INTRODUCING CALL INTO THE ESP CLASSROOM – STUDENTS' VIEWS AND ATTITUDES

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Abstract Digital technology has long been part of people's daily lives. In addition to its use for leisure, it has been employed successfully in more formal contexts, education being one of the prime examples thereof. Language teaching and learning, either for general or specific purposes, is no exception. This research focuses on the CALL experiences, digital skills, and attitudes towards CALL of administrative law students (n=24) from the University of Rijeka. Data were collected using an original 39-item questionnaire. The results indicate that the students have significant experience, possess certain CALL-related digital skills, and have largely positive attitudes towards using digital technology for language learning in the context of ESP. The results may be indicative of the future success in introducing technology to this particular ESP environment, provided certain issues (e.g., lack of confidence in digital skills) are addressed from the onset of the educational intervention.

Keywords:
computer assisted language learning, digital competencies, digital technology, English for specific purposes, learner attitudes

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1 Introduction

Rapid advances in the development of information and communication technology (ICT) and the digital devices that are associated with it have led to their wider use in all areas of people's lives. This trend has become so pervasive that there is currently almost no area of human activity that does not involve at least marginal or minimal use of digital technology in order to make day-to-day operations easier, more efficient, and/or more effective. Even though most of the use of digital technology is still focused on leisure and entertainment, there is substantial evidence from both practice and research that reveals more formal contexts in which technology is employed. One of the areas in which the use of digital technology is the most prolific, varied, and successful is certainly education, either formal or informal. Language teaching and learning is no exception in that respect, and digital technology has already become an integral part of many language classrooms (and beyond).

In language teaching and learning, the term digital technology is a rather broad one and may encompass an array of usages, ranging from a simple CD-player or a TV set used to reproduce sounds and images, to more sophisticated uses represented by mobile language learning applications or intelligent software. Given the state of today's digital devices, most of them however have some sort of interface to computers enabling them to be controlled by a computer device (Bateson & Daniels, 2018) or have inbuilt a computer chip or a programmable processor governing their operation, which essentially makes them computers. Furthermore, modern computers (both mobile and desktop devices) are multifunctional, and they have taken over the capabilities once performed by a number of separate devices and now offer them in a single device. Using digital technology in the context of language learning constitutes what is referred to as computer assisted language learning (CALL), a broad term covering all the usages of technology mentioned above. Thus, both "use of digital technology" and CALL are employed throughout the rest of this paper to signify any instance of technology use in the language classroom involving a computer device or associated programs, applications, and tools used to obtain language-related services for educational purposes, in order to achieve the set goals and learning outcomes.

Most notable advances in digital technology have to do with the core capabilities of such technologies (e.g., better processing capabilities, larger storage capacity, or increased multimedia support), their general availability (regarding both opportunities to obtain them as well as their financial accessibility), and the opportunities for accessing the global communication network (e.g., faster data transfer or cheaper data plans). These improvements have led to a diversification of computer assisted language learning environments (for a broader discussion, see Stockwell & Tanaka-Ellis, 2018). Thus, based on the context of the use of digital technology, language teaching and learning needs no longer to be tied to a classroom or a computer room in order to facilitate performing language-related tasks with technology, as learners may use their digital (communication) devices to perform (communicative) language tasks at a distance, at their preferred time and place. The latter, for example, came into the particular focus of the public during the recent COVID-19 pandemic, when most educational practitioners had to abandon their preferred face-to-face modalities for completely online ones, enabled by the use of digital technology.

The mere use of technology, however, is not enough on its own to achieve success in language learning (Chun, 2011). This was aptly (re)confirmed by the already mentioned example of technology use during the pandemic when, even though technology was employed to carry out learning activities, both teachers and students encountered a number of challenges caused by limited resources and general unpreparedness for the use of technology in language teaching and learning contexts (Tao & Gao, 2022; Tomczyk & Walker, 2021). Therefore, it needs to be pointed out that the affordances of technology become relevant only if the choices and use of technology are carefully planned and backed by sound pedagogical approaches and decisions stemming from knowledge, experience, and relevant research, which contribute to the set learning outcomes (Goertler, 2019) and the creation of new learning opportunities (Chapelle, 2008).

Not all applications of technology as part of language teaching and learning follow the same general approach or methodology. Although there are quite a few similarities between them, including the way they are planned and prepared for implementation into the classroom, the use of digital technology in the context of languages for specific purposes (LSP) differs from the use of technology in the context of learning languages for general purposes. Besides linguistic variability

between different languages, additional complexity in the use of CALL in LSP is brought on by the distinct and unique requirements of the discipline in which technology is employed (Li, 2018), combined with the specific needs of each group of learners, appropriate underlying methodologies, and learning activities (Lesiak-Bielawska, 2015; Rodgers & Dhonnchadha, 2018), as well as more specialised software to meet the requirements of a specific field, which may be difficult to find. Such differences are crucial when executing CALL environments, and both teachers and learners need to be aware of them in order to achieve educational success.

The paper at hand has two main goals. Firstly, it aims at drawing attention to the intricacies of teaching and learning English for specific purposes (ESP) in general, and English for legal purposes in particular, and their relationships to the proper implementation of CALL (e.g., choice of tools and resources, or setting up learning tasks and activities). Secondly, it aims to examine ESP students' experiences with CALL, their perceived digital skills and knowledge, as well as their attitudes towards learning languages with digital technology, all of which may have influence on the implementation of CALL activities and students' overall success in CALL. Based on these aims, three research questions are formulated:

- **RQ1**: What is (if any) the experience of ESP (administrative law) students regarding CALL applications and environments?
- **RQ2**: Do ESP (administrative law) students feel ready and capable to use digital technology necessary for the CALL context?
- **RQ3**: What are the opinions and attitudes of ESP (administrative law) students regarding the use of digital technology for language learning?

The rest of this paper is structured as follows. Section 2 of the paper offers an overview of CALL and its applications within LSP contexts, emphasising the area of English for legal purposes. Section 3 describes the research methodology applied and the questionnaire employed in data collection, and puts forward the results of questionnaire analysis. Section 4 discusses the findings and addresses the implications for teaching and learning practice. Finally, Section 5 concludes the paper and provides guidelines for future work.

2 Theoretical background: CALL, ESP, and legal English

This section of the paper examines the theoretical background of CALL and describes its application within different ESP contexts. Where relevant, it discusses the application of CALL within the context of English for legal purposes, which is of particular interest to the research at hand.

2.1 CALL technology and environments

Computer assisted language learning is a multidisciplinary field of research and practice which has long been shaped both by second language acquisition (SLA) theories and the state of technology (Davies et al., 2014). According to Warschauer (2004), there are three distinct phases in the historical development of CALL, which he defines in terms of the dominant teaching paradigm of the period, general view of the language, as well as the technology used to implement them. In the first stage of structural CALL (roughly 1970s – 1980s), language was viewed as a formal and structured system taught using mainly grammar translation and audiolingual teaching approaches, while the technology part of it relied on using mainframe computers that were not widely accessible and were restricted to the environments of educational institutions. The stage of communicative CALL (roughly 1980s – 1990s) saw the rise of communicative language teaching based on constructivist principles. This period coincided with the appearance of PCs, which made computer technology more accessible for learners at home, no longer tying them to the confines of the language classroom. The final stage, integrative CALL (2000s – present), is grounded in socio-cognitive dimensions of language learning, which place an emphasis on social interaction in language learning environments and focus on content-based learning (which includes learning languages for specific purposes) and integration of the four main language skills (Thomas et al., 2014). From the viewpoint of technology, integrative CALL is enabled by the rise of the global communication network, corresponding communication software, and multimedia.

Given its main characteristics, CALL has long been identified a niche area of practice and research (Thomas et al., 2014), often labelled by language teachers as overly technical and not enough pedagogically informed on the one hand, and as not technically complex by the computing community on the other. However, the availability of technology, its widespread use in everyday activities, and a surge in its

capabilities, compelled language teachers to consider technology's potentials in the language classroom, which in turn prompted researchers and practitioners from the computing community to (continue) working on the development of language-dedicated applications and tools.

Based on the characteristics of the hardware, Bateson and Daniels (2018) identify four distinct categories of technology used in CALL, namely (1) multi-server technologies, (2) single-server technologies, (3) personal computer (PC) technologies, and (4) mobile technologies. Multi-server technologies allow teachers and learners to access learning resources (e.g., software or materials hosted on a server) at a distance using communication networks. They give way to setting up and managing different forms of CMC contexts in which learners engage in authentic communication, either synchronous or asynchronous, with other native or non-native speakers of the language being learned (Bateson & Daniels, 2018; Son, 2018). Furthermore, they enable sharing of online learning resources within the community, online collaborative activities, courses and course activity management, and access to game-based learning activities and virtual worlds. Single-server technologies are very similar to multi-server ones, the only difference being that resources are not stored on third-party servers ("in the cloud") but on own servers, belonging to and maintained by the institution in charge of language education. Single PC technologies cover the use of only one PC and all the resources it has to offer, including file editing software, software for creating language materials, self-study programs (e.g., on CDs or DVDs), and other peripheral hardware that may be used by the teacher or the learner (e.g., cameras, microphones, speakers, or scanners) (Bateson & Daniels, 2018). Such technologies may or may not offer connection to the communication network. Finally, mobile technologies allow for the delivery and creation of mobile content using small portable devices (e.g., mobile phones, tablet computers, MP4 players, game consoles, e-readers, etc.), which allow for personalised, situated, and authentic language learning opportunities even outside formal education contexts and locations and at a time of personal convenience (Arvanitis & Krystalli, 2021; Çakmak, 2019).

Diversity in technologies brings about diversity in the ways they are applied in the language teaching and learning process in order to create or conform to a learning environment. Stockwell and Tanaka-Ellis (2018) define learning "environment" as a complex notion, comprising the technology, the curriculum, the classroom (or place

for learning), the learners and teachers, and their skills and backgrounds invested in the educational process. Each environment is thus the result of the intricate interplay of a number of variables and related decisions, and represents a unique language teaching and learning context.

There are four main types of learning environments usually found in relevant literature: (1) face-to-face environments, (2) blended environments, (3) distance environments, and (4) virtual environments. Within face-to-face environments, technology is employed on the premises (in the language classroom) and students interact with the technology in order to complete individual or group tasks (Stockwell & Tanaka-Ellis, 2018). The teacher is responsible for selecting the most suitable digital technology (including software) based on learning outcomes, for deciding on the level of guidance employed during task execution (Slavuj et al., 2015), as well as for keeping track of the progress students are making by directly observing their interactions with the technology or each other (Stockwell & Tanaka-Ellis, 2018). In terms of distance learning environments, the bulk of learning takes place in a context in which the teacher is not immediately present (he or she is distant and communicates with the learners using digital technology) and/or readily available to the learner during learning activities (Lamy, 2014). Such environments are divided between contexts focusing on distance delivery and management of the course content (in which the technology is used simply to facilitate communication between learners and teachers at a distance) (Stockwell & Tanaka-Ellis, 2018) and those in which the technology (e.g., intelligent software) takes charge and assumes the responsibilities of the teacher onto itself (Slavuj et al., 2017). Distance environments rely heavily on the notions of learner autonomy, engagement, and motivation in order to achieve learning success (Hsu et al., 2019). Blended learning environments represent any combination of a face-to-face approach with synchronous (Bower et al., 2015) or asynchronous (Güneş & Alagözlü, 2021) distance learning at the levels of activity/task, class/meeting, and course/subject (Stockwell & Tanaka-Ellis, 2018). Based on this approach, learning technology at times plays a more dominant role, while becoming peripheral to learning at others (Stockwell & Tanaka-Ellis, 2018). As is the case with distance learning, students' cognitive and emotional engagement in learning, facilitated by their individual characteristics and previous learning experience, play a crucial role in achieving the desired language outcomes (Halverson & Graham, 2019). Finally, virtual environments refer mostly to fully online 3D environments in which individuals, in

form of dedicated avatars, communicate with others using basic input and output devices (e.g., speakers, microphones, headsets, or keyboards). Such environments have proven to be engaging for students even outside of formal educational environments, but are now being increasingly adapted for in-class use (Egbert & Borysenko, 2018; Sadler & Dooly, 2014).

The variety of technologies language teachers have at their disposal today, the increased capabilities thereof, as well as the various environments in which they are employed, contribute to reaching what Bax (2003) called the normalisation of technology in CALL: a state characterised by the seamless integration of technology into everyday language learning, both in and outside the classroom environment. To aid such ultimate integration, teachers should not use technology for its own sake, but carefully plan its use for reaching and promoting the defined learning goals as part of students' everyday language learning activities.

2.2 CALL and ESP (in English for legal purposes)

Teaching and learning ESP has some notable differences if compared to teaching and learning general English. These lie mostly in two broad aspects (Rahman, 2015): the characteristics of language learners and the main purpose of language learning.

ESP learners are mostly mature learners (adults) who have previous knowledge of the English language and learn ESP in order to be able to perform their professional activities in English. If we take the example of public administration bachelors, who are the primary focus of this research, their professional activities would include the following: general management in the public sector, performing administrative activities in state administration and/or local and regional governments, dealing with public finances, and working with legal content as well as taking care of political and economic issues related to it. The organisation of an ESP course for their benefit should tackle all or any subset of these, so that the students are able to perform them effectively in English, as well as in their first language. Thus, most ESP courses are intended for learners at the intermediate or even advanced level of proficiency rather than for novice learners, and are most commonly conducted in the context of tertiary education rather than elementary or even secondary education contexts (they may be found within the latter two as well, but not as often).

In terms of the purpose of language learning, ESP is a competence-oriented approach (Vahabdjanovna, 2022). It is based on the set of professional (language) skills identified as necessary for normal functioning and communication within a specific professional context and adheres to the requirements of the specific discipline to which it is applied (Li, 2018). In order to establish such learner needs, teachers and other decision-makers have at their disposal a number of approaches, such as Target Situation Analysis, Learning Situation Analysis, or Means Analysis (see e.g., Rahman (2015) for further details), which enable them to take into consideration a significant number of aspects that shape the teaching and learning context when planning their educational interventions.

The currently dominant ESP pedagogy emphasising learner-centeredness and language use in context (Li, 2018) has come a long way from the early approaches that focused merely on the acquisition of specialised vocabulary and the grammar-translation method. This change towards socio-constructivism is also reflected in the use of CALL approaches in ESP instruction. Due to its increasing possibilities, technology no longer plays the role of a rigid tutor (trying to completely replace the language teacher), but is instead employed by teachers to design specialised learning materials, to promote learner engagement in relevant target situations (Arnó-Macía, 2012), and to enable authentic communication opportunities similar to those found in real life situations (Li, 2018).

However, this does not mean that vocabulary learning in ESP should be abandoned altogether. For example, in the context of legal language, which is the focus of this paper, the experts in the field see the lexis as playing one of the most prominent roles in effective communication (Schauer, 2015). There are reports corroborating this view even among language learners, who consider vocabulary learning in a legal English course to be the crucial communication-enabling element (see e.g., Sierocka et al., 2018). Other characteristics of English as it is used in this field, including its specific syntactic, semantic, and pragmatic features (Starostina & Horytska, 2021), as well as the discourse of the field (Charrow et al., 2015; Gémar, 2001), are to be included in a comprehensive ESP legal context and should permeate communicative language learning activities. As previously mentioned, the choice and extent of the learning activities aimed at a particular language skill have to depend on the identified needs of the learners, therefore a different emphasis is expected in different contexts (regarding study levels, study programmes, or even individual courses).

A review of reports on using CALL in the context of English for legal purposes reveals a preference for blended environments. As already pointed out, blended CALL environments complement usual classroom-based face-to-face instruction (dominated by the teacher) with the use of digital technology and mostly independent activities (without the direct involvement of the language teacher). Breeze (2014) describes a case in which law students received initial briefing on technology use in the classroom, and then used a wiki environment to collaboratively create a glossary of relevant legal terms in their own time (outside usual class time). Similarly, Đorđević and Blagojević (2017) report on an online webquest activity for which the students received initial instruction and preparation during their English class (how a claim is written, what the purpose of a claim is, etc.), and then drafted a legal claim at home, basing their work on the materials previously prepared for them by the teacher and made available online. Lamiri (2019) outlines a teacher-directed blended approach at the level of the course (combining fully face-to-face classes with fully online/distance ones), which focused on reading comprehension activities within ESP. Zhang and Wang (2017) also combined independent online learning and face-to-face teaching in their reading class, aiming to encourage self-exploration and collaborative learning among language students beyond class time. Đorđević (2020), on the other hand, used the blended approach, but within the face-to-face environment (at the level of a single class/meeting). This was achieved by mixing traditional instruction with online activities performed using computers in the language classroom. In addition to blended environment examples, there are also cases of activities being done completely online and outside the classroom, such as the online journal writing reported by García-Sánchez (2022), which aimed at improving both the writing and vocabulary skills of the students.

2.3 Research into the attitudes and experiences of CALL use within ESP contexts

A review of literature on student attitudes and experiences with CALL in ESP reveals a variety of contexts and ESP usages that range from engineering and medicine to different applications within the humanities. In this subsection, a selection is taken from the ESP literature relevant for the current research and its most important findings are pointed out.

Selevičienė and Burkšaitienė (2015) explored the attitudes of Lithuanian university students towards the use of Web 2.0 tools in the context of humanities by employing the Technology Acceptance Model (TAM). Based on TAM, they took into consideration six main variables, which included awareness, perceived usefulness, perceived ease of use, attitudes towards use, behavioural intention, and actual system usage. The study revealed a positive relationship between students' skill in using the technology and their attitudes towards its usage, intention to use the technology, actual system usage, and their awareness, marking it as an important factor for the introduction of CALL into ESP. The same study also revealed a preference for traditional classroom-oriented ESP classes to synchronous and asynchronous online communication between students and teachers, strengthening the case for a blended approach to CALL. Similarly, Keshtiarast and Salehi (2020) investigated the attitudes of Iranian humanities students regarding the use of technology in the ESP context, their skills with technology, potential obstacles to the use of technology in ESP, as well as their social and cultural views on technology use. The results revealed largely positive attitudes, but also certain barriers in employing technology, such as lacking technical support and infrastructure/facilities, aversion to technology, potentially distracting features of technology, and a substandard integration of ICT-based activities in the ESP curriculum.

Alizadeh's (2018) research focused on medical students' views regarding the use technology (computer tools and applications such as online dictionaries) for vocabulary learning. The results revealed that students considered the use of technology to be highly significant in language learning. Additionally, it showed their preference for offline mobile dictionaries and internet-based ones over traditional paper-based dictionaries.

Olejarczuk (2018) examined ESP learners' beliefs about CALL usage in a variety of blended engineering courses, including Materials Engineering, Mechanical Engineering, and Electronics and Communications. Semi-structured interviews were used to collect the data, which revealed students' general keenness to use technology for their ESP study, openness to experiment with new applications of technology for language learning, and willingness to change and/or adapt their learning styles as necessary. One additional important finding was the students' view that the teacher was the most important figure in language learning, even in contexts where technology had been introduced.

Although research from other ESP areas may be taken as highly indicative, research on student experiences, motivation, and attitudes towards CALL within the legal-oriented ESP contexts seems to be under-researched and harder to find in the relevant literature. As such, it represents a niche area for further research endeavours.

3 Current study

In this section of the paper, the details of the current research into the experiences, attitudes, and technological skills of students learning English for legal purposes are presented, regarding the introduction of CALL to their formal education. These include demographic data on the participants, research methodology employed for data collection and analysis, and the results.

3.1 Participants

A total of twenty-four (n=24) students, enrolled in the Undergraduate Professional Study Programme in Administration Studies at the Faculty of Law in Rijeka (University of Rijeka, Croatia), participated in the current study. At the time of their participation, all the participants were first-year students who had been enrolled in two ESP courses during the previous academic year. These ESP courses, as well as the entire study programme of administrative law, were designed to meet the needs of the labour market for personnel in state administration, regional and local government, judicial authorities, public services, and businesses in the Republic of Croatia.

In addition to English, participants had no other foreign language courses organised as part of their curriculum, however, they had had previous experience with learning other foreign languages at the lower levels of education. Also, all the participants had significant experience in learning English: the lowest reported number of years spent learning English was 8 (average reported value being 12.4 years). As shown in Figure 1, most participants from the sample had previously attended some type of vocational school (18 of them or 75%). Only one quarter of them had completed a general education secondary school ("*gimnazija*" in Croatian) of some type, while none of the participants had completed an art school as part of their secondary education.

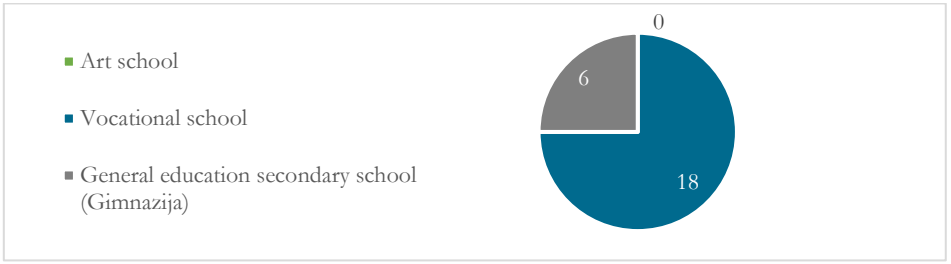

Figure 1: Students' secondary education prior to university study.
Source: own

The study included a significantly larger number of female participants than male participants (see Figure 2), their average age being 23.13 (SD=7.76). The age distribution of participants is given in Figure 3.

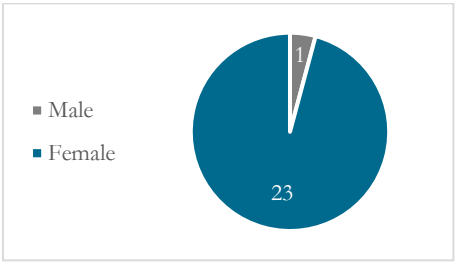

Figure 2: Overview of participants by gender.
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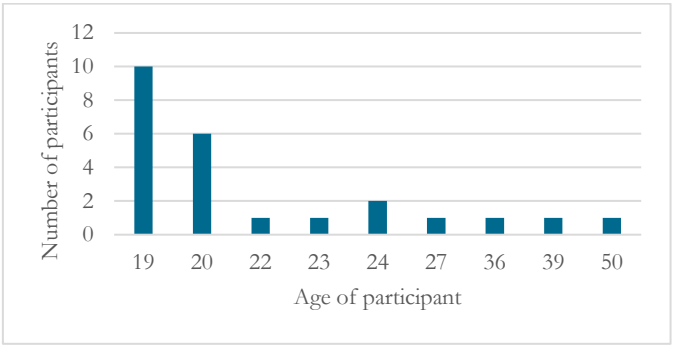

Figure 3: Age distribution of participants.
Source: own

3.2 Methodology

In order to gather data from the students, a questionnaire was devised specifically for the purpose. The questionnaire was handed out to the selected pool of ESP students at the end of June 2022 in a live (face-to-face) session. A pen-and-paper version of the questionnaire in Croatian was used for convenience purposes. Before the questionnaire was administered to the participants, it was clearly stated that participation in the study was completely anonymous and voluntary, and that the participants could withdraw from the procedure at any time. However, none of the students from the initial sample decided to withdraw, and all of them completed the questionnaire in the designated 10 to 15 minutes.

The questionnaire consisted of 39 items in total, divided into four main parts (A to D). Part A of the questionnaire was aimed at collecting general and demographic data regarding the participants, the results of which were summarised in the previous subsection. This part of the questionnaire consisted mainly of multiple-choice items or short answer items, depending on the sought type of information. The rest of the questionnaire (parts B to D) was designed to answer the three previously stated research questions.

In part B, which consisted of 11 items, participants' previous experiences with technology in language learning were assessed through a series of multiple-choice (6) and short answer (4) items concerning the most frequently used types of devices, environments of CALL implementation, language aspects and skills addressed through the use of technology, and general preparedness for CALL. Additionally, one attitude assessment item (using a 6-point Likert scale) was employed to enable participants to express general satisfaction with their experience with CALL up to that point in their education.

In part C of the questionnaire, the aim was to assess the personal digital skills of each participant that are necessary for successful functioning within CALL. It consisted of 10 statements for which participants had to express their agreement or disagreement on a 6-point Likert scale, with the following meanings of each point: *0 – Cannot determine*, *1 – Completely disagree*, *2 – Mostly disagree*, *3 – Neither agree nor disagree*, *4 – Mostly agree*, and *5 – Completely agree*.

Part D of the questionnaire was designed to determine participants' attitudes and opinions concerning the use and appropriateness of technology for language learning. It consisted of 11 statements for which participants had to express their agreement or disagreement on a 6-point Likert scale, as explained earlier.

A definition of CALL and a brief explanation of its usages was clearly stated in the introduction to the questionnaire, so as not to create confusion among the participants regarding the broadness of the concept. The definition included therein closely followed the definition of CALL given earlier in this paper.

3.3 Results

This section presents a descriptive analysis of the data gathered using the previously described questionnaire. Its three subsections (3.3.1 – 3.3.3) support the answers to each of the three research questions (RQ1 – RQ3), respectively.

3.3.1 ESP students' experience with technology

When asked about their experience with CALL in the context of previous education, all of the participants confirmed having at least some such experience, either at a distance or within the language classroom. In accessing CALL-related activities, the majority of students (73%) used a mobile device as their primary way of engagement, but there were also those students who preferred to use a personal/desktop computer instead. Among those primarily using mobile devices, there was a slight preference towards mobile computers, rather than smartphones (see Figure 4). However, most of the participants (91.67%) also reported use of at least one other type of device in addition to the preferred one.

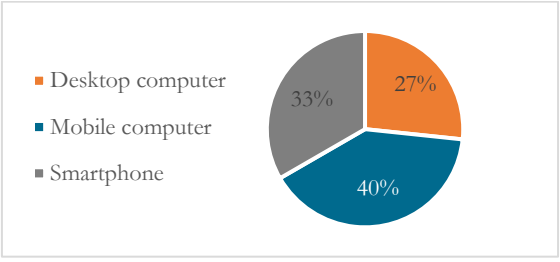

Figure 4: Primary (preferred) type of device for accessing CALL activities.
Source: own

With regard to the environment in which their experience with CALL took place, a large majority of the participants (80%) singled out distance environments as being the most common ones. The remaining 20% reported classroom-bound use of technology, with or without the direct assistance or guidance from the language teacher (Figure 5).

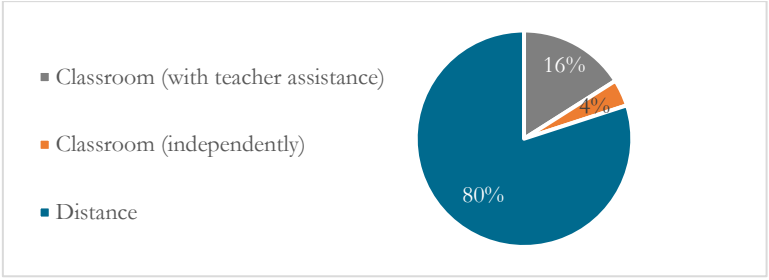

Figure 5: Most commonly experienced CALL environments.
Source: own

The results referring to the most commonly addressed language skills during CALL interventions, as experienced by the participants, are divided across skills. However, receptive skills (listening and reading) have received the most focus (44%) in their experience, while productive skills (speaking and writing) seem to be on the lower end of the spectrum. A more detailed breakdown of the most commonly experienced skills, including vocabulary and grammar aspects, is given in Figure 6.

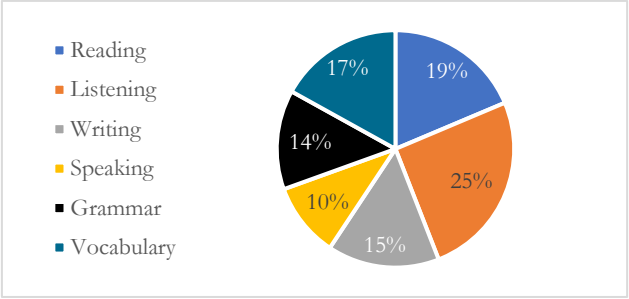

Figure 6: Language skills and aspects most commonly experienced in CALL activities.
Source: own

A closer look into the type of activities included in CALL interventions experienced by the participants reveals a strong preference for individual work (86%), while working in pairs or even groups is significantly less represented (see Figure 7).

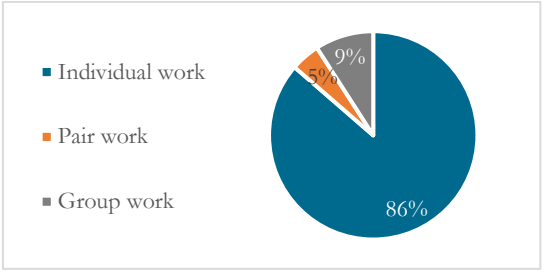

Figure 7: Most commonly experienced CALL activities with regard to the number of students participating in it.
Source: own

In performing language activities supported by the use of technology, most of the participants (75%) did not receive instruction on how to effectively and efficiently use technology for language learning prior to the start of the activity. Moreover, half of the participants did not receive any such guidelines or advice from the teacher (see Figure 8).

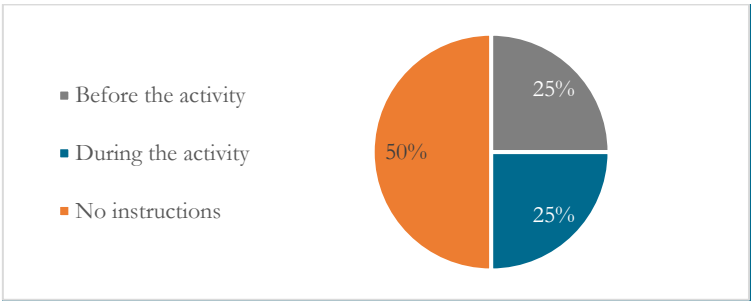

Figure 8: Received guidelines on how to effectively use technology in CALL contexts.
Source: own

Participants' assessment of their overall experience(s) with CALL is given in Table 1 (item B9: *Generally speaking, how would you assess your experience(s) using technology in language learning up to now?*). The results reveal largely positive attitudes, as the majority of participants selected options *5 – Completely positive experience* (66.67%) and *4 – Mostly*

positive experience (20.83%), while only a small number of them (12.50%) could not decide whether their experiences were positive or negative (*3*). None of the respondents chose options referring to mostly (*2*) or completely (*1*) negative experiences, or *0 – Cannot determine*.

Table 1: Participants' evaluation of previous experiences with CALL

	Answers						M	SD
	0	1	2	3	4	5		
Item B9 n=24	0	0	0	3	16	5	4.08	0.58
	0.00%	0.00%	0.00%	12.50%	66.67%	20.83%		

source: own analysis

When asked about their other experiences with technology in language learning, most participants, 58.33% of them, indicated they had never used it outside formal education settings. Others (41.67%) had employed technology to learn a foreign language in a more informal environment (e.g., using a mobile application or solving online language tasks), in order to improve their understanding of spoken or written texts, or for communication purposes (both spoken and written).

3.3.2 ESP students' digital skills

Items C1 and C4 of the questionnaire were aimed at a general self-evaluation of digital skills necessary to operate within CALL. The majority of participants agreed with statement C1 (*I consider my digital skills to be sufficient for me to efficiently learn languages using digital technology*): 30.43% of them opted for option 5 – *Completely agree*, while 47.83% chose *4 – Mostly agree*. Only 21.74% of the participants could neither agree nor disagree (*3*), and none of the participants expressed any level of disagreement (*1 – Completely disagree* and *2 – Mostly disagree*). Similarly, there were no students who were unable to determine their (dis)agreement with the above statement (option *0*). Answers to statement C4, *I believe that my digital skills could represent a problem for efficient language learning using technology*, reveal some concerns among the participants. Even though most of them (54.54%) disagreed with the statement (options *1* and *2*), 22.73% of the participants confirmed they mostly agreed (*4*), while none completely agreed (*5*). In addition, two participants (9.09%) could not determine their (dis)agreement (*0*) with the statement.

Items C2 and C7 of the questionnaire were intended to assess the need for additional (organised) education and tutoring in terms of CALL usage. Regarding statement C2, *I believe I need additional training which would increase the level of my digital skills necessary in computer assisted language learning*, the majority of participants either disagreed with the statement (47.82% of them chose options *1* or *2*) or neither agreed nor disagreed (*3*) with the statement (30.43%). A smaller number of participants expressed their agreement with the statement (21.75%) by choosing options *4* or *5*. When asked to confirm their assessment of the level of digital skills (item C7, *I believe I do not need additional education to improve my digital skills*) in a negatively-worded item, there was a strong support in favour of the statement, as 39.13% of participants strongly agreed (*5*) with the statement, and an additional 17.39% mostly agreed (*4*) with the statement. As with the previous item, there were some indecisive participants who opted for option *3* (26.09%). There was also a smaller percentage of participants who completely (option *1*, 8.70%) or mostly (option *2*, 8.70%) disagreed with the statement. In both items C2 and C7, no participants opted for option *0 – Cannot determine*.

Items C3 and C5 of the questionnaire aimed to assess the efficiency of participants' problem-solving skills using technology. Assessments related to item C3, *Using computers I am able to quickly solve problems and reach set goals*, exhibit a very high degree of agreement among participants, as almost all of them (91.93%) either strongly (*5*) or mostly (*4*) agreed. Additionally, there were only two participants (8.70%) who were neutral (*3*) with respect to the statement. The participants' confidence in their problem-solving skills was corroborated by their answers to item C5, *I use digital devices (e.g., a computer or smartphone) whenever I wish to solve a problem in a simple way*, with the same number of participants as in item C3 who expressed agreement. However, there was a substantially larger number of those who strongly agreed (69.57%) with respect to those who mostly agreed (21.74%). Similarly, there were two participants (8.70%) who were neutral (*3*). These two items, with a respective mean score of 4.35 and 4.61 (out of possible 5), represent the highest overall agreement score any pair of items from the questionnaire received, confirming participants' conviction in their digital problem-solving skills.

Items C6 and C9 of the questionnaire evaluated participants' abilities to (efficiently) communicate using digital technology. Item C6 (*By using digital technology, I am able to communicate with anyone in a simple and fast way*) received the highest mean agreement score (4.87) of all the items in this part of the questionnaire. Furthermore, the same item had the highest number of participants who completely agreed (*5*) with it (91.30%), while only one participant (4.35%) mostly agreed (*4*). A single participant (4.35%) also expressed a neutral attitude (*3*) regarding the statement, and none of the participants disagreed or were not able to determine their level of agreement. Similarly, positive results were obtained regarding item C9, *For me, using digital technology does not represent a significant obstacle to communication*, as exactly half of the participants strongly agreed (*5*) with the statement, and 22.73% of them mostly agreed (*4*). A smaller percentage of participants (18.18%) were neutral (*3*) or mostly disagreed (*2*) (4.55%), and a single participant (4.55%) was not able to determine their level of agreement with the statement (*0*). The mean agreement score for this item was also rather high (4.05).

Finally, items C8 and C10 of the questionnaire allowed the participants to assess their skills in creating digital content. The participants expressed high levels of agreement with item C8, *I can use digital technology to create digital content for a variety of purposes*, as the same number of participants (30.43%) strongly (*5*) or mostly (*4*) agreed with the statement. Only 13.04% of participants indicated they mostly disagreed (*2*) with the statement, and none indicated strong disagreement (*1*). A notable percentage of participants, namely 26.09%, could neither agree nor disagree with the statement (*3*). With respect to item C10, *I create new content more easily in a digital environment than in an analogue environment*, there was significant doubt among the participants as more than half of them (52.17%) neither agreed nor disagreed (*3*). Other responses reveal a preference towards agreement with the statement, as 39.13% of participants mostly agreed (*4*) with the statement and 4.35% strongly agreed (*5*). Only one participant (4.35%) expressed slight disagreement (option *2*), while none expressed strong disagreement (*1*) or inability to determine their level of agreement (*0*).

The results regarding participants' assessment of their own digital skills are summarised in Table 2 below. Negatively worded statements are marked in the table by an asterisk next to the item's name.

Table 2: Participants' self-assessment of digital skills necessary for operation within CALL

	Answers						M	SD
	0	1	2	3	4	5		
Item C1 n=23	0	0	0	3	16	5	4.08	0.58
	0.00%	0.00%	0.00%	12.50%	66.67%	20.83%		
Item C2* n=23	0	7	4	7	4	1	2.48	1.24
	0.00%	30.43%	17.39%	30.43%	17.39%	4.35%		
Item C3 n=23	0	0	0	2	11	10	4.35	0.65
	0.00%	0.00%	0.00%	8.70%	47.83%	43.48%		
Item C4* n=22	2	8	4	3	5	0	2.05	1.36
	9.09%	36.36%	18.18%	13.64%	22.73%	0.00%		
Item C5 n=23	0	0	0	2	5	16	4.61	0.66
	0.00%	0.00%	0.00%	8.70%	21.73%	69.57%		
Item C6 n=23	0	0	0	1	1	21	4.87	0.46
	0.00%	0.00%	0.00%	4.35%	4.35%	91.30%		
Item C7 n=23	0	2	2	6	4	9	3.70	1.33
	0.00%	8.70%	8.70%	26.09%	17.39%	39.12%		
Item C8 n=23	0	0	3	6	7	7	3.78	1.04
	0.00%	0.00%	13.04%	26.09%	30.43%	30.43%		
Item C9 n=22	1	0	1	4	5	11	4.05	1.29
	4.55%	0.00%	4.55%	18.18%	23.73%	50.00%		
Item C10 n=23	0	0	1	12	9	1	3.43	0.66
	0.00%	0.00%	4.35%	52.17%	39.13%	4.35%		

source: own analysis

3.3.3 ESP students' attitudes towards CALL

Detailed results regarding participants' attitudes towards CALL are given in Table 3, below. Generally, the results from the sample reveal largely positive attitudes towards introducing CALL into language learning, which can be seen in the mean agreement values (M) and the standard deviation of scores (SD).

Table 3: Participants' attitudes towards CALL – results overview

	Answers						M	SD
	0	1	2	3	4	5		
Item D1 n=23	0	0	4	3	8	8	3.87	1.10
	0.00%	0.00%	17.39%	13.04%	34.78%	34.78%		
Item D2 n=23	0	0	1	4	10	8	4.09	0.85
	0.00%	0.00%	4.35%	17.39%	43.48%	34.78%		
Item D3 n=23	0	0	1	6	8	8	4.00	0.90
	0.00%	0.00%	4.35%	26.09%	34.78%	34.78%		
Item D4 n=23	0	0	2	2	7	12	4.26	0.96
	0.00%	0.00%	8.70%	8.70%	30.43%	52.17%		
Item D5 n=23	0	0	2	2	9	10	4.17	0.94
	0.00%	0.00%	8.70%	8.70%	39.13%	43.48%		
Item D6 n=23	0	0	1	7	8	7	3.91	0.90
	0.00%	0.00%	4.35%	30.43%	34.78%	30.43%		
Item D7 n=23	0	0	1	5	4	13	4.26	0.96
	0.00%	0.00%	4.35%	21.74%	17.39%	56.52%		
Item D8 n=22	0	0	1	3	10	8	4.14	0.83
	0.00%	0.00%	4.55%	13.64%	45.45%	36.36%		
Item D9 n=23	0	2	6	5	7	3	3.13	1.22
	0.00%	8.70%	26.09%	21.74%	30.43%	13.04%		
Item D10 n=23	0	0	1	6	9	7	3.96	0.88
	0.00%	0.00%	4.35%	26.09%	39.13%	30.43%		
Item D11 n=23	0	1	2	4	9	7	3.83	1.11
	0.00%	4.35%	8.70%	17.39%	39.13%	30.43%		

source: own analysis

The results for item D1, *Learning a foreign language with the help of technology is an efficient way of learning languages*, exhibit general agreement with the statement as 34.78% of the participants mostly (*4*) and strongly (*5*) agreed with it. A smaller percentage of participants (17.39%) mostly disagreed (*2*) with the statement, and an even lower percentage (13.04%) took a neutral view (*3*). No participants expressed strong disagreement (*1*) or inability to determine their level of agreement (*0*). The mean agreement score for this item is 3.85 out of a possible score of 5.

For item D2, *Introduction of digital technology into language learning enriches the environment in which a language is being learned, and gives it additional value*, participants showed a strong preference: 34.78% of them strongly agreed (*5*) with it and 43.48% mostly agreed (*4*) with it, while only 4.35% mostly disagreed (*2*). There were also participants who could neither agree nor disagree (*3*) with the statement (17.39%), but no students expressed strong disagreement (*1*) or inability to determine their level of agreement (*0*). The mean agreement score for this item is 4.09.

Regarding item D3, *Using digital technology in foreign language learning activities makes learning content more interesting*, participants showed high levels of agreement (34.78% for both option *4* and option *5*), while a significant percentage of them (26.09%) could neither agree nor disagree (*3*). Only 4.35% of participants mostly disagreed (*2*) with the statement. The mean agreement score for this item is 4.00.

Item D4, *By using technology, I am able to learn a foreign language at any place and any time, not only during class time and within a classroom*, exhibited the highest mean agreement score of all the items (4.26), as students mostly (*4*) and strongly (*5*) agreed with it in 82.60% of cases. The same portion of the sample (8.70%) mostly disagreed (*2*) or neither agreed nor disagreed with the statement (*3*).

The results for item D5, *Digital technology may improve my knowledge and skills in a foreign language*, again show high levels of agreement, as 39.13% of participants mostly agreed with it (*4*) and 43.48% strongly agreed (*5*). The percentage of those who mostly disagreed (*2*) and those who could neither agree nor disagree is the same: 8.70%. The mean agreement score for this item is 4.17.

Positive results are noticeable for item 6 as well, as 34.78% of participants mostly agreed (*4*) and 30.43% strongly agreed (*5*) with the statement *I consider that the introduction of digital technology into the language teaching and learning process can equally contribute to the improvement of all language aspects and skills*. However, this item also exhibits a high percentage of those who could neither agree nor disagree with it (*3*), namely 30.43% of the sample. Only one participant (4.35%) stated they mostly disagreed (*2*) with the statement. The mean agreement score for this item is 3.91.

Item D7, *CALL enables me to collaborate with other students more easily*, is the item with which the largest number of participants, 56.52%, strongly agreed (*5*), while an additional 17.39% mostly agreed (*4*). A neutral view (*3*) was expressed by 21.74% of the participants, while only 4.35% of them mostly disagreed (*2*). No students expressed strong disagreement (*1*) or inability to determine their level of agreement (*0*). The mean agreement score for this item is 4.26, the highest of all items in this part of the questionnaire.

For item D8, *Applying digital technology allows for the use of a variety of language activities during language learning*, also exhibits a high mean agreement score of 4.14, as the majority of participants either mostly (45.45%) or strongly (36.36%) agreed with it. There is a lower percentage of those who could neither agree nor disagree (13.64%), and only one participant who expressed a negative attitude and mostly disagreed (4.55%).

Item D9, *In CALL, I need to put additional effort into mastering the content or completing activities*, was the only item from this part of the questionnaire that used a negative orientation, which is then reflected in the results (the mean agreement score is only 3.13, lowest in Part D). Thus, there were more participants who opted for the disagreement options: 8.70% of them strongly disagreed (*1*) and 26.09% mostly disagreed (*2*). On the other hand, 30.43% of participants mostly agreed (*4*) and 13.04% completely agreed (*5*) with the statement, while 21.74% could neither agree nor disagree (*3*).

Regarding item D10, *I see the use of computers as a valid and useful approach in learning a foreign language for special purposes*, the majority of students (69.56%) either mostly (*4*) or strongly agreed (*5*), while only 4.35% mostly disagreed (*2*). Additionally, there were 26.09% of participants who neither agreed nor disagreed (*3*). The mean agreement score for this item is 3.96.

Finally, for item D11, *I consider the use of computers in the process of learning a foreign language to be equally effective as learning with usual or classical methods*, there is a significant number of participants who agreed (39.13% mostly agreed and 30.43% completely agreed), but there were also participants who strongly (4.35%) and mostly (8.70%) disagreed. Those who expressed a neutral position (*3*) are also represented in the sample (17.39%). The mean agreement score for this item is 3.83.

4 Discussion and implications for CALL practice

This small-scale research project was undertaken as the basis for assessing the possibilities for introducing CALL into the context of learning a foreign language for specific purposes (in this case, the ESP field of law) and anticipating its success among the students. The main rationale behind it was that students who have previous experience with using technology for language learning, the appropriate digital skills to use it in an efficient way, and positive attitudes towards digital technology for educational purposes, could also have a higher chance of accepting CALL as part of their everyday formal studies. Even though the results gathered by the questionnaire are largely positive in terms of all three aspects, there are still certain details that need to be addressed prior to introducing CALL into the ESP classroom. These interventions should be performed by the teachers and other relevant decision-makers in the educational process.

When analysing previous experience with learning technology, it seems a very positive circumstance that all of the participants had previous experience with technology, which enabled them to base their answers in the questionnaire on it. Furthermore, it reveals that most of the participants have already used different devices to do so (both mobile and desktop) and are familiar with them, which does not limit the ESP teacher in designing and varying learning activities in relation to the context in which they should be performed (e.g. inside or outside the language classroom). The diversity in the skills addressed by CALL activities, as well as students' usage of technology for language learning outside formal education, also represent highly positive steps towards the overall uptake of technology. However, there also seem to be some negative trends present in the students' previous experiences. Foremost among these is the failure to employ technology for more communicative and interactive tasks and activities (B7) (as most activities had been designed as individual tasks, rather than involving more students), which digital technology certainly permits (and enables). In line with current theories on which CALL is based, which emphasise social interaction, learner autonomy, and a socio-constructivist approach to creating knowledge (Youngs, 2019), affordances of digital technology should be put to the forefront. This may be achieved through a heavier use of collaborative tools (such as wikis or other cloud-based document editing tools appropriate for group use) and CMC tools (such as video-conferencing tools, chatrooms, or even blogs) for writing- and speaking-based activities. Given the

current state of technology, there is a wide variety of choices available to teachers, including free CMC tools and CMC tools with free educational licences, which makes them even more accessible to a wider audience of users. Additionally, using these tools may help in avoiding the problems often reported in distance-based environments, such as feelings of isolation and detachment from fellow students and the teacher, or lack of social exchange opportunities. Thus, when introducing CALL to a group of students with similar experience as the one included in this research, special care should be taken by the course instructor to make a more detailed introduction to communicative and interactive activities that require the use of technology and to offer additional scaffolding support for the duration of the activities. This need is also mirrored in the results obtained for part B of the questionnaire, which indicate the importance of proper preparation of students for CALL (B8) so that they know what to expect even before the start of CALL activities and how to use technology efficiently and effectively in such circumstances. This issue, however, is much larger and should be addressed by proper teacher training so that teachers may be, in turn, able to train their students in the intricacies of CALL. However, even if such organised training is not available to teachers, they should still prepare their students for CALL in a timely (before the activities) and organised fashion, strengthening relevant skills and introducing strategies for technology use.

With regards to students' digital skills, there are a few interesting and/or unexpected results. For example, even though students think of their digital skills as sufficient for CALL (C1), a significant number of them expressed concern that their digital skills might pose a problem during learning (C4). Such insecurities should be alleviated by the teacher through a systematic preparation of students. Introductory exemplary use of technology in, for example, classroom-based language activities, where students can seek immediate help from the teacher (or other students) if they experience issues related to technology, may make them more confident for when they use technology in an out-of-classroom context, and are left to rely mostly on themselves. Alternatively, teachers may organise sessions on how to use a particular technology (even outside class time) so as to improve student skills in a targeted way, or they may start with introducing those technologies students feel more comfortable with and work their way to those in which students have less confidence (or tend to avoid them altogether). Yet another option may be to correlate the ESP and IT-related courses (if they exist in the curriculum) and dedicate some sessions

to the development of specific skills required by CALL. The need for further education in the use of digital technology is indicated by the results from items C2, C7, and C10, as a substantial number of students expressed this need or were uncertain about their digital and CMC skills (as they opted for the neither agree nor disagree option).

The results on student attitudes towards the introduction of CALL are mostly positive and encouraging for CALL introduction. Among them, however, there are also some results worth the attention of teachers. This particularly refers to the students' expressed need for additional effort in mastering the contents or performing activities in CALL (D9), which may stem from insecurity in their own digital skills. As already stated, this issue needs to be addressed even before the introduction of CALL so as not to deter students from participating in CALL-based activities or cause them negative feelings and attitudes about such an approach. Not addressing these concerns early on may result in a lack of success in learning a language and a failure to reach educational goals/outcomes, which should certainly be avoided. Another result indicative of the need for intervention concerns the equal possibilities of CALL to address all language skills (D3), as there seems to be a large number of students who neither agree nor disagree with such observation. This may stem from the students' previous experience in which technology was repeatedly employed to address a single language skill, or from the lack of previous preparation and education on how technology could address their language learning needs. Introducing CALL for a variety of skills (e.g., taking a micro-teaching approach) and explaining the expected outcomes of CALL activities beforehand could be beneficial in assuring students of the usefulness of CALL for all skills. Also, the teacher should carefully design CALL activities, in the manner that they justify the use of technology and contribute to an increase in the perceived usefulness of technology for students. The same approach may be used in dealing with the CALL efficiency concerns (D1) among students.

5 Conclusion

Introducing technology into the process of teaching and learning a language is not a simple one, and requires careful planning and design on the part of the teacher. Introducing CALL into ESP is no exception in that regard, and this process is further complicated by the intricacies and peculiarities of the language in a specific field. In

order for the CALL intervention to succeed in the first place, there are several important aspects that require the attention of the language teacher, including prior experience of students with CALL, their digital skills, and attitudes towards using technology in the context of language learning. This paper addressed the three aspects within the context of ESP among students of administrative law. The results presented in this paper are largely positive regarding all three aspects.

The results revealed students' substantial experience with CALL (RQ1), mostly at a distance and through the use of a variety of technologies. Furthermore, CALL was reportedly employed mostly for individual work, thus neglecting to utilise the full potentials of technology in language learning (as described by the currently dominant theories on language learning in CALL). However, even with the possible shortcomings experienced in the implementation of CALL, students gave a highly positive overall assessment regarding their satisfaction with previous experiences with CALL.

ESP students' digital skills and capabilities (RQ2) have also been (self-)evaluated as sufficient for the purposes of CALL. However, at the same time, students exhibited a certain degree of insecurity and doubt as to whether learning a language supported by technology would go smoothly and without substantial additional efforts on their part. These may and should be addressed by the language teacher before the introduction of technology into language learning.

Current research also revealed that ESP students have rather positive opinions and attitudes towards CALL (RQ3), especially concerning the flexibility of learning (both place and time), opportunities for improving their foreign language skills, collaboration with fellow students, and the variety of language-related activities they have at their disposal. Problematic aspects identified here concerned the need for further and more systematic preparation and training of students in order to boost their confidence in technology-aided language learning and stress its benefits for the learner.

Given the small sample (n=24) this research is based on, it is very difficult to generalise its results and findings. However, the results may be taken as indicative of certain issues that have the potential of arising in a CALL context. As such, this research could represent a motivation for language teachers considering the

introduction of CALL into their classroom (and beyond) to search and pinpoint problematic areas among their target groups of students, and to ensure the success of their CALL venture.

As part of further work, the questionnaire employed for data collection in this research will be further refined and revised to address some of the minor issues noticed during its use. This includes offering clearer instructions to participants that some items require a single option to be selected (rather than multiple options), adding further open-ended items which would allow participants to express what other skills were targeted in their CALL experience with examples of particular tasks, as well as an item that elicits their expectations from technology in language learning. The new instrument will then be applied to another ESP context, namely to ICT, in order to establish the potentials of introducing CALL as part of the curriculum.

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