



Teaching ESP in the digital era: Raising ESP practitioners' awareness towards their new roles

Enseigner l'anglais pour des raisons spécifiques à l'ère numérique : Sensibiliser les enseignants d'anglais à leurs nouveaux rôles

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Abstract: This paper advocates reconsidering the ESP teacher profile and necessary education. Through a descriptive-analytical investigation, the researcher aims to examine teachers' knowledge and perception of the ESP practitioner's primary roles and to explore their attitude toward the importance of digital literacy skills as a completion to the ESP practitioner's profile. A questionnaire was posted online to several ESP teachers from different Higher education departments to reach the study objectives. Results revealed the necessity of including digital literacy training programs in teacher education to satisfy ESP learners' learning needs in a digital environment.

Keywords: Digital age, Digital literacy, ESP practitioners, ICT tools, teacher education

Résumé : Cet article préconise la nécessité de reconsidérer le profil des enseignants de l'anglais pour des raisons spécifiques. Se basant sur une analyse descriptive, le chercheur a pour objectif d'examiner les connaissances et la perception des enseignants sur les principaux rôles des enseignants de l'anglais pour des raisons spécifiques et d'explorer leur attitude envers l'importance des compétences numériques comme complément à ce profil. Pour cela, un questionnaire est mis en ligne à un certain nombre d'enseignants d'anglais dans différentes facultés. Les résultats ont révélé la nécessité d'inclure la formation numérique dans les programmes de formation des enseignants pour répondre aux besoins des apprenants.

Mots-clés : Compétence numérique L'ère numérique, les enseignants d'anglais pour des raisons spécifiques (ESP); les outils TIC; la formation des enseignants



English for specific purposes (ESP) implies teaching and learning English as a second or foreign language where the dominant objective is developing learners' use of English within a particular domain (Paltridge & Starfield, 2013). The essence of this approach is the design of a specific English language course that aims to meet the needs and the exigencies of particular learners who intend to use English in a professional context and for professional purposes (Hutchinson & Waters, 1987). Necessity dictates that the goals, objectives, and content of an ESP course are matched to the learners' communicative needs (Carter & Nunan, 2001).

To overcome ESP teaching challenges, the teacher in an ESP setting should be aware of the needed qualities in an ESP teacher profile. Unlike teaching English for general purposes (EGP), the ESP teaching environment enlarges from the role assigned to the ESP teacher. Adding to their role as a teacher, they are a course designer and materials providers, collaborators, researcher, and evaluators. These additional teaching tasks in an ESP setting make an ESP teacher a "practitioner" rather than just a teacher. This "par excellence" role that distinguishes the ESP teacher from a General English teacher was and still is a subject of debate among researchers in this field.

Advances in information and communications technology (ICT) and its application in education have influenced teaching methods and means of learning. "New technologies are responsible for rapidly introducing new classroom techniques and course configurations," reasoned Kessler and Hubbard (2017: 285). It has been shown that ICT is an important catalyst and tool for inducing educational reforms that change our students into productive knowledge workers (Pelgrum, 2001: 163) because it provides enormous tools for enhancing teaching and learning. Consequently, ICT instruments such as the computer and the Internet have brought learners new access to knowledge and information, including Moodle platforms, Massive Open Online Courses (MOOCs), Google Classroom, Zoom, etc. Departing from this novel idea, teaching, and learning are a reality, and to some extent, ESP teaching is affected by ICT progress.

Like any other kind of language teaching, ESP has been affected by the integration of technology education. Including ICT as a pedagogical tool in an ESP setting may fit a generation of digitally oriented learners. The ICT application for teaching and learning purposes in ESP has become an issue of debate in contemporary education (Dogoriti & Pange, 2012). Although technology has long been used to facilitate the teaching-learning process, its practice is not without problems," argued Iswati (2021:36). If so, what other skills should ESP practitioners be aware of; to fulfill their roles adequately while manipulating the ICT tools in their ESP classrooms? This implies the prerequisite of more additional knowledge and skills. The acquisition of these new skills requires specialized training programs. Hence, the need for appropriate language-teacher education has become apparent since technology has become more established in language teaching (Kessler & Hubbard, 2017).

Since interest in preparing language teachers to use technology in their classrooms has continuously grown over the past years (Kessler & Hubbard, 2017), this paper presents a reflection on a study in which we tried to investigate teachers' awareness of the utility of digital literacy skills in the profile of ESP practitioners.

This research aims to determine whether ESP teachers are aware of the importance of digital literacy skills in their ESP classroom practices and to confirm whether they see the value in maintaining their digital literacy skills up to date through teacher education programs in the future to accommodate a generation of students who are more digitally oriented. The paper concludes with valuable suggestions and recommendations.

1. Literature Review

1.1 ESP vs. EGP

Like any other kind of language teaching, an ESP course learning process aims to develop the English language communicative abilities of a community of learners. This teaching and learning process addresses the satisfaction of the English language needs of individuals interested in acquiring a foreign language for specific communicative needs determined by their specialty. The primary purpose of ESP is the teaching of a language as a second or foreign language to particular groups of students to whom the syllabus, tasks, and methodology are specially tailored to meet their specific linguistic needs according to their field of interest” (Bouguebs, 2020: 527). As developing ESP learners’ specific communicative skills that characterize the objectives of the ESP instruction is achieved in a short period, ESP exhibits some characteristics that differentiate it from EGP.

- EGP provides essential knowledge and skills of the English language at a school level where the students’ occupational/professional and higher educational orientations are not appropriately defined (Islam, 2015 : 69).
- ESP requires teaching language in context. Instead of focusing on general grammar, vocabulary, and language structures, it stresses the importance of practising the necessary skills the ESP learners would mainly employ in their future fields of activity.
- Awareness about the satisfaction of learners’ needs makes a clear cut between ESP and EGP. For Hutchinson and Waters (1987 : 53), “the tradition persists in general English that learners’ needs cannot be specified and as a result, no attempt is usually made to discover learners’ true needs,” which means that when we dig deep into learners’ expectations from studying English, where the aim is teaching this language for communicative purposes according to their field of interest, the result will be an ESP course (Bouguebs, 2018).

1.2 From a Teacher to a Practitioner

As aforesaid, the criteria that distinguish an ESP from EGP enlarge from the roles attributed to an ESP teacher, thus differentiating him from an EGP teacher. An ESP teacher is termed a ‘practitioner’ (Dudley-Evans & St John, 1998) and holds a different position than an EGP teacher. The ongoing changing patterns of learners’ needs in the ESP setting necessitate ESP teachers to take multidimensional and unpredicted responsibilities (Ghafournia&Sabet, 2014). Dudley-Evans and St John (2001) identified four other roles uniquely performed by an ESP practitioner.

Adding to their position, Ghafournia and Sabet (2014 : 1) postulated that “an ESP teacher should formulate certain goals and objectives, select and develop effective materials, plan appropriate courses, and evaluate the learners’ development patterns.” The four additional characteristics of an ESP practitioner profile are as follows:

- a. An ESP practitioner is a course designer and a material provider. “In addition to the normal functions of a classroom teacher, the ESP teacher will have to deal with needs analysis, syllabus design, materials writing or adaptation and evaluation,” postulated Hutchinson and Waters (1987 : 157).
- b. An ESP practitioner is a collaborator. An ESP teacher often collaborates with the subject specialist to satisfy learners’ needs. Collaboration with subject specialists has three types, including simple, specific, and profound collaboration (Anthony, 1998). This means that the “ESP teacher’s role is establishing a good rapport with the content teacher to develop effective ESP materials,” clarified Ghafournia and Sabet (2014 : 4).
- c. An ESP practitioner is a researcher. An ESP teacher should keep up to date with what ESP researchers are saying about course design, needs analysis, types of materials, and so on to help the ESP teacher perform various ESP teaching tasks (Bouguebs, 2018). In EGP, teachers are not concerned about this investigation area because the same traditional grammatical structures are being taught till now (Islam, 2015).
- d. An ESP practitioner is an evaluator. An ESP teacher constantly assesses the achievement of the course objectives, the attained level of competency, and the course design, including the materials provided and the suggested implementations (tasks). This evaluation enables the ESP teacher to make essential decisions: modify their syllabus to improve the outcome of their future ESP courses (Abedeen, 2015).

1.3 ESP Teaching Today

Educational technology progress provides enormous tools for enhancing the teaching and learning process. Like any other teaching and learning approach, “technology has been utilized in ESP instruction since the introduction of the computer into the classroom, throughout the development of the Internet and the World Wide Web and to the very invention of mobile and cloud-computing technologies” (Kirovska-Simjanoska, 2020: 426-427). The ICT instruments such as the computer and the Internet brought new modes of teaching and learning to the surface, including Moodle platforms, Massive Open Online Courses (MOOCs), Google Classroom, Zoom, etc., reshaping ESP teaching and learning environment. Consequently, ESP pedagogy has been profoundly affected by ICT progress.

Considering that manipulating ICT tools during classroom practice is not without problems (Iswati, 2021), what other skills should ESP practitioners be aware of to fulfill their roles adequately?

1.4 Digital Literacy Importance in an ESP Practitioner Profile

According to Buckingham (2006), digital (or computer) literacy is a minimal skill set that facilitates the user's effective operations with software tools or in performing basic information retrieval tasks. As teaching ESP in the digital age “involves a focus on digital mediation as one component of goal-directed activity in specialized communication practices” (Hafner & Pun, 2020: 3), teachers should be familiar with the technology tools (Anggeraini, 2020). Research in this field revealed that although technology can benefit languages for specific purposes, ESP teachers have demonstrated slow adoption of new technologies (Li, 2018). Li (2018) relates such developed attitude to various reasons, including lack of awareness and deficient computer literacy and ICT pedagogy. Vukićević-Đorđević (2015), however, considered that teacher attitudes towards the use of ICT tools in their classrooms to a mismatch between teachers’ previous education and the 21st-century educational technologies advances needed skills. This scholar highlights this issue in the following quote:

Many teachers whose education was based on the grammar-translation and other traditional methods might find themselves not adequately trained to teach 21st-century learners, especially when it comes to modern technologies and introducing state-of-the-art devices into teaching and learning activities (Vukićević-Dorđević, 2015: 492).

Since ICT use in education makes learning enjoyable, engaging, and interactive, language instructors are more than ever technically challenged with the latest innovative technologies in language learning (Vukićević-Dorđević, 2015). To solve this problem, argued Vukicevic-Dordevic, all that is needed is a successful combination of lifelong learning and self-development because a substantial additional workload for teachers is simply a matter of their responsibility.

In brief, the ESP practitioner profile has been modified in the digital age. Besides being a teacher, material designer, collaborator, researcher, and evaluator, at the same time, ESP practitioner is more than ever required not only to be digitally literate but to keep skills up to date with digital progress. This adopted new profile will enable the ESP practitioner to fulfill the multiple roles attributed to him in an ESP setting where fitting the communicative needs of a digitally more knowledgeable category will be easily achieved.

2. Methodology

This study aims to investigate the importance of digital literacy in teacher education. To gain insights from the terrain, the researcher explored via a real context how far ESP teachers at different tertiary institutions are aware and conscious of the importance of digital skills during their daily teaching practices as EFL teachers and in their ESP teaching. To reach the study objectives, we departed from the following research questions:

1. Are teachers aware of the different duties attributed to an ESP practitioner?
2. To what extent is teaching ESP affected by progress in ICT?
3. What technology tools do they rely on in their ESP practices?
4. What is the ESP practitioners' attitude toward the importance of digital literacy knowledge in teacher education?
5. How important is the inclusion of digital literacy training in ESP teacher education?
6. How do ESP practitioners perceive updating their digital literacy skills?

In the current investigation, digital literacy is the minimal skill set that facilitates the user's effective operations with software tools or performs basic information retrieval tasks (Buckingham, 2006). Teacher education, however, refers to the policies and procedures designed to equip prospective teachers with the needed knowledge, attitude, behaviors, and skills to fulfill their tasks effectively, not only in the classrooms but also in the schools and the wider community.

2.1 Participants, Research Design, and Data Analysis Procedure

To explore the above questions, the researcher adopted a descriptive-analytic research design that was carried out on 31 ESP teachers from different universities in Algeria. A quantitative data analysis procedure was followed to analyze the online questionnaire data so that valid answers might be provided.

Data collection started when the online questionnaire was posted to 31 university teachers. The rationale behind selecting this sampling was that all participants who responded to this questionnaire had experienced ESP teaching.

The questionnaire that started with an introduction explaining to the participants the purpose of the questionnaire included 18 items that vary between yes/no items, Likert scale items, and open-ended question items. To get fruitful feedback from the respondents, they were asked to justify their stands even with yes/no questions. Selecting this research instrument is purposeful. Questionnaires allow the collection of both subjective and objective data in a large sample of the study population to obtain statistically significant results, mainly when resources are limited (Abawi, 2017). The designed questionnaire aims at compiling sufficient information from the informants about the issue, which turned around their perspectives towards the importance of digital literacy skills in the ESP teacher profile.

3. Data Analysis

Analyzing teachers' feedback on the online questionnaire generated mixed quantitative and qualitative data. While the former is displayed via figures and tables, the latter is presented via the analysis of teachers verbatim.

3.1 General Information

Thirty-one EFL teachers teaching at different higher education institutions in Algeria responded to the online questionnaire. The complete information about them is displayed in the table below:

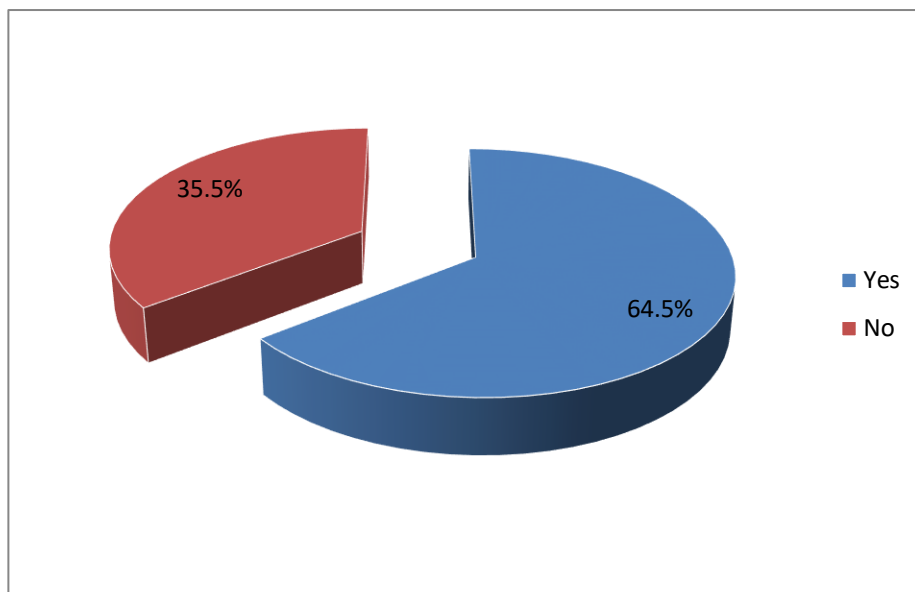
Table 1: Background Information

Participants	Items	N	%
Degrees	Doctoral	15	48.4%
	Magister	13	42%
	Master	2	6.5%
	Other	1	3.2%
	Total	31	100%
Affiliation	ENS of Constantine	17	55%
	Brothers Mentouri	9	29%
	Algiers 2	1	3.2%
	Biskra University	1	3.2%
	Khenchla University	1	3.2%
	Annaba University	1	3.2%
	TebessaUnivesity	1	3.2%
	Total	31	100%
Field of Specialty	Applied Linguistics	15	48.4%
	Language and Didactics	11	35.5%
	Civilisation and Literature	2	6.5%
	Others	3	9.7%
	Total	31	100%
Teaching Experience	Less than 5 years	4	12.9%
	6 to 10 years	11	35.5%
	More than 12 years	16	51.6%
	Total	31	100%

As displayed in the table above, all the respondent teachers held higher degrees ranging between doctoral degree (48.4%), magister degree (42%), and master's degree (6.5%). Only one respondent held a bachelor's degree (3.4%). More than half of them experienced teaching English at the university for over 12 years (51.6%), 11 teachers were six to ten years, and four teachers with less than five years of experience. As for their specialty, half of the respondents (48.4%) specialized in Applied Linguistics, 35.5% specialized in Language and Didactics, and two in Civilisation and Literature. Digging deep into the experience of these university teachers from different higher institutions in Algeria would serve the research objectives so that the researchers would enrich the study with reasonable recommendations.

When asked whether they had ever been an ESP practitioner, an essential portion of the participants (64.5%) positively responded, yet the remaining amount (35.5%) responded with “No.” (See Figure 1)

Figure 1: ESP Teaching Experience



When interrogating them to specify the different ESP settings, they exercised teaching English for a community of learners whose interest in learning English is specified. The informants' feedback was as follows:

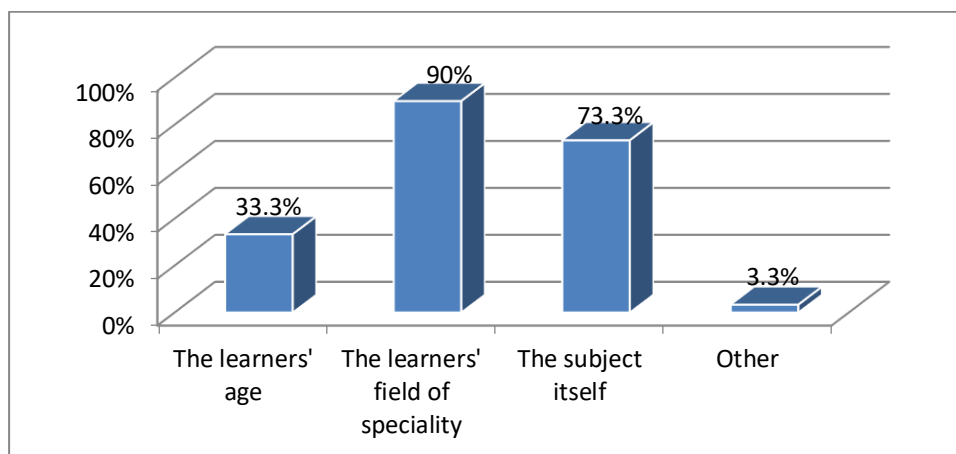
- Engineering, Mechanical engineering, Material engineering
- Doctors and dentists (Medical sciences), Biology, and English for pharmacy students
- Business English, Industry, Trade and Sociology, civil engineering, Management
- Economics, ESP course for administrative staff
- Teaching ESP for Sciences and Technology (ST) common core students
- Islamic Sciences
- Librarians
- Math
- In a private school for adult learners
- Political sciences, administration

This chosen sample was suitable and deeply fit the study's primary objective, which was to raise the awareness of ESP teachers towards the importance of digital literacy as a facilitator to their ESP classroom practices.

3.2 ESP Course Characteristics: Content, Teachers' Duties

As for the ESP teaching content, except for one teacher, all the participants (96.8%) confirmed that the content of an ESP course is entirely different from an EGP course. To justify their stands, they related what distinguishes an ESP course from an EGP course to some factors that are displayed in the figure below:

Figure 2: ESP Teaching Experience



Noticeably, the learners' specialty field (90%) and the subject (73.3%) differentiate ESP content from EGP content. The learner age (33.3%) is unimportant for most questioned teachers. Moreover, the researchers asked the informants about the other challenges confronting them in an ESP setting. Their feedback is summarized in the following table.

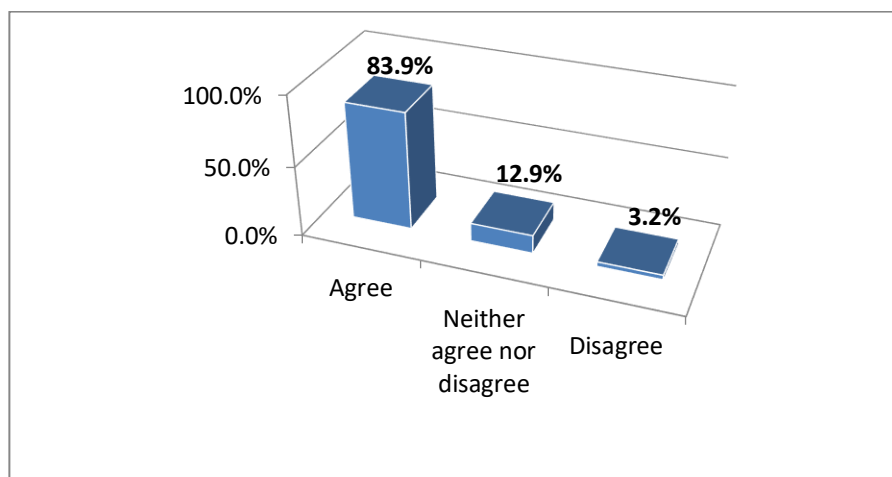
Table 2:Challenging Factors in an ESP Course

Items	N	%
Unfamiliarity with the disciplinary/ professional culture	14	73.4%
Lack of ESP-published materials	8	42.1%
Difficulty in understanding the materials	5	26.3%
Students with a low level of English	15	78.9%
Needs analysis survey	8	42.1%
Students' demotivation and lack of interest	8	42.1%
Satisfying learners' needs	9	47.4%

From Table 2, we notice that the two main problems that may hinder an ESP course's progress are related to the students' low level of English (78.9%) and the teachers' unfamiliarity with the disciplinary/ professional culture (73.4%). The other problems faced by respondents are related to the difficulty of satisfying learners' needs (47.4%) to undergo a needs analysis survey (42.1%). The lack of ESP-published materials and students' demotivation are other obstacles. From the displayed data, it seems that teaching an ESP course is not that easy; that is why ESP practitioners should seek some help provided by the education technology advances to overcome some of these obstacles since ICT educational progress induces educational reforms that change our students into productive knowledge workers (Pelgrum, 2001).

When asked whether they agree that "an ESP practitioner is not expected to be just a language expert; yet their competence goes beyond to include other skills," most of them displayed a total agreement (89.3%). The remaining portion represented four teachers who opted for neither agree nor disagree (12.9%) (Figure 3).

Figure 3: ESP Practitioner Competences



The respondents advanced a couple of reasons to justify their stands. One of them stated:

“An ESP teacher needs to understand the information presented, which might be in a field he’s not familiar with. He also needs to examine the immediate needs of learners”. “He /she should be not only a teacher but a collaborator, a course designer, a material provider, and an evaluator as well.”

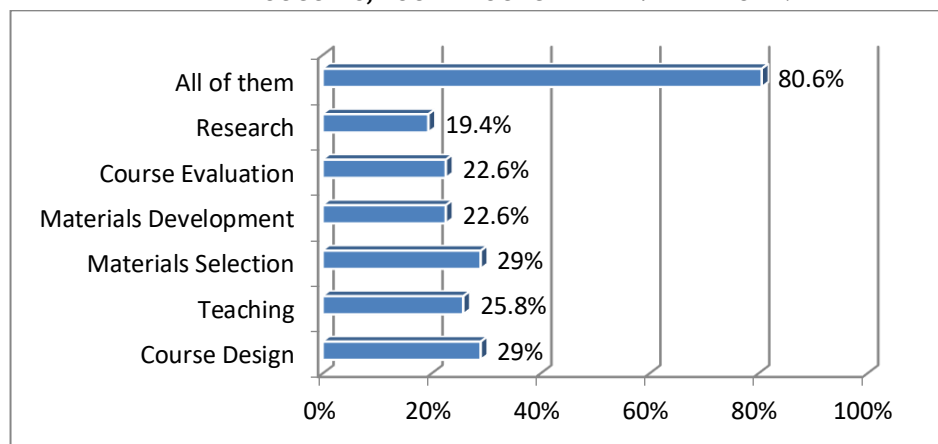
Another respondent added, *“They need to be a science seeker. Besides the constant motivation to stimulate one’s senses of research and teaching such material,”* postulated one more informant. Within the same line of thought, one considered that: *“ESP teachers’ role exceeds language expertise. They ought to pay attention to the particular stress of the learners’ psychological needs and preferences; be a simultaneous teacher and counselor.”*

To complete this section, one of the respondents explained what is recommended in an ESP teacher profile in the following quote:

It is highly recommended that an ESP practitioner has a clear conceptualization and enough knowledge of the subject they are teaching and its nature to successfully do their job because ESP teaching is more than teaching vocabulary, the mechanics of the target LG or translating texts...

This paves the way for investigating the respondents’ knowledge of the ESP practitioners’ duties. It is apparent from the table below that most of the interrogated teachers (80.6%) are knowledgeable and aware of the different roles of an ESP teacher. For them, the latter fulfills many duties, including teaching, selecting materials, developing new materials related to the learners’ needs, evaluating their course to identify its weaknesses and improve it, and, more importantly, keeping themselves up to date with ESP research.

Figure 4: ESP Practitioner Duties

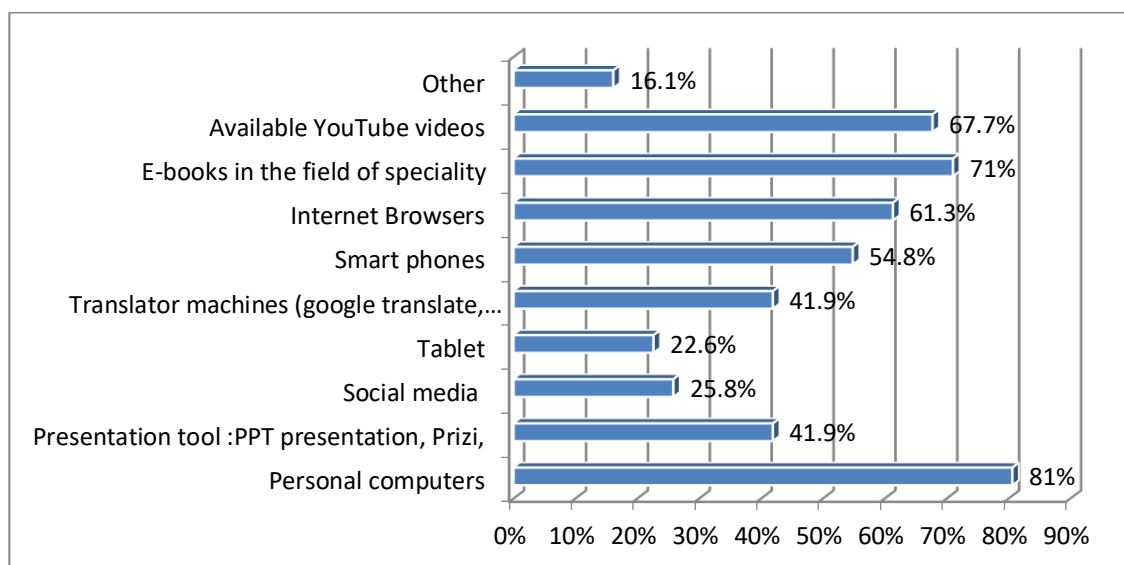


3.3 ESP Practitioner and the Digital Skills

This part focuses on generating information on how far the participants use and take benefits from the ICT progress while exercising their ESP teaching. As shown in Figure 4, regarding ICT tools in the classroom, whether when preparing lectures or delivering them, many participants relied on ICT tools (80.6%), whereas few did not.

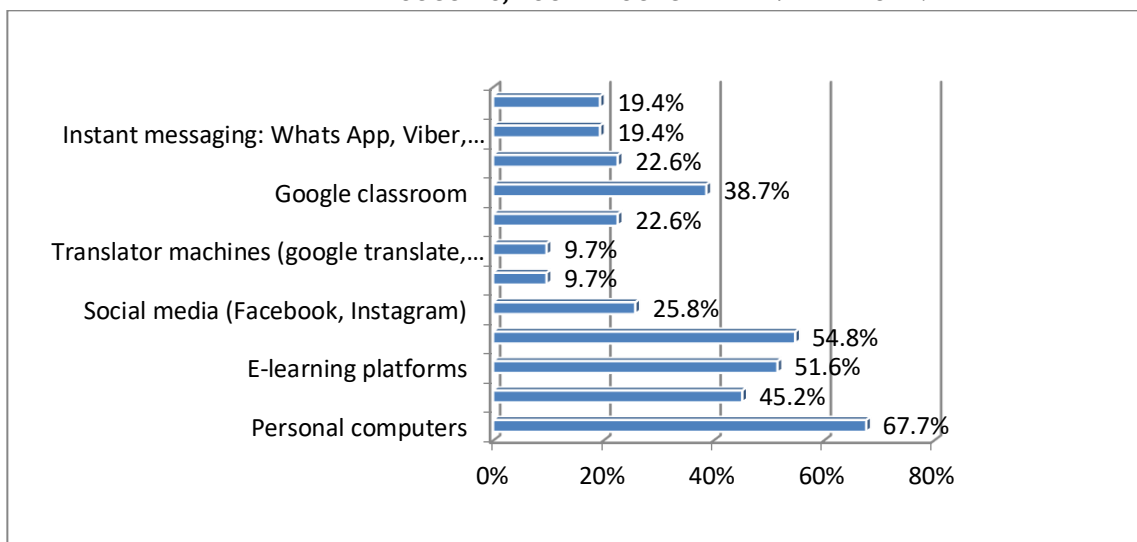
To dig deep into this matter, the informants were asked to specify the ICT tools used during their ESP course preparation.

Figure 5: The Hardware/Software Technology Tools Used in Course Preparation



From Figure 5, it is noticeable that teachers' reliance on hardware and software tools is apparent. Almost all participants used their computers to prepare for their courses, and a vital portion also used devices such as PowerPoint, smartphones, and tablets for the same purpose. Furthermore, tools such as internet browsers, e-books, YouTube videos, translator machines, and social media appeared commonly used for course preparation among ESP practitioners. Besides, a few participants rely on other sources to prepare their ESP courses, including printed textbooks and dictionaries.

Figure 6: The Hardware/Software Technology Tools Used in Course Delivery

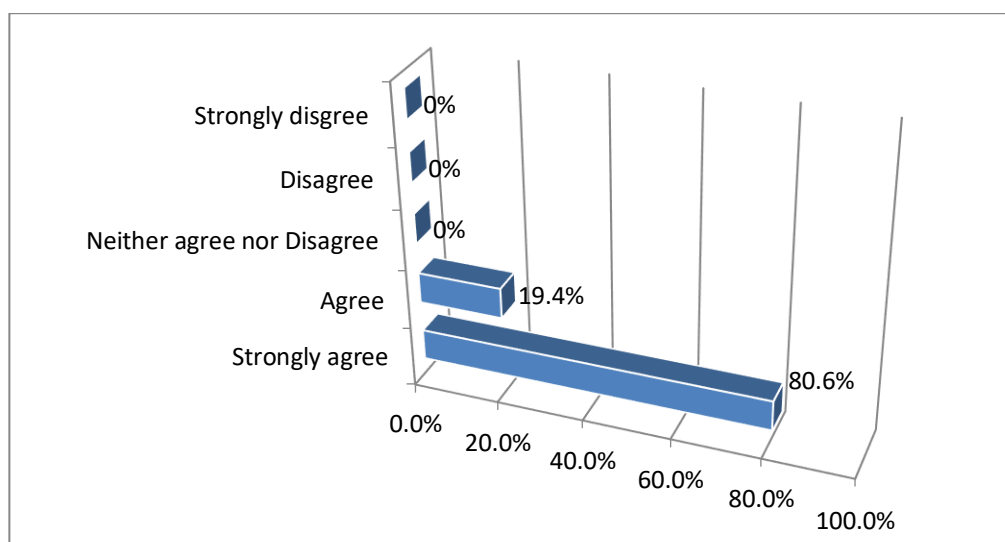


Regarding the technologies used for delivering ESP courses, as presented in the figure above (Figure 6), the appearance is that informants appeared to integrate different tools. The ESP practitioners used similar technologies to prepare or deliver their courses, as shown in Figures 5 and 6. Computers, e-mails, e-learning platforms, PPTs, and Google Classroom were identified as the most popular tools for course delivery.

In regard to whether integrating technology in an ESP educational setting would help ESP practitioners fulfill their goals, the majority of the informant (84%) expressed their agreement. However, the remaining others (16%) held a neutral attitude; they neither agreed nor disagreed. To back their stands, a couple of reasons were given. One of them explained that “Diversifying the digital teaching/ learning tools has its benefits on facilitating the challenging task because it saves time and energy, and it also attracts the attention of the learners (if well organized and presented).” Another participant added: *“Educational technology facilitates both teaching and learning. It would help the teacher widens the choices available for material selection and provide the learners with visual aids that would make understanding easier.”*

The use of technology is highly recommended in today's classrooms because it elicits students' motivation, imagination, collaboration, and confidence. This idea leads us to check teachers' knowledge about the definition of “digital literacy.” Only a few of the interrogated informants (9.7%) had no information about this concept. Yet the other left portion (80.3%) knew this 21st-century concept. Moving further in the investigation, we inquired about the issue of whether ESP teachers should develop their digital literacy skills for the appropriate manipulation of technology tools. The informants expressed total agreement, as is displayed in the figure below.

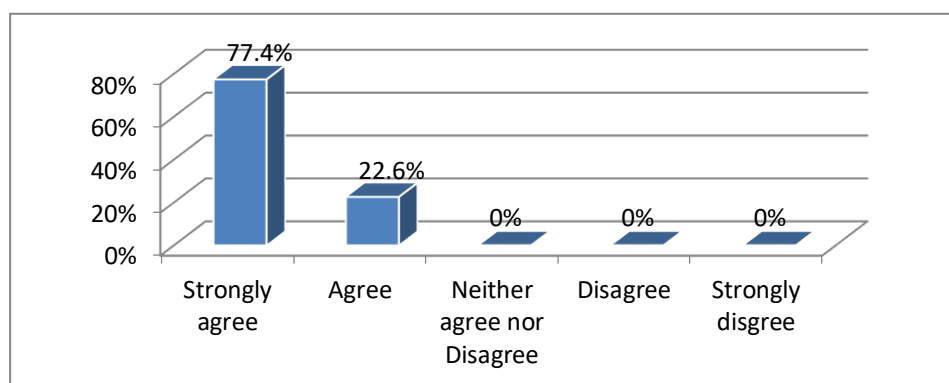
Figure 7: Digital Literacy Development Facilitates ICT Tools Manipulation



Since all questioned teachers agreed about the importance of developing digital literacy skills, the researcher ended their investigation by checking their degree of agreement or disagreement with the fact that including digital literacy skills in ESP teacher education will complete their profile as an ESP practitioner.

Not surprisingly, the informants expressed total agreement. None of the informants expresses a negative attitude, as is noticed in Figure 8.

Figure 8: The Inclusion of Digital Literacy Skills in Teacher Education



The data displayed in Figure 8 confirmed what was assumed before the field inquiry. The results affirmed that including digital literacy training programs in teacher education for the sake of satisfying ESP learners' learning needs in a digital environment is a must. This means that future ESP teacher education programs should address topics related to components of incorporating ICT tools in ESP teaching and learning. To back their high degree of satisfaction with the utility of digital literacy skill training programs in teacher education, the interrogated teachers advanced a couple of arguments:

- ICT tools are integral components of digital literacy education.
- It is necessary to involve ICT in any teaching-learning process for the demanding world progress that depends on technology.
- It is a digital era, and the use of ICT is unavoidable.
- It became an obligation, especially due to the pandemic aftermath.
- Technology has become an indispensable part of education, so incorporating it into any teacher training program is necessary.

- An ESP practitioner should be competent in digital skills and professional qualifications to cope with the changing world.

4. The Major Findings, Discussion, and Recommendations

From the analysis of the quantitative and the qualitative data revealed, the significant findings generated are as follows:

- It has been concluded that the two main problems that may hinder an ESP course's progress are the students' low level of English and the teachers' unfamiliarity with the disciplinary/ professional culture.
- All respondents know that an ESP practitioner is not expected to be just a language expert, yet their competence goes beyond including other skills.
- The majority of the interrogated teachers seem knowledgeable and aware of the different duties fulfilled by an ESP, including teaching, selecting materials, developing new materials related to the learners' needs, evaluating their course so that to identify its weaknesses and improve it, and, more importantly keeping himself up to date with ESP research.
- The informants appeared to integrate different ICT tools in their ESP teaching practices. The questioned ESP practitioners utilized similar Hardware and Software technology tools to prepare or deliver their courses.
- The participants agreed that integrating technology in an ESP educational setting would help ESP practitioners fulfill their classroom tasks appropriately.
- As for the importance of developing digital literacy skills not only for an ESP teacher but for all language teachers, all questioned teachers agreed.
- More importantly, the interrogated teachers exhibit a high degree of awareness towards the importance of including digital literacy training programs in teacher education for the sake of satisfying their ESP learners' learning needs in a digital environment is a must.

The results indicate clearly that ESP practitioners appeared to realize the significance of using technology in ESP courses. The participants perceive that introducing information and communications technology (ICT) tools in an ESP educational setting would beneficially enhance the student's learning experience and create a pathway to meet the unique needs of the student as individuals. Digital literacy skills may help ESP practitioners easily match students' present abilities and target needs.

The generated conclusions can be backed by previous research. ESP practitioners expressed their needs regarding the utility of ESP teacher training programs that address the use of technology in ESP courses. This finding goes hand in hand with the recommendations provided by Constantinou and Papadima-Sophocleous (2020). These scholars suggested the necessity to include in teacher education programs components on how to incorporate ICT tools in ESP teaching and learning. Within the same line of thoughts, the intense need for teacher education was also recommended in other research studies in different educational contexts (Vukićević-Đorđević, 2015). Moreover, they called for higher education institutions "to provide ESP practitioners with the necessary equipment and technical support to be able to apply these technologies in the teaching and learning processes" (Constantinou & Salomi Papadima-Sophocleous, 2020: 27).

It has been signaled that to facilitate teachers' implementation of ICT tools while exercising their classroom activities, their institutional technology experts' help should support them. Research in the field acknowledged that teachers' lack of ICT knowledge and skills could be related to the lack of lower level of complaints among school principals about their (Pelgrum, 2001). Hence to overcome this problem, the qualification of ICT support staff in the school is beneficial for the staff development of teachers (Vukićević-Dorđević, 2015).

The need for more ESP teacher education programs that address the development of teachers' digital skills is highly recommended in today's 21st digital era. Following this, future research should address the development of teachers' digital competencies, as this will help to face the teachers' challenges in digital teaching (Anggeraini, 2020). The sample of ESP practitioners involved in the current investigation recommended the following:

- The assumption is that we now enjoy the speedy and convenient way to get information via the technological ware available, which puts the whole world under our fingertips.
- Diversifying the digital teaching/ learning tools has its benefits in facilitating the ESP challenging issues because it saves time and energy, and it also attracts the attention of the learners (if well organized and presented).
- ESP practitioners have to keep themselves updated on the latest ICT progress. They should attend professional network programs addressing digital skill development to support this skill in continuous improvement.

Conclusion

The global emergence of educational technology brought new modifications in the teaching and learning environment where the teacher's profile was mainly affected. To overcome the feeling of a strange in the ESP land, ESP practitioners are required to improve their professional performances so that becoming able to teach ESP in any subject discipline. Adding to specialized training in the subject matter they get involved in, ESP teachers must develop their digital literacy skills to benefit from information and communications technology (ICT) educational tools to face such ESP teaching and learning problems. Moreover, all that is needed is to include a digital training course in the teacher training curriculum, a specialized course that addresses ESP teachers' wants and lacks in this field. Adding to their capacity for many roles during their ESP classroom practices, including being a teacher, a course designer, a material provider, a researcher, and a collaborator, their abilities should expand to include digital literacy competence. This will minimize the gap between ESP teachers and a generation of learners who belong to the digital era and who are, in fact, digitally oriented.

Bibliographic references

- ABAWI K. 2017. *Data collection methods (questionnaire and interview) [Paper presentation]*. Geneva Workshop Training Course in Sexual and Reproductive Health Research, Geneva, Switzerland. <https://www.gfmer.ch/SRH-Course-2017/Geneva-Workshop/Data-collection-methods-Abawi-2017.htm>
- ABEDEEN F. 2015. Exploration of ESP teacher knowledge and practices at tertiary and applied colleges in Kuwait: Implication for pre-and in services ESP Teacher Training. [PhD dissertation]. The University of Exeter. <http://hdl.handle.net/10871/17437>
- ANGGERAINI Y. 2020. «Language teaching in the digital age: teachers' views and its challenges». In *Research and Innovation in Language Learning*. Volume 3 n° 3. pp.163-172. <https://doi.org/10.33603/rill.v3i3.3444>
- ANTHONY L. 1998. *Defining English for Specific Purposes and the Role of the ESP Practitioner*. The Okayama University of Science. <https://laurenceanthony.net/abstracts/Aizukiyo97.pdf>
- BOUGUEBSR. (2018). «Teacher training course a key success to ESP challenges: Knowledge and practices ». In *International Arab Journal of English for Specific Purposes*. Volume 1 n°1. pp. 23-41. <https://revues.imist.ma/index.php/IAJESP/article/view/14394>

- BOUGUEBS R.2020. «Meeting the needs and the requirements of future Engineers via a consistent ESP course». In *Revue El-Tawassol: Langues et Littératures*. Volume 26 n° 2. pp. 525-539. <https://www.asjp.cerist.dz/en/article/215704>
- BUCKINGHAM D. 2006. «Defining digital literacy - What do young people need to know about digital media? ». In *Digital Kompetanse*. Volume 1 n° 4. pp. 263-277. <https://doi.org/10.18261/issn1891-943x-2006-04-03>
- CARTER, R., & Nunan, D. (Eds.). (2001). *The Cambridge Guide to Teaching English to Speakers of Other Languages*. Cambridge University Press.
- CONSTANTINO E. K & PAPADIMA-SOPHOCLEOUS S. 2020. «The use of digital technology in ESP: Current practices and suggestions for ESP teacher education». In *Journal of Teaching English for Specific and Academic Purposes*. Volume 8 n° 1. pp. 17-29. <https://doi.org/10.22190/jtesap2001017k>
- DOGORITI, E., & PANGE, J. 2012. Teaching ESP with ICT In higher education: foreign language teachers' perceptions and expectations of computer technology use in foreign language learning and teaching. ICICTE 2012 Proceedings. pp. 24-34. <http://www.icicte.org/Proceedings2012/Papers/Grad-3-Dogoriti.pdf>
- DUDLEY-EVANS, T., & ST JOHN, M. J. 1998. *Developments in English for specific purposes: A multi-disciplinary approach*. Cambridge University Press.
- Dudley-Evans, T. 2001. «English for Specific Purposes». In M. Carter and D. Nunan (Eds.), *The Cambridge Guide to Teaching English to Speakers of Other Languages* (pp. 131-136). Cambridge University Press.
- GHAFOURNIA, N., & Sabet, S. (2014). The most prominent roles of an ESP teacher. *International Education Studies* Volume 3 n° 3. pp. 7(11), 1-9. <https://doi.org/10.5539/ies.v7n11p1>
- HAFNER C. A. & PUN J. 2020. «Editorial: Introduction to this special issue: English for academic and professional purposes in the digital era». In *RELC Journal*. Volume 51 n° 1. pp. 3-13. <https://doi.org/10.1177/0033688220917472>
- HUTCHINSON, T., & WATERS, A. 1987. *English for Specific Purposes: A learner centered approach*. Cambridge University Press.
- ISLAM M. 2015. «The differences and similarities between English for Specific Purposes (ESP) and English for General Purposes (EGP) teachers». In *Journal of Research in Humanities*. Volume L1 n° 1. pp. 67-77. <http://pu.edu.pk/images/journal/english/PDF/4.%20ESP%20vs%20EGP%20Teacher%20Article%20after%20revision%2013-12-14.pdf>
- ISWATI L. 2021. «When teaching must go on: ESP teachers' strategies and challenges during COVID-19 Pandemic». In *Eralingua*. Volume 5 n° 1. pp. 36-52. <https://doi.org/10.26858/eralingua.v5i1.16196>
- KESSLER G & HUBBARD P. 2017. «Language teacher education and technology ». In C. A. Chapelle & S. Sauro (Eds.), *The handbook of technology and second language teaching and learning* (pp. 278-292). Wiley Blackwell.
- KIROVSKA-SIMJANOSKA D. 2020. *Teaching ESP in the digital world - Developing a blended learning environment for computer science students*. BELLS90 Proceedings, 423-438. <https://doi.org/10.18485/bells90.2020.1.ch25>
- LI, L. 2018. «Integrating technology in ESP: Pedagogical principles and practice». In R. Muñoz-Luna & L. Taillefer (Eds.), *Integrating Information and Communication Technologies in English for Specific Purposes* (pp. 7-25). Springer International Publishing.
- PALTRIDGE, B. & STARFIELD S. 2014. *The handbook of English for specific purposes*. John Wiley & Sons.
- PELGRUM W. 2001. «Obstacles to the integration of ICT in education: results from a worldwide educational assessment». In *Computers & Education*. Volume 37 n° 2. pp. 163-178. [https://doi.org/10.1016/s0360-1315\(01\)00045-8](https://doi.org/10.1016/s0360-1315(01)00045-8)
- VUKIĆEVIĆ-DORĐEVIĆ L. 2016. «Emerging technologies: Does it feel like learning?». In *Journal of Teaching English for Specific and Academic Purposes*. Volume 3 n° 3. pp. 483-497.