4 Training language professionals to be digitally proficient in an undergraduate and postgraduate context

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Abstract

The last five years have been witnessing the publication of two crucial documents in the field of language teaching and technology: 'CEFR: Companion Volume with New Descriptors' (Council of Europe, 2018) and 'DigCompEdu' (Punie & Redecker, 2017). These publications will be decisive for the design of new study plans aimed at the training of language teachers at all levels. This article describes the connection found between the second mentioned document and two of the subjects delivered by the researcher. One of these subjects is offered optionally in the fourth course of the bachelor's degree in English studies, and the other one is included within the second year of a master on Information and Communication Technology (ICT) applied to language studies. Since the launch of both subjects in 2009 and 2010 respectively, the enrolled students have been providing detailed feedback about their digital competence levels and the course itself. These data, added to the information retrieved from the satisfaction questionnaires distributed by our university, have contributed to depict a detailed map of the level of digital competences of students who come from different parts of Spain and other countries.

Keywords: digital competences, teacher training, distance education, collaborative learning.

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1. Introduction

Being digitally competent was a skill perceived as an added value when referring to teaching some years ago. Nowadays, a minimum of technical training is required for most teachers at all stages across different disciplines. For this reason, several American and European organisations are interested in promoting competence-based training all around the world. Some authors in favour of these initiatives conceive digital literacy skills as a development that "should be an integral part of pre- and in-service training programs" (Hauck & Kurek, 2017, p. 2). The Qingdao Declaration includes an item with the same idea: "11. Successful integration of ICT into teaching and learning requires rethinking the role of teachers and reforming their preparation and professional development" (UNESCO, 2015, p. 5).

This chapter studies the evolution of the digital competences level of the students of two subjects offered by the Faculty of Philology of the Universidad Nacional de Educación a Distancia (UNED), the Spanish Open University since the first years of delivery. The singularity of this study remains on the heterogeneity of its participants, since they come from different parts of the state (including other nationalities), share varied academic interests (e.g. translation, language teaching, or the publishing industry among others), and begin their studies from a diverse digital background. Thanks to the continuous adaptation to the digital competences frameworks published by international institutions and the yearly feedback collected from the students, these subjects have achieved their actual appearance. This work explains some of the most relevant actions carried out to adapt them to contemporary times.

2. Training language professionals through competences

Language teachers have been pioneers in the use of technology in the classroom. They have seen the Internet as an unlimited source of authentic texts to exploit actively or as a place to promote communication among different language

speakers. Today, having the Internet as a resource or space to exchange is not enough. We are living in the era of social networks and apps for everything, so our students demand learning methods adapted to those needs.

Broadly speaking, it can be stated that the first step given for deciding which digital competences were relevant for teaching was the elaboration of a report named 'ICT Competency Standards for Teachers: Policy Framework' (UNESCO, 2008). The main aims of this work were: to serve as a guideline for the professional development providers, to unify the vocabulary related to the ICT in learning environments, and proposing the necessary digital competences common to all teachers. These competences would need to be acquired at different approaches/stages: technology literacy, knowledge deepening, and knowledge creation (UNESCO, 2008, p. 8). Three years later, the same institution proposed a second version of the aforementioned report in collaboration with Microsoft. The authors highlighted the importance of being able to train teachers to be digitally competent so that they could later teach their students with the most appropriate ICT tools (UNESCO, 2011, p. 3). The three stages proposed by the UNESCO might be referred to seven different elements (see Table 1).

Table 1. The UNESCO ICT competency framework for teachers (UNESCO, 2011, p. 3)

	Technology Literacy	**Knowledge Deepening**	**Knowledge Creation**
Understanding ICT in education	Policy awareness	Policy understanding	Policy innovation
Curriculum and assessment	Basic knowledge	Knowledge application	Knowledge society skills
Pedagogy	Integrate technology	Complex problem solving	Self-management
ICT	Basic tools	Complex tools	Pervasive tools
Organisation and administration	Standard classroom	Collaborative groups	Learning organisations
Teacher professional learning	Digital literacy	Manage and guide	Teacher as model learner

As can be perceived from the information contained in the table above, the level of autonomy and complexity increases from left to right. This progressive increase of difficulty will help the different models of Information Technology (IT) certification to delimit and describe the contents of each stage. The improvements of this updating add a more detailed explanation of each competency per stage/level of proficiency, which is also accompanied by some specific examples.

It was 2013 when, retaking the recommendations given by the European Parliament (2006), the European Commission elaborated another report to expand on one of the eight competences included, digital competence (listed in the fourth place). It was described as the competence which

> "involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet" (European Parliament, 2006, p. 15).

These five actions proposed for the citizens to be digitally competent were identified as the five main areas of the DIGComp 1.0: information, communication, content creation, safety, and problem solving. Each of these competence areas was divided into different dimensions, and, at the same time, these dimensions split into levels of complexity (Ferrari, 2013). These levels (A-Foundation, B-Intermediate, C-Advanced) correspond to the three stages proposed by UNESCO (2011).

Two years later, ministers of education, teachers' organisations, personnel from different educational stages and members of the private sectors, among others, agreed on the Qingdao Declaration to "reduce the long-existing learning divide" (UNESCO, 2015, p. 3). This is one of the reasons why they concentrated on the less favoured layers of society by encouraging the promotion of open educational resources such as massive open online courses or open libraries.

The first updating of the DIGComp 2.0 document appeared in 2016 as "the key set of competences needed for personal development, social inclusion, active citizenship and employment" (Vuorikari, Punie, Carretero, & Van Den Brande, 2016, p. 2). One of the major changes consists of the updating of the five competence areas as shown in Table 2. Two years later, the update Phase 2.1 was published, which was featured by adding eight proficiency levels to the DigComp 2.1., as an evolution of the three stages proposed by UNESCO. This improvement is due to the division of the previous levels into two and adding a new double level to these three, named 'high-specialised'.

Table 2. Areas of digital competence based on DigComp 1.0 (Vuorikari et al., 2016, p. 12)

	Competence areas version 1.0	**Competence areas version 2.0**
Inter-related areas with overlapping	1. Information	1. Information and data literacy
	2. Communication	2. Communication and collaboration
	3. Content creation	3. Digital Content creation
Cross-cutting across	4. Safety	4. Safety
	5. Problem-solving	5. Problem-solving

Based on the digital skills competences previously described, different public and private institutions began to design several placement tests to measure the IT level of the citizens and employees with the aim of certifying their digital competence. Some of these diagnostic tools are the International Computer Driving Licence (ICDL), Ikanos[2] (Pais Vasco), ACTIC (Catalonia), or the diagnosis platform created by Andalusia[3].

Almost parallel to the launching of the second revision of the DigComp, a new framework specialised in education was published: DigCompEDU (Punie & Redecker, 2017). This document proposes a new nomenclature for the DigComp descriptors so that they can be more related to activities contextualised in different learning environments, along with its descriptors: A1 (Newcomer), A2

2. http://test.ikanos.eus/index.php/566697?lang=en

3. http://www.digcomp.andaluciaesdigital.es/

(Explorer), B1 (Integrator), B2 (Expert), C1 (Leader), C2 (Pioneer). Similarly to what happened to the already mentioned tools designed to calibrate the digital proficiency of the citizens, other platforms like the Digital Competence Portfolio for Teachers have also been created by other institutions, like the Spanish Ministry of Education[4] in 2017.

In the case of language teachers, two placement tests must be highlighted: eGRID[5] (final product of a European project to assess language teachers, teacher trainers, and managers) and The Digital Teacher (elaborated by the Cambridge Assessment English)[6]. Both consist of an online form which generates a final printable diagnosis with the IT level of the user. Although language learning is not the main focus of the subjects dealt with in this study, both tests are being evaluated and tested every year by the group of students with closer interests towards language teaching.

3. Methodology

Part of the aims of this work consist in explaining the treatment of digital competences by different international institutions to justify the contents included in the selected subjects. After having considered the different initiatives described, this study proposes an approach to include specific activities in the curriculum to work on the DigComp descriptors. All the activities worked with undergraduate and graduate students are being updated yearly to their own needs as required by the action research methodology followed (Burns, 2010; Ivankova, 2014; Klein, 2012). The same four steps are given every year: planning, acting, observing, and reflecting (Putman & Rock, 2017), taking into account that the planning stage takes place even before the beginning of the academic year. Most of the improvements made in the new course come from the observation and reflecting stage from the previous

4. https://portfolio.intef.es/

5. http://egrid.epg-project.eu/en/egrid

6. https://thedigitalteacher.com/framework

year. Thanks to this process, the institutional satisfaction questionnaire results obtain better results every year.

3.1. ICT for English studies

This is an optional subject which is taught in the fourth course of the bachelor's degree in English studies. It is comprised of five European Credit Transfer and Accumulation System (ECTS) points, is delivered in the first semester, and has achieved a total of 230 students in the year 2017-2018. Its main goal is making the student competent in digital skills either in a short-term future (elaboration of their final degree project) or in a long-term future (e.g. their professional career). The publishing industry, language teaching, translation, researching, or archiving are among the professional outcomes preferred by these students once they finish. Consequently, the syllabus has been designed from a broad and flexible perspective, taking into consideration an assortment of scenarios. Among the software selected to pursue this aim, we highlight Mendeley, used to build and manage collaborative bibliographic references, GoConqr, an authoring tool to create online quizzes and interactive contents, and academic social networks, used to be able to spread their knowledge and learn directly from specialised authors. GoConqr was a tool proposed some years after the launching of this subject as a way to prepare the test exam that they had to pass at the end of the course. This action has brought successful results and it is the reason why we are still making use of it year after year, even recycling quizzes created by other students in the past[7]. It also served to develop the third DigComp competence, which is 'content creation'.

3.2. Teaching and processing foreign languages in collaborative work environments

It is a five ECTS point subject offered optionally by the master's degree in ICT in language education and processing (UNED). It receives approximately 20 students per year, most of them being graduates in education, language

7. https://www.goconqr.com/es-ES/groups/38516/show_study_aids

studies, translation, or even computer sciences. Apart from using Mendeley to share and manage bibliographical references, the students are encouraged to use collaborative tools to communicate and create wikis, or blogs. Once the students try one of the suggested tools, they are suggested to comment on their experiences on the forum so that they can enrich others with different perspectives. These resources are elaborated from scratch and focussed on new topics proposed by the teaching team every year. They would have to spread the resulting products through different social networks, including a later analysis of the generated statistics to be presented orally at the end of the course.

All the tools used have been accurately selected so that they learn how to use them later in their work as language teachers with their students or as members of institutions interested in working collaboratively in their everyday routine. All the activities generated will be transcribed in a final assignment, in a portfolio format, so that the tutors and teaching staff can evaluate it.

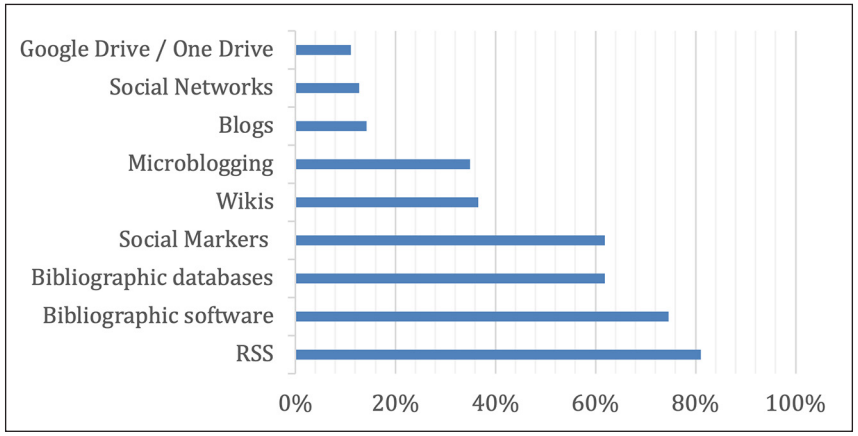
4. Results

Most of the students enrolled at distance universities like UNED share a common factor: extreme heterogeneity. Some of them already have higher studies in opposition to those who abandoned their compulsory studies very early, others are working in related or not so related fields to the degree they are studying, and others live far away from Spain. All these elements have pushed the researcher to elaborate a brief survey at the beginning of the course to obtain a general idea of the sort of needs required by the students of each academic year. The collected results show an increasing evolution towards a better knowledge of digital competences (e.g. social networks or mobile technology), although there are some gaps which remain almost identical (e.g. informational literacy).

Subjects like the ones described in this study have been specially designed to soften the deficiencies described in Figure 1 with the help of the contents shown in Table 3. Two years ago, the form from Figure 1 was substituted by a new one

to know the level of expertise the specific tools dealt with in the course. Seventy-one percent of the respondents of the new form affirmed to know Google Drive in opposition to 4% who declared using Microsoft OneDrive. This fact has made the teaching team reinforce the number of activities related to the Office 365 tool, at the same time as bettering their own institutional applications.

Figure 1. Percentage of the students who do not know the selected ICT tools (2011-2017)



Although each course has its own syllabus, the methodology used in both subjects is very similar, except for activities which cannot be applied to numerous groups. Table 3 shows the contents of both courses and the relation of their contents to the competences of the DigComp. Hence, the information literacy (1) covers the first two units of the undergraduate course and only the first one in the postgrad subject; the communication competence (2) is covered by two units in the first subject and one in the second, although it is also worked transversally throughout the subject due to its collaborative nature; content creation (3) is deeply dealt with in the second and third units from the postgrad subject, apart from being more superficially covered by the last unit of the undergraduate subject with the content edition; and problem solving (4) has been worked transversally in the postgrad subject and more superficially in the fifth unit of the undergraduate subject, through the accessibility topics.

Table 3. Course contents and their relation to DigComp contents

DigComp competences	APLICACIONES DE LAS TIC EN LOS ESTUDIOS INGLESES (4th grade – Bachelor's Degree)	DigComp competences	TEACHING AND PROCESSING FOREIGN LANGUAGES IN COLLABORATIVE WORK ENVIRONMENTS (Master, optional)
1 Information literacy	1. Information retrieval with ICT: English Studies Databases and Electronic Libraries	1 Information literacy	1. Working on the Internet
	2. Bibliographic management applications	3 Content creation	2. The use of wikis as a collaborative working space to deal with foreign languages
2 Communication	3. Communities of practice tools		3.The use of blogs in a foreign language teaching and learning context
	4. Web 2.0 and other emerging technologies applied to research	2 Communication	4. Social networks applied to foreign languages learning
3 Content creation/5 Problem solving	5. Software applications revision: research and the publishing industry	4 Safety	5. The use of web-based tools for monitoring and feedback retrieval in a foreign language context

As it can be observed, all the units included in both subjects cover most of the competences included in the DigComp documents, although they have been adapted to the needs of the different courses. The number of students has also conditioned the type of activity proposed, since 240 students cannot receive the same attention than the postgrad students (approximately 20 students per year).

5. Conclusion

We live in an era surrounded by technological applications which grow in number and complexity as times passes. The new generations require drastic changes in education and the way to prepare them for the professional future evolve as well. Our teaching methods cannot be based on a fixed methodology which teaches how to use specific software and finishes with its evaluation. We must use technological subjects like the ones described in this study to give a step forward, teaching students to walk alone in a never-ending process of lifelong learning. To achieve this, a continuous cycle of improvement based on the students' feedback is required so that our digital competence can grow at the same pace as technological advances, as the action research defends. Trying something new for the first time is time-consuming, but it is worth it to improve the quality of our teaching and keep it alive.

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