instance, the integration of the four skills (speaking, listening, reading, and writing) can be made possible. Furthermore, the target language may be used in a more meaningful manner through digital tools.

Where digital technologies are concerned, many studies have focused on the reflections upon the use of digital technology for the process of Second Language Acquisition (henceforth SLA) (BUTLER, 2014; GEE, HAYES, 2012; PETERSON, 2011; CHAPELLE, 2007). Similarly, this study aims at presenting three digital resources, namely webconferencing, digital games and digital stories, as well as telecollaboration, which is also made possible by digital resources. Moreover, it has the objective of discussing how these digital resources can contribute to L2 learning.

**Digital Resources and SLA**

In this section, three digital resources, that is, webconferencing, digital games and digital stories, as well as a discussion regarding their use for Second Language Acquisition, will be presented.

**Webconferencing and SLA**

As a digital technology, webconferencing represents an opportunity for learners to practice the target language in a meaningful way, in the sense that they can interact online with other speakers in the target language. From such perspective, this section addresses language learning through webconferencing resources by focusing on research results concerning language development.

Webconferencing is a digital resource that allows oral, visual and written communication for people who are physically distant (CRUZ; BARCIA, 2000). To illustrate this, *Skype, Google Hangouts*, and *Zoom* are free webconferencing resources that any-
one can access to communicate with others. Some of the paid resources are Blackboard, Flashmeeting, Elluminate and Netmeeting, just to mention a few. These resources were developed for the purpose of teaching and learning, while Skype, Google Hangouts and Zoom were intended for general communication.

There have been studies that analyze the outcomes of language classes through webconferencing resources (HAMPEL, 2012; STICKLER, 2007; GUO, 2013; VERJANO, 2013)⁴. Reflections on research carried out in this area present ideas on the contribution of digital technology to foreign language learning.

Hampel and Stickler (2012), for example, investigated how an online videoconferencing environment can be used in language teaching. More specifically, it concentrated on how teachers and students adapt to the online environment (Flashmeeting) and how new patterns of communication emerge in the process. Their findings showed categories of language used to interact in class, such as social conversations, management of technology, negotiation of meaning related to the task, off-task conversations and teacher feedback. These categories can be found in face-to-face classes as well, but they also differ in some aspects. For example, in the authors’ study, it was found that students used the chat box to parallel conversations regarding allocated activities in order to have a consensus on their answers.

Guo (2013) and Verjano (2013) investigated the benefits of having webconferencing group sessions through Skype with students as a way of integrating technology into the regular course plan for face-to-face classrooms (blended learning). Guo (2013) found that the development of activities through Skype creates real communicative needs for students to speak in the target language. In turn, Verjano (2013) concluded that students interacted more in the online synchronous webconferencing resource (Skype) in comparison to the face-to-face context.

Other studies about webconferencing resources have shown relevant influence for teaching and learning languages. Heins, Duensing, Stickler and Batstone (2007), for instance, found a higher ratio of L2 input/output by students, a prevalence of highly structured L2 input and output, greater emphasis on classroom management and fewer

⁴Although the focus is placed on more recent studies (2012 – 2015), it should be stressed that research in the area dates back to 1995, since the beginning of the Internet widespread (e.g. KERN, 1995; WARSCHAUER; 1996; JEPSON, 2005).
student-student exchanges outside allocated tasks. Stickler, Batstone, Duensing and Heins (2007) also found that online classes demand more classroom management, with more positive language development resulting from online classes.

Jones, Murphy and Holland (2015) found similar results by replicating a study carried out in 1995 (KERN, 1995). For instance, blending classroom practices through face-to-face and online activities offered restructured classroom dynamics and created a new context for social use of language. The authors’ study also showed that the online interaction brought up more discourse functions, including more greetings, assertions and questions produced by the students.

In sum, the use of webconferencing resources has pointed towards relevant aspects for language learning development, mostly concerning the possibility of having a broader contact and communication opportunities with the target language by interacting with other speakers.

**Video games and SLA**

In the last decades, video games have become an art form and an industry (SA-VI; ULBRICHT, 2008), winning over a special place in industry and media markets in our contemporary culture.

A video game is a digital game that involves human interaction with a user interface to generate visual feedback on a video device such as a television screen, a game console or a computer monitor, known as platforms. The game controller varies across platforms, although common controllers include mouse, keyboard, joystick, touchscreen of mobile devices and buttons. Regarding video games genres, they may combine aspects of multiple genres in such a way that it becomes hard to classify under existing genres. For instance, the video game *The Sims* can be classified as simulation, strategy, adventure and family game altogether, since it simulates real life routines that demand organizational strategies to succeed in the game tasks.

Good video games are bringing about many benefits into learning. Gee (2005) states that good games represent good learning, allowing learners to feel like active agents, not just passive recipients, where they can learn different styles as well as new skills and strategies. Furthermore, learners can consolidate ideas and concepts best when they see how they fit into a context. The author argues that good games convey
some learning principles, which are: a) new identities; b) interaction between players and games as well as among players themselves; c) production and agency; d) opportunities of risk-taking and customization; e) well-ordered problems that can be leveled according to abilities and skills acquired; f) challenge and consolidation of skills; g) 'just-in-time' and 'on-demand' help; h) situated and in context meanings; i) levels of difficulty pleasantly frustrating; j) system thinking where players are encouraged to explore, think laterally and rethink goals; k) performance and abilities before competence; among others. These principles are present in video games that can be used to enhance learning of all subjects, multiple intelligences\(^5\) and cognitive processes.

Concerning a core characteristic of video games, Squire (2006) stresses that they are organized around doing and being, where one learns through performance. Many contemporary games literally put players inside the virtual environment, allowing them to create new identities and live in a new video game context. According to the author, video games and their use are mediated by social structures, where players can talk, share strategies, download FAQs (Frequently Asked Questions) and participate in online forums, and most gamers describe their play as a social experience, a way to connect and interact with other players. The author also claims that games provide students the experience of being competent and independent problem solvers, which enables them to develop simulated identities and learn, for example, as doctors, architects or journalists. Moreover, games allow learners to develop coherent ways of thinking with regard to various situations, which means that they can be characterized as learning tools not only for language learning.

In line with Gee (2005), Squire (2006) asserts that the focus of video games is on experience that enables players to develop situated understandings, to learn through failure and to develop identities as problem solvers. Furthermore, the author points out that the question becomes not whether video games will be used for learning, but for whom and in what contexts.

\(^5\) Gardner's Theory of Multiple Intelligences has offered a comprehensive framework of how people learn, represent, and utilize knowledge in many ways. Therefore, these differences challenge the educational system which assumes that everyone can learn the same in the same way and that students can be assessed universally. The intelligences mentioned by the author are: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal (Gardner, 1991).
An aspect present in gaming much discussed and researched is motivation. Motivation, according to different authors, may be the result of combinations of different aspects, such as a combination of fun and participation plus learning and entertainment (PRENSKY, 2001); or a combination of effort, willpower and positive and favorable conditions to reach language learning (GARDNER 1985, apud TUMOLO, 2014). Gee (2005) makes clear that what motivates gamers is basically the principle that they can create and live a new identity in a new environment, whereas Squire (2006) adds that what motivates gamers to play even after a long day of work and study is the fact that they are agents in a new world, living a new life and a new identity virtually inside the game.

Chik (2014), in turn, based on several studies, explains that digital games can create effective situations for learning. For instance, digital games can be a key element to facilitate foreign language learning, develop learner autonomy and provide safe environments for learning and interaction among players.

One example of the use of the videogame in classroom environments is The Sims, which refers to one of the most used games for research about foreign language learning and also to a manner to incorporate games into classrooms (MENEZES; SCHLEMMER, 2014; MENEZES, 2013; SAVI; ULBRICHT, 2008; OLIVEIRA; CAMPOS, 2013; RANALLI, 2008). The Sims is a game of real-life simulation, where players create new lives and new identities in a new city with the objective of taking care of his/her Sim (the character) and their daily life needs, such as hygiene, hunger, work and study, fun, physiological needs and social life. Adding real friends as neighbors in the game is important and can help fulfilling some objectives. In the game, each Sim can interact with objects, houses, rooms, workplaces, stores, etc., by passing the mouse over them and selecting the action available, and these actions can be linked to pre-established missions, objectives or Sim’s needs.

Menezes and Schlemmer (2014) noticed that there were several opportunities for the communicative approach use in the language learning, including the students’ involvement on the daily real-life context that the game portrays. In a similar study, Menezes (2013) identified that this video game promoted the possibility of grammar and vocabulary use, because players deal with personality and physical characteristics, workplaces and housing, among many others, with coherence and in context. The par-
Participants in this study claimed that they learned in a motivated, committed and entertaining manner.

Oliveira and Campos (2013) underscores that The Sims provides adequate input to the player, motivating gamers not only for having fun, but also for involving multiple intelligences, what can attract attention of a widely array of students. Therefore, used in scholar environments, The Sims can represent an interesting manner of enlarged and contextualized vocabulary learning.

All in all, it can be said that video games are beneficial for teaching and learning English as a foreign language, due to several factors, such as: (a) providing safe environments where learners develop agency, while they take risks and decide their actions, (b) interaction with other players in a contextualized environment, (c) development of autonomy in their learning processes, (d) efficient and contextualized vocabulary learning and, (f) motivation to keep playing and learning.

Digital Stories and SLA

Digital Stories (DSs) are digital videos developed, which involves: (a) the choice of an interesting topic (for the producer / author / student) and some research on it, (b) the writing of a script, (c) development of a storyboard, (d) the choice and/or creation of media to support the ideas and emotions, including recorded narration, music, images, animations, videos, computer-based graphics and computer-generated text, and, finally, (e) the assembling of diverse chosen media into an edited 2 to 10-minute video.

The stories may involve, among others, personal tales, historical events and someone’s life, being used as a pedagogical resource mainly as a “way to present new material […] and capture the attention of the students”, as a “way to facilitate discussion about the topics presented”, and as a “way of making abstract or conceptual content more understandable” (Educational Uses of Digital Storytelling, s.d.).

In Brazil, around 2006, DSs were part of the political movement called One Million Life Stories of Youth, and of the program called Silence Speaks6, which, together with Instituto Promundo7, sought to develop DSs as “personal narratives of struggle,

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6 http://silencespeaks.org/
7 http://silencespeaks.org/instituto-promundo
courage, and transformation and works to ensure that these stories play an instrumental role in promoting gender equality and human rights” (Silence Speaks, s.d.).

More recently, DSs were part of the Program COMUNDOS, holding workshops for the development of DSs, called Diálogos Interculturais do Brasil: Oficina de Histórias Digitais, with the support of DISOP and Partners, and financial support of DGD: the Belgian Development Cooperation, DISOP 2014-2016.

For SLA, DSs can be a way of providing learners with meaningful input for the learning of the target language, that is, both its grammar and vocabulary, and the development of the four skills (listening, reading, speaking, and writing).

DSs can be used for learning various contents, based on subject areas explained via the L2. This approach to L2 instruction provides the general benefits of exposing to a large amount of the target language while learning about content, allowing for contextualized learning with higher motivation, and for relevance to the interest of the learners (GRABE; STOLLER, 1997).

In addition to language input via content, DSs can be used as a project to be developed by students. In this case, learners may actively produce all the content in the foreign language, involving the development of all the four skills: (a) reading, during the research for the content; (b) writing, for the creation of the script and storyboard; (c) speaking, for the production of the oral narration based on the script and, (d) listening, with the oral narration of the story (TUMOLO, in preparation).

In sum, DSs as a type of digital video may be used for SLA since they allow for relevant content, and also because they refer to a project developed by learners themselves.

**Telecollaboration**

In this section, telecollaboration – understood as model for online intercultural exchange – is presented, along with a general reflection on its contribution for SLA.

O’Dowd (2013) remarks that in the context provided by the emergence of Web 2.0, the environments in telecollaboration takes on new opportunities for language de-

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8 One example can be seen at https://www.youtube.com/watch?v=YU8OeMnumOE
velopment and intercultural issues, for instance, Skype, Wiki (a shared workspace) or Ning (a social networking site).

Thorne (2006) points out that the relationship between intercultural and foreign language teaching, both online and offline, has been widely explored by several authors such as Belz (2002), Byram (1997), Thorne (2003), Kramsch (1998), O’Dowd (2003), among others. In this regard, Thorne (2006, p. 3), speaking of ICFLE (Internet-mediated Intercultural Foreign Language Education), puts forward that:

A review of this research will show that the goals of ICFLE projects are diverse, but generally include aspiration of linguistic and pragmatic development as well as increasing awareness about one’s own culture background, those of one’s interlocutors, and the process involved in carrying out extended, productive, and ultimately meaningful intercultural dialogue.

For O’Dowd (2013, p. 123), telecollaboration is related to “the application of online communication tools to bring together classes of language learners in geographically distant locations to develop their foreign language skills and intercultural competence through collaborative tasks and Project work”. Thorne (2006), on his part, makes plain that telecollaboration refers to the interaction between pairs of learners, between small groups and activities encompassing all students in a particular group. The latter (p. 7) adds that activities “around shared information and media (literature, films, scholarly texts) and collaborative interpretative and investigative activities” are part of telecollaborative projects.

Tandem can be characterized as part of the umbrella term telecollaboration. It is defined as a context for autonomous foreign language learning (VASSALLO; TELLES, 2006). Vassallo and Telles (2006) use the term tandem to refer to the interaction amongst language learners who are native speakers – or proficient speakers – of their own language. These learners aim at teaching his/her native (or another language of proficiency) and learning the other’s language.

Telles and Vassallo (2006) propose three interaction modes: face-to-face tandem, e-tandem and teletandem. They have characteristics that distinguish them from one another, particularly in the use of technological tools. According to the authors, face-to-face tandem interactions happen in situ by the use of notes and letters. E-tandem, the second interaction mode, is related to the use of e-mails or chats, and “is
confined to reading and writing abilities and practices” (TELLES; VASSALLO, 2006, p. 9). As in e-tandem cultural and language exchange occurs via reading and writing, this interaction mode does not allow the use of oral and listening skills, as it lacks appropriate resources for that purpose (TELLES; VASSALLO, 2006).

Currently, with the advent of new digital technologies, teletandem, the third interaction mode, has been part of interactions between language learners in which different electronic devices are part of the process, e.g. Internet, Email, Skype, among others. For Telles and Vassallo (2006, p. 1), teletandem “uses the online writing, reading, audio and video resources”.

Ware and O'Dowd (2008) point out that telecollaborative exchanges can allow learners to reflect on linguistic aspects regarding both the language of their partners as well as their own language. For example, with respect to the context of teletandem (TELLES; VASSALLO, 2006), Aranha’s and Cavalari’s (2015, p. 778) study revealed that “most participants apparently tend to correct their [...] partners’ written productions according to their beliefs and experience as learners”. With that in mind, language learners can benefit from the practice of corrective feedback in telecollaborative exchanges, this in relation to both oral and written expression.

In sum, in digital environments participants “might find plenty of written, visual, and audio files as well as real people with whom they can share information, and so teach one another or learn from one another” (UZUN, 2014, p. 2410). Therefore, it can be argued that telecollaborative exchanges can be an opportunity for language learning as well as for the contact between people from different cultures.

**Final Remarks**

Technology can have a mediating role in the language learning process. It has been the locus of fruitful research, especially with studies in the area of Computer-Assisted Language Learning (CALL). The digital resources of webconferencing, digital games and digital stories, as well as of telecollaboration (e.g. video and audio), have been gaining space, with impact on the way they can be used for pedagogical purposes.

Webconferencing empowers teachers and learners to develop language skills with the possibility of providing more opportunities for oral communication among its
users and developing more discourse functions (HAMPEL; STICKLER, 2012) in online interactions through Skype, for example.

Video games can benefit and assist language learning by motivating gamers to keep playing, take risks and interact with other peers at the same time as learning happens. Video games also offer opportunities for learners to create new identities in new virtual environments, allowing players to learn new vocabulary and to communicate in the target language.

Digital Stories (DSs) allow for the exposure to language input, assisting mainly the development of the receptive skills of listening and reading. Furthermore, as DSs provide an opportunity for the creation of an edited video, they can help in the development of the productive skills of speaking and writing.

Due to the emergent interest in understanding how the interactions between the participants materialize in virtual spaces, the specialized literature has highlighted the feasibility of raising intercultural awareness in telecollaborative encounters. In this same vein, O’Dowd (2006) suggests that in online meetings learners can “reflect critically on their own culture through questions posed by their partners” (p. 134), which may lead to intercultural and language development.

In conclusion, digital technology has come into the area of education, becoming educational technology, with the potential of assisting foreign language development process with the digital resources presented in this article.

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References


DESENVOLVIMENTO DA APRENDIZGEM DE LÍNGUA ESTRANGEIRA: REFLEXÕES SOBRE A CONTRIBUIÇÃO DE TECNOLOGIAS DIGITAIS
RESUMO

Recentemente, o advento da tecnologia tem influenciado o ensino e aprendizagem de línguas. Nesse contexto, oportunidades têm se apresentado, especialmente com as tecnologias digitais disponíveis, as quais têm permitido aos aprendizes participar do processo de aprendizagem de diferentes formas e com mais recursos. Considerando esta tendência, estudos têm se concentrado em reflexões sobre o uso de tecnologias digitais para o processo de ensino e aprendizagem de língua estrangeira (LE). Este artigo tem o objetivo de apresentar três recursos digitais, a saber, webconferência, jogos digitais e histórias digitais, assim como a telecolaboração. Além disso, ele se propõe a discutir como esses recursos digitais podem contribuir para a aprendizagem de uma LE.

**Palavras-chave:** tecnologias digitais, aprendizagem de língua estrangeira, desenvolvimento de L2.

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