

## II. THEORETICAL, METHODOLOGICAL AND PRACTICAL ASPECTS OF DISTANCE LEARNING

### CALL TRAINING IN RESOURCE-LIMITED CIRCUMSTANCES: STUDENT TEACHERS' PERSPECTIVES

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***Abstract:** Computer Assisted Language Learning (CALL) has been used in foreign language instruction (Krajka, 2007; Kukulska-Hulme et al., 2015; Ferguson et al., 2017) and teacher development (Krajka, 2012) so extensively that it may be viewed as a mainstream solution (Motteram, 2013). However, not all educational settings are equipped for ICT-enhanced instruction. This paper discusses the initial findings of research into the applicability of a low-intensity-of-instruction, resource-limited, semester-long basic course in CALL to teacher education at university level, as reported by the students involved. Due to spatial limitations, the findings discussed here provide insight into the student teachers' views on the tools used, their eagerness to implement Web solutions in future teaching practices and their perceptions of the use of Web 2.0 tools in foreign language teaching at large. The remainder of the research results will be discussed in a forthcoming publication.*

**Keywords:** teacher education, CALL, limited resources, learner empowerment, student perspectives

## INTRODUCTION

Due to the extensive promotion of the idea in professional literature, technology-enhanced foreign language teaching is a matter of fact, which finds confirmation not only in the numerous publications in the field, including both theoretical literature and accounts of actual practices (cf. Krajka, 2007; Kukulska-Hulme et al., 2015; Ferguson et al., 2017, Gajek, 2018) but also in the existence of numerous international professional organisations, such as APACALL, CALICO, EUROCALL and IATEFL(LTSIG), as well as the myriad of conferences devoted to an array of aspects of CALL, e.g. GLoCALL 2018 (<https://glocall.org/>), EUROCALL 2018 (<https://www.jyu.fi/en/congress/eurocall2018>) and WORLDCALL 2018 (<http://worldcall5.org>).

What is more, by dint of the years of practice, the status of CALL has apparently evolved so much that technology-based language teaching has changed "(...) from being a niche field practised by a few early adopters, to being mainstream" (Motteram, 2013, p. 6). However, it cannot be taken for granted that all educational settings are currently equipped for ICT-enhanced instruction.

At the turn of the millennium, Starr (2001) reported that a number of factors, e.g. lack of funding, impeded the uptake of Information and Communication Technology (ICT) in education at that time. Yet, despite the fact that almost another two decades have passed, so can it happen today, and although it no longer means complete lack of access to educational technology, it may mean limited accessibility or limited teaching and learning resources in particular contexts, including teacher education institutions, e.g. universities.

This adds up to the challenges faced by teacher educators, who – as it is demonstrated below – need to equip the student teachers they instruct with a vast array of competences and skills which are necessary for the effective implementation of technology-based language teaching practices at all levels of education – yet, it cannot constitute an excuse that would justify the abandonment of CALL training. This paper is an attempt to demonstrate how a university-level CALL course can be taught despite limited resources, and the low quantity and intensity of instruction.

At first, it discusses the competence-and-skill-oriented teaching objectives as well as applicable models of teacher education. Subsequently, it provides an overview of guidelines for training institutions in relation to the digital teaching skillset, as delineated in European educational policy documents. Finally, it reports on research into a resource-limited CALL course taught to postgraduate university students on a teacher education programme in Poland, whose initial findings reveal the student teachers' reflections on the tools used, their eagerness to use Web solutions in future teaching practices and their perspectives on the use of *Web 2.0* in foreign language instruction at large. Due to spatial limitations, findings relating to other aspects of the course in question, e.g. the course content and learning gains

– to name a few – are beyond the scope of this paper and will be reported on in a separate publication.

## **1. LANGUAGE TEACHER IN THE TECHNOLOGY-ENHANCED CLASSROOM – COMPETENCES AND SKILLS**

There are a number of aspects involved in the competence of a foreign language teacher. If one adds to that technology as a teaching environment and a medium of classroom instruction, the range of skills becomes much wider. To think about teachers' perceptions of CALL training in a limited-resource context, one needs to review some existing frameworks of teacher skills.

### **1.1 Multiple literacies (multiliteracies)**

Over the years, there has been a heated debate on what the Information Literacy of language teachers should actually comprise. Digital literacy can be subdivided into two areas: instrumental – encompassing hardware, software, didactics, pedagogy, ethics and axiology, and subject matter – the use of ICT in teaching a given subject. On the one hand, it has been stressed that basic computer literacy, such as comparable to the European Computer Driving Licence level (ECDL), is a prerequisite for an online teacher, supplemented by other practical skills as indicated in the seminal proposal of Gajek (2004):

- basic computer literacy, for instance within ECDL modules;
- media literacy, enabling teachers to use the Internet for personal and professional purposes;
- didactic awareness of the ways of using computers and the Internet in and out of class;
- ability to suit the new knowledge and skills to personal teaching style and students' needs;
- ability to evaluate electronic materials;
- necessary background for the preparation and selection of electronic language learning materials;
- necessary background for running classes at a distance through the text, voice and videoconferencing channels.

For Chapelle and Hegelheimer (2004), the language teacher of the 21<sup>st</sup> century needs to be equipped with a growing set of computer skills necessary to perform jobs and stay up to date with their profession, e.g. those relating to: spreadsheet applications (*MS Excel*), database applications (*MS Access* or *FileMaker Pro*), basic statistics (using *MS Excel*), and presentation tools (*MS PowerPoint*), as well as teaching and research applications (e.g. concordancing and screen capturing software).

The second important area of expertise is digital authoring, which is about creating online materials ranging from simple interactive quizzes through webpages to online courses (Amiri, 2000). Chappelle and Hegelheimer (2004) recommend that, as a minimum, teachers should be expected to have a basic understanding of webpage design and creation including inserting hyperlinks and links to media files. Designing Computer-Mediated Communication environments (chat rooms, bulletin boards, e-mail, electronic mailing lists, and whiteboards), setting up appropriate tasks, providing guidance and moderating exchanges are Web literacy components necessary for increasing learners' communicative competence through CMC. In Stevens' opinion (2007), CALL is no longer programmed instruction contained in wrapped multimedia software packages. Instead, technology-enhanced instruction should build on computer literacies that are transferable across the curriculum, resulting in the applications of commonly available technologies as daily solutions with which to address student needs.

Amiri (2000, p. 77) claims that teachers should be trained as both consumers and producers of digital materials, as "(...) the knowledge of programming is important for enabling language teachers to become involved in the design and development of computer-based materials". For Amiri (2000), IT training for language teachers needs to become more sophisticated, to encompass various aspects of IT, end-user programming, learning, instructional design and second language acquisition (SLA) theories, with teachers developing their own materials using programming environments such as *ToolBook*, *Director*, *HyperCard* or *Visual Basic*.

At the same time, online instructors need to exhibit the ability to present the subject matter in an attractive manner utilising technological tools, being well-familiarised with technical and educational problems and providing solutions in both areas to benefit the learners. This is the practical 'troubleshooting' level of Information Literacy, which does not involve dealing with learning environment building but rather focuses on the effective application of ready-made applications in specific learning contexts. This troubleshooting knowledge could go together with language lab-related expertise, as, according to Chappelle and Hegelheimer (2004), "(...) [f]uture teachers need to be aware of the factors involved in setting up and running a language lab to be prepared to influence positively the process of either establishing a language lab or of expanding an existing one" (p. 313).

Apart from basic technical expertise and digital authoring, Information Literacy is commonly supplemented or compensated with 'Web literacy' (Chappelle and Hegelheimer, 2004), i.e. the ability to know how to use the Internet as a resource for current authentic language materials in varied formats (text, audio, video, and image), find linguistic and other reference materials and develop interesting activities around the materials on these sites. Using the Internet encompasses not only searching for information and materials and evaluating Web-based materials, but also repurposing materials for student use, adapting or recontextualising online information if needed to suit particular learning environments or pedagogical designs (Chappelle & Hegelheimer, 2004).

It is possible to define the required level of Information Literacy of particular educational contexts in relation to educational objectives, “(...) intended behaviours which the student shall display at the end of some period of education” (Bloom, 1956, p. 16), relevant to information literacy competencies, e.g. intended behaviours *in the context of information literacy* which the student should be able to display at the end of some period of education (Vitolo & Coulston, 2002). The mapping of Bloom’s taxonomy of educational objectives across the five areas of Information Literacy Competency, namely hardware (physical components of a system), software (instruction sequences for a system), data (static representations of system content), procedures (tasks and activities to be performed by people in conjunction with a system) and people (stakeholders of a system) was thoroughly discussed in Vitolo & Coulston (2002).

Fitzpatrick and Davies, in their seminal report *The Impact of New Information Technologies and Internet on the Teaching of Foreign Languages and the Role of Teachers of Foreign Languages*, commissioned by the Directorate General of Education and Culture (2003), make an important analysis of the redefinition of the role of the teacher in the technology-assisted environment, together with the reflection on what skills are needed in order to succeed. These are, most of all, technical, organisational, conceptual and mediation skills.

**1. Technical Skills:** the ability to cope with the most common problems arising from the use of computers, with no necessity for in-depth knowledge of the causes of such problems but rather effective troubleshooting behaviour.

**2. Organisational Skills:** conceptualisation, application, evaluation and dissemination of new organisational and pedagogic models of ICT implementation for language learning.

**3. Conceptual Skills:** the skills to design learning experiences and plan learners’ encounters with the target language environment, finding a new balance of classroom power and rethinking the teaching philosophy, from the case of complete control of the means at the teacher’s disposal to greater control of the teaching medium by the learner.

**4. Mediation Skills:** exposing students to the ‘real world’ of the target culture in an unrestricted, uncensored and uncontrolled way with new strategies and approaches for dealing with specimens of L2 culture to be learnt and practiced for successful accomplishment of some European policy objectives (e.g., Key Competences for Lifelong Learning – Wilczyńska, 2005; 2010).

Apart from the main areas of skills characterised above, the report also stresses the necessity of the possession of “new literacies” for successful execution of the role of teacher in the online environment (after Fitzpatrick & Davies, 2003, p. 14):

**Scientific literacy:** the ability to think scientifically in a world which is increasingly shaped by science and technology, the ability to apply a scientific perspective

**Digital literacy:** the ability to use ICT adequately and apply them in a principled way to the subject matter at hand;

**Critical literacy:** the ability to evaluate the credibility, usefulness and reliability of any given sources of information;

**Linguistic literacy:** the ability to recognise different genres as they develop, to track developments in use and usage and to adapt teaching materials and approach to changing situations;

**Cultural literacy:** the ability to observe and record changes in the society or societies of the target language together with implications for language teaching.

As this presentation shows, there are varied views on how deep teachers' expertise should be technology-wise, to what extent they are supposed to be consumers and producers of digital learning content, and what balance between technological, pedagogical and evaluative aspects should be achieved in the overall CALL training programme. What goes without saying, however, is that CALL training needs to encompass much more than just technical expertise. In fact, given a wide range of skills required of effective technology-skilled teachers and roles played by them in the technology-enhanced classroom, CALL teacher preparatory courses are an opportunity for intercultural, sociopedagogical or strategic activities.

## 1.2 CALL Teacher Development Models – from ‘Skills Pyramid’ to ‘Continuum of Expertise’

The competences required by a CALL teacher, in particular an online tutor or instructor implementing language teaching in a distance or blended learning environment, are explicitly described by Hampel and Stickler (2005), whose *pyramid* model comprises seven skill levels covering technical expertise, knowledge of the affordances, socio-affective skills and subject knowledge. The skills “(...) build on one another, from the most general skills forming a fairly broad base to an apex of individual and personal styles” (p. 316), and in this model lower-level skills are to be achieved before the higher-level skills can come to fruition (Hauck & Stickler, 2006).

After the first level, encompassing basic technical skills, there comes contextual competence for particular software (or online applications), either Course Management Systems, Computer-Mediated Communication tools, social media platforms or production tools. It is essential to note that the very familiarity with some tools (level 2) is not synonymous with its effective implementation in the curriculum, as this requires an understanding of their affordances and constraints (level 3).

Further levels deal with the abilities to build interpersonal relations online (level 4 – ‘online socialisation’), promoting social cohesion and enabling effective communication in the CMC mode (level 5 – ‘facilitating communicative competence’). The final two levels, similarly to the first three, are universal no matter what particular technology or tool is to be used. Level 6 (‘creativity and

choice') encompasses innovative pedagogical applications of the selected technology, as well as the skill of evaluating and repurposing materials (Chapelle & Hegelheimer, 2004). The seventh and highest level of skills for online language teaching includes the ability to develop a "(...) personal teaching style, using media and materials to their best advantage, forming a rapport with [the] students and using the resources creatively to promote active and communicative language learning" (Hampel & Stickler, 2005, p. 319).

On the other hand, Compton's (2009) *Continuum of expertise* model originated primarily from the critique of Hampel and Stickler's (2005) *Pyramid skills* model. Compton argues that the skills necessary for a CALL teacher do not have to be acquired sequentially but concurrently, that some of the levels (like acquiring specific technical competence and dealing with constraints and possibilities) actually merge together and finally, that it is unrealistic to expect that only the teacher who reaches the last level is ready to teach online.

Thus, the framework for describing CALL teacher competences encompasses three major areas:

- 1) technology in online language teaching;
- 2) pedagogy of online language teaching;
- 3) evaluation of online language teaching.

Within each of these areas teacher skills can be described to fit one of the three levels of expertise: novice, proficient and expert. Not every language teacher needs to achieve the expert level in all the three areas – in some educational contexts the very technology can be at lower levels, but pedagogy comes first. On the other hand, in some other kinds of schools or courses evaluation skills for CALL materials, activated together with coursebook evaluation abilities, are in the foreground. Thus, it is important to state that limited expertise in one area does not exclude higher proficiency and greater sophistication of teaching in the others.

The first set, technological skills, relates to knowledge and ability to handle hardware and software issues. For novice teachers, the ability to turn on a computer, use a mouse and a basic knowledge of simple applications such as word-processing and the Internet are a starting point, followed by learning about the differences between asynchronous and synchronous technologies and being comfortable while using text/audio/video-based Computer-Mediated Communication. On the other hand, a technologically proficient teacher, according to Compton (2009), would also need to deal with the limitations of the chosen software and provide solutions to overcome them as well as adapt tools or recombine them to compensate for their limitations.

Compton's (2009) second category, pedagogical skills, refers to knowledge and ability to conduct and facilitate teaching and learning activities. At the novice level, the emphasis is on the teacher to acquire adequate information or knowledge; the expert level, however, centres around creative use knowledge and its application

for designing new online materials and tasks, online socialisation and community building as well as assessment.

As regards evaluative skills, a novice teacher would need to possess the knowledge of CALL and/or online language learning tasks, software and course evaluation, while an expert teacher is able to conduct the evaluation process in an integrative way, by combining several methods of evaluation, as well as to identify the impact on learning outcomes based on their extensive knowledge of evaluative frameworks.

As evidenced by the frameworks summarised above – by no means all, as the list of competences and skills for teachers in CALL/MALL/online/blended learning classrooms is constantly expanding – it seems virtually impossible to cater for all of these areas in the teacher training programme, to take pre-service teachers from the novice to expert level in both technological, pedagogical and evaluative areas, or to make them acquire all the competences and literacies to the same level. Given the context in which the current research was based, namely low-intensity and resource limitations as the two major indicators of the instructional setup, it is inevitable that choices need to be made and foci need to be carefully established. Most importantly, capitalising on the technological expertise already possessed by student teachers (even if it means a mixed-technologically-ability class) and concentrating on the pedagogical and evaluative skills seems to be a sensible solution. In this respect, rather than adhering to the linear and sequential *pyramid* model (Stickler & Hampel, 2005) and expecting certain abilities to appear after some other ones, toning down instructor objectives and limiting oneself to developing critical and a creative pedagogical attitude towards teaching with technology would be the best option. Hence, Compton's (2009) *Continuum of expertise* seems more applicable with student teachers possessing varying levels of technological proficiency but a relatively equal and high level of pedagogical expertise.

## **2. TECHNOLOGY AND LANGUAGE TEACHERS – THE EUROPEAN POLICY PERSPECTIVE**

Apart from sets of skills, competences, abilities and attitudes that are to be grasped by language teachers to be effective technology-enhanced educators, there are certain guidelines on what teacher training institutions should do in terms of digital teaching skillset. Such recommendations come from policy documents issued by the European law-makers, implementation tools developed for the Council of Europe by researchers and teachers as well as actual data revealed by European and national statistical offices. This perspective will be presented below.

### **2.1 European Portfolio for Student Teachers of Languages**

Even though relatively little was said about teaching with technology skills in the major document marking the modern era of standardised language teaching and

learning, namely the *Common European Framework of References for Languages – Learning, Teaching, Assessment* (Council of Europe, 2001), the skills necessary for harnessing technology to fit pedagogical purposes became an important part of the *European Portfolio for Student Teachers of Languages – EPOSTL* (Newby et al., 2007). This highly practical tool for individual teachers guides them in their professional development throughout their entire career and is an important contribution to defining didactic competences necessary for effective language teaching in the multicultural and digitised educational landscape of the 21<sup>st</sup> century.

The core of *EPOSTL* are the 193 descriptors of competences related to language teaching which comprise the self-assessment section. These descriptors may be regarded as a set of core competences which language teachers should strive to attain. The descriptors are grouped into seven categories: Assessment of learning, Independent learning, Conducting a lesson, Lesson planning, Context, Methodology and Resources. These represent areas in which teachers require knowledge and a variety of competences and need to make decisions related to teaching. Each heading has been sub-divided into more specific sub-areas of pedagogical expertise.

In terms of CALL pedagogical training, the most important descriptors are to be found in the area of Independent learning, under the sub-topic of “Virtual Learning Environments”:

- 1) I can use various ICT resources (email, web sites, computer programs etc.);
- 2) I can advise learners on how to find and evaluate appropriate ICT resources (web sites, search engines, computer programs etc.);
- 3) I can initiate and facilitate various learning environments (learning platforms, discussion forums, web pages etc.).

However, the awareness of affordances and limitations of technology, together with potential advantages and drawbacks of computer/mobile-based teaching can also be found in the section “Institutional Resources and Constraints”:

- 4) I can assess how I might use the resources available in my school (OHP, computers, library etc.);
- 5) I can recognise the organisational constraints and resource limitations existent at my school and adapt my teaching accordingly.

In the area of Methodology, the sub-section “Culture”:

- 6) I can create opportunities for learners to explore the culture of target language communities out of class (Internet, emails etc).

In the area of Resources:

- 7) I can locate and select listening and reading materials appropriate for the needs of my learners from a variety of sources, such as literature, mass media and the Internet;
- 8) I can select and use ICT materials and activities in the classroom which are appropriate for my learners;
- 9) I can design ICT materials and activities appropriate for my learners;
- 10) I can guide learners to use the Internet for information retrieval;
- 11) I can use and critically assess ICT learning programs and platforms.

In the area of Conducting a Lesson, sub-section “Classroom Management”:

- 12) I can manage and use instructional media efficiently (OHP, ICT, video etc.);
- 13) I can manage and use instructional media efficiently (OHP, ICT, video etc.).

As can be seen above, the philosophy laid down by *EPOSTL* clearly shows the major focus of CALL training of novice teachers mainly in the area of evaluation and learning management, without specific reference to particular tools, programs, websites or procedures. It is evident that regardless of how technologically-rich the educational contexts in which teachers actually reside are going to be, the same set of competences, as composed of the 13 descriptors above, is equally applicable. The same applies to technological provisions at teacher training institutions – regardless of how much time and technology is available for training – the 13 descriptors adding up to a technology-skilled teacher can be effectively developed by limiting the scope of technologies under focus.

## 2.2 European Profile for Language Teacher Education (EPLTE)

Another important source of guidance for CALL initial training is *European Profile for Language Teacher Education – EPLTE* (Kelly, Grenfell, 2004), which “presents a toolkit of 40 items which could be included in a teacher education programme to equip language teachers with the necessary skills and knowledge, as well as other professional competencies, to enhance their professional development and to lead to greater transparency and portability of qualifications” (p. 3). As the authors state themselves in the introduction to the volume, it is not a mandatory set of requirements for language teacher education, but rather a voluntary frame of reference for curriculum designers and teacher trainers to adapt to the local needs of language educators.

The *Profile* contains 40 items describing important elements in foreign language teacher education in Europe, subdivided into four sections:

- 1) Structure (items describing the different constituent parts of language teacher education),

- 2) Knowledge and Understanding (items relating to *what* trainee language teachers should know and understand about teaching and learning languages as a result of their initial and in-service teacher education),
- 3) Strategies and Skills (items relating to what trainee language teachers should *know how* to do in teaching and learning situations as teaching professionals),
- 4) Values (items relating to the values that trainee language teachers should be taught to promote in and through their language teaching).

Since the four sections are to be viewed holistically for a comprehensive and multi-faceted picture of a language educator for the 21<sup>st</sup> century, it is interesting to see to what extent technology-enhanced teaching is actually reflected in the final profile:

**Table 1.**

**A language educator for the 21st century**

<b>Structure</b>	<b>Knowledge and Understanding</b>	<b>Strategies and Skills</b>	<b>Values</b>
6. Participation in links with partners abroad, including visits, exchanges or ICT links	17. Training in information and communication technology for pedagogical use in the classroom	23. Training in the critical evaluation, development and practical application of teaching materials and resources	40. Training in the importance of life-long learning
13. Training in language teaching methodologies, and in state-of-the-art classroom techniques and activities	18. Training in information and communication technology for personal planning, organisation and resource discovery	26. Training in the development of independent language learning strategies	

*Source: Own work*

The major teacher training philosophy of *EPTLE* is laid down in item 17 and item 18 in the Knowledge and Understanding section. It is interesting that language educators should know how to integrate ICT into other teaching areas, use it as a resource and support – not an end in itself – promoting learner autonomy through expanding learning opportunities. Training should consist of a combination of technical skills in ICT and practical application of techniques to classroom

teaching scenarios, which are to be taught through task-based learning approaches. Quite importantly, for the authors of the *Profile*, ICT is not an add-on or a reward for a good lesson but as integral learning. Thus, since trainees should learn how to use ICT to maximise a lesson's learning outcomes, the interest and enthusiasm of their learners will appear as a result of instructional procedures, not due to the very use of technology. At the same time, the importance of limitations of technology use, the need for having clearly outlined learning objectives and outcomes and training with ongoing reflection on the pedagogical values of ICT that is not focused merely on technical competence are the pillars of successful teacher development.

Apart from instructional use as exemplified in Item 17, the auxiliary role of technology in teacher practice is described in Item 18 (Training in information and communication technology for personal planning, organisation and resource discovery). The role of teacher educators is to show trainees the value of ICT for organising their own workload and schedules, retrieving and developing resources and archiving documentation. This entails, among others, skills in using word processing and data processing packages, online agendas and email, search engines, educational websites, interactive website forums, resources and databases.

Finally, technology-enhanced procedures are also present to some extent in other areas of teacher expertise shown in the table above. These find their practical implementation in the following techniques (extracted from *EPTLE*, 2004):

6. Trainee teachers are aware of the diverse ways to **communicate** and **exchange information** and **resources** with partners abroad. As well as visits to partner institutions, there are benefits from **written exchanges, e-twinning of institutions, interactive forums between institutions, email and video-conferencing**.

13. ICT is related to specific learning situations so that trainees learn about technical matters as well as ICT's practical application in the classroom. ICT should be used as an integral part of a lesson rather than an add-on to it. The value added by using it should always be clear.

23. Trainee teachers understand the role of different types of teaching materials and resources in their teaching. They are taught to apply them critically and effectively. The materials in question include **textbooks, authentic documents, video and tape cassettes, CD ROMs and online materials**.

26. Trainee teachers develop independent language learning strategies to improve their language competence and to be able to transfer these skills to their own learners. New learning environments such as **virtual resources, language centres**, multicultural learning environments as well as up to date **course books** and materials play a major role in developing independent language learning.

40. Trainee teachers are able to highlight the value of ongoing language learning outside an institutional context. Trainees are able to show

learners how to use **ICT** to maintain and improve their **language abilities** independently.

### 2.3. CEFR Companion Volume

The most important and most current offering of the European language policy which influences reflection on technology-related competences of language teachers is the Companion Volume to the Common European Framework of Reference for Languages (Council of Europe, 2017). Intended as a complement to CEFR, it represents another important step in a process that has been pursued by the Council of Europe since 1971. Since 2001 edition of CEFR there have been a number of requests made by language teaching professionals across Europe and beyond to complement the original illustrative scales with more descriptors. The 2017 edition contains the following components:

- A text explaining key aspects of the CEFR for teaching and learning;
- Updated versions of the 2001 scales (gaps filled: better description at A1 and the C-levels, new analytic scale for phonology);
- Descriptors for new areas: mediation (including reactions to creative text/literature), online interaction, and plurilingual/pluricultural competence;
- Examples for the mediation descriptors for the four domains public, personal, occupational, educational;
- A brief rationale for each descriptor scale (old as well as new);
- A brief account of the development project.

Out of these, the most important element for technology-skilled language educators is the new scale for online interaction, which shows what particular abilities learners should have at all the six levels (from A1 to C2) in order to effectively function in computer-mediated interactions with other learners, native and non-native speakers. Also, the paramount role of mediation and plurilingual competence in the Companion volume calls for greater reflection of teacher trainers on how to make future teachers ready for dealing with telecollaborative language instruction.

As the authors of the Companion Volume claim, online interaction is always mediated through a machine, which implies that it is unlikely ever to be exactly the same as face-to-face interaction. Online interaction is so different from traditional competence that it was impossible to capture its nature with the traditional competence scales focused on individual's speech or writing. On the one hand, in online interactions there is an availability of resources shared in real time; however, there may be misunderstandings which are not spotted (and corrected) immediately, as is often easier with face-to-face communication. The scale for online interaction deals with how interlocutors communicate in conversations and

discussions to handle both serious issues and social exchanges. The topics that are conceptualized in the reference scales are as follows:

- instances of simultaneous (real time) and consecutive interaction, the latter giving time to prepare a draft and/or consult aids;
- participation in sustained interaction with one or more interlocutors;
- composing posts and contributions for others to respond to;
- comments (e.g. evaluative) on posts, comments and contributions of others;
- reactions to embedded media;
- the ability to include symbols, images, and other codes for making the message convey tone, stress and prosody, but also the affective/emotional side, irony etc.

Progression up the scale from A1 to C2 is reflected in the amount of awareness of the register needed in particular speech contexts, the understanding of the virtual spaces in which communication is taking place and the amount of guidance provided to the learner (Council of Europe, 2017, p. 93):

A user/learner will struggle to interact successfully in an online meeting until he/she reaches the B levels, will be able to interact in a virtual 'classroom' at A2 only if carefully guided, and maybe can communicate only very superficially at A1 when posting and chatting in the 'café'. At the C levels, on the other hand, the user/learner can adapt his/her register and interaction style according to the virtual space he/she is in, adjusting his/her language appropriately to make his communication more effective.

It goes without saying that the ubiquitous nature of online interaction nowadays, with an inescapable role of social media in all walks of life, also requires an essential instructional focus in CALL initial teacher training.

### **3. NEW MEDIA IN ELT – A BASIC TEACHER TRAINING COURSE IN CALL IN STUDENTS' PERSPECTIVES: THE SURVEY STUDY**

The research data obtained in the course of the present study were collected at the end of two consecutive editions of a university-level teacher education course in the implementation of digital technology in language instruction. The data collection was performed in June 2017 and in June 2018, which means that the study can be classified as cross-sectional in nature. The details of the research setting, including information about the research aims, research questions, procedures, as well as the results obtained are discussed below.

### 3.1. Research Questions and Aims

The aim of the study was to investigate student teachers' opinions on the potential outcomes of an attempt to implement limited Information and Communication Technology resources with a view to empowering them to use digital technology in their future teaching practices. The researchers involved in the study were particularly interested in the student teachers' voice on the usefulness of the ICT tools they had an opportunity to learn and work with and the course content, their stance on the use of Web-based language teaching, their perception of potential learning gains as well as deterrents which could possibly discourage them from practising ICT-enhanced language instruction as part of their professional practices after graduation.

Thus research was motivated by the following research questions:

- **RQ1:** How do the student teachers perceive the usefulness of the Web resources they worked with?
- **RQ2:** Do the student teachers feel eager to use Web tools in their teaching practices after graduation?
- **RQ3:** What are the student teachers' perceptions of the use of Web 2.0 tools for the purpose of foreign language teaching?
- **RQ4:** What do the student teachers see as deterrents which could discourage them from implementing CALL solutions?
- **RQ5:** How do the student teachers perceive the less obvious components of the course content?
- **RQ6:** What are the student teachers' perceptions of the learning mode and resulting learning gains that they claim to have benefited from?
- **RQ7:** How would the student teachers modify the course design, bearing in mind the limited quantity and intensity of instruction?

However, as it has been signalled before, due to space limitations, only the results of the study which provide answers to RQ1, RQ2 and RQ3 will be discussed in the remainder of this paper. Findings relating to RQ4, RQ5, RQ6 and RQ7 will be reported on in a forthcoming publication.

### 3.2. The Participants and the Instructional Context

The course under investigation was entitled New Media in English Language Teaching, and it was delivered as part of a post-graduate (MA) programme in English teacher/translator education at a middle-sized university located in the south-east of Poland. The course was taught in the summer semester of two

consecutive academic years: 2016/2017 and 2017/2018 and involved 7 bi-weekly face-to-face meetings which spanned the entire semester. It was an *embedded technology* blended learning course (cf. Sharma & Barrett, 2007) in that digital technology was utilised in the very classroom. Yet, face-to-face instruction was also supplemented with an online component, delivered via a Moodle-based learning platform, whereby the students had an opportunity to consolidate their classroom work while working at home. Owing to the functionalities of the platform, e.g. the wealth of learning resources it offers (readings, videos, PowerPoint presentations, sample materials for analysis) and the activities it permits to design (forums, diaries, questionnaires, assignments), the course learning hours were considerably extended.

The teaching content was based on an original, purpose-designed syllabus which aimed to achieve the following goals:

- explore the nature of contemporary foreign language education: learner profile and learning needs;
- raise awareness of the methodology behind ICT-enhanced language teaching;
- examine Web 2.0 resources which lend themselves to Computer Assisted Language Learning (CALL);
- practise CALL materials design for the development of major language skills by implementing relevant methodological principles and ICT (Web) skills.

The course was student-oriented, with the student teachers confronting learning challenges on their own, in pair or groups. Thus, it may be stated that the learning involved a solid amount of peer-learning and peer-support, as the participants were free to interact and collaborate with – as well as assess – one another with a view to co-construing knowledge and developing relevant ICT and CALL skills, while the teacher's role was limited to that of an organiser, whose major task was to *occasion* (Király, 2015) the development of the students' competence in CALL, and ICT.

It must be underlined that the it was a resource-limited course, particularly with regard to the availability of computers and Web connectivity. In the 2016/2017 edition of the course, the student teachers worked on individual desktop computers, running on the Windows XP operating system by Microsoft, with very little Random Access Memory (RAM), pre-installed Windows XP applications and Local Area Network (LAN), i.e. cable, Web connectivity available on only 4-6 of the 15 computers available in the classroom in each meeting. In the 2017/2018 edition the working conditions were modified in order to resolve the hardware/software problems, and the students worked on a Bring-Your-Own-Device (BYOD) basis. In effect, the students worked on Windows 8 and Windows 10 personal laptops and they all had Web connectivity ensured via portable Web modems or the Eduroam Wi-Fi network available at school. The results of the

study may thus be helpful in designing foreign language teacher education courses in CALL at university level in resource-limited circumstances.

The participants of the project were 33 day students (N=33) in their second year of the postgraduate (MA) programme in English Language Teaching and Translation. 13 students (N=13) formed the group that participated in the 2016/2017 edition of the course in New Media in ELT, while 20 students (N=20) completed the 2017/2018 edition. The research sample was strongly dominated by females (N=32), with only one participant being male (N=1), which reflected the female-dominated nature of the profession. In terms of professional experience, the participants constituted a mixture of job-experienced and pre-experienced teachers of English as Foreign Language (EFL).

Each of the f2f meetings was devoted to a separate topic. The learning occurred in a flipped mode in that before each class the students needed to read up on the topic of the forthcoming meeting in order to explore the theoretical underpinnings of what they were subsequently to do in practical terms in the classroom and for homework. The actual course content is listed below, together with the Web resources which the student teachers worked with in and outside the classroom:

- Introduction to rapid changes in (ICT-enhanced) education and Web searching skills and strategies for teachers;
- ICT-enhanced listening (ESL Video and Audacity);
- ICT-enhanced speaking (Photobabble, Storyboard That);
- ICT-enhanced reading (Scavenger hunts, QuestGarden, Storyboard That);
- ICT-enhanced writing (Collaborative writing TitanPad/PrimaryPad], Storyboard);
- CALL materials evaluation and selection (evaluation criteria);
- Course round-up and feedback.

Each time, once the students explored the Web tools relevant to a given topic in the classroom via self-learning or collaboration, they were assigned a homework task to be completed individually, in pairs, or in groups of three which required them to use one of the newly-learned tools in order to design a specific EFL learning activity. It was ensured through the task rubric that while designing their activities the participants needed to be guided by the methodology beyond the activity they prepared, not by the very technology used. That is why for each of the activities designed they had to tag it with basic specifications, including the teaching/learning goals, the target learner group (age and level of competence) and the timing. Additionally, they were also supposed to provide a written description of the procedure for task performance and append it with teachers' notes, which were supposed to highlight potential problems or vital steps in task preparation.

### 3.3. Research Instrument: The Structure of the Survey

The research data were collected by means of a survey which contained a combination of close-ended and open-ended questions, 20 in total. The questions fell into 7 question sets, corresponding to the main research questions cited above.

RQ1 was examined through Questions 1, 2, 3 and 4. Web resources were operationalised as both Web tools (e.g. ESL Video) and Web-based techniques (e.g. Scavenger Hunt). Questions 1 and 3 each contained a list of the Web resources, i.e. both Web tools and Web-based techniques, used during the New Media in ELT course and required the respondents to indicate which ones they found the most useful and the least useful, correspondingly. Questions 2 and 4 were both open-ended and they involved justifying responses given to Questions 1 and 3.

RQ2 was operationalised as Questions 5 and 6. Question 5 asked the respondents to state whether, having completed the course, they felt they would be using Web tools in their teaching practices, while Question 6 permitted the student teachers to motivate their responses.

RQ3 was broken down into Questions 7 and 8. They were both open-ended questions which helped the researchers examine the advantages (Q7) and disadvantages (Q8) of the use of Web tools in language teaching that the respondents perceived.

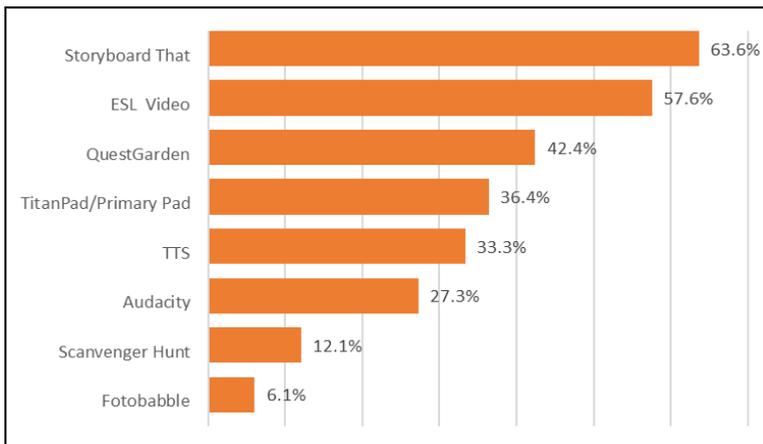
The remaining research questions, which are beyond the scope of this publication, will not be discussed in detail. Suffice it to say that RQ4 was investigated through a single survey question (Question 9); RQ5 was examined through Questions 10, 11, 12, 13, 14 and 15; RQ6 was represented in the survey by Questions 16, 17, 18 and 19; and RQ7 was operationalised as a single open-ended question (Q20).

### 3.3. Research Findings

The data obtained through close-ended questions were analysed quantitatively, while those obtained through open-ended questions were subject to qualitative analysis, with the caveat that in the case of the latter type of questions qualitative data were categorised and quantified whenever it was possible.

#### *1. Student teachers' perceptions of the usefulness of the Web resources they worked with*

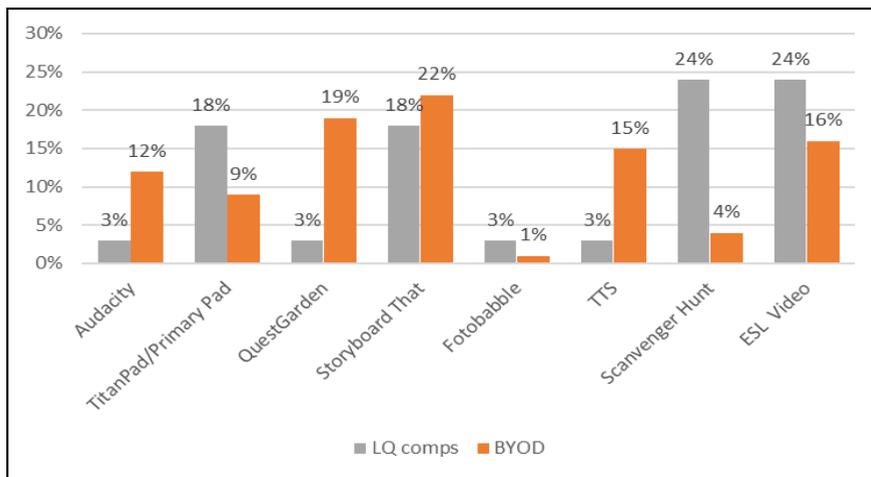
The largest proportions of the respondents indicated that the most useful Web resources for them were: Storyboard That (63.6%) – a cloud-based service for designing online cartoons, ESL Video (57.6%) – an online service for creating audio-video quizzes, QuestGarden (42.4%) – an online platform for creating and publishing Webquests (cf. Dodge, 2000) and TitanPad/PrimaryPad (33.3%) – an online text editor permitting team writing in real time. A graphic illustration of the complete results is presented in Figure 1.



**Figure 1. Most useful Web resources selected by student teachers (N=33)**

*Source: own work*

However, it is also interesting to see how the responses were distributed within the two research sub-samples: (i) the group which used low quality computers in the 2016/2017 edition of the New Media in ELT course (LQ comps) and (ii) those who used their own devices in the 2017/2018 edition of the course (BYOD), which may indicate how the very hardware that the student teachers used may have affected their choices.



**Figure 2. Most useful Web resources selected by student teachers in the LQ Comps group (N=13) and the BYOD group (N=20)**

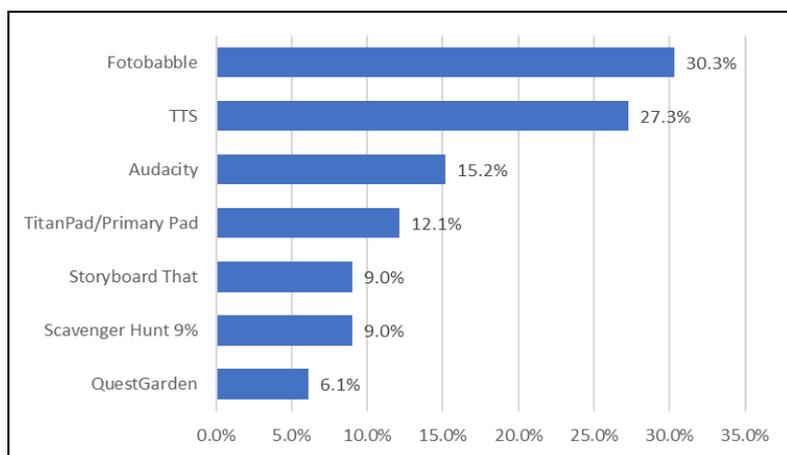
*Source: own work*

In the LQ Comps group, the Web resources selected most frequently as the most useful were: ESL Video (24%), Scavenger Hunt – a technique involving extensive Web searching (24%), Storyboard That (18%) and TitanPad/Primary Pad (18%),

while in the BYOD group the tools selected most frequently were: Storyboard That (22%), QuestGarden (19%), ESL Video (16%) and Text-to-Speech – a service permitting the automated conversion of written text into spoken language (15%) (cf. Figure 2).

It can be observed that in both groups ESL Video and Storyboard That were among the resources deemed as the most useful. At the same time, the greatest discrepancy between the two groups occurred with regard to Text-to-Speech (12% difference), Audacity (9% difference) – an installable audio file editor, TitanPad/Primary Pad (9% difference) and ESL Video (8% difference).

The largest proportions of respondents selected the following tools as the least useful: Fotobabble (30.3%), Text-to-Speech (27.3%) and Audacity (15.2%). A graphic illustration of the complete results is presented in Figure 3.



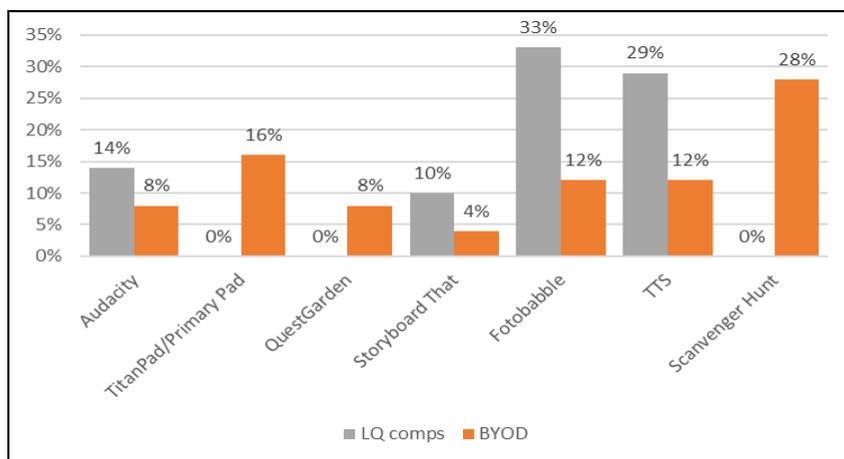
**Figure 3. Least useful Web resources selected by student teachers**

*Source: own work*

The distribution of responses in both groups was as follows: in the LQ Comps group, the Web resources selected most frequently as the least useful were: Fotobabble (33%), Text-to-Speech (29%), Storyboard That (18%) and Audacity (14%), while in the BYOD group the tools selected most frequently were: Scavenger Hunt (28%), TitanPad (16%), Fotobabble (12%) and Text-to-Speech (12%). The complete results are illustrated graphically in Figure 4.

All in all, in response to Research Question 1, it can be stated that the student teachers examined considered as the most useful those resources that permitted the incorporation of multimedia (ESL Video and Storyboard That). What draws attention is the relatively little appreciation for the QuestGarden tool and a much more positive stance on the Scavenger Hunt technique in the group that used low quality computers during the class (LQ Comps). Both resources are similar in that they each require learners to perform online searching: guided and free, respectively. It might be hypothesised that the LQ Comps group displayed a much

stronger preference for Scavenger Hunt, as preparing on online hunt does not require extensive use of ICT. Basically, it is enough for the teacher to prepare a list of questions to which learners will seek answers online, thus it is easy to prepare even on a low-quality computer. QuestGarden, however, requires the teacher to perform far more online searching – and use reliable technology – so that they can find, examine, validate and short-list a number of specific websites that learners will be expected to use for information searching in order to complete the task.



**Figure 4. Least useful Web resources selected by student teachers in the LQ Comps group (N=13) and the BYOD group (N=20)**

*Source: own work*

## 2. Eagerness to use Web tools in future

A vast majority of the respondents (93.9%) claimed that they were likely to use Web tools in their future teaching practices. Only two of them (6.1%) maintained they would not do so; both were members of the LQ Comps group. Among the various motives which they mentioned the ones that prevailed were: the power of Web tools to make lessons more interesting and enjoyable for learners (33.3%), the fact that the tools diversify lessons (21.2%), their potential versatility and suitability for a range of teaching objectives, including the development of various language skills (18.2%), and their power to motivate learners (21.2%). It merits a mention that 12.1% of the respondents stated that they had already witnessed the motivating effect of Web tools on students in their teaching to date. 15.2% of the respondents expressed the belief that Web tools were an indispensable teaching aids which constituted learners' natural environment and assisted the latter group in learning in a more natural way.

The other reasons for the use of Web tools in language teaching which the respondents cited included the power to: enhance learning at large, facilitate individual and collaborative work, supplement coursebook materials, increase the

effectiveness of instruction, equip learners with skills useful for their jobs, support students with different educational needs, and increase learner involvement.

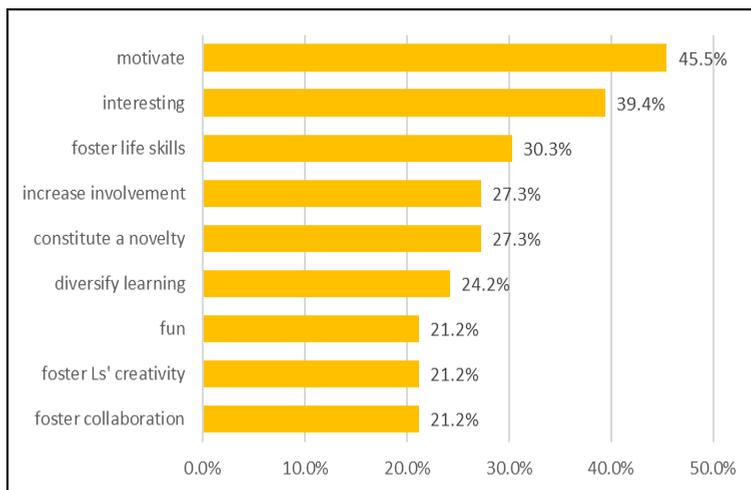
Interestingly enough, 15.2% of the students explicitly made the reservation that they would not utilise Web tools on a permanent basis due to the time required for task design, possible technical problems. They added that they would exercise restraint in the use of Web tools so that they could be used only if the technology available at school was adequate, and if the tools to be used were likely to truly facilitate the learning process.

The two students who stated that they would not use Web tools in their teaching practices motivated their decision with the claim that today's learners used computers to such a great extent outside school that they should be kept offline at school.

By and large, it may be stated that despite the technical issues and challenges faced by student teachers from both groups, a clear majority of them expressed eagerness to implement CALL solutions in their future teaching practices.

### 3. Perceptions of the use of Web tools for language teaching purposes

The respondents suggested a number of advantages and disadvantages which, in their opinion, characterise the utilisation of Web tools in language teaching.



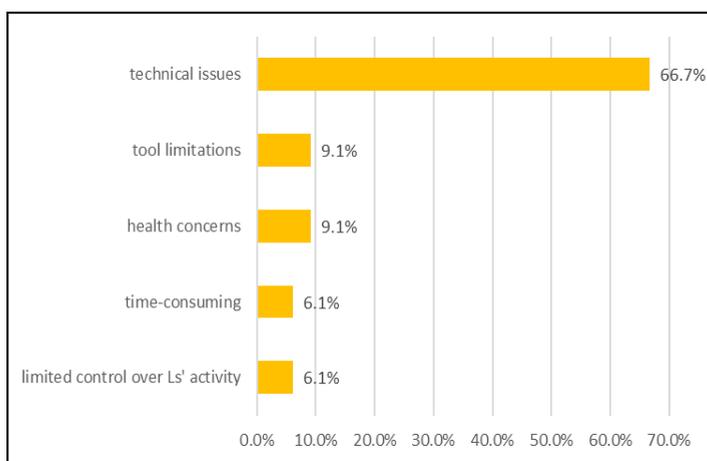
**Figure 5. The most frequently cited advantages of the use of Web tools in language teaching (N=33)**

*Source: own work*

Among the most frequently cited advantages were: the power of Web tools to: motivate learners (45.5%), and make lessons more interesting (39.4%), foster the development of an unspecified range of skills useful in learners' future lives (30.3%), increase involvement (27.3%), introduce innovation to the classroom routine (27.3%), diversify learning by involving learners in a range of learning

modes (24.2%), make lessons an enjoyable experience (21.2%), foster learners' creativity (21.2%) and promote collaboration (21.2%) (cf. Figure 5).

The disadvantages which the respondents suggested constituted a much smaller group of characteristics, cited by visibly smaller proportions of the surveyed. A clear majority of those surveyed cited potential technical problems (66.7%), which could involve issues relating to Web connectivity, hardware and software problems as well as limited accessibility of online technology at school. Much smaller proportions of the student teachers also mentioned: unspecified limitations of particular Web tools (9.1%), the risk of health issues induced by the use of computers (9.1%), the time necessary to select and learn how to use specific Web resources (6.1%), and limited control over learners' activity during online tasks (6.1%) (cf. Figure 6).



**Figure 6. The most frequently cited disadvantages of the use of Web tools in language teaching (N=33)**

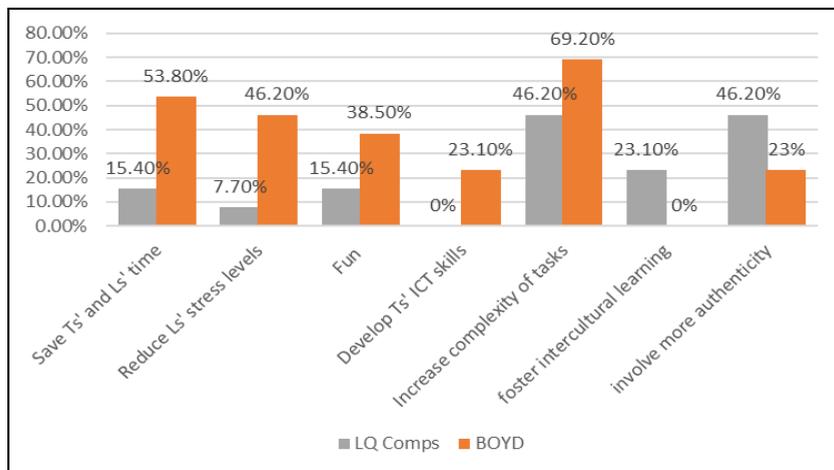
*Source: own work*

An interesting picture of the student teachers' perceptions of Web tools surfaced when the greatest disparities were identified between the proportions of respondents who cited particular advantages and disadvantages (cf. Figure 7).

The largest disparity (42.9%) was observable between the proportion of respondents from the BYOD group (53.8%) and that of their colleagues from the LQ Comps group (15.4%) who claimed that Web tools saved teachers' and learners' time, thus potentially increasing the efficiency of the learning process. A similarly large disproportion (38.5%) was identified between the groups when their members stated that Web tools reduced learners' stress levels (46.2% in the BYOD group to 7.7% in the LQ Comps group).

Disproportions at the level of roughly 23% between the groups were also observed when their members maintained that Web tools were fun for learners (38.5% to

15.4%), they helped develop teachers' ICT skills (23.1% to 0%) and increased the complexity level of learning tasks (69.2% to 46.2%).



**Figure 7. Largest disparities between the LQ Comps (N=13) and the BYOD group (N=20)**

*Source: own work*

It is worth noticing that the realisations cited above occurred to larger proportions of the student teachers who used better quality equipment, i.e. those who worked on a Bring-Your-Own-Device basis. Consequently, it could be hypothesised that certain features of Web tools were more salient to those student teachers who did not struggle with basic technical issues during the course classes. Yet, this conclusion must be approached with caution as in two cases a disparity of roughly 23% – this time to the advantage of the LQ Comps group – was observed in another two cases: (i) when the students claimed that the use of Web tools fostered the development of intercultural learning (23.1% in the LQ Comps group to 0% in the BYOD group) and (ii) when they stated that Web-based tasks involved more authenticity (46.2% in the LQ Comps group to 23.1% in the BYOD group).

Overall, it seems that despite all the technical issues and challenges, the student teachers perceived the implementation of Web resources in a positive fashion and cited a range of potential advantages that Web-based teaching has. Paradoxically, the unfavourable conditions turned out to be beneficial in that they brought to the fore at least some of the problems that the use of Web resources may entail.

## CONCLUSION

In the light of the research findings presented above, a number of conclusions emerge.

Firstly, it may be concluded that student teachers appear to tolerate technical problems if ICT resources permit them to design multimedia tasks (ESL Video, Storyboard That). It must be borne in mind, however, that the quality of equipment used in teacher education may affect student teachers' perceptions of particular resources, and while selecting CALL resources, they may later rely on ease of use rather than on the methodological merits of particular solutions.

Secondly, if the technology available in teacher education institutions does not necessarily meet expectations and actual needs, its quality must not be used as an excuse to reduce CALL training or exclude it from the study programme. As the results indicate, even the use of low quality computers and the necessity to deal with technical issues are likely to promote the idea of CALL among student teachers, and they do not seem to discourage teacher trainees from implementing CALL solutions in their own teaching practices after graduation.

Thirdly, it turns out that even unfavourable technical conditions lend themselves to increasing student teachers' awareness of the affordances that Web-based teaching offers. Despite obvious hardships, the student teachers noticed the motivational role of Web-based instruction, the interest it is likely to generate in learners and the facilitative role it has in the development of language and non-language skills. Paradoxically, the unfavourable conditions added to the learning gains in that they drew the student teachers' attention to potential challenges they may face while implementing CALL.

The remainder of the results, which are yet to be published, will yield insight into other aspects of the course under investigation, i.e. potential deterrents to student teachers' use of Web 2.0 in their professional practices, their reflections on the course content, the learning mode and the resulting learning gains as well as possible modifications to the course design.

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