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ÂNGELA MUSSKOPF

EXPERIENCING PEDAGOGICAL PRACTICES WITH DIGITAL RESOURCES IN THE TEACHER TRAINING OF ENGLISH TEACHERS

Novo Hamburgo

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Trabalho apresentado como requisito parcial à obtenção de título de Mestra em Letras pelo Programa de Pós-graduação do Mestrado Profissional em Letras da Universidade Feevale.

Orientadora:

DÉBORA NICE FERRARI BARBOSA

Co-orientadores:

PATRÍCIA BRANDALISE SCHERER BASSANI

VILSON JOSÉ LEFFA

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ABSTRACT

This research deals with the inclusion of digital educational resources in an English teacher training course and the possible benefit from the use of this in the improvement of the students' proficiency level. This is an extremely critical issue, since the official documents that guide teacher training courses and education in Brazil stress the relevance of using technology in the educational context. The main objective of this research was to develop innovative pedagogical practices with digital educational resources in an English teacher training course and to verify its influence in the students' linguistic level. Due to the fact that the practices were developed during three semesters of subjects related to English language classes, in which the purpose was to achieve a higher proficiency level, it was necessary to study theories of second language learning and look for common principles between such theories and information and communication technologies (ICT). The use of the cartographic method to develop the research resulted in three categories of analyses: (a) the relation between SLL theories and ICT; (b) the relation between the students and ICT; and (c) the students' proficiency level in English. Data collected during the 18-month period may indicate that the digital resources used in this research contributed to the improvement of the proficiency level of the participants as well as it enabled new experiences for the subjects since they had no knowledge about the resources before this study. The research generates products which can be used in the processes of teaching and learning in Basic Education, namely: a) three papers already accepted and published and which may contribute to the discussion about the use of technology inside classrooms; b) a presentation created by the participants of this study with information about all the resources used in the practices. This presentation is licenced under the Creative Commons, allowing for it to be shared without profit.

Keywords: SLL theories. ICT. Teacher training. English proficiency level.

RESUMO

Esta pesquisa trata da inserção de recursos educacionais digitais em um curso de Letras – Português e Inglês, Licenciatura e o possível benefício destes no desenvolvimento do aprimoramento linguístico dos alunos. O tema é de extrema importância diante da importância dada pelos documentos oficiais que norteiam a formação de professores e a educação no Brasil em relação à inserção da tecnologia no contexto escolar. O principal objetivo desta pesquisa foi desenvolver práticas pedagógicas inovadoras com recursos educacionais digitais em um curso de formação de professores em língua inglesa e verificar a influência destes no nível linguístico dos alunos. Visto que as práticas foram desenvolvidas durante três semestres em disciplinas em língua inglesa, cujo foco é a busca pela excelência do conhecimento neste idioma, houve a necessidade de verificar se os recursos digitais iam ao encontro dos princípios preconizados pelas teorias de aprendizagem de segunda língua (L2). A utilização do método cartográfico resultou em três categorias de análise: (a) a relação entre teorias de aprendizagem de L2 e as tecnologias da informação e comunicação (TIC), (b) a relação entre os alunos e a TIC e (c) o nível de proficiência linguístico dos alunos. Os resultados coletados nos 18 meses da pesquisa indicam que os recursos digitais educacionais utilizados nestas práticas pedagógicas contribuíram para a elevação do nível de proficiência em língua inglesa dos sujeitos, bem como possibilitaram novas experiências aos alunos que não conheciam os recursos anteriormente. A pesquisa gerou produtos que podem ser usados em processos de ensino e de aprendizagem na Educação Básica, a saber: a) três artigos que foram aceitos e já estão publicados e que poderão contribuir para a reflexão do uso de tecnologias em salas de aula; b) uma apresentação criada pelos sujeitos participantes com informações de todos os recursos usados nas práticas. Esta apresentação está licenciada pela Creative Commons, permitindo a distribuição sem fins lucrativos da mesma.

Palavras-chave: Teorias de aquisição de L2. TIC. Formação de professores. Nível de proficiência em inglês.

LIST OF FIGURES

LIST OF TABLES

LIST OF ABREVIATION

BNCC   Base Nacional Comum Curricular

CALL   Computer Assisted Language Learning

CEFR scales   Common European Framework of Reference

ELO   English Language Online

ESL/EFL   English as a Second Language

FCE   First Certificate in English

ICT´s   Information and Communication Technologies

IELTS   International English Language Test System

LTEC   Learning Technology for Education Challenges

MALL   Mobile Assisted Language Learning

MOOC   Massive Open Online Course

MOOCs   Massive Open Online Courses

OER   Open Educational Resources

ONE   Plano Nacional de Educação

PET   Preliminary English Test

PLE   Personal Learning Environment

SLA   Second Language Acquisition

UK   United Kingdom

UNESCO   United Nations Educational, Scientific and Cultural Organization

TABLE OF CONTENTS

1 INTRODUCTION

Today's world and its overwhelming connectivity and the consequent possibilities of use in the educational area imposes some deep reflection related to pedagogical practices in classrooms, especially in teacher training courses. Hybridism, multi-literacy and information and communication technology must not be ignored by education, on the contrary, they must assist it in the broadest possible form. This study is based on the question that if undergraduates experience ICTs while they are at university, they are more likely to incorporate them into their practices as teachers. At the same time, they might observe the benefits of digital resources by improving their own level of English.

For us, information and communication technologies (ICTs) is a term that encompasses digital resources generally speaking, online and offline. For Oliveira, Moura and Souza (2015, p. 78), ICTs are "a set of technological resources integrated to each other, which provide through the functions of software and telecommunication, the automatization and communication of the business processes, of scientific research and teaching and learning"[1]. Digital (educational) resources are used as a synonym throughout the text.

Owing to the fact that this research deals with the issue of English as a second language and the use of ICTs to promote better learning, second language learning theories help to understand the processes and approaches involved. Authors such as Rod Ellis (2000), Rosamond Mitchell and Florence Myles (2004) and Patsy Lightbown and Nina Spada (2013) have their views and believes mentioned. At the same time, indications to support online learning are being looked for. Therefore, researchers such as Carol Chapelle (2016), Vilson Leffa (2016), Leffa and Freire (2013) and Cláudio de Paiva Franco (2010) discuss the reasons to use ICTs in language teaching.

There are evidences showing that technology is not as much used inside classrooms as one would be expect it to be (MAPELLI, 2018, PONTO BR, 2017), even though Government documents (BNCC and Resolution Nº 2) mention and motivate people involved in education to explore it.

Therefore, the core issue is: how to train future teachers to be prepared to use ICTs in their professional life as teachers? To reach an answer to this question, this work proposes pedagogical practices using ICT digital resources in a Higher Education institution with a group of students studying to be teachers of English as a Second Language (ESL/EFL).

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[1] All translations from Portuguese to English were done by the author.

Meanwhile, evidence of improvement in the linguistic level of the group will also be looked into to verify whether it happens or not.

This study is composed of three papers that describe pedagogical practices developed related to the general and specific concerns of the research. The main objective was to develop pedagogical practices with digital educational resources with students preparing themselves to become English teachers and to verify their influence in the linguistic knowledge of the students. To check the changes in the proficiency levels the CEFR scales are mentioned.

The specific objectives were (a) to analyse the role of technology in teacher training courses in the region; (b) to investigate if the theories of second language acquisition support the use of digital resources in the curriculum; (c) to elaborate innovate practices through some digital resources so that students feel confident in using them in other contexts, hopefully in their own practice as teachers; and (d) to find indications of improvement in the proficiency level.

Experiences and improvements are elements which demand time and require careful observation of processes which in this case could not be controlled by the proposer since the path was clear but would not be pre-established due to the fact that the group would be in charge of guiding the study. Thus, the cartographic method (PASSOS; KASTRUP; ESCÓSSIA, 2009) was adopted to carry on the research. In short, the cartography considers there is no separation between theory, practice, reflection and action all of which happen at the same time, being built by the subjects involved while they are working. This method envisions researchers engaged in the area they want to study; hence they are also learners. The theory on which this study is based points out eight clues of this method which are explained in Chapter 1.

Due to the objectives and methodology of this research, which demanded time to apply the processes in the context of the clues, the practices were developed from August 2017 to December 2018, that is three semesters during which students were enrolled in subjects named English II, English III and English IV, respectively. The focus in these subjects was to improve the students' proficiency level so that they would be able to reach an intermediate level defined as B1 according to the Common European Framework of Reference (CEFR). As the institution is a Preparation Centre for Cambridge English Exams, hosting more than 100 exams per year, students get in touch with the Common European Framework of Reference (CEFR) and its descriptors very soon. The CEFR

presents a comprehensive descriptive scheme of language proficiency and a set of common reference levels (A1-C2) defined in illustrative descriptor scales, plus options for curriculum design promoting plurilingual and intercultural education. (COUNCIL OF EUROPE, 2018, p. 25).

So, when students enter the course, they have basic knowledge and are expected to follow classes taught in English since the first semester. The text is organised in the Scandinavian model (UEM; UEL, 2017), that is the research structure is composed of a collection of texts produced as papers which were the result of the theories and practices carried out to meet the objectives. This study is constituted of three papers written during the Languages Professional Master's Degree. Its field of research is language and literature: reflection on language in which the aims are to deepen knowledge about language including themes such as language acquisition and exploring technological resources. As a professional degree, the academic setting is extremely related to professional environments, allowing the promotion of practical studies. Two papers were already accepted and published and the third one will be sent soon.

Chapter 1 illustrates the scenario of teacher training courses around Vale do Rio dos Sinos where the research was conducted. It brings updated data and some observations raised by the author.

Chapter 2 explains the methodology and the practices. The methodology chosen was the cartography as it considers researches and study participants side by side (PASSOS; KASTRUP; TEDESCO, 2016, p.11) while the study is being developed, the researcher is also someone who interacts in what is being observed. The method was a challenge as it was the first time it was being used in a Master's research at Feevale University.

Chapter 3 presents the first paper named Edmodo – experiencing a global education network. It describes the practice in which students were introduced to a social network dedicated to education which combines much of the positive aspects of Facebook, like postings and comments, but does not have barriers for students such as a variety of unwanted and noneducational advertisements. Google classroom is the management system adopted in the institution but once the students graduate, they will not be able to use it in the public schools as there is no record of any public school using it in the region. Taking this into consideration and the fact that students did not know anything about educational networks, the researcher decided to promote opportunities for the participants to experience a free social education network that can be used by any teacher.

Chapter 4 is a paper that deals with the students` written production. The author already knew some digital educational resources, especially connected to the writing skill, and

used them with the students so that they would feel comfortable in using them at the same time as they would improve their language skills. During one of the activities in the first practice, students mentioned they thought academic writing was difficult and they had never had the chance to work on it. Again, students said they did not have any idea about digital resources available to help them with this. Then, as the first practice raised this issue, some practices to improve writing production were plausible.

Chapter 5 is the last paper and joins the digital resources used in the previous papers. The practice promoted students as authors of content which was posted on Edmodo and was used to produce an essay, one of the requirements of the students' semester. Throughout the two first practices, students continued to use Edmodo to share interesting pieces they found outside the classroom, surfing the web randomly or finding suggestions on YouTube channels they signed up to. As this environment showed to be a place the students felt comfortable with, to wrap up the three-semester pedagogical practices lead to a proposal linking Edmodo to a writing production. This may raise a question: why writing again? Two main reasons can answer this: (a) students were very motivated after the second practice and considered they improved their writing skill as well as considered the digital resources used very helpful and (b) as the famous proverb states 'practice makes perfect': students were longing for more time and opportunities to continue developing their writing.

In chapter 6 the author takes some time to look back and reflect on the whole practice. The cartographer expresses her experience in dealing with the Scandinavian model, the cartographic method, the pedagogical practices and the growth of technological and linguistic knowledge for herself and her students involved from the beginning to the end.

2 TEACHER TRAINING SCENARIO

Having worked in education for over 30 years now, I followed the rise of technology, the attempts of inserting it in the educational sector and the worry of workmates who were not prepared for working with it and their lack of experience to deal with gadgets that students control with such ease. Not forgetting to mention that they know they might not be able to solve even simple problems that would appear during classes, such as the incompatibility of programmes. As currently my teaching practice is being developed in Higher Education, more specifically in teachers' undergraduate training, the subject of this research is of extreme importance. Particularly because the students who have been entering our institution seem to not have known about the available digital resources, hence ignoring how to use them. In the first semester, when asked about which ones they are used to, they answered the common ones: word and power point. For example, none of the students in this study knew about Edmodo previously, and neither had they participated in a MOOC before nor did they know the meaning or what the letters stand for (MUSSKOPF; BARBOSA; BASSANI, 2018).

This apparent lack of knowledge about digital resources applied to education is shown in an updated study, a survey on the Use of Information and Communication Technologies in Brazilian Schools (PONTO BR, 2017, p. 260) from 2016 showed that 54% of the teachers answered they did not have any specific subject on how to use computers and the Internet in activities with students during their Tertiary Education. This means that teachers in Brazil still start their professional lives without having tried out ICTs during their training. The data and the observations mentioned exposing a problematic reality. Hence, it looks like digital resources must not be put aside during the training of undergraduates who are taking an undergraduate course to become English teachers.

It could be implied that because of the widespread use of technology in many sectors of society, such as banking, marketing, business, ICTs would already be part of the curriculum in teacher training courses and, consequently, in their pedagogical practices. However, corroborating with the view of the survey mentioned above, Nina Mapelli's study points out that the use of technology in classrooms is not quite a reality. In 2018, she conducted her Master's research called 'Initial teacher training and the use of information and communication digital technologies: a survey of educational practices in the Elementary School'. Mapelli (2018) found that students who were still undergraduates and performing their teaching practice were not using technology resources in classrooms even though they had contact with them previously at university. This author developed a survey in pedagogical

practices using TICs in elementary schools in Vale do Paranhana, RS. She compiled data from trainees and various teaching areas, such as History, Science, Physical Education, Languages, Pedagogy and Mathematics, verifying that although the training course had at least one subject in its curriculum, data collected from the practices show little use of digital resources.

Some surprising information that the study reveals is the lack of knowledge from some survey subjects about educational software and mobile apps for school context, not even websites with online activities (MAPELLI, 2018, p. 68) The researcher states that it is very important for future teachers to have the opportunity to know, reflect and develop educational activities with ICTs to incorporate them into their practices.

The extreme relevance of this issue is also pointed out by an exploratory research based on the websites of colleges and universities that offer teacher training programmes in the metropolitan area of Porto Alegre, Vale do Rio dos Sinos, Vale do Paranhana and Serra. The search revealed that the majority of them do not offer or offer only one subject focused in technology. The only two institutions that allow access to their discipline content do not mention technologies in their training period, though.

Furthermore, according to Musskopf and Barbosa (2018a), fresh teachers still reach schools without having knowledge about digital resources, not even the ones designed for educational contexts, a situation that is also acknowledged by Mappelli. The challenge is to change this reality so that undergraduates and future teachers will be exposed to apps, platforms, resources, websites created to be used in schools and to language teaching and learning promoting improvements to linguistic levels. The unfamiliarity of these options impoverish pedagogical practices of teachers in both cognitive and linguistic development since there are resources which promote the improvement of them concomitantly.

Paiva (2013) wrote an article about teachers training to use technology. According to her, the Brazilian government has been promoting some initiatives, but she still states that it is necessary to think about adding ICTs in teacher training courses (PAIVA, 2013, p. 213). Then she goes on to share her own experience, since the 1990s, and she says that her biggest source of information is the web itself. Vera mentions some websites used in this study, such as the Centre for Learning and Performance Technologies[2], and Vilson Leffas's website. In addition, she recognises that an important strategy is trial and error and never quitting, to keep trying as many times as necessary.

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[2] Available at http://c4lpt.co.uk/

Therefore, a point to be discussed is why undergraduates use digital resources so little and not in an innovative way if during their training they had some contact with ICTs? In our opinion, a different approach should be considered: technology should not be taught as an isolated subject, but practices with digital resources must be implemented in all disciplines of the curriculum as an organic topic, part of all training and usable in various contexts. Technology has been treated in a fragmented way by Higher Education courses aimed to train teachers, as Mapelli's study (2018) displayed and Paiva (2013) also declares that initiatives are disconnected.

Paiva (2013) believes that the more teachers incorporate ICTs in their practices inside classrooms, more possibilities there will be to spread innovations and positively influence the future teachers. Experiences with digital resources must be experienced in a systematic way by the future teachers and not as an isolated component. It is through their involvement while at university that English teachers will be prepared to think about innovative pedagogical practices applying ICTs in their professional setting. Including one or two subjects in the curriculum might not be enough. If this reality continues, it might be much harder to achieve what legal documents such as *Plano Nacional de Educação (PNE)*, *Diretrizes Curriculares Nacionais da Educação Básica* and *Base Nacional Comum Curricular (BNCC)* state, in which the use of ICTs are expected to be integrated into pedagogical practices.

Thus, including possibilities of how to explore digital resources in teacher training courses is a necessary and urgent condition. The *BNCC* mentions this priority explicitly in four of the ten general competencies, referring to the digital world (first competency), to create technological solutions (second), to digital literacy (fourth) and to ICTs (fifth). For such purpose, it is expected that the teachers' training enables professionals to be capable of dealing with the digital world and technologies. Related to this, Resolution N° 2, from 1st of July 2015 defines the *Diretrizes Curriculares Nacionais* to the initial training in Higher Education and to the continuing development courses stresses the importance of adding tech issues in them. The second paragraph of this document states that the teaching must be permeated by many dimensions, involving the technological and innovative domains, among others. The fifth paragraph declares that teachers' training must ensure the BNCC competencies, leading the graduates to "master the use of ICTs to upgrade pedagogical practices and to expand the cultural training of teachers and students" (BRASIL, 2017, p. 6). These documents rule all Brazilian territory and clearly show the relevance of this topic.

Encouraging recently graduated teachers to deal with available digital educational resources, especially the ones that are suitable to second language acquisition theories, this

may promote not only the familiarity with ICTs but also the linguistic improvement of the students during their undergraduate course.

3 METHODOLOGY AND PRACTICES

In this study, the cartography method was used to develop the research since subjectivity is involved in the actions developed. According to Passos, Kastrup and Escóssia (1999), the whole of the methodological processes cannot be predetermined because it is necessary to accompany the processes. The author defines the method as follows: "Cartography must be understood as a method according to which all research is driven to a clinical-policy direction and all clinical practice is, in its turn, an intervention generating knowledge". (PASSOS; KASTRUP; ESCÓSSIA, 2009, p. 25-26). Therefore, Passos, Kastrup and Escóssia listed eight clues from the cartographic method, which guide the researchers during their study. In simple words, the path is being opened while the study advances: the pathway is made by walking along it.

3.1 AN OVERVIEW OF THE CARTOGRAPHIC METHOD

The **first** clue features the indivisible nature between research and intervention: these two occur at the same time. The cartographic method considers the experience as to know how to do it, meaning that it is the action that guides the study. While being in the context the researcher also transforms it and destabilises it, moulding its limits and configurations. According to the author, not only does the research represent reality but it also gets involved in it. Representation is no longer suitable because the knowledge involved transforms the reality and the process becomes much more complex, which is why the limits of the procedures and methods must be forced. Therefore, the method is designed without previous determinations or prescriptions. The clues drive the path and the direction: to know the way in which the object is constituted means to walk together with it, to build the pathway at the same time.

The **second** discusses its working pattern which is to follow a process rather than represent an object. There are two very important points to be examined: the function of attention and its different forms. Firstly, detecting signs and surrounding forces is the function of attention and not only to select information. Secondly, attention can be: 'selective or fluctuating, focused or disorganised, concentrated or disperse, voluntary or involuntary' (PASSOS; KASTRUP; ESCÓSSIA, 2009, p. 33), or many other combinations of these. Such features indicate the complexity related to the cartographer's attention and the density of the data collection and the production of the research data. The goal is to pay equal attention to

everything and to make this possible, there are four varieties: tracking (like an antenna which explores an area), touch (senses are involved to call the researchers' attention), landing (the observation field is determined) and careful recognition (something catches the researchers' attention and they start acting).

The **third** one establishes that cartography is used to monitor processes instead of representing objects. When a cartographer gets into a field there are always actions already happening, so similar to the ethnographic research, a participating observation occurs, and the researchers get in touch with the context and the participants. The kind of activity and degree of participation is variable, according to the people involved, and it can go from a participating observation to an observational participation.

Clue number **four** proposes three movements working as functions in the cartographic practice: reference, explicitness and production/transformation of the reality. Reference relates to the regularity from a series of actions which produce some effect, which means that the investigation establishes links between field, people and researcher, who has to move closer and further during the study. Explicitness refers to the consciousness of the acts, reflected previously about the processes and other forces which surround the practices. The last movement, production and transformation, is the confluence of the previous ones.

The **fifth** clue is about the shapes, the objects or subjects which are inserted in a collective context and are under its power. The cartography method is a building practice of a collective plan of forces due to its two-faced feature: research and intervention occurring concomitantly. It searches to overcome the dichotomy between individual and society while the forces are acting, shaping the objects, pushing their limits and analysing the processes.

Clue number **six** concludes that objectivism and subjectivism are two sides of the same coin, meaning that even though researchers participate in the processes not only do they not have interests involved but their believes and judgements are also put aside. The researcher goes along with the processes, guiding them, being involved. Nevertheless, the point of view of the observer is not taken into consideration, proximity and distance are both intrinsic parts of the cartographer role.

The **seventh** clue reinforces the importance of the cartographer's immersion in the context and its signs. The researchers' work takes place through their engagement with the context as they exist in the territory of the study demanding a learning process from their own cartographers. As the research continues, the relationship between the object of the study and the cartographer is built around knowledge with the processes and not about them. Technical

rules are not the most important guidance because the observer must inhabit the territory of the study, learning with the experience and being part of the practices.

The last clue, number **eight**, claims that that the way of reporting used by the cartography demands a change. Usually, the collected data is analysed, and researchers reach conclusions from the point of view of a narrator. However, cartographers go beyond representation, they intervene, use strategies, get involved, learn from the experience, therefore, all the produced knowledge comes from a position which implicates the observer politically. It must be said that the meaning of the word politically in this context is widened, meaning everything that refers to a city. A policy is any human activity that makes subjects interact, following not only legal rules but also others related to power. This method is a way to express changing processes of the context and of the cartographer.

3.2 THE CARTOGRAPHIC METHOD IN THIS STUDY

The pedagogical practices were developed with subjects enrolled in an undergraduate course located in the region of Vale do Rio dos Sinos, RS. During the first semester of 2017, in a class called English 1, aimed at improving the students' knowledge of the English Language, through activities and discussions in classes, the teacher noticed that the students did not know about digital educational resources neither in general nor related to language learning. Therefore, the teacher decided to explore experiences involving ICTs not only to present them to students but also to enhance their proficiency. The progress expected can be described by the CEFR: English II corresponds to A2, English III to B1 and English IV, to B2.1.

Considering this method, by having a clear starting point (which was the inclusion of ICTs in a teachers' training course so that they would experience them) and a reaching point (to be able to evaluate their usage benefits), previously the path from A to B could be neither determined nor closed. Data started to be collected in August 2017 and finished in December 2018, which configures an extended period of time during which the path from A to B would be shaped by the group and the researcher. The practices resulted in different movements along the way, which could be compared to commuting from a house to the workplace: there are probably many routes to take to get there.

It was clear that many forces would be surrounding the research territory which would be inhabited by the researcher and the students provoking not only a change in the reality around them, in knowledge, but also a change in themselves, as learners during the process.

As odd as it might seem, objectivism and subjectivism would coexist, complementing each other. The practices developed would search for data at the same time they would consider the adaptation and reorganization of the territory while following the processes. At times the subjects involved in the process would analyse aspects from inside, although there would be times that they would proceed as they were hovering and observing from above.

When processes are followed, there is a necessity of registering them to assure that details would not be lost in the long run. This may cause a change in describing the experiences, a different shape so that the results would not be lost along the way. While finishing one pedagogical practice, it was necessary to reflect about this part, to evaluate whether it indicated a swerve to the right, or to the left, or continued straight ahead. Hence, the proposal of the final product was to put together three papers which were conducted by a thread which passes throughout all practices and though described separately, are part of only one complex, structured research.

Due to all these features, the cartographic method seemed to be suitable to be applied in the pedagogical practices involved in this research. In the first practice, the teacher created a page on Edmodo and invited students to join it so that a virtual space was available for support, interaction, and sharing. This practice was developed from August to December 2017, in the English 2 subject, when the teacher realised students were working for the first time with Google Classroom and they were amazed by its possibilities. As a result of a social education network which could be used by the students in their schools was presented and used. The decision was based on the ranking of the Centre of Learning & Performance Technologies which places Edmodo amongst the Top 100 Tools for Education in 2017. The goal was to promote a network where students would be able to shares ideas, suggestions, interact and have a place where they could find support. Since then, students have been interacting and posting materials they consider interesting and need to be shared.

This page was built by the subjects involved and was used for many purposes, such as helping with some linguistic difficulties, share some videos with activities for students, papers which were discussed with the group, they also posted their opinions and interacted with their classmates' comments. At the end of the period, there were sixteen different posts. When this practice started, the objective was to have a place to share and interact but there was no idea on how students would react to this proposal, which in the end, seemed very positive, as they are keeping it updated for the third semester. Students speeches, reactions, and participation was based on the analyses.

The second practice came up when, during a writing task, students expressed their concerns about the writings tasks which are part of their grades. To meet this difficulty, the teacher planned to focus on this ability during the following semester. These analyses were based on one of the resources used, which generates data compiled in graphics.

This practice was developed from February to July 2018, in the English 3 subject, because students were struggling with the writing tasks of the course. In their own first language students only have the opportunity to write formal essays at university and this cannot be considered a habit. Due to this, this paper proposes pedagogical practices with four digital educational resources to promote moments to improve this specific skill. The means were chosen due to the Institution's connection to Cambridge, which runs the English Profile. Although Future Learn hosts many MOOCs (Massive Open Online Courses) from Cambridge, at the time of the practice there was no writing course being offered by this university, therefore the group used a course offered by the University of Reading in the United Kingdom.

The third practice evolved from the previous ones, joining the social educational network to the writing resources. But with the difference that the platform was subscribed to by the teacher and provided more features for herself and the students. The network was used to share content that the students produced about a specific topic they elected as being difficult rearding writing. These posts were accessed by all students to enlarge their personal knowledge and also while they were performing their writing task directly on the platform. The main difference is that the premium version offers a feedback box where the teacher can write individual comments to each student and a progress chart so that the teacher can follow their progress.

4 EDMODO – EXPERIENCING A GLOBAL EDUCATION NETWORK

This paper is the result of the first pedagogical practice. It was sent, accepted and published by the 7th International Workshop, LTEC 2018, in Žilina, Slovakia (MUSSKOPF; BARBOSA, 2018a).

Introduction

Lately, technology has been changing our lives mostly improving medicine, ways of communication and providing access to information. Related to education there are nowadays many apps and platforms designed to facilitate learning and the teachers' job itself, like planning, correcting students' tasks and giving feedback. Nonetheless, the use of technology inside classrooms by teachers is still slow and rare in practice. This has been observed in many schools within the last decade.

One of the possible reasons must be related to teachers' training which still seems to be very traditional, ignoring new possibilities of engaging practices and repeating old models. Human beings have the tendency to reproduce behaviours, so, if the technology is not used during the training of such professionals, they are more likely to not use it once they are inside a classroom and leading their students learning the process.

Considering this, the authors proposed how to introduce opportunities to use the Web 2.0 and the constitution of a Personal Learning Environment (PLE) in a teacher training course in English as a Second Language. According Barbosa and Bassani [2], Web 2.0. is based on a participatory architecture, in which the individual can use, create, recreate and share content utilizing different applications. Recent research points towards the use of Web 2.0 applications in education from the perspective of Personal Learning Environments (PLE). A PLE is organized with a basis on traditional experiences that constitute formal education and new experiences enabled by ICT, especially Web 2.0 applications.

To allow students to experience digital resources applied to education, one of the tools being used in the educational context was chosen: a social network for education. Through these nets it is possible to carry out a learning proposal that goes beyond the walls of the classroom and includs technological resources in educational tasks, leading to a hybrid learning system. Thus, it also explores ubiquity in the learning process. Santaella [12] defines ubiquity as 'the attribute or state of something or someone that is defined by the power of being in more than one place at the same time.'. Therefore, by using social networks the learning process is enlarged by involving different tools and spaces.

In this paper, there is a special interest in the possibilities promoted by the Social Educational Networks which are 'nets related to the educational context, supporting concepts such as students, teachers, activities, school, among others' [1]. It presents experiences with the usage of an educational network in a pedagogical practice with a group of students in Higher Education that are doing a course of Teaching English as a Second Language in the Vale do Rio dos Sinos region, located in the south of Brazil.

The practice was proposed and developed by the teacher in a subject of the course and the main motivation was to have a space to share content and present an option of a Personal Learning Environment to the students because the teacher noticed in the previous semester that the students did not have any idea about these possibilities. Our challenge was to create interaction between not only student to student but firstly, student to technology, student to the environment, student to the space where they would appropriate themselves about technology, their possibilities and hopefully, use them in their own practices as teachers.

Materials which were constituted by digital resources available on the internet, for example, websites, games, as well as short teasers and questions that the teacher would like to address with the students, providing a new place to share experiences between the teacher and the students, so that the formal moment of the education would be extended, and were also part of the experience. Hence, the option of using an educational network was taken to spread the interaction present in the physical classroom and to have a site where these exchanges would happen. The aims were: (a) to gather various suggestions in an educational network, (b) to build a sharing environment which could be accessed by granting permission, (c) to ensure that the groups of participants were made up of the chosen group of students, (d) to multiply opportunities of contact between the people involved and, at the same time, (e) also to allow the students to post tips, digital resources and/or questions, making it possible for them to be able to become active subjects in their own learning process so that they would build their PLE.

Background

The researcher in educational matters Vygotsky [13] related psychology to education, developing studies about pedagogical issues building theories and investigating. The focus of his study was the importance of social interaction and the historical dimension of mental development. Human development, according to this author, is determined by socialization. When a subject interacts with their sociocultural environment and/or modifies it through their behaviour, this subject will also influence the environment in the future. Moreover, and

considering the diversity of the educational scenery, to assure that the learning process occurs effectively, two elements are needed: meaningful learning and autonomy of the subject in developing knowledge [9]. The technologies associated with the learning process of the subject can facilitate these points, as they are present in current society.

In this context, the social networks are suitable to promote interaction and collaboration among the subjects, providing a computational environment offering support to investigate how these social technologies add to the learning process in a collaborative space. For Leffa [8] the social networks can be a great tool, but '[…] it is not social networks alone that improve language teaching, but the usage it is made of them'. Consequently, the simple existence thus denomination of a social network does not guarantee it as an aid. Only the usage, the practice done by its subjects is what certifies it as an effective tool, presenting characteristics such as interaction, sharing, co-authorship, among others.

The main concept in this study is the noun interaction, consequently, the verb interact. Alex Primo observed their appearance in many contexts related to computing and realized that their meaning could be very different. Therefore, he came up with two definitions that apply to this experience: mutual interaction and reactive interaction. In short, the first is 'characterized by interdependent relations and negotiation processes in which each subject participates in the inventive and cooperative construction of the relation, affecting themselves mutually' [10] and the second is 'limited by determined relations of stimulus and response' [10]. Moreover, the Oxford Dictionary [6] defines interaction as (1) 'to communicate with somebody, especially while you work, play or spend time with them' and (2) 'if one thing interacts with another, or if two things interact, the two things influence each other'. The similarity between the dictionary and Primo is that both mention effects on the subjects and this is the expectation of this experiment: to use digital tools during the students' training so that, hopefully, they will be able to use them in their own practice.

In association with, another very important concept is hybridism, which refers to 'the interconnection of the physical spaces of circulation with the virtual spaces of information through which the users of mobile devices are connected' [12].

Thus, the meeting of the teachers with their students, which usually happens on a weekly basis, can happen more frequently, transforming the moment of physical distance into an opportunity of real communication, even though virtual. The sharing of ideas, knowledge, suggestions becomes permanent yet not at the same time, but asynchronous. Hybridism to authors such as Santaella [12] and Barbosa [2] is also related to ubiquity or ubiquitous learning in the meaning that learning may happen in any place, at any time in any space.

Ubiquity is possible just because nowadays our lives are surrounded by many devices, a computer/laptop being almost indispensable in our day-by-day routine. The Computer Assisted Language Learning (CALL), together with Mobile Assisted Language Learning (MALL), deals with learning languages using a variety of technologies, from CD-ROMs to cell phones. These areas have joined efforts with Second Language Acquisition theories in the research of how gadgets can be useful and effective to the students' development of a second language. Franco [5] mentions that the learning of a language is seen as a socialization process in specific discursive communities. According to this point of view, students should be encouraged to participate in authentic social interaction so that they can participate in communicative situations out of the classroom context. This is possible through the collaboration between students in authentic tasks and projects while simultaneously learning the content and the linguistic form.

From this perspective of language acquisition, a computer (and technologies in general) can be used to promote interaction between the subjects involved and a facilitator of the language learning process.

Experience Report

The practice occurred in a class of Higher Education in a Teaching English as a Second Language course constituted by seven students of which three already work in schools. The teacher shared her concern related to a lack of a means which worked as a storage of ideas and activities, suggesting the usage of a tool called Edmodo to solve this issue. See the initial page from Edmodo in the following Fig. 1.

Figure 1 – Edmodo initial page
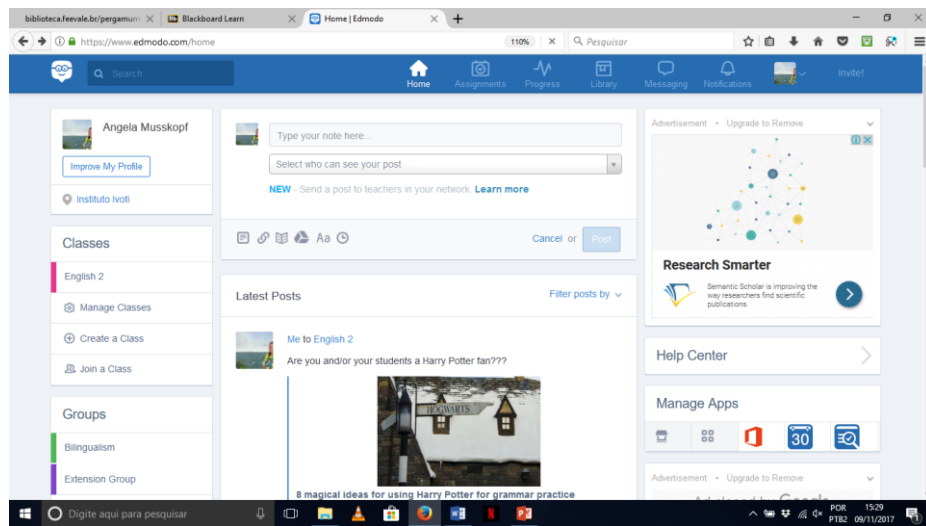
Source: author's Edmodo page

Methodology

For this practice, a platform called Edmodo[3] was chosen. On their website, this definition is available: Edmodo is a global education network that helps connect all learners with the people and resources needed to reach their full potential [4]. The intention was to search for a freemium[4] a platform so that the students could also use it to manage their classes.

According to the Centre of Learning & Performance Technologies[5] Edmodo is listed among the Top 200 Tools for Learning 2017, appearing in the 75th position and it is the only learning platform for schools that is mentioned. When considering the sub list Top 100 Tools for Education (EDU) 2017, it is in the 41st position. Moreover, Edmodo is a partner of Cambridge University Press which is very important to the Institution where this practice occurred since it is a Preparation Centre and venue for the proficiency tests of the University of Cambridge since 2012. Furthermore, the fact that Edmodo does not have so many distractors like Facebook and that it can be used by children, which is not allowed by Facebook's policy, reinforced the certainty of the choice.

Some features added weight to this decision: the possibility to create (a) a private group managed by the teacher, (b) tests, (c) polls, (d) assignments and (e) follow students' performance by a grade book. Furthermore, the resemblance to other social networks such as

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[3] EDMODO. Teach more. Learn more. Available at: <https://www.edmodo.com>. Accessed in: 05 dez. 2017.

[4] Term used to refer to websites which allow people to receive basic services for free but require them to pay to have access to all services.

[5] http://c4lpt.co.uk/.

Facebook which was already known by the students. Edmodo provides an interface of interaction, debates, socialization of activities and experiences, becoming the meeting point of the students among themselves and between them and their teacher.

The study was developed during October and November 2017, the period in which the class called English 2[6] was generated and the students were informed of the code to access it. As the language used in class was English, it was established that the posts would also be done in this language. At least once a week, the teacher posted content, and, after a while, students were also invited to post not only their opinions but content too. All the data was collected from the platform since it is recorded in the class created by the teacher.

Practice – How It Was Implemented

The teacher made 16 posts[7] constituted by eight various types: (1) suggestions of activities to be used with their students, (2) explanations and exercises to develop the students' English knowledge about topics studied in the classroom, (3) a message for the Teacher's Day, (4) papers to be read and commented on, (5) an invitation to participate in a webinar from the University of Cambridge about vocabulary, (6) a poll, (7) a quiz and (8) an assignment.

A summary of each post is provided below:

- Digital Tools – Six digital tools suggestions to facilitate the teachers' day by day.

- Webinar – Invitation to participate in a webinar: when words do not get in the way! – vocabulary activities to facilitate learning.

- Verbal Tenses – Prince Harry has his popcorn nicked by a toddler (present simple x present continuous): gap filling video activity.

- Present Perfect – Print and cut slips with lyrics containing present perfect structures. Students order while listening to the songs.

- Prepositions – Crabs commercial (movement prepositions and adverbs): gap filling video activity.

- Reported Speech – Kids say the funniest things. Watch the video and write on the worksheet in the indirect speech.

- Past Perfect – Explanation and online exercises on the topic since the students showed difficulty.

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[6] The site can be accessed at https://www.edmodo.com/home#/group?id=25444517.
[7] All activities and links are available at: https://www.goconqr.com/pt-BR/p/11844934.

- Message: Teachers' Day – A video message congratulating these professionals for their day.

- QR activities – Creating mobile worksheets with QR codes. Suggestions on how to use QR codes in the classroom.

- Article – Can a computer teach children to read and write? Read, post opinion and comment on classmates' opinions.

- Halloween – Haunted house: gap filling video activity.

- Harry Potter – Eight magical ideas for using Harry Potter for grammar practice.

- Survey – Teacher's survey: a yes/no question about Edmodo using its own quiz tool.

- Quiz - The teacher created a quiz using a tool from Edmodo: multiple choice questions on prepositions.

- Indirect questions – Various explanations about the topic with links to exercises posted by the students.

- Assignment – Students read a book and present its content through diverse ways: acronym, crossword, sentence, summary, character description, mind map, picture net. This was created using an Edmodo tool and the students used other tools to present their tasks, such as Goconqr and online word.

The posts can be divided into three main areas according to their purpose:

A) Suggestions – these posts are related to activities the students can use in their own practice; they involve videos, songs, and technology usage.

B) Language development – the subject in which the practice occurred is aimed to improve the students' knowledge of English. Therefore, it was important to involve this issue in the posts.

C) Discussions – these were similar to a forum; students reflected on a topic, posted their own opinion and commented on their classmates' postings.

Table 1 provides an idea of the areas of each post:

Table 1 – Areas of each post

| Areas	Posts
A) Suggestions	1, 2, 3, 4, 5, 9, 11, 12, 16
B) Language Development	3, 6, 7, 11, 14, 15, 16
C) Discussions	10, 13, 16

Source: developed by the author

Post number 8 does not appear because it was a message in honour of Teachers' Day in Brazil.

Although each post can be linked to a specific purpose, all of them could be considered valuable in terms of language acquisition since the students were using the second language in real communication tasks as stated by approaches to language in social contexts. Moreover, according to Chapelle [3], when learners receive feedback from the computer on their production, they have the opportunity to notice gaps and correct errors' and 'technology dramatically extends and changes the breadth and depth of exposure that learners can have with the target language and interactive events in which they have the opportunity to focus on the language.

The first access was during a class using Chrome books available at the establishment. There was no need to create individual accounts since the institution has a partnership with Google and all students get a Gmail account, which is suitable to access Edmodo. The first posts were accessed in the classroom so that students would be guided in both logging in and exploring some of the possibilities of the platform.

The students were asked to post explanations and exercises about a topic studied in the classroom (indirect questions). This was used by the teacher as an aid for the students who were absent that day so that they would have the possibility of catching up. Even the students who were in the class were asked to read and do the exercises as a way of checking their understanding. The following picture shows the post made by one of the students.

Figure 2 – Student's post
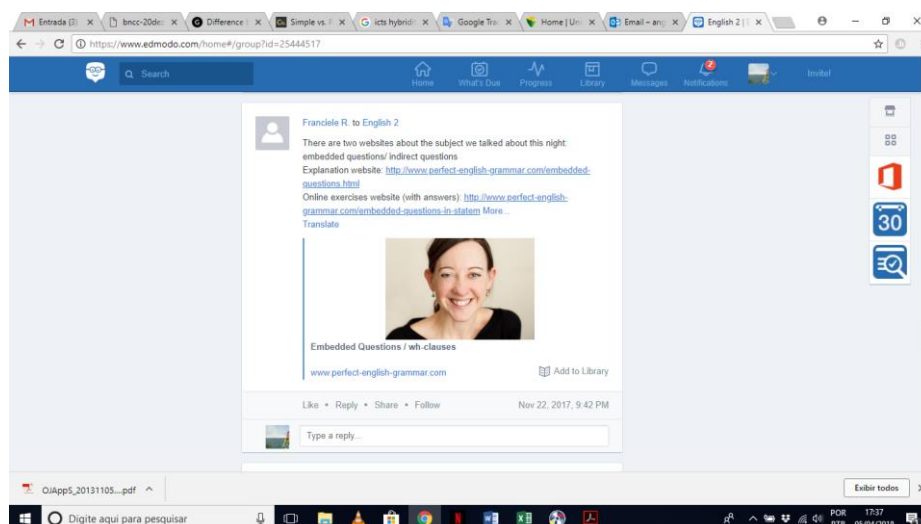
Source: author's Edmodo page

The assignment proposed was about a reading book; each student chose one according to their level of English and they were challenged to present the content of the book to the class. The teacher suggested some options such as a mind map, an acronym, a description. For this task, all students used other available tools: the online word (from Google Drive options) and a site which allows a creation on mind maps called Goconqr[8], also accessed through a Gmail account. This kind of task allowed the teacher to address comments and grade the students' work. Also, there was a homework task involving this reading: students were asked to write 5 different sentences comparing the books each one read to the ones of their classmates and post it. Since comparison would be the next topic, this task would be used as a lead-in activity.

Results

The interaction of the students in the created space was surprising. According to Leffa and Freire [8] 'learning in both ways on distance or face to face is only possible when there is a mechanism to mediate both or more agents'. Analysing the participation of everyone involved, teacher and students, the interaction was clearly developed during the period of this study. A moment to represent this was through the comments of the students about one of the texts the teacher posted. A part of the discussion can be seen in the following Fig. 3.

Figure 3 – Article discussion
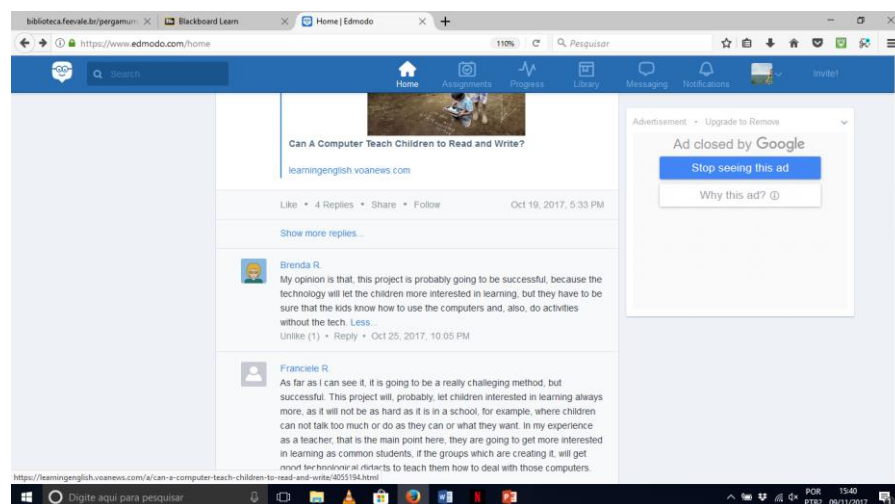
Source: author's Edmodo page

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[8] Available at: www.goconqr.com.

There were contributions in both contexts, inside and outside the classroom. In the first one, students talked about the posts and their helpfulness, demonstrating their engagement and excitement about using the tool. In the second one, the class was extended beyond the walls of the school, since students accessed the content from their home. Still referring to Leffa and Freire [8], 'the distance becomes present and the present becomes distant, turning the learning process into a hybrid and unique process, present while geographically distant.' This extension of the classroom mentioned by these two authors was achieved in this experiment since the access and interaction occurred in both moments inside and outside the institution.

The quiz given to the students asked their opinion about Edmodo. None of the students knew about this tool before the teacher presented it and all of them answered they liked using it.

The students also explored some other possibilities that Edmodo offers. For example, a student shared that she took an English test suggested by the platform and in her point of view it was considered very interesting.

Related to the usability of the tool, the students considered the possibility of editing commentary already posted of extreme importance. In such a virtual space composed by a closed group with people who know each other, personal exposition is a must and some students were concerned about using English in writing and making mistakes. Nevertheless, the initial discomfort and unsureness was left behind when the students were informed that they could edit what was already posted.

Final Considerations

Interpreting the practice results, it is possible to affirm that the created space became the meeting point of the group, which was the original intention of the research. The structure and usage of Edmodo were easy to understand and basically deductive. Other options offered by the platform unveiled innovative ideas and contributed to the professional development of future teachers. Based on the students' reaction, interaction and usage of technology during this experience, the authors truly believe they have contributed to a change in the state of the art concerning technology and its implementation during the teachers' training course. One reason for this statement is the fact that students were using some of the tools while doing tasks for other disciplines as mentioned by them during an informal talk.

However, the possibilities were not exhausted during this short amount of time. On the contrary, besides the teacher, students also realised that there are many other tools that Edmodo presents and that can be explored to get the most out of it.

Yet, the decision to choose Edmodo was successful: it fulfilled the study purpose. By experimenting with this tool, the students were able to foresee the use of it in their own professional practice. Additionally, according to Chapelle [3], 'the emphasis in CALL today is on the pragmatic goal of marshalling professional knowledge in a manner that is useful for creating learning opportunities and demonstrating successful learning'. The practice with the students showed that they had various opportunities outside the classroom in which they were able to get in touch with the second language they are trying to master. Edmodo was a social environment allowing students to use English to communicate with their classmates, expressing their opinions and sharing thoughts and suggestions besides fulfilling the teacher's task posted at the platform. Through this, the social usage of the language was implemented and, as mentioned orally by students, they received peer correction and were able to rewrite some mistakes in a safe and friendly environment.

The usage of ICTs inside the classroom can be very challenging for teachers. They used to be the possessors of knowledge and the ones who were supposed to have all the answers to the students' doubts. The truth is that young students are more used to technology than teachers, thus educators may feel vulnerable, threatened and even ashamed of their lack of knowledge on how to deal with technology. Teachers will have to learn how to deal with this digital era people are living in and more than never they must not only admit to but really put into practice the famous statement known all over the world: teachers learn from their students, too.

On the other hand, technologies can be taken as the trigger for a different role for both, students and teachers: the former should be able to explore possibilities, be more autonomous, organise their own PLE to become better professionals and benefit from the available options. The latter should act as mediators, guiding students in their learning process, allowing them to share the knowledge they bring with them when walking into a classroom, standing side by side and not in front of them anymore as it used to be. Teachers are still important, though some might say they have a bigger role as they are now expected raise the right questions and suggestions to help their students to reach the answers instead of giving them.

One of the challenges raised by the usage of technologies in the classroom could be referred to as a divergence between study and leisure, both parts of cyberculture: communication via social networks appears to be much more connected to leisure and

enjoyment time than to the typical circumspection of the study time and improvement of linguistic and/or professional knowledge. Hence, the usage of an educational network brings the opportunity to explore the elements of a social network but in a more focused space, oriented to elements taking part in the learning process. Considering the development of future teachers thus their use of digital technologies in their schools, it is to completely help them to incorporate it in their practice, widening them to beyond the usual ones already known by students.

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5 ICT AND SECOND LANGUAGE LEARNING

This paper is the result of the second practice. A short version was accepted and presented in the *Seminário de Pós-Graduação*, from Feevale University, Brazil, (MUSSKOPF; BARBOSA, 2018) and an extended version was accepted and published by RENOTE (MUSSKOPF; BARBOSA; BASSANI, 2018).

1 Introduction

Currently, all areas have been invaded by technology: banking, marketing, commerce, and, of course, education. Schools cannot ignore this reality and should neither fear nor avoid integrating it into the classroom. Hence include possibilities of how to explore digital resources in teachers' training courses is a must, it is a sine qua non to encourage future teachers to deal with the technological possibilities available, especially the ones which meet the characteristics of Second Language Acquisition (SLA) theories such as the digital resources applied to education used in this study.

In education, the usage of digital educational resources aims to develop and share digital tools to improve the learning process. According to UNESCO, 'Open Educational Resources (OER) are teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution'.

The present paper aims to describe a practice developed with teachers' training undergraduates in using some digital educational resources. It also raises some issues about second language learning theories and approaches to language teaching based on authors such as Ellis (2000), Mitchell and Myles (2004) and Lightbown and Spada (2013), which can be linked to online learning. Furthermore, researchers such as Chapelle (2016) and Mello (1997) discuss the reasons to use ICTs in the classroom.

A positive feature of online resources is the fast feedback they can provide; most of them, besides assessing correct or incorrect answers, showing some explanations on grammar points or rules which provide the theory to fundament the right answer. Another one is the result achieved: not only do they give numbers and/or percentages of right answers (for example 9/10 = 90%) but also measure the quality of the given answers. These characteristics can lead learners to reflect and build knowledge so that they will be able to improve their language level. Therefore, the author considers that digital resources should be included during the training of undergraduates preparing to become teachers of English as a second

language. Graduates students still leave universities without having experimented ICTs during their training. The Survey on the Use of Information and Communication Technologies in Brazilian Schools (PONTO BR, 2017, p. 260) from 2016 illustrates this statement: 54% of the teachers answered they did not have any specific subject on how to use computers and the Internet in activities with students during their Tertiary Education.

2 Second Language Acquisition (SLA) and ICTs

Second language learning (SLL) theories deal with the process of learning any other language different from the mother tongue as defined by Ellis (2000). Therefore, additional languages to the first, L3, L4 are also considered in these studies.

Thus, Ellis claims that there are diverse ways to discover how learners acquire their second language. In his opinion, 'A better approach might be to find out what learners actually do, as opposed to what they think they do, when they try to learn an L2' (ELLIS, 2000, p. 4). Through this method, data from the language used by learners is collected and studied to verify the accuracy of the target language.

Many factors can influence language acquisition as to remain incomplete. This author mentions the need of the learner for more time as a possibility, the subject simply stops learning, they can be motivated to learn only enough to communicate according to their necessity or just because they do not want to join the native speaking community.

Besides the reasons to learn a second language, there are at least three very problematic aspects, which must be kept in mind:

> - second language learners are cognitively mature
> - second language learners already know at least one other language
> - second language learners have different motivations for learning a second language (language learning does not take place in order to answer the basic human need to communicate) (MITCHELL; MYLES, 2004, p. 78).

Aiming to help students to acquire a second language, researchers refer to the cognitive approach, the functional/pragmatic perspective, the input and the interaction, the socio-cultural perspective and the sociolinguistic perspective as aspects which influence the acquisition process.

Cognitive approaches basically study 'how the human brain processes and learns new information' (MITCHELL; MYLES, 2004, p. 95). Psychologists understand learning as the result of our brain turning controlled practices to automatic ones. These processes involve our short-term memory using new words and chunks and storing them in our long-term memory. This is achieved through repetition so that they will be available when needed. Once our brain

automatizes simple forms, it can move on to more complex structures. This movement goes on continuously always from controlled to automatic processes.

According to Lightbown and Spada (2013), these approaches produced four main applications to second language learning: interacting, noticing, processing and practicing. Interaction relates to the necessity of opportunities for learners to communicate with other speakers looking for a mutual understanding through negotiation for meaning. Noticing relates to an essential point in learning since it states that the growth in language is only achievable if people become aware of language features. Processing refers to the sequence of features acquired by the learners and their development of syntax and morphology features. Practice relates to the essential part of using what was studied, preferably, it should be interactive, meaningful and focused on task-essential forms. All these aspects can be addressed by the use of digital technology resources: there are mind maps resources which help people to structure, plan and organize their thoughts, there are educational networks, such as Edmodo, which provide ways of interaction in a safe environment, where students do not feel afraid of exposing themselves, there are resources which provide practice and allow teachers to produce material specific to their classes, such as ELO. Chapelle (2016) states that concepts second language learning helped CALL research, thus, papers related to CALL usually start explaining the theoretical basis of SLA. According to Chapelle (2016, p. 10), 'the variety of research methods for investigating technology and language learning has been integrally linked to theoretical perspectives on second language learning'. And she continues affirming that nowadays the relation between research practices and second language learning are much more established than two decades ago due to the fact that researchers were able to make explicit connections of interactionist second language acquisition for the design of ICTs.

With the advance of technology and the ease of access, researchers have been looking for options to enhance language learning. Mello (1997) mentions that the Web provides awesome possibilities for education. Therefore, many programs, apps, and platforms have been developed lately, making various resources and tools for teachers available, like BBC Learning English[9], ELO[10] (English Language Online) and Kahoot[11].

Functional/pragmatic perspectives 'are concerned with the ways in which second language learners set about creating meaning, and achieving their personal communicative

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[9] Available at: http://www.bbc.co.uk/learningenglish/
[10] Available at: http://www.elo.pro.br/cloud/
[11] Available at: https://kahoot.com/welcomeback/

goals' (MITCHELL; MYLES, 2004, p. 131). This means that pragmatic communicative needs are the reasons to develop a second language and once the communication goal is achieved, students may become stagnate in their stage of knowledge thus explaining why some learners do not reach higher proficiency levels.

While cognitive approaches considered learners as individuala and autonomous, the next two topics deal with learning in social terms. Input refers to the necessary exposure to the target language. Though it can also occur individually, interaction is the engagement with the interlocutor, which also provides input. Nevertheless, interaction here is not necessarily seen as an active role, as it can occur just by listening to a lecture, watching a movie or listening to a concert. In all these activities, people are being exposed to language, therefore it can be said that there is a type of interaction.

The sociocultural perspective (MITCHELL; MYLES, 2004) and the sociolinguist perspectives (MITCHELL; MYLES, 2004) claim that input is not just a source of interaction, but it has a much more key role, for some researches, even being the ultimate nature of language. Sociocultural researches claim that the ultimate reason for language development is social, that is to interact with people and the environment. Most of these theories have been based on Vygotsky's work (MITCHELL; MYLES, 2004), applying his arguments to the learning of a second language.

The sociolinguistic approach considers language in use. Some researchers deal with language variability, for example, the fact that people speak according to the social context they are in, while others develop studies of individual or group cases taking into consideration the learners' qualities and ambitions and their contribution to the context of learning. An important concept in this approach are the communities of practice, which are related to the identities of each person and the cultural society and community. Ethnographers have a great field of study to understand the second language used in speech events and communities.

In 2000, Lee already listed eight benefits of using the internet for language learning: experiential learning, motivation, enhanced student achievement, authentic materials for study, greater interaction, individualization, independence from a single source of information and global understanding. Considering the updated state-of-the-art of technology, there are many reasons to believe all these characteristics were implemented over the years, thus offering wider possibilities of exploitation.

Another researcher of technology in education is Jose Manuel Moran (2002), whose investigations are about distance learning and technology to transform education, he claims that a good course is the one that excites, surprises, makes students think, provides active

engagement and brings meaningful contributions and putting students in contact with other people, experiences and interesting ideas. The usage of digital resources can meet these features, so why not include them in education and benefit from them?

Technology allows teachers and students to respect their individualities without feeling worried about timing since each one advances at their own pace, not causing delays their colleagues.

3 Digital Educational Resources for this practice

For this practice, four digital educational resources were chosen: a MOOC, the Text Inspector, the Thesaurus and the Write and Improve, all related to writing skills. There are three main reasons to use these ones: (a) writing productions are relatively easy to measure, (b) the meaningful use of the language, since students will engage in specific points to communicate about and (c) the institution in which the practice was developed offers Cambridge Proficiency Tests, holding the title of a Preparation Centre, thus, it is important for the students to be in touch with the CEFR and the tests standards.

A Massive Open Online Course (MOOC)[12] allows a learner to participate free of charge in a course, regardless of their geographical position as it can be joined from all over the world. One of the principles of MOOCs is the engagement in forums in which participants are asked to contribute with opinions and suggestions and are asked to interact by commenting on each other's posts.

The Text Inspector[13] was used to show the student how to consider writing production according to the Common European Framework of Reference[14] (CEFR). This resource is the result of a ground-breaking collaborative project, supported by the European Council, and led by two departments from the University of Cambridge, UK. The CEFR describes what learners can do at different stages of their learning. By using this, students could evaluate their writing level and look for possibilities of moving it up a level.

The Thesaurus [15] is a website which enables the student to search for definitions or synonyms of words. For this study, the second option was used since the idea was to find synonyms. Students choose one and checked the level of the vocabulary according to the CEFR. The proposal aimed to replace some of the words they used in their text with others that have a higher standard. By doing this, they would widen their vocabulary, learning new

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[12] Available at: https://www.futurelearn.com/sign-in
[13] Available at: http://www.englishprofile.org/wordlists/text-inspector
[14] Available at: http://www.cambridgeenglish.org/exams-and-tests/cefr/
[15] Available at: https://www.thesaurus.com

words, and would improve their writing by increasing the number of words belonging to levels above B1. It was expected that at the level where students stand most of their vocabulary would be from levels A1 and A2.

The Write & Improve [16], created by the University of Cambridge, marks writing accurately, attributing a score on the CEFR scale, giving it a level from A1 (lowest) to C2 (highest). It also shows the parts of the writing which may be improved by giving a feedback in two levels: word and sentence. In the word level, it gives you four types of feedback: incorrect word, forgotten word, forgotten word after another or suspicious word, all of them marked with a different symbol and colour to make feedback very clear to the students. In the sentences level, it gives you three types of feedback: a good sentence, a sentence that could be improved and a problematic sentence all of them highlighted in assorted colours and shaded in different manners. Again, it is possible to connect this tool to all SLL theories because of the possibilities that it presents to students.

The main difference between the Text Inspector and the Write and Improve is that the first allows for checking the level of any writing proposal while the second only assesses the ones provided by the resource. Plus, the second resource gives feedback on vocabulary (spelling, misuse) and sentence structure (order of the elements, punctuation) whilst the first only classifies vocabulary according to the CEFR.

4 Practice

The undergraduate students took a five-week MOOC called *A Beginner's Guide to Writing in English for University Study*, available on the Future Learn website, offered by University of Reading, UK. The goal of the course was to learn how to use English to study at a university or college and develop the students' writing skills, vocabulary, and grammar. The students were guided on how to structure a paragraph and link them, and then producing an essay at the end of the course. Besides this, from the first week the students were guided to write about a specific topic and to communicate their opinion and state their position. Moreover, the teacher collected their production throughout the course, discussed them in class with the students and allowed them to suggest on how to continue their essays, cooperating with each other. Students also used mind maps as a resource to plan their final essay.

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[16] Available at: https://writeandimprove.com/

The Text Inspector was used to check a writing proposal for a story. This was a sample of a Preliminary English Test (PET), level B1, from Cambridge, already used and available on their website[17]. The students received a task paper containing the instructions: your teacher wants you to write a story, the title is *An exciting morning*, write about 100 words.

As in English proficiency tests timing is a condition, the teacher allowed 45 minutes for the students to fulfil the task and all of them managed to produce their story within it. After concluding, the student used the text inspector to check the level of their writing production. After submitting their texts for the first time, students were asked to look at the words categorized as unlisted since a great deal of them could be in such a category because of spelling mistakes. The resource also includes names in this list, so students were advised to ignore it if this was the case. Afterwards, the teacher asked the student to pay attention to the words categorised as A1 and A2 level and look for synonyms in higher levels and use them in their texts. The Online Thesaurus[18] and the English Profile site itself helped students in this task. Following the changes, students were asked to resubmit their writings and evaluate changes noticed through the numbers expressed.

The Write and Improve resource has three options of writing: beginner, intermediate and advanced, as well as specific writings for proficiency tests such as IELTS. For this group, the teacher chose an intermediate proposal for an article about learning English, titled: *My reasons for learning English*. The length of the production was set between 140 and 190 words, the amount that is demanded in the First Certificate in English (FCE) level B2 of the CEFR.

Using this resource, students wrote their first version, reflected on the received feedback and were asked to rewrite and resubmit as many times as they wanted. Most of the students submitted their work two or three times. If they received feedback, they were not able to deal with, the teacher was ready and prompt to help them.

5 Results and final considerations

Analysing the data collected after the practices, all students noticed improvements in their productions, seeing that the digital educational resources used allowed for the possibility of comparison between the first draft and the final written work.

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[17] Available at http://www.cambridgeenglish.org
[18] Available at: http://www.thesaurus.com/

Related to the MOOC taken, it was the first time the students participated in one and they enjoyed this opportunity, especially because they had the chance to discuss their point of view and share ideas on how to continue developing it. The last writing was submitted to the text inspector which showed a clear difference from the first essay of the semester. This showed that the entire group benefitted from the MOOC, but Table 1 shows only the improvement in the level of the words used by the student whose result was very remarkable, since her current level is A2/B1:

**Table 1 – Comparison submitted to the Text Inspector**

		A1	A2	B1	B2	C1	C2
Student A	First	41	7	1	1	0	0
	Final	96	25	26	23	4	1

Source: developed by the author

As it can be seen, the progress achieved was substantial, which means that the guidance of the resource, the discussions and moment of sharing ideas helped the student to produce a high-quality writing.

The task assigned with the Text Inspector and the substitution of the words using the Thesaurus was very interesting for the students. On one hand because they did not know this was possible and on the other hand because they were able to check the level of each word and learned unfamiliar words and how to upgrade their own vocabulary. For example, when they typed the word *happy* in the Thesaurus, which is considered level A1 when used to express a feeling of gladness, they got the word *cheerful* as a synonym. Taking this one to the English Profile, there are two results; the first one expresses the same as the adjective happy and used like this, it is considered level B2. Figure 1 shows the print screen of this page:

Figure 1 – Level of the word cheerful
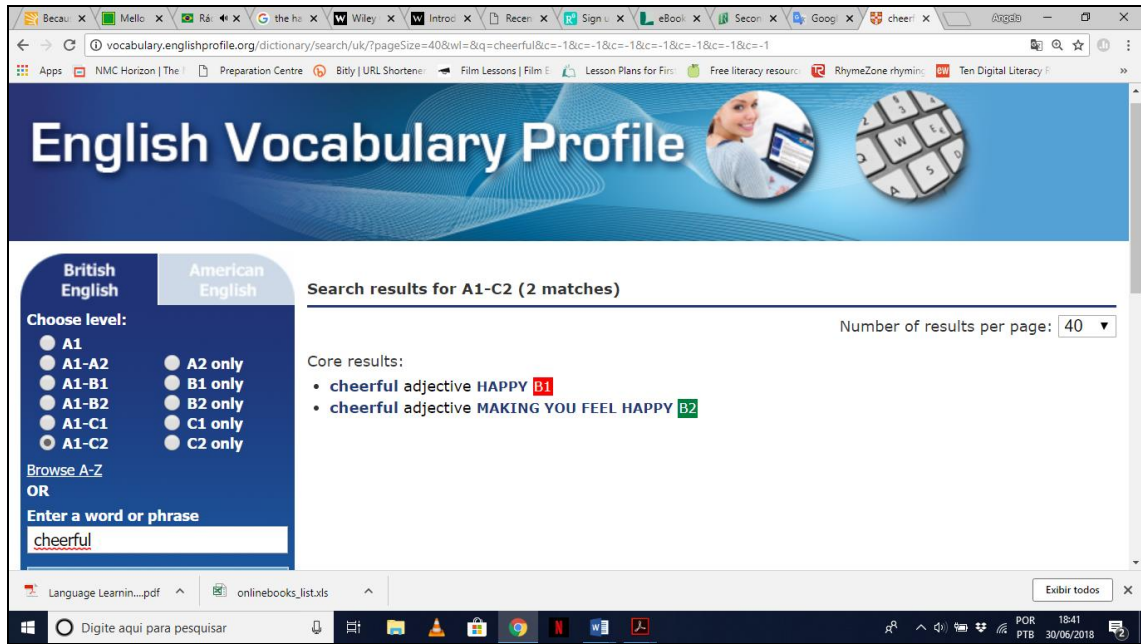
Source: English Profile webpage

Students were advised to look for adjectives and nouns first, as they are easy to spot and would already provoke a huge difference in the vocabulary level. They started the task and the teacher helped them in the beginning, although pretty soon they were able to work by themselves. Table 2 shows the difference in the level of the words from the first writing task to their upgraded texts.

Table 2 – Word level in the first and second writing

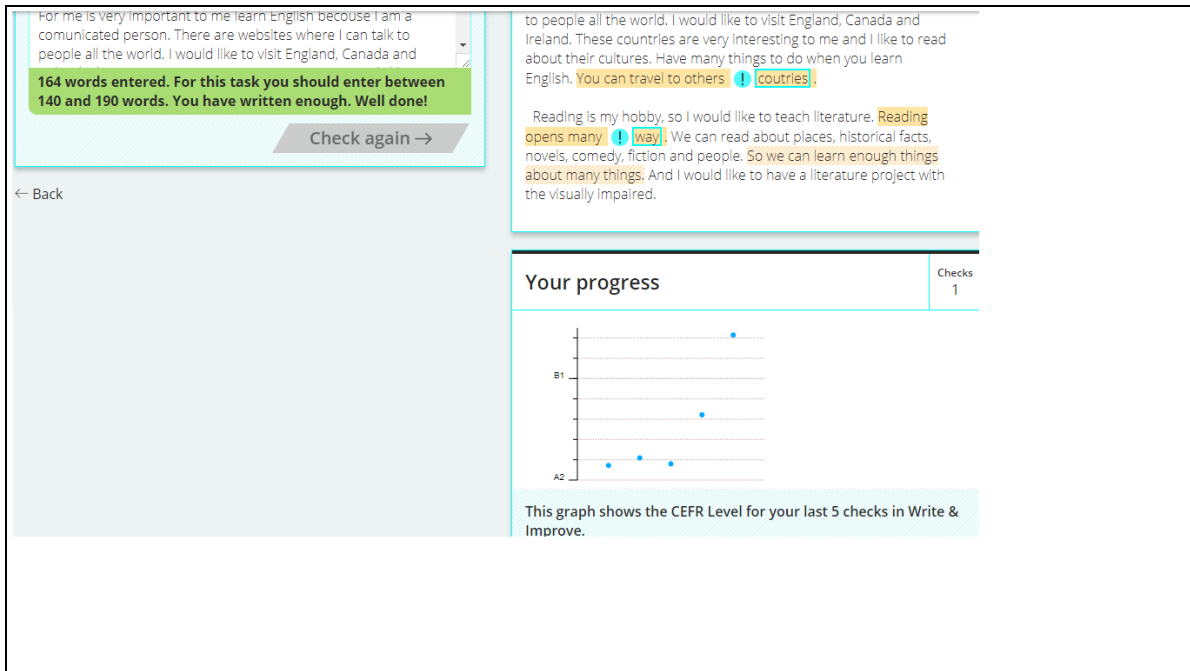|		A1	A2	B1	B2	C1	C2	UNLISTED
A	Writing	48	4	1	1	0	0	9
	Rewriting	48	7	4	2	0	0	1
		0	75%	300%	100%			88.88%
B	Writing	43	14	7	2	0	3	9
	Rewriting	41	10	10	4	0	3	10
		4,65%	28%	42%	100%		0	11%
C	Writing	52	8	3	0	1	0	6
	Rewriting	51	8	2	4	2	1	2
		1,92%	0	33%		100%		67%
D	Writing	49	8	6	1	0	1	2
	Rewriting	40	12	7	4	0	2	3
		18,37%	50%	16%	300%		100%	50%

Source: developed by the author

Looking more closely at Table 2, it is possible to notice that only one student maintained the same number of words in the A1 level while the others had a decrease, which shows that the resource helped to upgrade the students' vocabulary. Yes, it is important to note the difference in levels B2, C1 and C2 as the current level of this class is considered B1 (low intermediate). Even though the number of words is not very high, all students were able to include vocabulary considered high intermediate and advanced, according to the CEFR.

Another comparison that catches our attention is the last column, named unlisted words. The resource does not identify words that are no common, such as elf, and also includes any names in this category: people, countries, cities, brands. However, spelling mistakes are also added here. As it can be seen, two students reduced their mistakes considerably, while the other two increased. Looking specifically at these two students' data, it was noticed that the rising reason was rather the word choice than the misspelling.

Throughout the time students were working on their texts inside the classroom, they were also engaging in conversation, helping each other to use the resources and discussing ideas on what would be a good synonym to use, as the Thesaurus provides a list of options. Needless to say, they communicated in English even when talking about the words. After using these resources, once again, students were guided and were able to improve their level of writing.

The Write and Improve provided an experience of inner conversation as the resource gave students feedback in the form of commentaries so that students could reflect and try to solve the mistakes by themselves. During this practice, a curious situation happened: a student asked if the resource would also show a decrease, if this was the case. The teacher asked the student to explore and check it. Picture 2 shows her attempt at this. The first level achieved was A2 with a slight rise after resubmitting. However, because of a mistake in structure, in the third submission, it decreased, as can be seen in Figure 2. The student felt satisfied and moved on to improve her writing, which had a significant increase from the first to the last submission.

Figure 2 – Write and Improve progress graphic

For me is very important to me learn English becouse I am a comunicated person. There are websites where I can talk to people all the world. I would like to visit England, Canada and

164 words entered. For this task you should enter between 140 and 190 words. You have written enough. Well done!

Check again →

← Back

to people all the world. I would like to visit England, Canada and Ireland. These countries are very interesting to me and I like to read about their cultures. Have many things to do when you learn English. You can travel to others ❗ coutries .

Reading is my hobby, so I would like to teach literature. Reading opens many ❗ way . We can read about places, historical facts, novels, comedy, fiction and people. So we can learn enough things about many things. And I would like to have a literature project with the visually impaired.

Your progress	Checks 1

This graph shows the CEFR Level for your last 5 checks in Write & Improve.

Source: Write and Improve webpage

To achieve the goals of each writing proposal, students were required to plan, organise, summarise, elaborate new language and ideas, all learning strategies connected to cognitive approaches. They had a reason to communicate in the second language, as functional approaches claim. Therefore, social-cultural approaches were also fulfilled. Since the MOOC was writing for a university, the language used was formal, as students noticed while taking the course. Thus, they realised the difference between the language used in this context to an informal one, as stated by sociolinguistic approaches. Moreover, the data confirmed that the usage of digital resources applied to education is effective to second language learners. In the end, the students were delighted and surprised with their development as well as motivated to use these resources in their own practice, which is this author's ultimate goal.

Grounded in the theories of SLA related to ICTs and data collected during this practice, it seems undeniable that positive results were achieved through the linking of both areas. Consequently, digital educational resources should be taken into consideration during Tertiary Education so that undergraduates may begin their professional life knowing how to deal with technological resources and feeling confident enough to use them with their learners. Nonetheless, more research is still necessary to discover all the possibilities of the resources described in this study and also others which are still on hold to be analysed.

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6 USING DIGITAL RESOURCES TO BOOST ENGLISH WRITING DEVELOPMENT

This paper is the result of the third practice. It was accepted and will be published soon. It also enables a partnership with professor Amanda Jefferies, from the University of Hertfordshire, UK, who contributed in clarifying content and who will present it in the Learning Technology for Education Challenges (LTEC) in July 2019 in Spain.

1 Introduction

The Base Nacional Comum Curricular [2], the normative document that defines the organic and progressive set of essential learning that all students must develop throughout the stages and modalities of Elementary Education in Brazil, mentions explicitly in four of the ten general competencies the usage of digital resources in education. In addition, another official document, the Resolution No. 2 of July 1, 2015 [3], which defines the National Curricular Guidelines for initial training at the Higher Level (undergraduate courses, pedagogic training for graduates and second degree) and continuing education, stresses the importance of including technological issues for teacher training.

However, according to Mapelli's research [7], even though technological subjects are part of the trainee teachers' curriculum, the author concluded that they do not subsequently develop practices with digital resources in their professional planning. Furthermore, not only did the participants mention their unfamiliarity with educational software, they also said they were unaware of apps for mobile gadgets and websites with online activities supporting education. Those few who used online materials were unable to propose any innovative activity from the perspective of education in cyberculture, according to Mapelli [7].

The recent report, "ICT in Education, a Survey on the Use of Information and Communication Technologies in Brazilian Schools 2017" offers evidence to corroborate this. It mentions that whilst the Brazilian Government has created programmes to promote teachers' digital literacy, "recent surveys show that the relevance of the pedagogical use of ICTs in classrooms is still very low" [4] even when infrastructure is not an issue. Despite the fact that the use of ICT allows a wide range of opportunities, these are directly connected to the teachers' capacity for planning in accordance to their didactic objectives. According to this report, it continues to be a challenge to promote digital literacy to teachers.

From this starting point, it is possible to conclude that there is a potential gap be-tween the guidelines and teacher training programmes. Considering this context, our research

question is how to promote the use of digital resources in pedagogical practices for second language acquisition? Thus, as an educator preparing students to become English teachers, this is a major personal concern and the main motivation for developing pedagogical practices in my classes which include digital resources for second language acquisition. At the same time as creating opportunities for the students to become familiar with technology use, from an English teacher's point of view, the activities are aimed to integrate digital resources and the learning of the English language. This paper is part of a larger work which has been developed for researching across two semesters. The main objective was to develop pedagogical practices which include digital educational resources for students preparing to become English teachers and to verify their influence in the linguistic knowledge of the students. To check changes in the proficiency levels the scales of the CEFR are mentioned.

The specific objectives were (a) analyse the role of technology in teacher training courses in the region; (b) investigate if the theories of second language acquisition support the use of digital resources in the curriculum; (c) describe innovative practices through the choice of digital resources so that students feel confident in using them in other contexts, hopefully in their own practice as teachers; and (d) find indications of improvement in the proficiency level. After two semesters of experimenting with pedagogical practices using technology to promote appropriate use by the students, to develop linguistic awareness and to increase the linguistic level of future English teachers during their training, this third article aims to join the resources used in the two previous semesters, so that the undergraduates reinforce their use of digital re-sources, as well as motivating them to incorporate ICT in their proposed pedagogical practices. The first practice was described in an article that presented the activities proposed using Edmodo (https://edmodo.com/) to create a closed social environment in which students would have access to suggestions and feel comfortable expressing themselves openly in writing posts without worrying about possible mistakes and criticisms [9]. The second practice linked second language learning theories and the improvement in the students' writing skill [10]. Through the use of freely available resources, the study showed significant improvement in the students' vocabulary level. At the end of this period, the students mentioned some difficulties when they were asked to produce a text, a reality that was already expected, mainly because of two reasons: (a) the basic English level of the undergraduates and (b) writing competency is not usually developed in schools, especially academic writing, which was the kind of skill students were being required to use.

Therefore, this present practice aimed to join those resources used previously, which are Edmodo, the Thesaurus (https://thesaurus.com/), the English Profile

(http://www.englishprofile.org/) and Write and Improve (https://writeandimprove.com/). It proposed pedagogical practices on the social educational network focusing on im-proving the students writing skill. This practice is based on the premium version of the Write and Improve platform, permitting access to more features than the free version. The intention is to verify what features are available in the paid version and their influence on the students' development. The two previous articles presented the reasons for choosing these resources, but the key rationale is that the institution in which the practices occurred is a Preparation Centre for the University of Cambridge proficiency tests and both, the English Profile and the Write and Improve are sup-ported by Cambridge. There are two main differences from the present practice to the second [6]: firstly, before the final written production, students had a writing class, following a lesson plan specifically for this skill, and secondly the teacher subscribed to the Write and Improve platform, allowing the creation of a workbook for this group of students. As a result, they could access more features than the 'freemium' version used before, such as a feedback box. Thus, the participants had the opportunity to experience a condition that most of the resources provide: free and premium versions to improve their writing level in the English language. In this third practice, the written proposals were linked to topics discussed in class while in the previous one this did not happen, as the written assignment was chosen among the platform suggestions simulating the situation of a proficiency test. Also, the premium version would allow the teacher to follow the students' submissions through a progress chart and, most importantly, to write individual feedback to each student through it.

2 Literature Review

The literature review presented below offers theoretical support to the research under-taken and the larger project of which it is part. Researchers who defend connection-ism believe that our brain works similarly to a computer hence it consists of neural networks which are 'complex clusters of links between information nodes' [8]. One of the claims of this theory is that stimulus-response associations are strengthened through repetition and this enhances learning. Repetition is also a key feature on the use of technology, Time is needed to learn how to deal with technology, especially when people have not used yet. It is important to deal with it continuously, especially if it offers more possibilities to be explored.

Practice is a key component in language learning. According to Lourdes Ortega [11], there are three principles that should be met when practicing inside classrooms: (a) interactivity, (b) meaningfulness and (c) focus on task-essential forms. The first two are

largely self-explanatory but this third one is related to the essential forms and structures required by the designed activity. For example, in developing their written assignments, students must be able to structure their ideas into paragraphs, choose suitable transition words from one to another, and use appropriate vocabulary and language, as an essay is a formal paper. Keeping this in mind this practice was revisit-ed and joined the use of resources already valued by the participants to promote more opportunities to deal with their specific writing issues, seeking to acquire a good level of mastery and, at the same time, paying attention to their language development.

According to Lightbown and Spada [6], all researchers of language acquisition are trying to understand and explain how human learners are able to acquire language, taking into consideration various social and instructional environments. Either from a linguistic or a psychological point of view, digital resources can address the basic principles of language learning and contribute to the students' personal development.

Besides language development, the practices also involved new ways of using the resources. By inviting students to post their own understanding of specific content, they could now produce, distribute and share, interactive and collaborative features that were only possible because of Web 2.0 technologies which enable people to use social media. In this study, this was the educational social media platform, Edmodo. According to Bassani and Barbosa [1], this allowed students to find and share in-formation in multiple digital ways as well as to communicate and collaborate. They define social software as a subset of the Web 2.0 tools that support social interaction and collaboration e.g. wikis. The authors also state that 'the Web 2.0 applications are the ones that highlight the possibilities of this platform through a participative architecture among the members (subjects of interaction - Version by the author) [1]. In our opinion, even when designing activities in which students are the authors of content, it is very important not to forget that meaning should be integrated with features such as decision making, sharing, and socializing to enhance learning experiences, as stated by the theories of second language acquisition [6], [8], [11].

According to Musskopf and Barbosa [9], newly qualified teachers still join schools without apparently knowing how to use digital resources, especially those designed for educational contexts, a situation also acknowledged by Mapelli. The challenge is to change this current situation so that undergraduates and future teachers will be exposed to apps, platforms, resources, and websites created to be used in schools for language teaching and learning, thus promoting improvements to linguistic levels. Their initial unfamiliarity of these options impoverishes pedagogical practices of teachers in both cognitive and linguistic

development since there are resources which promote the improvement of them concomitantly.

Vera Paiva [12] wrote about incorporating the use of digital technologies into gen-eral teacher training in Brazil. According to her, the Brazilian government has been promoting some initiatives, but she still states that it is necessary to think about adding ICT as an essential element in teacher training courses [12]. She continues by sharing her own experience, since the 1990s, by asserting that her biggest source of information is now the web itself, mentioning some of the websites used in this study, such as the Centre for Learning and Performance Technologies.

Therefore, it is possible to conclude that there is a potential gap between the guide-lines and teacher training programmes. This point is a focus of our research.

3 Methodology

Due to many features, the cartographic method seemed to be very suitable to be applied in the pedagogical practices involved in this research. It has been used in field research in which subjectivity is a component of the context being studied. The cartographic method [13] aims to follow processes, not represent an object. Therefore, while the research is being undertaken, the path must be built, adapted, creating its own movements.

It was clear that many forces surround the research territory inhabited by the re-searcher and the students, provoking not only a change in the reality around them, in knowledge acquisition, but also a change in themselves as learners during the process. As odd as it might seem, objectivism and subjectivism can coexist, completing each other. The practices developed by following this methodology searched for data. At the same time, the participants considered the adaptation and reorganization of the territory while performing the practices. At times the subjects involved in the process analysed aspects from inside, although there would be times they would proceed as if they were hovering and observing from above. For example, students reorganizing their ideas while involved in the process of rewriting would be considered from inside; when finished, they reflected about the entire process would be considered from above, analysing what was already done. When processes are followed, there is a necessity of registering them, which was achieved by writing a regular research diary, to assure that details would not be lost in the long run. This may cause a change in describing the experiences, a different shape so that the results would not be lost along the way. While finishing one pedagogical practice, it was important to reflect about this part, to evaluate whether it indicated any swerve to the right, or left, or continuing straight ahead.

Hence, the proposal of the final product was to put together three papers which were conducted by a thread which passes throughout all practices and though described separately, are part of one complex piece of structured research.

4 Learning Practice

4.1 The research context

The following practices were developed with four undergraduates preparing to become teachers of English as a second language. Due to the objectives and methodology of this research, which require a period of time to apply the processes in the con-text of the clues, the practices were developed from August 2017 to December 2018, that is three semesters during which students enrolled in subjects named English II, English III, and English IV, respectively. The focus in these subjects was to improve the students' proficiency level so that they would be able to reach an intermediate level defined as B1 according to the Common European Framework of Reference (CEFR) [5]. So, when students enter the course, they have basic knowledge and are expected to follow classes taught in English from the first semester.

In the last semester, August to December 2018, which is the focus of this paper, pedagogical practices are joined with the digital resources used in the previous semesters. The practice promoted students as authors of content which was posted on Ed-modo and was used to produce an essay, one of the requirements of the students' semester. Throughout the two first practices, students continued to use Edmodo to share interesting pieces they found outside the classroom, surfing on the web randomly or finding suggestions on YouTube channels they signed up for. As this environment showed it was a place where the students felt comfortable, wrapping up the three-semester pedagogical practices led to a proposal linking Edmodo to a writing assignment. This may raise a question: why test more writing? Two main reasons can answer this: (a) students were very motivated after the second practice and considered they improved their writing skill as well as reporting that the digital resources used were extremely helpful and (b) as a famous proverb states 'practice makes perfect': students were longing for more time and further opportunities to continue developing their writing.

Experiences and improvements are elements which demand time and require careful observation of processes which in this case could not be controlled by the proposer since the path was clear but would not be pre-established due to the fact that the group would be in charge of directing the study. Thus, the cartographic method [12] was adopted to carry on the research. In brief, cartography considers there is no separation between theory, practice,

reflection and action all of which happen at the same time, being built by the subjects involved while they are working.

4.2 The practice

As these students had mentioned their concerns about certain aspects of writing which they considered difficult, the first step of this practice was to determine what they were. With this in mind, the idea of creating a word cloud came up. To build it, Mentimeter (https://www.mentimeter.com/) was used, since according to Centre for Learning & Performance Technologies (http://c4lpt.co.uk/) it occupies the 56th position in the 2018 Top Tools for Learning. Students had to type three aspects they consider difficult when they have to produce writing. The result of the activity was the words: preposition, better structure, verbs, punctuation, vocabulary, connectors, support ideas, etc. Looking at the results, the teacher asked each student to choose one of the topics to research: vocabulary, punctuation, verbs, connectors, and prepositions, the last one being taken by the teacher. Students were asked to look for information about each topic, decide on a way to present it, add some exercises to practice and post all of it to the class page at Edmodo, which is an education network page similar to Facebook, created in the first practice to become a place for the students to discuss issues, post suggestions, activities. By doing this, students were in charge of reading, thinking about their topic, summarizing the information they considered relevant, and deciding what and how they were going to share this with their classmates.

An interesting aspect to be pointed out here is that one participant decided to look for a new resource to present her topic. While her classmates decided to use a power point presentation to express their ideas, she searched and found Genial.ly (https://www.genial.ly.com/). She learnt how to use it and expressed her views on the topic she was responsible for, through using this new resource, standing out among the group. She did not ask the teacher about any suggestions, on the contrary, she decided to look on her own, showing entrepreneurship. Later on, students were asked to do more research about their topic on books available at the library of the institution and write a post adding a tip or a piece of information they had not previously mentioned. They were also asked to read and comment on it. Figure 1 shows a post from one of the students.

Figure 1 - Edmodo post
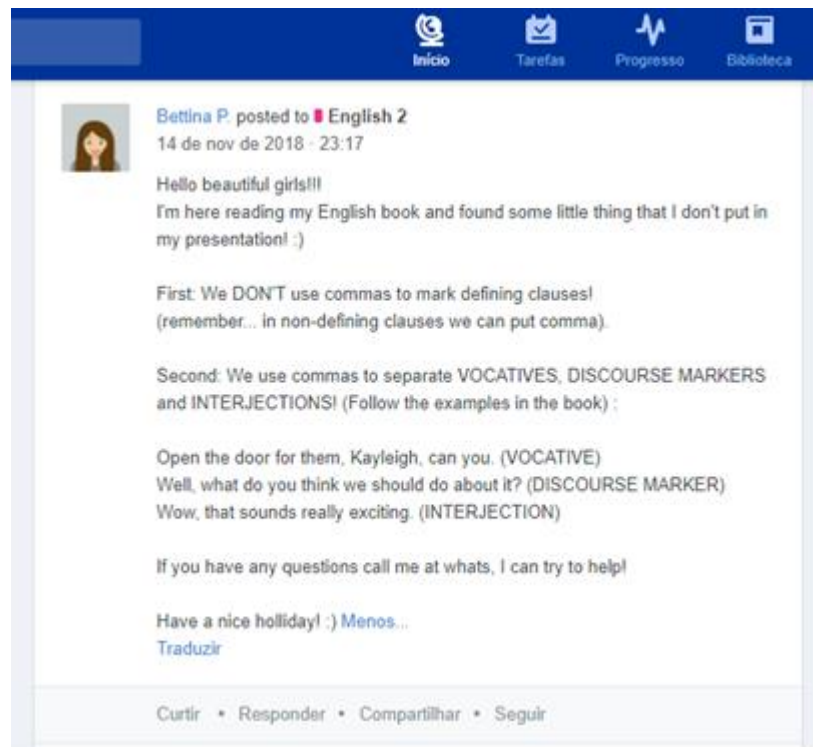
All of them used a very friendly tone and none of them repeated information posted in their first task. Students were able to extend their topic content with significant pieces such as including new pieces of advice as well as expanding knowledge. As they were supposed to read these posts at home, the teacher asked in class if they had any questions or comments, so that it would be possible to check the meaning.

The next step was to follow a writing lesson plan from the students' textbook used in class, which suggested an essay titled 'The environment we live in will change dramatically in the next 50 years. The class steps raised some topics to discuss, build vocabulary connected to the topic, promote some exercises, leading to a written pro-duction. To produce it, students were asked to refer to Edmodo's postings whenever they felt necessary and to access the Thesaurus and the English Profile if required. Participants had another opportunity to use the digital resources as helpers while developing their tasks.

Finally, the teacher inserted the writing proposal in the Write and Improve plat-form, the students accessed it and wrote their essay. Throughout the time they were working, access to the other resources used was allowed (Edmodo, Thesaurus, English Profile). As this proposal was part of their grades, students had 45 minutes to complete the task.

Having subscribed in advance, the platform permitted them to access more details about the assignments submitted to this version. This included, for example, the number of times each student submitted their work and their progress forward or backward, according to what changes they made in each submission. This feature is really interesting since language acquisition theories support the model write/feedback/rewrite for written production. The Write and Improve platform grants this opportunity: after the first submission, besides the platform feedback, the teachers have the opportunity to write comments for each student, helping them to reflect and decide what to change to improve their work. This feature is only available in the premium version of the platform and there was an enormous difference from the previous practice in which the freemium version was used.

Also, the premium version generates a chart showing the students' progress. It allowed the teacher to give each student individual feedback. Such features are not available in the free version of this platform; therefore, this is a substantial difference between this practice and the previous ones. The progress chart is helpful as it permits following each student's progress as well as giving a visual of all students altogether. Yet, the possibility of writing feedback to the students is considered the most important feature of this version because it allows teachers to interact with the students about their production, leading them to reflect, check and decide changes they can make to move forward. As students submit their texts, teachers are able to make suggestions related to structures and form demanded by academic writing. Such features are in accordance with Ortega's principles stated previously: interactivity, meaningfulness and task-essential form.

5 Results

During all the time, the principal author kept a diary in which she wrote down observations, such as the students' reaction and their own comments. When they experimented in the activity with Mentimeter, they were amazed by the opportunities which technology could promote in the classroom. Most of them considered it a user-friendly resource, though one of the students did not realise there were three boxes for three options, and she typed her options all in one. As a consequence, when we looked at the result and she realised what she had done, she asked to redo it, which was promptly accepted by the others. As previously said, it is not easy and sometimes the resources can raise doubts not always asked by the students.

Through the pedagogical practices proposed, students had to interact with each other and the teacher, receiving feedback from their peers and the teacher, using language for a

communication purpose in a social context as Lightbown and Spada [6] and Mitchell and Myles [8] state as necessary to support a meaningful learning process. Tasks performed always had an objective and the resources were a mechanism to mediate communication between all the agents involved, inside and outside of the classroom, so that the geographic space was not a barrier. Language acquisition can take more time for some students so the fact that the practices were developed over three semesters allowed students to experience the resources more than once, giving them time to become familiar with them, making their brain store to embed information from the short-term memory to the long-term memory [8]. The writing assignments in the activities stimulated students to respond to the proposals promoting the strength of associations through repetition, [8] as well as promoting interaction, meaningfulness and focus on task-essential form [8]. The data collected showed that the theories of second language acquisition mentioned, support the use of digital resources in the curriculum for both language and cognitive development. Yet, more than once, the undergraduates mentioned they were using some tools in other classes and accessed resources such as the Thesaurus to help in the tasks they had as homework.

Related to the activity completed, after recognising the topics they elected as difficult, only one of the students chose a new resource to build her presentation. When asked about it in the following class, she said she wanted something new and then googled and found Genial.ly suitable and accessible. She was able to integrate other media resources in her presentation, such as a video and two other links. The other three students chose the ubiquitous Powerpoint™. It is interesting to notice that the innovative student is also the one who has the best English level of the four. This may suggest some questions for a further study: were the others more worried about language accuracy than about the tool? Does a better (higher) level of English competence influence the students to broaden their scope and take some risks, allowing them to spend more time trying to figure something out because language is not an issue? Or is this just related to a personality trait?

Students were engaged in the activities and had no trouble in adding information to their topics. Unfortunately, none of them posted any comments. They said they had forgotten to do it. Even so, it was possible to check that they read their class-mates posting as they made some comments about them in class. Despite this fact, undergraduates used features of Web 2.0 technologies to share content in social media [10], becoming confident as authors from the posts on Edmodo, a safe environment where they feel comfortable in sharing freely with students from their own closed group.

Related to the writing assignment based on the class textbook, students found the topic interesting and participated confidently in the discussion. They also received regular input of new vocabulary to enhance their production. The writing assignment of each student was subjected to the English profile text analyser, which showed that the vocabulary level of the students is still in development as all of them reached some words in high levels of the CEFR, such as B2, C1 and some of them even C2. Nonetheless, to determine the level of the text as a whole, another digital resource called Text Analyzer was used this time. This tool showed that only one text was classified as B1 while the others reached the B2 level. Before the practices, under-graduates were categorised as A2 level.

The last activity developed was the final written assignment of the semester using the Write and Improve resource. The students were already used to the resource; therefore, they could concentrate on their text. Surprisingly, the result shown was not as good as expected: one student achieved level A2 of the CEFR while the other three achieved the level B1. According to observation by the principal author during the students' performance, at least three reasons can be suggested: (a) as the activity was done on the chrome books, students did not realise they could have used other possibilities to plan their writing, such as a Word™ file, or an online mind map or even taken some draft paper; (b) timing is still a difficult issue for the students to deal with; (c) the pressure of a grade made them nervous and insecure. Even so, none of these reasons were directly related to digital resources.

These pedagogical practices are the third part of a three-semester sequence, the other two practices having already been published under the titles of (1) Edmodo: Experiencing a Global Education Network and (2) ICTs and Second Language Learning. To conclude this study, the institution in which the practices were developed organised a meeting to address internal interests. The participants shared their acquired knowledge about the digital resources with the English staff.

For this meeting, the students prepared a presentation using the new digital re-source one of the students had found. This presentation was created outside the classroom through collaborative tools.

Students then created a 10-question quiz afterwards and they made the teachers answer a question, creating a word cloud with the same digital resource they experienced in class. All were the students' initiative; when they were invited to do it, they were allowed to decide what they were going to say and how they were going to pre-sent. This shows, at least, that they decided to explore more than one tool without being motivated or guided by their teacher.

This meeting also provided a fantastic opportunity for the students to communicate with an audience combining their writing and speaking skills. It was the first time they had the chance of performing a presentation speaking in English, which made them a little nervous. Another reason is that the audience was made up of English teachers and the students were worried about making mistakes. These feelings and conflict were naturally expected since the majority of people would feel stressed about such a situation. Even so, the undergraduates managed to present their written assignment and engage in communication in both presenting and answering the audience's questions.

6 Conclusion

This study joined aspects of second language acquisition and applied them to the usage of digital resources allowing future English teachers to experience ICTs and, at the same time, develop their English language proficiency. Even though it is hard to determine if results were connected to the platform or the teacher feedback, it is possible to state that there was an improvement in the writing production of each of the students. And, in the authors' point of view, both teacher and technology support had a share, because as good as the platform is, there were some issues which students were able to solve only after receiving the teacher's feedback. Therefore, any digital resource is exactly what the word means: a resource, it is something that can be used to achieve an aim and provide information for teachers and students. It does not replace the teacher, but it may help the student greatly. Nevertheless, features from the premium version such as the possibility of written feedback and the progress chart, facilitate the students' assessment and feedback by the teacher. It also respects the pace of each student, since they submit their tasks when they feel ready to do so; they may also receive the teacher's comments asynchronously.

Two contrasting aspects can be outlined in this study: (a) authorship and (b) stress while being accessed. On the one hand, students showed they felt comfortable in choosing a different digital resource than the ones used in class and explored it to build a presentation and a quiz on their own. On the other hand, the level of their final writing may strongly be related to the stress of being assessed, which was the only new element introduced in this task.

In addition, the opportunity that undergraduates had to engage in oral communication during the meeting with the English teachers of the institution at the end of the semester was the perfect event to end the three-semester practices. Students were able to explain the resources, answer questions about them, inspire the teachers to experience two possibilities of

usage (quiz and word cloud) and demonstrate knowledge about the digital educational resource and linguistic competence to convey their points of view. For future trends research, it is important to investigate the learning effectiveness. For this, it will be necessary more time for study and analyses.

Acknowledgment

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7 REFLECTING ON THE WHOLE PROCESS

The cartographic method is based on following processes which means that observation and reflection go together with theory and practice while the research is being developed. Even so, at the end of the 18 months during which the pedagogical practices were developed, it seems reasonable to look back at the entire process.

Keeping in mind that the main objective was to develop pedagogical practices with digital educational resources with students preparing themselves to become English teachers and to verify their influence in the linguistic knowledge of the students, taking into consideration the students' reality before the first practice (they mentioned unfamiliarity with much of the resources used) and listening to them explaining to the English teachers after the last practice, I believe the experience was mostly positive.

It was possible to organize three categories to be analysed: (a) the relation between second language learning theories and the digital resources used, (b) the familiarity of resources and practices by the students, and (c) the improvement in their English proficiency level.

7.1 CATEGORY A: RELATION BETWEEN SECOND LANGUAGE LEARNING THEORIES AND ICTS

During all pedagogical practices proposed, students had to interact with each other and the teacher, receiving feedback from their peers and the teacher, using language for a communication purpose in a social context as Vygotsky (1991), Primo (2007) Lightbown and Spada (2013), and Mitchell and Myles (2004) state as being necessary to support a meaningful learning process. Tasks performed always had an objective and the resources were a mechanism to mediate communication between all the agents involved, which Leffa and Freire (2013) declare to be one possibility of learning, inside and outside the classroom, so that the geographic space was not a barrier. According to Ellis (2000), language acquisition can take more time for some students so the fact that the practices were developed during three semesters allowed students to experience the resources more than once, giving them time to become familiar with them, making their brain store information from the short-term memory to the long-term memory (MITCHELL; MYLES, 2004).

The data collected showed that theories of second language acquisition mentioned supporting the use of digital resources in the curriculum for both language and cognitive

development. Yet, more than once, the undergraduates mentioned they were using some tools in other classes and accessed resources such as the Thesaurus to help in the tasks they had as homework.

7.2 CATEGORY B – STUDENTS AND DIGITAL RESOURCES

Despite not exploring all features of the digital resources used, students became familiar with them and this triggered their autonomy in developing knowledge, according to Moreira (1999), leading them to explore more possibilities in the resources presented and even looking for new ones, as reported in the first and third practices, accordingly. The resources were considered very user-friendly by the students, making their use easy for them.

The feedback of the Write and Improve also developed student's autonomy by making them proofread and offering some guidance on possible mistakes that could be solved by themselves. The word cloud activity proposed amazed the students with its colourful visual and the facility in having answers for a quick survey. This motivated them to create their own practice while presenting the resources to the English teachers. Moreover, for this moment the undergraduates also chose a digital resource one of them discovered while surfing the web. These facts promoted the learners' autonomy, an important aspect which was also emphasised by authors such as Ellis (2000) and Moreira (1999).

In the third practice, Edmodo was used to share content developed by the students about a topic of their own choice, each one related to an aspect of writing they considered to be difficult. They used this digital resource very comfortably and had no problems in posting their tasks. Furthermore, students felt confident while using the Write and Improve platform to perform their final writing task. Since they had used it before, they were very familiar with it. This pedagogical practice in particular allowed students to interact, to notice their production becoming aware of language features, to process their development of syntax and morphology features and practice, engaging in what is meaningful and focused on what is essential for the tasks, as stated by Lightbown and Spada (2013).

7.3 CATEGORY C – PROFICIENCY LEVEL OF ENGLISH

With the possibility of editing posts provided by Edmodo, students were able to improve their language skills by noticing and correcting their mistakes. This specific feature was considered very interesting for both language improvement and safe environment

exposure due to the fact that they knew they would not be judged or criticised as it frequently happens on social networks like Facebook. For example, the essay activities focused on task-essential forms, in which students engaged in discussions, planning, organizing and summarizing ideas, choosing words to express their opinions and experiencing how to upgrade them resulting in the different levels of proficiency shown by the resources and noticed by the students themselves.

Also, students mentioned they noticed their improvement, which was shown by the data collected in the Text Inspector, for example, in which the level of vocabulary increased. Improvement was also detected in the progress graphics generated on the Write and Improve platform. Another writing task with substantial progress on the proficiency level was the one proposed by the MOOC in which students received guidance on task-essential forms. These instructions provided by the MOOC proved to be useful and effective.

The indications of improvement described in the results of the papers provides evidence to endorse the implementation of more pedagogical practices with ICTs to develop meaningful content related to second language acquisition, improving the students' proficiency level.

The pedagogical practices described in this research show a different point of view from the role of technology in teacher training courses in the region. As explained in chapter 1, in most courses, technology is treated as a separated component, while in this study it was considered in an organic way, integrated to English disciplines in which language and technology were used concomitantly.

To promote innovative practices through the digital resources so that students feel confident in using them in other contexts, hopefully in their own practice as teachers, was a challenge. First, I had to look for resources that were interesting, friendly and useful in education while at the same time helping students to improve their linguistic level. The fact that one student searched a new resource on her own shows she became confident enough to take risks and unveil new possibilities.

Despite all the benefits and positive results, some fragilities can also be pointed out. It was worrisome starting a journey knowing where to start and finish but not being able to imagine the exact path between them. Once you take the first step, you may have to change direction to the left, to the right, step back and reconsider some things, instead of moving straight ahead, you may have to swerve. The researcher has to be flexible and to adapt while the processes are going on, and during them learning and transformation of the author happens following the "effects of multiple practices of the research which allows access to

where everything merges: subjects, objects, field, investigator, participants, issues, texts, shortcuts and worlds" (PASSOS; KASTRUP; TEDESCO, 2016, p. 49).

After walking for some time, developing the first practices, I felt more comfortable in making the decisions lead by the study field itself and the students promptly engaged in the proposals. This showed that the road taken was being well-built and the procedures were being validated by the subjects involved.

Observation is, in my opinion, the key to success. In the beginning it was a little difficult to observe, but it was utterly necessary, and the cartographer must be very attentive; there was no control on how the practices were going to develop, what the sequence would be, because the movement during the process would show the way and this could not be previously stablished. Even though this is understandable, related to academic research it could create an obstacle if the people involved in the process are not flexible to where the flow would take them. In the case of this study, the participants were very open to the practices and this is probably connected to the confidence boosted among the group. In this context the word confidence does not mean the feeling that you can trust, but 'the constitution of a plan to a shared experience, in which the singularities of the meetings present in the field enables to multiply the possibilities of connections among the subjects and the worlds" (PASSOS; KASTRUP; TEDESCO, 2016, p. 68).

8 CONCLUSIONS

ICTs have become ubiquitous and are of great importance in education. The aim of this study was to promote pedagogical practices with digital education resources with undergraduate students studying to become English teachers increasing their experience with digital resources while contributing to their linguistic development.

The main objective was to develop pedagogical practices with digital educational resources with students preparing to become English teachers and to verify their influence in the linguistic knowledge of the students. During a period of 18 months a variety of resources, some directly connected to English language development and others not, were used by the future teachers. They discovered new possibilities, which helped them to improve their English knowledge, they were user-friendly and allowed to gather the group's opinion in a few minutes, such as Mentimeter and the word cloud activity, instead of asking them to raise their hands to be counted.

Related to the specific objectives, literature review and the analyses of the curriculum of teacher training courses indicate that although documents that rule the education system in Brazil mention the importance using technology with students, initiatives are still very poor in the region.

The theories of second language acquisition support the use of digital resources in the curriculum. Data collected indicated an improvement in the proficiency level of the students, which may indicate that digital resources collaborate in the students' linguistic awareness and learning. Important concepts such as interactivity, meaningfulness, linguistic awareness are met by the use of digital educational resources, which point out the benefits of their use in the current educational context.

This research involved innovate practices by combining practices using around ten digital resources the participants of the study did not know about before. More than once, students expressed they felt confident in using them in other contexts. This might suggest that these future teachers will hopefully develop pedagogical practices with their own students once they start teaching.

After three semesters of pedagogical practices, students were presented to different possibilities of digital educational resources and noticed improvement in their linguistic level, also shown in the data of their writing production.

This study contributes to change the state-of-the-art context related to teacher training and the use of ICTs. Chapter 1 demonstrated that the current isolated initiatives are not

enough to promote what the legal documents that rule education in Brazil envision. Furthermore, all practices were developed in English disciplines, treating the use of digital resources as a part of them, in a systematic experience and expanding the scope instead of using them only in a specific subject.

Equally important, this study encourages teachers and students to take risks, unveiling new possibilities of digital pedagogical practices, spreading innovation and promoting creativity once the resources used may be explored for different purposes and in different ways.

As the result of a Professional Master´s Degree in Languages, in which the objective is to generate a product with impact on society, mainly in the educational area, this research developed three papers already accepted and published contributing to the reflection and practices using ICT inside classrooms. The third paper also enabled a partnership with Professor Amanda Jefferies from the University of Hertfordshire, UK, who contributed in clarifying content to be presented at the Learning Technology for Education Challenges (LTEC) in July 2019 in Spain.

Moreover, this research also generated a presentation[19] created by the students and used in the meeting with the English teachers of the institution mentioned in chapter 5. This presentation was licenced under the Creative Commons licences to be shared and used as a basis for other products. This presentation will be available the institution's website, at Feevale library and will also be used in teacher training courses, contributing in spreading the possibilities of pedagogical practices for teachers involved in Fundamental and High School Education.

There are still suggestions that can be appointed, such as looking for ICTs that deal deeply with other skills, such as speaking, listening and reading, since in this study two chapters focused on the writing skill because of the development of the processes. It would also be interesting to promote pedagogical activities with a group with a higher number of students, since this group was really small, having started with seven students and dropping down to 4 in the last semester.

In conclusion, it is believed that there are more advantages than drawbacks in including the digital world as an important issue in teacher training courses. Furthermore, the practices developed in this research may inspire more people involved in education to include technology in their teaching planning.

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