

Analysis of the Digital Competencies of English Language Subject Specialists in Pakistan

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Abstract

This paper explores the condition of digital literacy competencies in the English language subject specialists of Pakistan and aims to create awareness for the inculcation of digital competence in the English language teaching profession through taking and implementing better decisions in the country's educational policies. In the present era of digitalization, the digital competencies of English teachers are essentially required in language teaching practices. Therefore, this paper analyses the data collected through a survey questionnaire meant to assess the digital competence of subject specialists in Pakistan. The data presents how they use digital technology and what are their attitudes and requirements toward its use. The data also presents the possessed skills their satisfaction level, the areas where they need improvement, and the institutional support they have for the use and training in the digital technologies.

Keywords: Digital skills, Educational policies, digital competencies, ELT, English language teaching in Pakistan.

1. Introduction

The Higher Education of Pakistan (HEC forthwith) aims to equip Pakistani citizens with digital competencies as its core strategy. For this purpose, there is an urgent need of integrating Information and Communication Technologies (ICT forthwith) into curricula starting from the school level and also to invest better in the training of the teachers. Proficiency in the English language is key to attaining better education and even though it is acknowledged by the HEC, there are a lot of efforts to continue to integrate technology into the language classrooms in Pakistan. The schools lack the appropriate digital technology infrastructure and the maximum number of English subject specialists are not 'digitally' confident enough to teach digital skills efficiently. Studies say that subject specialists in Pakistan need to acquire digital skills to be competent teachers of the English language (Zboun & Farrah, 2021).

2. Literature Review

The literature review summarizes the definition and characteristics of digital competencies and outlines the digital competencies that are required for language teaching and learning. The Digital skills policies of Pakistan are also outlined.

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2.1 Digital Competencies and Skills:

HEC, in February 2022, launched the Digital Learning and Skills Enrichment Initiative (DLSEI forthwith) in partnership with Coursera for online learning and skills development. Through this program, HEC intends to benefit passionate students with more than 1000 available courses and 28 learning tracks. HEC wants universities to be the centers of quality education, both virtual and conventional, having highly qualified faculty members. In the wake of challenges faced by Pakistan's education system, such as lack of quality and relevance, HEC, in 2004, started an exclusive project titled "English Language Teaching Reforms" (ELTR forthwith) for better English language teaching and learning. ELTR aims to enhance the capacity of subject specialists and teachers of the English language and better HR development in the fields of teaching and research in the English Language ("HEC launches digital learning and skills enrichment initiative," 2021).

The 1st phase of ELTR was completed successfully catering to 1398 college and university teachers of the English language while the 2nd phase which was launched in 2010 provided professional training to a further 1400 teachers of English through several programs of long and short-term duration ("English language teaching reforms project," 2016). It further aimed to enhance the research capacity of English teachers and integrate IT into ELT by training the language faculty "to develop expertise in Computer Assisted Language Learning (CALL forthwith) and setting up Self Access Centres (SAC) in public sector universities" ("HEC launches digital learning and skills enrichment initiative," 2021). It ensured that the English faculty meets the requirements of assessments in semester systems after receiving training to develop their digital expertise to design and conduct the latest assessment techniques. Thus, HEC places the need for digital competence at priority and stresses the universities to ensure comprehensive strategies to improve the digital competence of faculty and staff. It demands boosting digital competencies to strengthen the confidence of faculty in the critical use of digital technology.

According to previous research (Corporate-body, 2018), digital competence involves the confident, critical and responsible use of digital technology for teaching and learning, specifically at work, and generally in society. It means "information and data literacy, communication and collaboration, media literacy, digital content creation ... safety, ... intellectual property-related questions, problem-solving and critical thinking" (Yan et al., 2007). Digital data creation includes programming, while safety includes digital well-being and competencies related to cyber security. Digital competence has the following essential knowledge, skills, and attitudes (Rodriguez & Zermeno, 2017; Røkenes & Krumsvik, 2016, Redecker & Punie, 2017; Talmo et al., 2020; Oksana & Olha, 2020; Ferrari, 2012) which can be applied to individuals as well as teachers of language:

- i. Understanding the ways, support, and applications of digital technologies in communication and innovation;
- ii. Awareness of opportunities digital technologies can provide along with their limitations and risks involved in their use;
- iii. Understanding the general principles of the digital technologies, their mechanisms, and the logic underlying their evolution;
- iv. Know-how of the basic functions of devices, software, and networks;

- v. Developing a critical approach toward the validity and reliability of data and its impact, and the information, available through digital means;
- vi. Awareness of the involved legal and ethical principles of digital technologies;
- vii. Capabilities to utilize the digital technologies in support of active citizenship and social inclusion, use them effectively to collaborate with other citizens, and bring creativity toward personal, or business objectives;
- viii. Capabilities to utilize, access, filter, evaluate, create, program, and share digital content;
- ix. Capabilities to manage and protect content and data;
- x. Capabilities to protect digital identities;
- xi. Able to use software and devices;
- xii. Able to recognize and effectively deal with artificial intelligence and robots;
- xiii. Developing a critical approach while engaging with digital technologies that make individuals curious, open-minded, and forward-looking toward their evolution, and;
- xiv. Ethical and responsible use of digital tools.

To further reiterate, digital competence is a “set of basic digital skills of being information and data literate and able to communicate and collaborate online, create digital content and ensure its safety” (Wang, 2001). For example, a digitally literate person can use computers and other devices to access, assess, present, evaluate, retrieve, and exchange information including through the use of the internet particularly social media confidently and critically. Digital competence is all about being capable to apply the digitally acquired knowledge and attitude in the defined context of education (Sullivan & Bhattacharya, 2017; Sysoyev et al., 2015; Raman & Yamat, 2014; Oksana & Olha, 2020; Mohamad et al., 2022). This digital competence is for lifelong learning and the digital skills that are job-specific include the maintenance of digital tools. Likewise, for ICT professionals, digital competence means “being in charge of challenging and innovative digital technologies” (Hockly et al., 2014). Digital competency is vital for the 21st century especially for the educational sector especially because there is a demand worldwide for higher education and it is expected that the number of students will grow from the current 100 million to 250+ million by the year 2025. This means that the quality of education and learning experience in the educational institutions will be needed to remain sustainable and continuously improved parallel to the continuous growth in the student population and their diversified backgrounds. In this situation, the pedagogical approaches are especially needed to be transformed from conventional teaching methods to imparting instructions through digital skills (Scott, 2015; Son & Windeatt, 2017).

Educational Technology has an important role to play in this transformation. “Promoting learner autonomy and creativity is a part of the solution. Technologies can be used to support efforts to transform pedagogy, but it is essential to recognize that twenty-first-century learning experiences must incorporate more than just technology” (EC, 2014). Technologies, therefore, are the “best option for adopting the new pedagogy in general,” (Scott, 2015) but specifically to bring a variation to the conservative teaching and learning methodologies to ensure the redevelopment of instructions and acquisition into inquiry and problem-based pedagogical approaches. With the introduction of new and innovative technologies, the teachers can enhance their abilities to use strategic questioning and build their learners’ interest in mobile technology, e.g. using social media to arrange and exploit real-life activities. This will ultimately teach the metacognitive skills of the learners and lead their relationship for learning towards the right path. As digital

technologies involve learners in a better way and more actively in learning, teachers may emphasize learner-centered models during their instructions and thus use educational technology to promote learning without any barriers or restrictions of time, place, and age (Prensky, 2001; Hosseini, 2015; McNeil, 2020; Lamb, & Arisandy, 2020).

2.2 Requirement of Digital Competences in Present-Day Language Teaching:

In the last couple of decades, digital technologies have been included in every walk of life. Electronic media and the Internet have led to more and more people utilizing the World Wide Web as the fastest and most reliable means of communication. Apart from being the “best medium for intra- and inter-personal communication” (McNeil, 2020), the web has also been serving as a medium and an effective pedagogical tool for foreign or second language learning and teaching. Language learners have adopted new technologies and digital media has also provided the instructors to examine and select various pedagogies for language instruction (Tapscott, 1999). “Students are able, open, and willing to use digital technologies as part of their language learning processes” (Dudeny, 2011). This evolution has made the new generation the digital natives and the older generation the digital immigrants because the latter are trying to learn and adopt the new technology (Pensky, 2001). Although this new generation of learners so-called the “Net generation” (Bennett et al., 2008) does not happen to be technologically as adept as expected, with its social use at least, they are much more comfortable. With these facts in mind, the educators of the 21st century must help their learners to transform their social use of technology into pedagogical (Dudeny, 2011; Tapscott, 1999). Language educators have already been seen adopting digital changes in recent years and therefore the terms and practices like CALL, TELL¹, and CMC² has evolved and changed the role of both the teachers and the learners in the language classroom.

With the introduction and inclusion of CALL into language learning some three decades ago, the technology was first applied to language teaching (Domalewska, 2014). New literacies and practical ideas have also been explored to develop digital technologies to be used within the English classroom. The taxonomy of new literacies was also reported through various studied which later was classified into four main categories; “...language, connections, information, and design/redesign” (Hockly et al., 2018). Subject specialists are teaching with the purpose of global communication with increased inclusion of technology, therefore, they need to develop digital competencies so that they can also enable their learners to be effective citizens of the 21st century (Dudeny, 2015). Later, socio-political and technological changes were also taken into consideration which led to adopting a more critical perspective on the use of digital technologies in language learning and teaching (Pegrum et al., 2018).

There are several challenges to the effective integration of technology in language teaching, principally reported through pedagogical reasoning in various educational contexts (Levy and Stockwell, 2006). For example, “emergent” and “established” are two types of CALL practitioners which have surfaced in which the emergent practitioners use digital technologies according to their settings but the established practitioners adapt instead of adopting them. There is a requirement for technical and pedagogical training in the use of CALL as the subject specialists need to put efforts to integrate digital tools into their language teaching practices. They may feel confused or frustrated if not provided an opportunity to go through appropriate

¹ Technology-Enhanced Language Learning

² Computer-Mediated Communication

training to develop their digital competencies. Therefore, as early as possible, subject specialists need to be trained for planning and conceptualizing the pedagogical implications that may be a result of the integration of digital technologies in language learning and their effective implementation in language classrooms (Hubbard & Levy, 2006).

3. Methodology

The methodology used for this study was a survey to identify the size of the problem of digital in competencies in Pakistani English subject specialists. It was designed to explore their general digital literacy training needs at the national level, their preparedness for the inclusion of new digital technologies in their teaching practices, their requirements for training in digital literacy, and their support in the learning process of their students.

The research revolved around the main objective of the digital competence assessment of subject specialists while the sub-objectives were the following:

- i. to identify how and to which extent the subject specialists use digital technologies while teaching of English language in their classrooms,
- ii. to identify what are the methodologies that they use in their routine teaching,
- iii. to ascertain the level of digital competence they possess,
- iv. to determine their training requirements in digital technology, and
- v. to determine their requirement for institutional support.

The present study, therefore, attempted to explore the digital competencies that a subject specialist of English in the context of Pakistan should develop to carry out English language teaching in harmony with the digitalization and professionalism prevailing in the present era.

4. Collection and Analysis of Data

A questionnaire was designed for subject specialists and administrators, including policymakers that are working in the field of English language learning. The questionnaire had 27 questions meant to get information about several topics of English language teaching (Table 1).

Table 1. Distribution of the survey questions

Topics	Item No
Particulars of Respondents	1-6
Teaching Methodologies used by the teachers	7-12
Teachers' attitude towards the use of digital technology in teaching	13-15
Teachers' competencies in the use of digital technology in language teaching	15-16
Satisfaction level of teachers for digital competencies training and their suggested measures for improvement	17-22
Institutional support for the teachers to enhance their digital competencies	23-26
Institutional aid for teachers' personal development in their digital competencies	27

The questionnaire was particularly designed to answer the following questions:

- i. What are the instructional models that English language subject specialists use in digitally-supported language learning?
- ii. What is their attitude towards the use of digital technologies in language learning vs what is the level of their digital competence level according to them?
- iii. What is their level of satisfaction with their level of digital competence and what sort of training do they need?
- iv. What is the role of their employing institutions in providing them digital aid and in developing their digital competencies?

The data were collected using Google forms from the mid of June until the mid of July 2022. The obtained data were analyzed descriptively. As of 15 July 2022, the questionnaire was completed by a total of 170 respondents. Not all respondents answered all of the questions but most of them (95.1%) were subject specialists, therefore, a quantitative analysis of the data was done for this group of respondents.

4.1 General Characteristics of the Respondents:

The general characteristics of the respondents included their personal and professional backgrounds. 55.9 % of teachers were males while 47.1 % were females (Figure 1). Most of them were from the age groups of 31-40 (60%) and 41 to 50 (70%) (Figure 2).

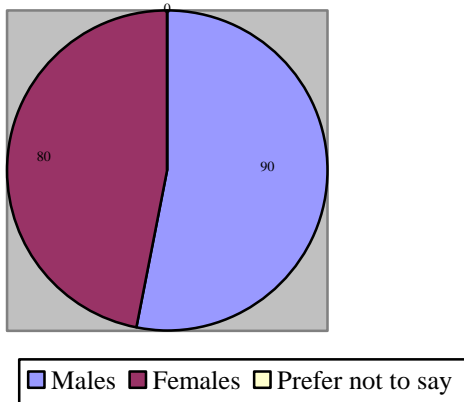


Figure 1: Gender

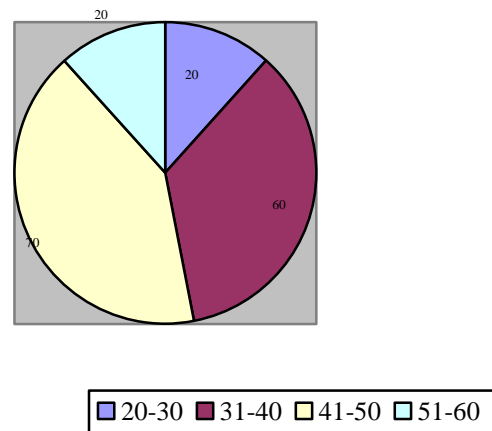


Figure 2: Age Group

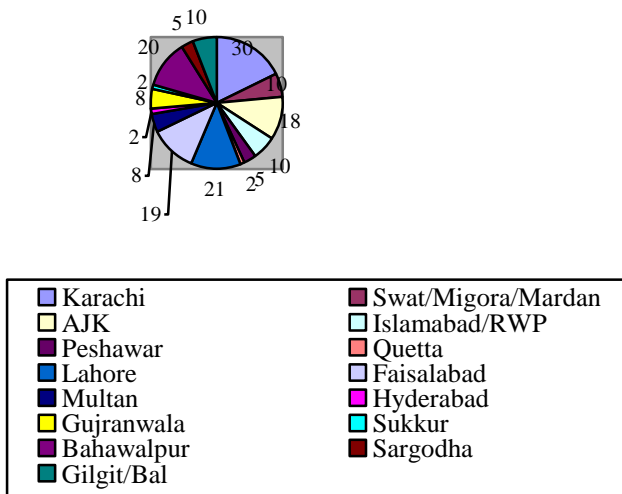


Figure 3: City of Employment



Figure 4: Cities of Pakistan

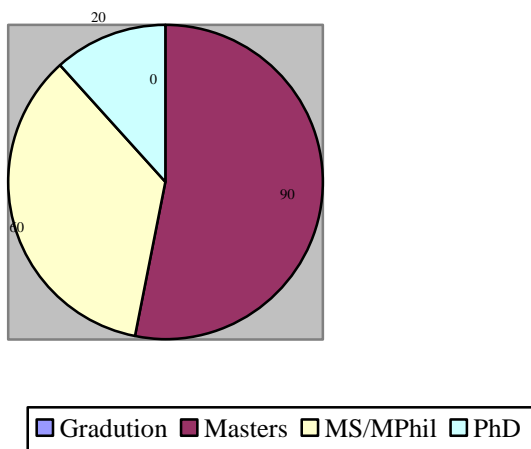


Figure 5: Level of Education Attained

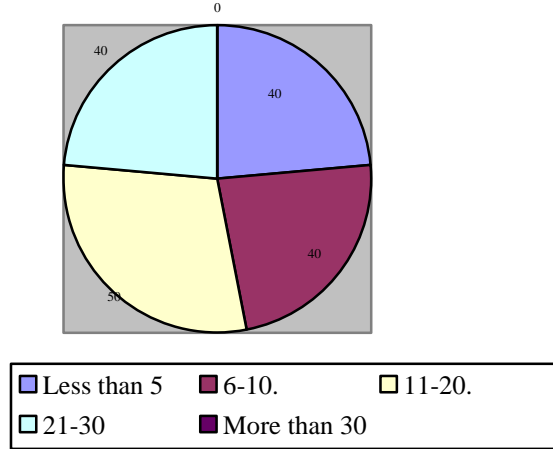


Figure 6: Number of Years in Service

Teachers were inquired about their places of job. The data analysis of responses revealed that most of them were teaching in Karachi, Lahore, Faisalabad, Bahawalpur, and AJK. (Figures 3 & 4).

Most of them have Master’s (52.9%) or M Phil/MS (35.3%) degrees while 20 teachers (11.8) had Ph.D. as their highest level of education attained. None of them was however below the qualification of Masters (Figure 5).

40 teachers had a service experience of fewer than 5 years. 50 of them had experience of 11-12 years. 40 teachers had the experience of 6-10 and 21-30 years of teaching experience each. None of them had an experience of more than 30 years (Figure 6).

The majority of the teaching staff surveyed were from primary, secondary, and higher secondary schools or universities (35.3 % each). A smaller number of the respondent was from policy-making organizations (5.9%) while 23.9 % of respondents were from colleges (Figure 7).

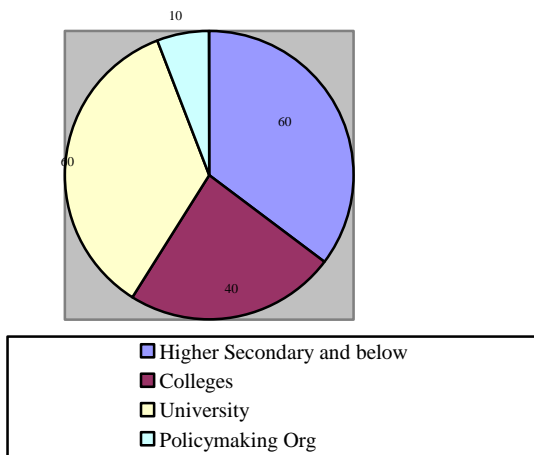


Figure 7: Type of institution

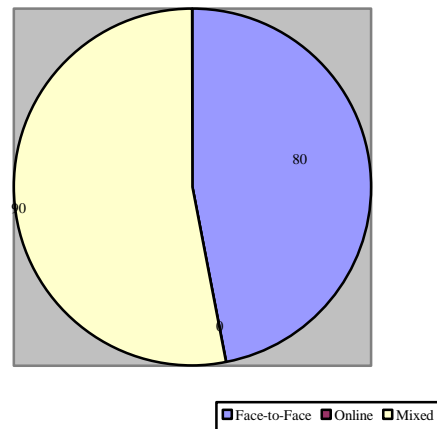


Figure 8: Instructional models used

4.2 Information about Teaching:

There is a distinction often made between “second language (L2)” and “foreign language (FL)” acquisition. Language playing an institutional and social role in the community is L2 because it is frequently used as means of communication by the members of the community who have another language as their L1. On the other hand, the FL plays no major role in the community and is learned only in the language classroom. An example of L2 is English in Pakistan (Rahman, 2005) while it is learned as FL in France or Japan. English in Pakistan is learned as a second/foreign language so the subject specialists surveyed were L2 teachers. It was revealed that the majority (52.9%) taught students with a mixed method of face-to-face and Online teaching models during the last two years. Those who taught only face-to-face comprised 47.1% while none of the teachers was involved in Online-only instructions (Figure 8).

4.3 Language Learning Instructional Methods:

Subject specialists were also inquired about the instructional methods that they use in their routine teaching. The question that inquired about instructional methods included the 10 most commonly used instructional methods of computer-assisted language teaching (Figure 9). The very first question of this part inquired about “the core methodology” while the second question asked about “the auxiliary methodology.” In the next three questions, never used methods, methods not used due to the lack of infrastructure, the need for training on using the instructional model, and irrelevance to the teaching goals were inquired about.

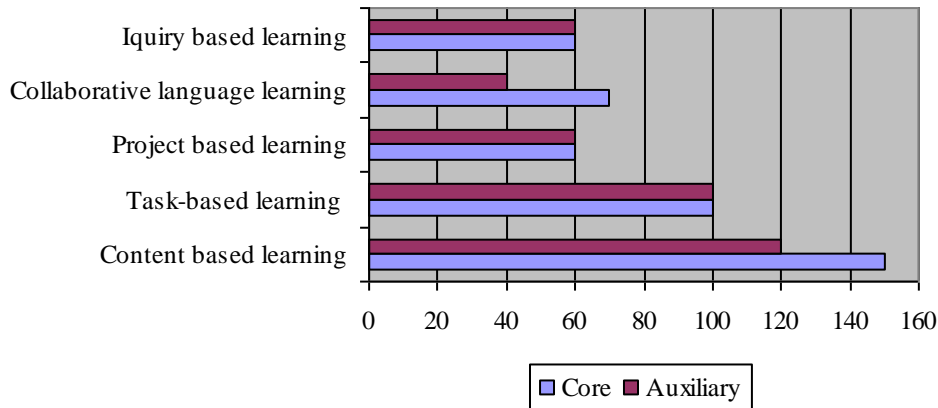


Figure 9: Core Methodologies used in instructional design

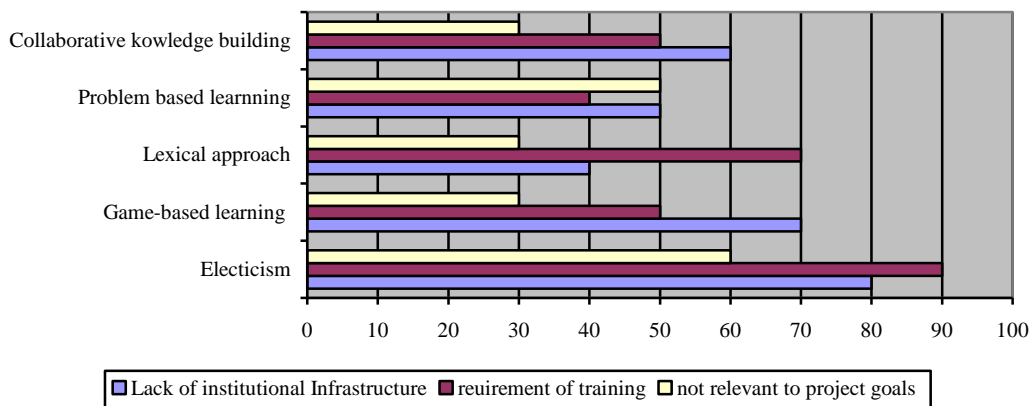


Figure 10: Never used Methodologies

The most popular methodologies (Figure 10) as either core or auxiliary were the following:

- i. Content-based language learning (88.2% core and 70.6% as auxiliary methodology respectively,
- ii. Task-based learning (58.8% each as core and as auxiliary methodology,
- iii. Project-based language learning (35.3% each as core and as auxiliary methodology,
- iv. Collaborative language learning: 41.2% as core and 23.5% as auxiliary methodology respectively,
- v. Inquiry-based learning: 35.3% each as core and as auxiliary methodology.

However, the majority of respondents responded that they prefer to use the maximum available educational technologies in their professional practice. Eclecticism was on the top of never-used methodologies by them (45.10), while 29.41% responded that they did not use Game-based learning. The other three least used methodologies were the Lexical approach, Problem-based learning, and Collaborative knowledge building for which 27.45% each replied that they have never used. The most common reasons for not using these methodologies were the Lack of

institutional Infrastructure and the requirement of training to teach. Although they needed further training their lack of training was not a hurdle to using language teaching methodologies. The suggested methodologies in the questionnaire were relevant to their teaching goals and they require training to use Eclecticism, the lexical approach, project-based language learning, and collaborative knowledge building the most.

4.4 Attitude Towards Digital Technologies in Language Teaching:

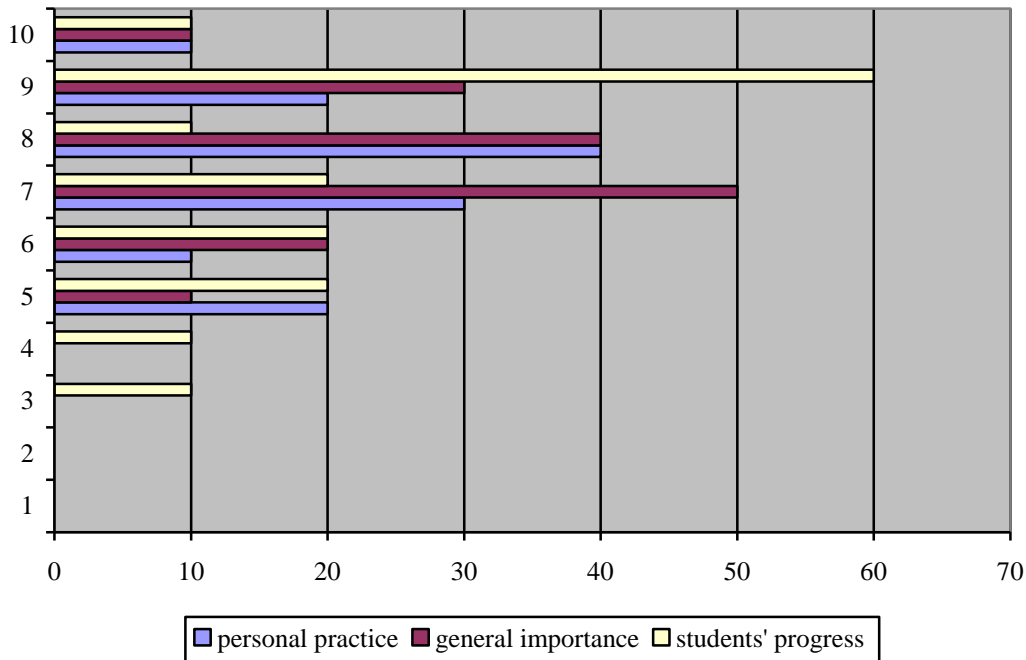


Figure 11: Subject specialists’ attitude towards using digital technologies

In the next section, their attitude toward the use of digital technologies in their language teaching practice and their general attitude toward digital technologies in language teaching was investigated. The overall positive attitude of teachers was identified on the given scale from 1-10 (negative-positive) as most of the teaching staff (80 out of 170) rated their attitude towards the use of digital technology in their language teaching practice at 8, 30 on 7, 20 on 9 while 10 on 10. Likewise, their general attitude towards digital technologies in language teaching was also identified as positive as 50 out of 170 teachers chose 8 as their level of attitude, while 40 chose 9, 30 chose 10, and 20 chose 7. Interestingly, in general, the majority of the respondents rated the role of digital technologies in the academic performance of their students very important as 60 out of 170 teachers chose 10 while 7, 8, and 9 were chosen by 20, 20, and 10 teachers respectively. Therefore, the majority of the teaching staff surveyed have described the role digital technologies play in their students’ progress, in their teaching practice, and as their general choice as very significant. Subject specialists are positive about using digital technologies overall and in teaching practice and they are very certain about the role of digital technologies in their students’ progress.

Table 2: Levels of Digital Competence of Subject Specialists (Fominykh, 2019)

Expertise Level	Description
Novice	I have very limited experience applying digital tools in language teaching. I usually use basic software, i.e., word processing, PowerPoint, CDs, etc., to prepare language learning materials, and I can find authentic material (articles, songs, etc.) for my language lessons and organize them in logically ordered digital folders.
Beginner	I know some basics for the most common application of digital technologies for language teaching, i.e., online dictionaries, voice recording tools, online flashcards, forums, etc. I also know how to use specific search engines to find appropriate language teaching material on the internet.
Pre-intermediate	I use digital technologies in language teaching that are available, and I know how to choose the most relevant digital tools for every teaching need, i.e., overhead projectors for delivering grammar presentations, online dictionaries to support writing assignments, voice recording tools to practice language pronunciation and speaking skills, online flashcards to practice/learn vocabulary, forums to practice writing skills, etc.
Intermediate	I am capable of using technically specific tools and devices, i.e., technical aspects and uses of interactive whiteboards (IWBs), software for creating media, audio/video files and images, main uses of digital equipment, mobile devices, and software for language learning, etc. I also understand how to implement digital technologies in language teaching using the right teaching methodology for every language need, i.e., collaborative tools like Padlet to enhance writing skills, video editing tools like Toondoo to enhance oral and writing skills, etc. I also try to enrich the variety of digital tools that I use in my language lessons and introduce innovative teaching methodologies.
Advanced	I feel confident using more advanced digital technologies, i.e., learning management systems (LMS), web 2.0 tools, mobile learning devices and applications for language learning, etc. following the right language teaching methodology, e.g. I can independently create a blended LMS-based module on Moodle, Canvas, edX, etc. platform and train my students and colleagues in using the proposed technology.
Proficient	I am an expert in digital technologies for language learning. I participate in the development of digital technology-rich language learning programs and online courses. I instruct peer language teachers on the use of digital tools and am involved in digital language teaching policy making.

4.5 Competencies in Digital Language Teaching:

This section presents the results of the subject specialists’ self-assessed competencies in digital language teaching and their estimated competencies in digital language teaching. We introduced six levels of digital language teaching competence (Table 2).

The majority of the teaching staff surveyed identified themselves as belonging to the Beginner and Pre-Intermediate groups (31.3% and 25% respectively) of digital language teaching experts. Next to it were 18.8% of teachers who identified their digital language teaching expertise as that of the Intermediate level. 12.5% identified them as novices while 6.3% identified themselves as advanced and proficient digital language teaching experts (Figure 13).

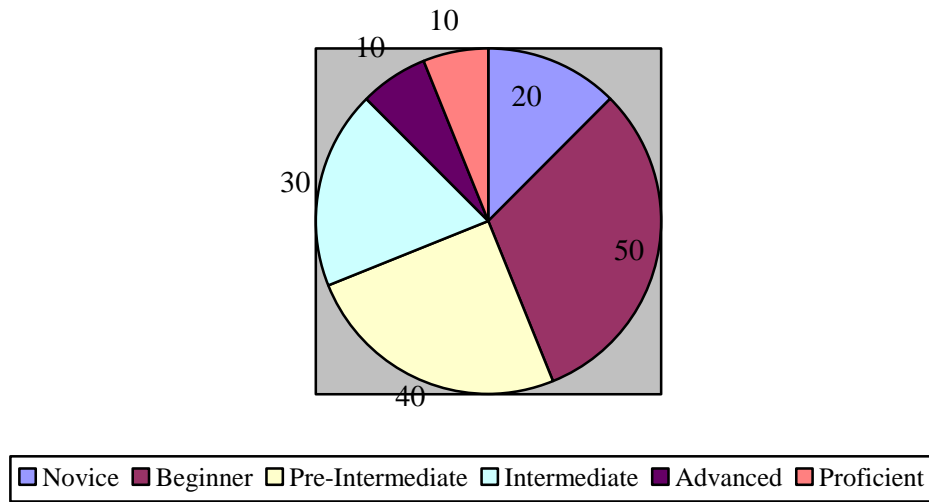


Figure 12: Group of digital language teaching experts you believe you belong to

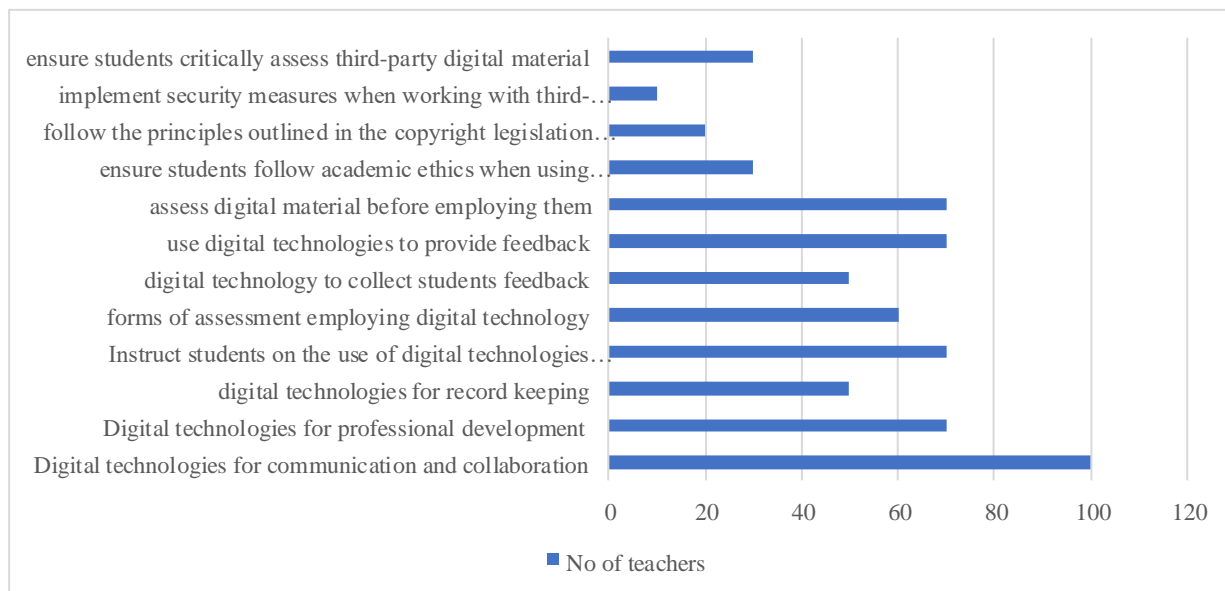


Figure 13: Strategies used in teaching and teaching practices

When inquire about the use of digital technologies for teaching, the majority of the teaching staff surveyed confirmed that they use digital technologies for communication and collaboration (62.5%), professional development (43.8%) and to provide feedback to the students (43.8%). 43.8% of the respondents stated that they instruct students on the use of digital technologies implemented in the classroom. A small number of teachers responded that they follow the principles outlined in the copyright legislation when using third-party digital materials (12.5%). Moreover, strategies for implementing information security measures or following relevant copyright legislation also emerged as being used by a small number of teachers (6.3%) (Figure 14).

4.6 Satisfaction with Digital Competencies Training and Required Improvement:

In the next section, the subject specialists were inquired about their level of satisfaction with digital competencies training and the required improvement. The majority of the teaching staff surveyed (64.7%) are unsatisfied with their current level of digital language teaching expertise (Figure 15). All of them unanimously (100%) responded that they could improve their digital language teaching expertise by participating in an external digital literacy training program (Figure 16). When inquired about the kind of training they would be interested in, 47.1% responded with intermediate, and 17.6 % suggested advanced and proficient levels of training. 11.8% and 5.9% suggested beginner and pre-intermediate levels of training (Figure 17). The preferred format of training of the majority was face-to-face training (Figure 18). Most of the subject specialists were motivated to learn new knowledge and skill (70.6%) while 23.5% of the teachers responded that their motive for digital technology training is the requirement of their employer or institution (Figure 18).

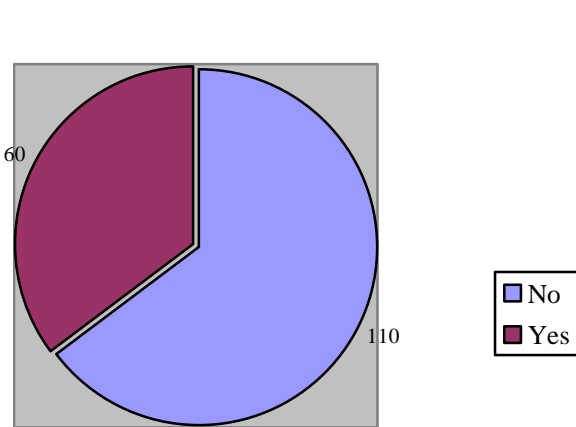


Figure 14: Satisfaction with Digital Competencies Training

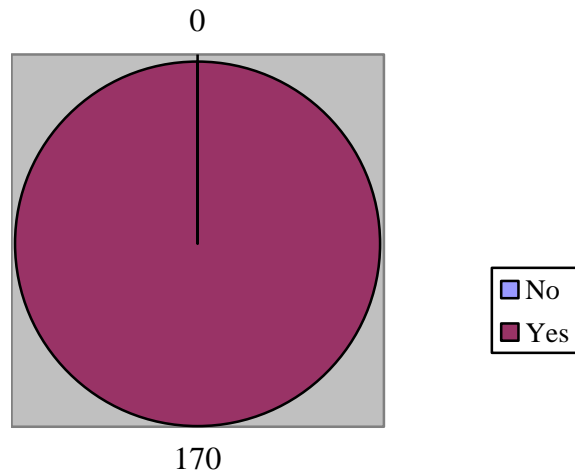


Figure 15: Requirement for improvement of digital language teaching expertise

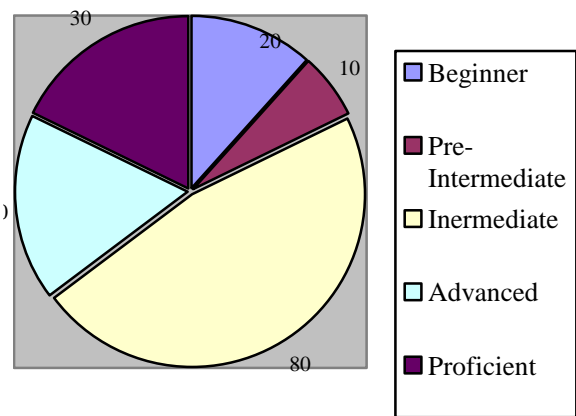


Figure 16: Kind of training interested in

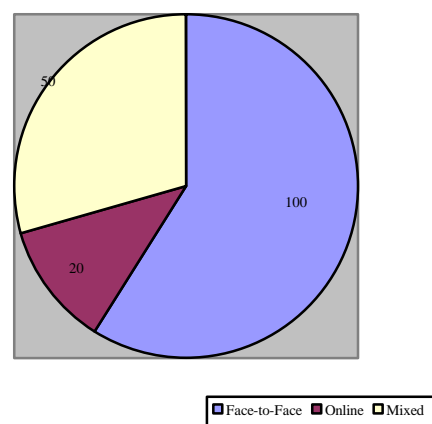


Figure 17: The preferred training format.

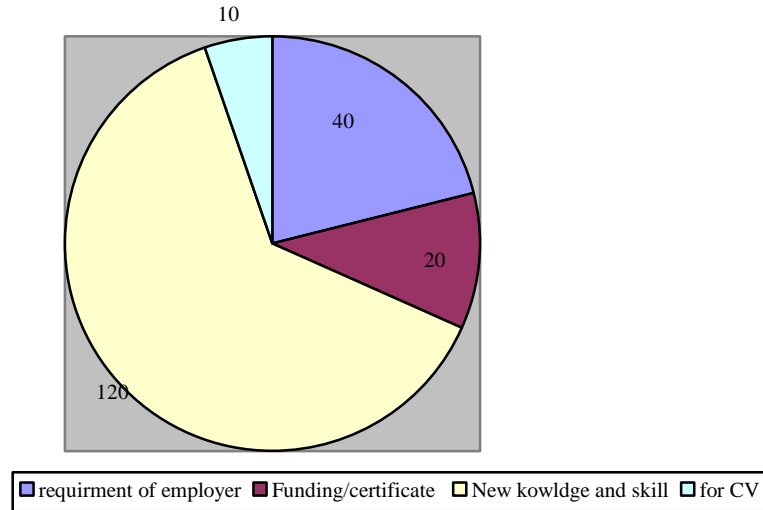


Figure 18: Motivation for training in digital competencies

4.7 Institutional Support for Enhancing Digital Competencies:

In This section, the institutional support available to subject specialists for enhancing digital competencies was investigated. First, they were asked about organizing and hosting digital literacy training by their employing institutions. The majority of teachers (62.5%) responded ‘No’ while 18.8% responded with “Yes.” Another 18.8% were not sure about this so they responded with ‘Maybe. 5.9% of teachers did not respond to this question (Figure 19). Secondly, they were asked about the frequency of organizing digital technology literacy training by their employing institution. To this, 43.8% replied that there never happened any digital technology literacy training, 37.5 % responded that the training was organized randomly, 18.8% responded that it was organized yearly and again 5.9 % did not respond to this question. It is interesting to note that in routine training sessions, the training for digital literacy training never happened according to the responses of the subject specialists (Figure 20). When subject specialists were asked whether they feel that the knowledge and skills they had acquired during the training offered by their organization were implemented into their everyday practice, most of them (58.8%) responded positively. 29.4% of them responded negatively while 11.8 % were not sure about that (Figure 21).

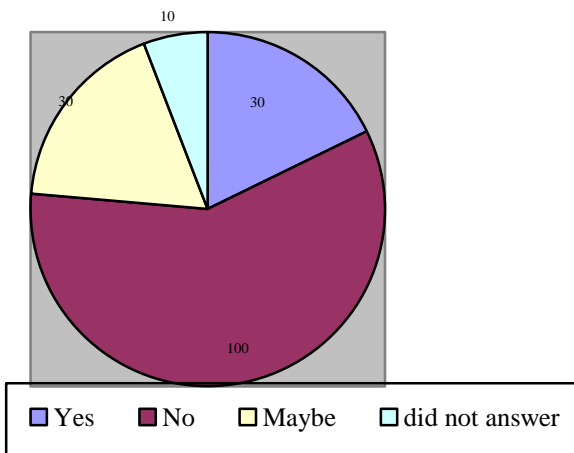


Figure 19: Digital literacy training by the employing institute

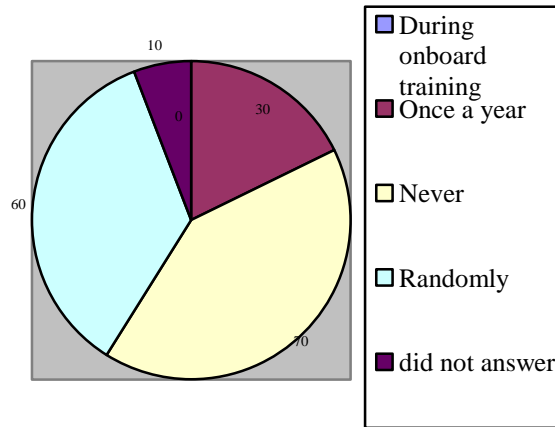


Figure 20: Frequency of digital literacy training organized by the employing institute

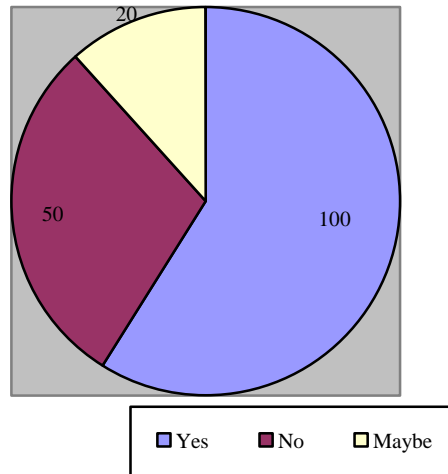


Figure 21: Practicality of training in everyday teaching practice

The subject specialists were also inquired about their opinion regarding the most effective way to improve digital literacy/increase digital technology awareness among subject specialists apart from training. The maximum number of teachers (70.6 %) suggested participation in special interest groups. 41.2 % valued experiences through exchange sessions. 35.3 % suggested mentoring programs organized by the institutions while 29.4% suggested participation in CALL conferences. (Figure 22).

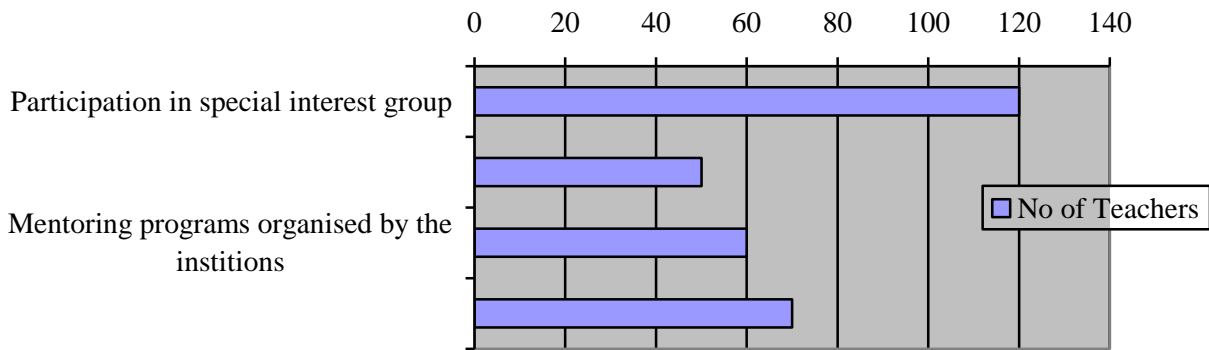


Figure 22: Suggested measures to improve digital literacy

4.8 Institutional Aid for Personal Development Toward Digital Competencies:

In the end, subject specialists were inquired about their expectations and suggestions on the means of raising the digital literacy levels that their employing institutions can use in addition to training. The majority of teachers suggested that the institutions should arrange technical support and services (52.9%) and provide fully equipped classrooms with an adequate quantity of digital tools (47.1%). They also suggested that institutions should have dedicated working hours for the development of digital courses and programs (41.2%) (Figure 24).

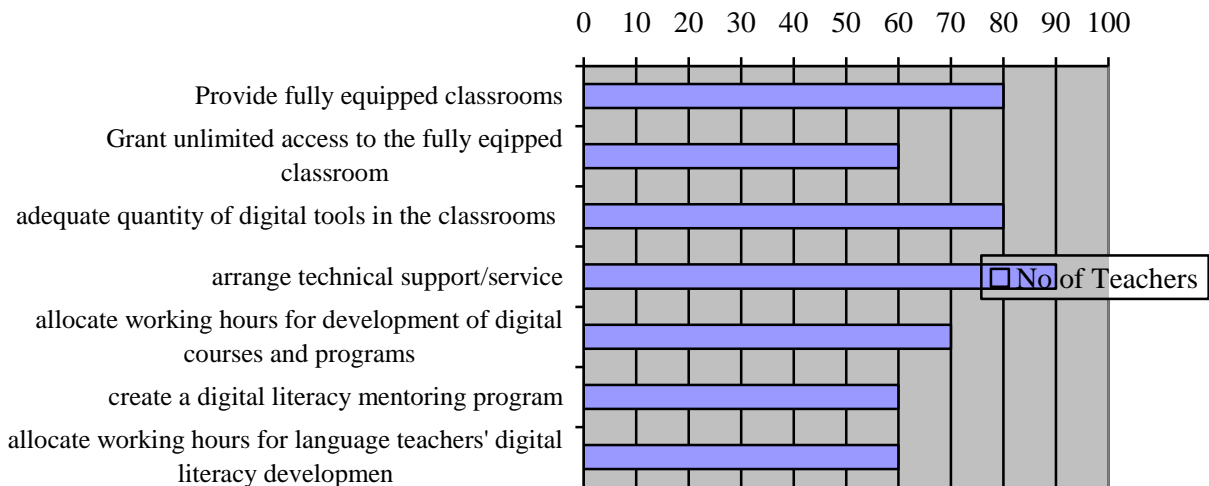


Figure 23: Measures for digital raising awareness.

4.9 Findings

1. Most of the teachers involved in language teaching are either Masters or M Phil/MS.
2. Most of the teachers have a considerable length of teaching experience.

3. The majority of the teaching staff taught their students with a mixed method of face-to-face teaching and Online teaching models during the last two years.
4. Multiple instructional methods are used by language subject specialists.
5. the Content-based, Task-based, collaborative, inquiry, and Project-based language learning methodologies are the most popular among subject specialists to be used as the core or auxiliary methodologies.
6. The majority of subject specialists use available educational technologies during their professional practices.
7. Eclecticism, lexical approach, game-based approach, problem-based learning, and collaborative knowledge building are rarely used by subject specialists.
8. Lack of institutional Infrastructure is the most common reason for not using these methodologies while the subject specialists also require training to teach. However, the subject
9. The need for further training appears not to be a strong factor preventing the teachers from using language teaching methodologies. However, Subject specialists require training to use methodologies of Eclecticism, the lexical approach, project-based language learning, and collaborative knowledge building the most.
10. An overall positive attitude of teachers was identified towards the use of digital technology in their language teaching practice, or as their general attitude towards digital technologies in language teaching.
11. The majority of the respondents rated the role of digital technologies in the academic performance of their students very important.
12. The majority of the teaching staff identifies themselves as belonging to the Beginner and Pre-Intermediate groups of digital language teaching experts.
13. The majority of the teaching staff s use digital technologies for communication and collaboration, professional development, and providing feedback to the students.
14. Teachers instruct students on the use of digital technologies implemented in the classroom.
15. Teachers do not very much follow the principles outlined in the copyright legislation when using third-party digital materials.
16. Strategies of implementing information security measures or following relevant copyright legislation are used by fewer teachers
17. The majority of the teaching staff is unsatisfied with their current level of digital language teaching expertise.
18. All of the subject specialists believe that they can improve their digital language teaching expertise by participating in an external digital literacy training program.
19. Teachers are mostly interested to go through an intermediate level of digital competency training.
20. The preferred format of training of the majority is face-to-face training.
21. Internal motivation is the motive behind most subject specialists as they are motivated to learn new knowledge and skill.

22. The majority of the employing institutions do not organize or host digital literacy training for their English subject specialists exclusively or during routine training sessions.
23. Whenever such training is offered, the subject specialists implement it into their everyday teaching practice.
24. The common belief of the subject specialists is that participation in special interest groups and institutionally organized mentoring programs may be helpful to them to improve digital literacy and awareness apart from organized training.
25. English teachers generally believe that institutions can raise digital training awareness and expertise by arranging technical support and services and providing digitally-equipped classrooms.
26. English teachers desire that their institutions have dedicated working hours for the development of digital courses and programs.

5. Conclusions

Based on the data analysis and findings, the following is concluded:

1. Subject specialists in Pakistan are well qualified when the degree level is concerned. Most of them have enough teaching experience. While teaching their students, they have used a mixed-method model of teaching face-to-face and online. However, they identify themselves as Beginners and Pre-Intermediates when it comes to digital language teaching expertise.
2. Multiple and varied instructional methods are used by the subject specialists of the English language in Pakistan among which the most popular are content-based, task-based, project-based, collaborative, and inquiry-based methodologies of language learning. Therefore, it can be concluded that they use a mixture of core and auxiliary methodologies. However, some of the modern technologies are never or least used by them such as eclecticism, game-based language learning, lexical approach, problem-based language learning, and collaborative knowledge building.
3. The most common reasons for not using these methodologies are the lack of institutional infrastructure and the requirement of training to teach. Although the need for further training does not very much prevent them from using language teaching methodologies, they require training to use certain methodologies, e.g. Eclecticism, the lexical approach, project-based language learning, and collaborative knowledge building.
4. According to the subject specialists of the English language, using digital technology in their teaching practice is essential. Therefore, their general attitude toward the use of digital technologies is very positive. They also rate the role of digital technologies very high in the academic performance of their students. Therefore they use digital technologies for communication and collaboration, professional development and to provide feedback to the students. They encourage maximum use of digital technologies implemented in the classroom by their students. However, they do not very much follow the principles outlined in the copyright legislation when using third-party digital materials. They also do

not give much importance to the strategies of implementing measures for information security or copyright.

5. As mentioned earlier, the majority of the subject specialists are unsatisfied with their current level of digital language teaching expertise. Therefore, they believe participating in an external digital literacy training program may prove helpful in enhancing their digital competencies. Maximum subject specialists are in want of at least an intermediate level of digital competency training and for this, they would like to prefer face-to-face training. They are internally motivated by digital training and want to learn new knowledge and skill through this. Nevertheless, most of their institutions do not organize or host digital literacy training for them either exclusively or during routine training sessions but whenever digital training is offered, the subject specialists implement it into their everyday teaching practice.
6. Subject specialists want to participate in special interest groups and mentoring programs organized by the institutions to increase their digital literacy and awareness apart from organized training. They want that their institutions raise digital training awareness and expertise by arranging technical support and services and providing fully-equipped classrooms. Moreover, they believe that they must have dedicated working hours for the development of digital courses and programs.

5.1 Recommendations:

Based on the conclusion, the following is recommended:

1. Efforts may be done on an institutional level to increase the digital proficiency of subject specialists in Pakistan from beginner and pre-intermediate to at least intermediate level.
2. Training of subject specialists may be taken up to educate them about modern digital technologies specifically about eclecticism, game-based learning, lexical approach, problem-based learning, and collaborative knowledge building.
3. Appropriate digital infrastructure may be provided in educational institutes.
4. Subject specialists must follow the principles outlined in the copyright legislation when using third-party digital materials and use the strategies of implementing information security measures or following relevant copyright legislation.
5. Subject specialists may be facilitated by the institutes to improve their digital language teaching expertise by participating in an external digital literacy training program. Their internal motivation in this regard may be well-exploited by the institutes to educate them.
6. Employing institutions must organize and host digital literacy training for their subject specialists either exclusively or during routine training sessions.
7. Subject specialists may be provided opportunities to participate in special interest groups and mentoring programs organized by the institutions to increase their digital literacy and awareness apart from organized training.
8. Technical support and services and fully equipped classrooms with an adequate quantity of digital tools whenever and wherever possible must be provided by the employing institutes on priority.

- Institutes must dedicate working hours to the development of digital courses and programs.

References

- Bennett, S., Maton, K., & Kervin, L. (2008). The “digital natives” debate: A critical review of the evidence. *British Journal of Educational Technology*, 39, 775–786. <http://dx.doi.org/10.1111/j.1467-8535.2007.00793.x>
- Corporate-body. EAC: Directorate-General for Education, Youth, Sport, Culture. (2018, October 22). *Education and training monitor 2018*. Retrieved May 12, 2022 from <https://op.europa.eu/en/publication-detail/-/publication/d576345f-e888-11e8-b690-01aa75ed71a1/>
- Domalewska, D. (2014). Technology-supported classroom for collaborative learning: Blogging in the foreign language classroom. *Int. Journal of Education and Development using Information and Communication Technology*, 10(4), 21–30.
- Dudeny, G. (2011). Digital literacies and the language classroom. *KOTESOL Proceedings*, 31.
- Dudeny, G. (2015). Digital Literacy Primer. *Teaching English*. <https://www.teachingenglish.org.uk/article/gavin-dudeny-digital-literacyprimer>
- English language teaching reforms project*. (2016, 7). Retrieved May 12, 2022 from <https://hec.gov.pk/english/services/faculty/ELTR/Pages/Introduction.aspx>
- Ferrari, A. (2012). Digital competence in practice: an analysis of frameworks. Joint Research Centre, European Commission, Luxembourg, Report EUR 25351 EN. Retrieved May 15, 2022 from <https://ec.europa.eu/digital-single-market/en/news/digital-competence-practice-analysis-frameworks>
- Fominykh, M. (Ed). (2019). Digital competences in language education: teachers’ perspectives, employers’ expectations, and policy reflections. *DC4LT Consortium* Retrieved May 15, 2022 from <https://www.dc4lt.eu/>
- HEC launches digital learning and skills enrichment initiative*. (2021, August 25). Retrieved May 12, 2022 from <https://nation.com.pk/25-Aug-2021/hec-launches-digital-learning-and-skills-enrichment-initiative>
- Hockly, N., Dudeny, G., & Pegrum, M. (2014). *Digital literacies*. Routledge.
- Hosseini, S. B. (2015). Computer-mediated communication: Pedagogical and language learning implications. *International Journal on New Trends in Education & Their Implications*, 6(1), 163-176.
- Lamb, M. & Arisandy, F. E. (2020). The impact of online use of English on motivation to learn. *CALL*, 33(1-2), 85-108, <http://dx.doi.org/10.1080/09588221.2018.1545670>

- Levy, M., & Stockwell, G. (2006). CALL dimensions: options and issues in computer assisted language learning. In Hubbard, P., & Levy, M. (Eds.) *Teacher education in CALL*, John Benjamin.
- Lin, C. Y., Huang, C. K., Chen, C. H. (2014). Barriers to the adoption of ICT in teaching Chinese as a foreign language in US universities. *ReCALL*, 26(1), 100–116.
- McNeil, L. (2020). Implementing digital game-enhanced pedagogy: Supportive and impeding language awareness and discourse participation phenomena. *ReCALL*, 32(1), 106–124. <http://dx.doi.org/10.1017/S095834401900017X>
- Mohamad, F., Ramlan, Z. S., Anuarsham, A. H., Kadir, Z. A., & Darmi, R. (2022). Students' perceptions towards the challenging factors in online distance learning. *International Journal of Academic Research in Business and Social Sciences*, 12(4), 61-72. <http://dx.doi.org/10.6007/IJARBS/v12-i4/13009>
- Oksana, B. K., & Olha, V. P. (2020). Future English subject specialists' digital competence development by means of storyjumper software tool. *Information Technology Learning Tools*, 79(5), 126–138.
- Pegrum, M., Dudeney, G., & Hockly, N. (2018). Digital Literacies Revisited. *European Journal of Applied Linguistics and TEFL*, 7(2), 3–25.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1-5.
- Rahman, T. (2010). *An Introduction to Linguistics*. Lahore: Vanguard Books Karachi: Oxford University Press.
- Raman, K., & Yamat, H. (2014). Barriers teachers face in integrating ICT during English lessons: a case study. *Malays, Online Journal of Education and Technology*, 2, 11–19.
- Redecker, C., Punie, Y. (2017). European Framework for the Digital Competence of Educators: DigCompEdu. Retrived May 22, 2022 from <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/european-framework-digital-competence-educators-digcompedu>
- Rodriguez, B. R., & Zermeno, M. G. (2017). Digital competences in English language teaching and learning at high. *Campus Virtuales*, 6(2), 51–59.
- Rokenes, F. M., & Krumsvik, R. J. (2016). Prepared to teach ESL with ICT? A study of digital competence in Norwegian teacher education. *Computer Education*, 97, 1–20.
- Scott, C. L. (2015). *The futures of learning 3: What kind of pedagogies for the 21st Century?* UNESCO series Education Research and Foresight Working papers. <http://unesdoc.unesco.org/images/0024/002431/243126e.pdf>
- Son, J. B., & Windeatt, S. (eds.) (2017). *Language Teacher Education and Technology: Approaches and Practices*. Bloomsbury Academic, London
- Sullivan, N. B., & Bhattacharya, K. (2017). Twenty years of technology integration and foreign language teaching: a phenomenological reflective interview study. *Qualitative Report* 22(3), 757–778.

- Sysoyev, P. V., Evstigneeva, I. A., & Evstigneev, M. N. (2015). The development of students' discourse skills via modern information and communication technologies. *Procedia. Soc. Behav. Sci.* 200, 114–121.
- Talmo, T., Fominykh, M., Giordano, A., & Soule, M. V. (2020a). Digital searchlight – a study on digital skills being sought amongst subject specialists. In: 14th International Technology, Education and Development Conference, Valencia, Spain, 2–4 March, 4956–4965.
- Talmo, T., Soule, M. V., Fominykh, M., Giordano, A., Perifanou, M., Sukacke, V., Novozhilova, A., D'Ambrosio, R., & Elci, A. (2020b). *Digital Competences for Subject specialists: Do Employers Seek the Skills Needed from Subject specialists Today?* International Conference on Human-Computer Interaction. http://dx.doi.org/10.1007/978-3-030-50513-4_30
- Tapscott, D. (1999). Educating the net generation. *Educational leadership*, 56(5), 6–11. 18.
- Wang, Y. (2001). Eclecticism in foreign language teaching. *Foreign Language World*, 2, 25–28.
- Zboun, J. S., & Farrah, M. (2021). Students' perspectives of online language learning during corona pandemic: Benefits and challenges. *Indonesian EFL Journal*, 7(1), 13-20. <https://doi.org/10.25134/ieflj.v7i1.3986>