Impacto del uso de TIC en el desarrollo de habilidades de redacción en el idioma inglés como lengua extranjera. [1]

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RESUMEN

El presente estudio tuvo como objetivo explorar el impacto del uso de las tecnologías de la información y la comunicación (TIC, en adelante) en el desarrollo de la competencia lingüística de los estudiantes de ILE pertenecientes al programa de Pedagogía en Inglés de la UMCE. Para esto, un estudio cuasi-experimental se llevó a cabo donde un grupo experimental cursando Inglés Escrito Pre - Intermedio se expuso a estrategias metodológicas basadas en TIC, mientras que un grupo control no. Los resultados obtenidos en ambos grupos se contrastaron para identificar las posibles diferencias significativas. Los resultados mostraron la eficacia de la utilización de las TIC en el desarrollo lingüístico de los estudiantes. Por lo tanto, esta investigación busca crear un impacto positivo en el diseño de estrategias metodológicas basadas en TIC para la formación de profesores, debido a la relevancia y el uso generalizado que estas tecnologías tienen en nuestra sociedad contemporánea.

Palabras clave: TIC – Inglés – redacción – estrategias metodológicas innovadoras

How the use of ICTs impacts upon the development of writing skills in the acquisition of English as a foreign language: the experience at UMCE.

ABSTRACT

The present study aimed to explore the impact that the use of information and communication technologies (ICTs, henceforth) has on the development of the linguistic competence of EFL students of the TEFL Programme at UMCE. In order to do so, a quasi-experimental study was conducted: There was an experimental group taking the *Inglés Escrito Pre-Intermedio* course, who was exposed to ICT-based methodological strategies, and there was a control group. After the intervention, the results obtained in both groups were contrasted to identify differences. The results showed the effectiveness of the use of ICTs in the EFL students' linguistic development. Therefore, this research seeks to create a positive impact on the design of ICT-based methodological strategies for the teacher training process, due to the relevance and pervasiveness these technologies have in our contemporary society.

Keywords: ICT – English language – writing skills – innovative methodological strategies

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INTRODUCTION

Accounting for the use of information and communication technologies (ICTs) in our classrooms in an original, simple way is not an easy task. The literature on the area is vast, and our Latin American context has not reached the sufficient levels of expertise to assimilate them to the different variables that presuppose living in this new "information society".

We must admit that the Chilean experience regarding ICTs has an incipient scope; we have not always achieved decent results in the implementation of ICTs in our classrooms, despite having several public policies regarding this subject. Enlaces, the 1992 ICT project of the Chilean government, was created to integrate new technologies in state schools to help teachers include ICTs in the classrooms. The Enlaces project, which at that time was the great advance that would democratise the access to technology and networks at a national level to achieve the long-awaited universalization of education, was a failed attempt that gradually provided schools with infrastructure and partial access to communication networks (Landan, 2003). Unfortunately, the picture is not at all promising when it comes to in-service teachers who need on-going training. This is explained by teachers being overworked, thus lacking the time for training. Meanwhile, pre-service teachers are affected by scarce innovation (Hepp, 2000).

Moreover, there are still teachers who do not know how to use a computer at its full capacity, and even though some have gone through technical training, they do not know about didactic applications to develop specific skills and competences in their students (Cabero, 2004). At the same time, students progressively integrate into the technological era as "digital natives", accessing innovative technology outside the classroom rather than inside it. Sometimes, they even leave their teachers behind when it comes to understanding how to use certain software or application. Frequently, because of this issue the school is left with a subsidiary role in learning, given that the classroom and teacher are no longer the only source of knowledge (Stefl-Mabry, Radlick y Doane, 2010). These students make better use of ICTs, but lack an 'enabler' capable of using these tools to develop skills and competences in them.

Still, we cannot overlook this new digital era and hope education to fix itself. Technologies move forward, and with them, peoples' development. Thus, we cannot accept ICTs as neutral. They are "intertwined artifacts, techniques and knowledge, articulated in social practices, knowledge and direction systems and interpretations of the people and the groups that use them" (Palamidessi, 2006, p. 10). They have to do

with the development of institutions and societies; thus, they play a fundamental role in their inhabitants' education. ICTs are no longer privative of those interested in IT (Information Technology). This gives way to a space for teaching and learning (i.e. education's) that can at least be an option for those who would make use of them. Nowadays, taking up this call is decisive, considering the way in which our country will develop in this century depends on it.

ICTs have gained ground in our schools, universities, and practically in all educational institutions, and their acknowledgement and importance are becoming latent in discourses that seek to bring up to date educational systems, adjusting to the needs of modernity (Padilha y Aguirre, 2011). Yet, in many of these institutions, this acknowledgement does not go beyond mere discourse. According to Ruiz (2007), ICTs used in the Chilean classrooms lack a wide, deep, reformist approach, which may stem from the lack of investment on research, even though the implementation and access to technologies, according to the ISI index, has grown considerably in the last decades.

Following UNESCO (2005 p.34) "a teacher who does not handle information and communication technologies is in clear disadvantage compared to his students", given that technologies advance much faster in daily life than in school institutions. This contradicts with the lack of experts who work in state institutions to compensate for this weakness. In addition, there is a consolidated praxis between what is developed at a theoretical level and what actually happens in the classroom. All of the mentioned reasons cause Chile to be left far behind, reaching low levels of sub-production in both physical and methodological ranges, while some American countries (including some European ones), currently reach high levels of technological development, focused on education.

This proposal arises from the need of update and improvement, which does not intend to be original or cause a shift in the direction taken regarding what has been previously done, but it seeks to show a reality that needs urgent renewal. The inclusion of related research in universities must not only be promoted and utilised at its maximum capacity, but it must also be taken to schools. Schools are the place where in-service teachers will get feedback from the progress made through research. In turn, they will comply with the role they have always had, and which they must resume once and for all: serving the community for the thriving development of the society. Even though our field, pedagogy and teaching of English, is not precisely rich in terms of amount of research done nationwide, some important progress has been made. Fundamentally, research has looked into the beliefs about the teaching and learning of

English, in terms of methodology and motivation, which can be shown in the works by Blasquez and Tagle (2010); Díaz et al. (2012); Tagle et al. (2012); and Tagle et al. (2014). There is also evidence which tries to assess pedagogical practices (Díaz et al., 2013), and some other works which have focused on the appreciation of the affectivity of certain educational practices, for instance, Baitman and Véliz (2013); Bañados (2006); Barahona (2014); and Gómez et al. (2012).

Even if we can assert that these advances are worthwhile in the knowledge and implementation of practices that lead us to achieve a better educational system in TEFL, there is still a variety of areas and aspects unexplored and unknown in our educational reality. This situation leads us to propose an unexplored area in the national context, the use of ICTs in the teaching of English. Even though there exist pieces of research and experiences in application of ICTs in education (Fondef's ICT EDU programme, 2008), there is no evidence of the application of ICTs in the field of English, even less in the development of the writing skill in this language. Therefore, it is relevant for us to do research on students' perceptions regarding methodologies integrating ICTs, and to verify how effective ICTs are at improving learning in the school context.

At state universities, there exists an array of possibilities regarding what to research, how and when to do so. Supposedly, this responds to multifactorial variables, which cannot be simplified to only one sphere, but which answers to all these factors at the same time. Among these variables, we find those of political, economic, administrative and cultural concern, besides the research vocation of each institution (Bulo, 2012**)**.

Ever since the year 2014, the English Department at UMCE has aspired to contribute to the research on ICTs. In order to foster L2 learning (in this case English), which concurs with what happens in other departments, and at a Faculty level, which recently was granted a 'convenio de desempeño', which also addresses the difficulties of ICTs in the classroom.

However, this venture has not been easy. Even nowadays, there are many university teachers who lack adequate training to tackle the use and implementation of ICTs in their classrooms; even though there are instances of training at UMCE, which offer updating workshops on Moodle, the use of interactive boards, among others, they are scarcely utilised. This obstructs the possibility of opening a chance for future teachers to know what to do, and not learn 'along the way'.

This document seeks to inform about the reality of our institution, in its job of educating teachers capable of developing as comprehensive beings. Not only as English teachers who will devote their time solely to the use of the language – highly necessary – but also teachers who will be certain that they are educators in the first place, and as such, they should be concerned with their students' holistic development. Any teacher, who is aware of their role in society, will know that teaching exclusively a second language is an absurd minimization of the teacher's work; following a critical pedagogy approach. It can be ascertained that "the technical minimization of pedagogy has been responsible for causing education to be dull and routine like" (Cabaluz, 2015), preventing pedagogy from connecting with philosophical, ethical and political dimensions. It is in this comprehensive, holistic education approach that ICTs are fundamental tools to teach and encourage the acquisition of an L2. It becomes essential to be at the cutting edge of the demands of the society of this era.

The "Pedagogico" experience, especially the English Deparment's is uneven. Finding ourselves immersed in this challenge of helping to develop the competences for this digital era in our students, we have been called to update our own practices, so that we can include research, which has been developed altogether since the year 2014. This has been an excellent opportunity to learn collaboratively together with our students, considering that, as "digital natives", they have much to contribute as both students and pre-service teachers. These are highlights of this experience, which has enriched us both teachers and students enormously.

Certainly, there were setbacks on the way, yet this is a timely opportunity for research in such a relevant field as ICTs within the current historical context. In addition, this encourages research with and for our students; this way, students will understand their teaching work as one of continuous exploration and research, as "researcher teachers", which can account for their pedagogical practices to improve their teaching consistently, for the sake of the construction of a better society (Virgolino, 2002). This is the true objective of the modern university; "it is not enough to do things with the diligence of the duty fulfilled, but it requires, above all, being responsible towards the society we live in" (Montoya, 2009 p.163).

1. THE RESEARCH

This research consisted of measuring the level of improvement of writing skills in second-year students of the TEFL programme at UMCE, through a pre and a post test. The subject where the research was carried out was the Pre-intermediate Written

Discourse class. Students were exposed to innovative methodologies, based on a matrix of activities that were designed in an ICT platform. By the end of the intervention, the test results were compared to those of a control group belonging to a parallel course, who took the same class, yet with a traditional approach (i.e. without ICT resources).

2. THE MATRIX OF ACTIVITIES

Based on the opinion gathered by experts in the area, beside the 10 meetings carried out along 2014 by the research team, a matrix was prepared for the "Pre-Intermediate Written Discourse" subject, for second-year students of the programme, adapted to the use of ICT software and applications, which were also shared with the department's methodology teacher in a collaborative meeting. As a result, the platform "Easy-class" ® was implemented to carry out the pedagogical intervention.

Easy-class is a digital tool, easy to use for both teacher and student, as it gives the teacher essential tools to monitor the students' performance virtually, and on the other hand, it emulates the main characteristics of the social network known as "Facebook" ®. These features make this 2.0 platform an easy-to-handle tool, where students can perform many of the same recreational activities with their peers, but with other purposes beside the recreational use of "Facebook" ®, as its interface is friendly-user and interactive. (Piscitelli, Adaime, y Binder, 2010)

3. THE IMPLEMENTATION
3.1 Methodology

The methodology used in the study consisted of dividing the students of the "Intermediate Written Discourse" in two groups. The first group worked as control group, and their classes were carried out with a traditional approach; thus, the students were exposed to lessons where the teacher was the main interlocutor in the interaction in class, and where no technological resources were used to complement the teacher's work. The second group was referred to as the experimental group, where the intervention was carried out with technological resources.

The classes were taught during the first semester of 2015. The activities, syllabi and applications utilised during the intervention period were outlined in relation to the syllabus's contents. In addition, the course was organised through the platform, training the students on the use of it. Subsequently, the intervention focused on the acquisition of writing competences required for an intermediate level of English.

It is important to stress that the course's contents for both the control and the experimental group were the same used in previous years. Therefore, the research team worked together with the department's methodology teacher, to adjust the contents to the technological resources that were to be utilised with the experimental group. The control group worked in the same way they had done it on previous occasions (i.e. using only traditional resources, not technological ones). Likewise, the team oversaw generating and adapting the pre-and post-tests used to gather the data analysed. The tests had the same structure and level of complexity, in the sense that both were equivalent to B1 according to the CEFR, which is usually assessed through the PET exam from the Cambridge Assessment English group. The first data collection process was carried out with the pre-test, which was applied in the second lesson of the semester. The post-test was applied the previous to last lesson of the semester, to assess the students' progress effectively. Again, the tests had the same format for both experimental and control group.

3.2 LISIM Laboratories

To achieve the objectives set out in this research, the computer laboratories from the '*Facultad de Historia, Geografia y Letras*' at UMCE were used. This allowed for the intervention with the experimental group to be ideal, as there was all the technological equipment necessary for the intervention, and the group was separated from the control group. The LISIM laboratories from the Faculty are three, and they have a capacity of 25 students in lab 1; 25 students in lab 2; and 20 students in lab 3. All three laboratories have independent access to desktop computers for each student, and an overhead projector connected to the teacher's computer, plus speakers and an interactive board.

3.3 The sample

The groups for the intervention were the ones that are always separated at random by the head of the English Department. The sample considered all the second-year students. The students were notified of the research and they were required to sign an informed consent. The students who accepted to be part of the research, but did not take either one of the pre or post tests were not considered in the final results. Due to external reasons to the scope of this research, which relate to internal management of the programme, the control group had more students compared to the

experimental group. The control group started with 42 participants, and the experimental group with 31.

4. RESULTS

Tables 1.1 and 1.2 show the results of the T-test analysis between the control group and the experimental group. As can be seen, the information gathered from the statistical analysis shows that there was a considerable increase in the means of both groups. Between the pre and post test (from 35, 9 to 39.6 in the case of the control group, and 33.9 to 40.5 in the case of the experimental group), the experimental group presenting greater increase in comparison with the control group.

In the same way, the levels of variance are considerably reduced in the case of the control group from 44.8 to 36.05. This reduction is not perceived in the case of the experimental group, on the contrary, a marginal increase is observed, going from 31.34 to 32.34.

Table 1.1

Control group results of Pre and Post test

	Pre test	Post test
Mean	35,97368421	39,6842105
Variance	44,89118065	36,059744
Observations	38	38
Pearson's Product Moment Correlation	0,406867214	
Degrees of Freedom	37	
T test	-3,294224361	
P(T<=t) one-tailed	0,001090156	
Critical T value (one-tailed)	1,68709362	
P(T<=t) two-tailed	0,002180312	
Critical T value (two-tailed)	2,026192463	
	99,781969%	

*(p<.05)

Table 1.2

Experimental group results of Pre and Post test

	Pre test	Post test
Mean	33,95833333	40,54167
Variance	31,34601449	32,34601
Observations	24	24
Pearson's Product Moment Correlation	0,340732596	
Degrees of Freedom	23	
T test	-4,976961591	
P(T<=t) one-tailed	2,46927E-05	
Critical T value (one-tailed)	1,713871528	
P(T<=t) two-tailed	0,000049	
Critical T value (two-tailed)	2,06865761	
	99,995061%	

*(p<.05)

In relation to the levels of significance, que difference between the pre and post test for both groups is significant. In the case of the control group, despite the significant result, it is possible to see a higher result compared to the experimental group (p=.002 in the control group). Regarding the experimental group, there is a significance, yet the result is even lower in this case, which makes it more significant (p=.000049).

5. ANALYSIS OF RESULTS

A number of observations can be made from the results obtained from the statistical analysis. First, in the difference of means between both groups, an increase was seen when comparing the pre and post tests. From this increase in both groups, the largest one is shown by the experimental group, which allows us to assert that in general, this group is the one that presents a greater advance, in terms of learning, in relation to the difference shown by the control group. Still, it is possible to observe considerable improvement of the control group, since the mean increase in almost three point seven points (3,7) must also consider the reduction in the degrees of

variance between the pre and post test, which reach eight point eighty-four points (8.84).

In the case of the experimental group, the increase in pre and post test results means an increase of six point six points (6.6) in the mean, which represents almost twice the results obtained by the control group. Regarding variance levels, the experimental group maintained rather stable results, slightly increasing the difference between the results of the participants by almost one percentage point.

In the two cases, when corroborating the levels of significance in the results of the pre and post tests, we can see that although the control group learned through a rather traditional methodology, the greatest advances are recorded by the experimental group. From this, we can conclude that the group on which the pedagogical intervention using ICT was applied in the classroom achieved the most learning.

6. LIMITATIONS OF THE STUDY

During the pedagogical intervention, we encountered difficulties that could have generated problems regarding the results of our pre and post tests. There were some problems, which we believe will provide a more complete perspective of the context of our intervention.

One of the main limitations we had were the strikes the students went on, which lasted three months. This could have generated problems in the continuity of work done by students, especially because the written English course requires constant practice for sustained improvement over time, due to its nature as workshop. Despite this, the students quickly caught up on the pending contents once the classes were resumed, and the strike did not represent a bigger problem as regards the contents missing.

The computers' layout in the laboratories was also an obstacle to the pedagogical intervention, mainly because the immobility of computers hampered group work, and a clear vision of the teacher standing in front of the class. To solve this problem, the teacher moved around the room, ensuring that all students were paying attention and were not easily distracted with other software and/or computer applications. In addition, there were logistical problems regarding the schedules in which the pedagogical intervention was carried out because of the constant rescheduling of lessons once the strike finished.

Due to the issues mentioned above, added to the students who usually dropped out of the programme, plus the students who dropped out because of the 2015 student

movement, both groups had a decrease in the number of participants. At the beginning, the control group had 42 participants, which was reduced to 38 by the end of the intervention. On the other hand, the experimental group started with 31 participants, and the number was reduced to 24 by the end of the intervention.

7. FURTHER STUDIES

It is important to point out that this study could be replicated to corroborate the levels of increase in learning by students, after a pedagogical intervention that utilises ICTs in its lessons, despite representing a small sample. The use of ICTs could boost motivation levels in the students, and help develop a teamwork capacity, among others.

Other studies may well show different paths that ICTs could take, as facilitators for the development of other linguistic abilities such as reading, oral production, and listening comprehension, which are necessary for the acquisition of a foreign language. Fortunately, nowadays there are several software and technological applications for learning languages, and with time there will be an even bigger number of resources to frame within a meaningful learning context. This, together with some solid methodological strategies will make ICTs a very good ally for learning languages to the teacher and to education.

CONCLUSIONS

Through this study, we have been able to corroborate the fundamental role that ICTs are acquiring each day, in terms of their impact on the development of the necessary skills for the optimal learning of a new language. Particularly, the English language and, more specifically, the development of writing skills for academic purposes. From the results obtained in both pre and post tests, it is possible to point out that although the control group also significantly increased their learning according to the pre- and post- tests, the experimental group showed the greatest progress, this group being the one with better performance in terms of grades. In addition to this precedent, we can point out that the experimental group not only presented better scores than those seen in the control group, but also obtained the biggest difference between the results of both tests.

From our point of view, this occurred mainly due to the use of technological resources based on a methodology that considers ICTs as an essential tool for didactic adjustments of our classes. Considering also the context of pre-service teachers, in

which the correct management of information and communication technologies becomes vital to raise motivation in our students, and to adapt our teaching practices to technological advances. These advances do not seek to replace the teaching work in the classroom, but to help and enhance it through the establishment of new tools that activate meaningful learning, as well as the development of skills in our students.

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