Teachers’ digital competence for the formulation of an online learning design

The aim of this study is to determine the digital competency level of 299 surveyed English teachers from different educational levels belonging to private and public institutions in Colombia. The findings inform the design of a Web-Based Learning methodology to train English teachers to incorporate technology into English Language Teaching. Data were collected using the Spanish version of the DigCompEdu questionnaire and analyzed using R version 4.2.2, the Likert package version 1.3.5, and ggplot2 version 3.4.0. The results show that many teachers belong to the intermediate level B1 and B2, and that using online collaborative learning environments needs improvement. Of the 13 assessed competencies from the questionnaire adapted and translated by Cabero-Almenara and Palacios-Rodríguez, self-regulated Learning, Information and Media Literacy, and Digital Communication and Collaboration had the lowest scores of answers, while Teaching and Guidance got the highest. No statistical evidence exists to determine whether genre or years of teaching experience influence teachers' Digital competence. With these results, the formulation of a Web-Based Learning Didactic Design should consider administering instruction through the Learning Management System platform, Moodle, using digital resources that enable collaborative learning, the conscious use of metacognitive strategies to foster Self-Regulated Learning Strategies, and concrete relations of learning with the classroom and the local communities of students.

Keywords**:** teaching skills; e-learning; educational innovations

# Introduction

After the Pandemic Times, using technology for teaching changed from an option to a need. The Remote Teaching for Emergency demonstrated how helpful technology is in supporting the learning processes and the lack of teachers' digital competence to face the new century's challenges (Sustainable et al., Skills for the XXI Century). In English language teaching (ELT), integrating Information and Communication Technologies (ICT) into the classroom brings students near target language cultures, enabling the development of language, cultural and intercultural competencies. Through digital resources, students may polish their pronunciation, learn idiomatic expressions and understand cultural aspects, among other benefits.

However, what is the Teachers' Digital Competence (TDC), and how does it fit into the framework of media and information Literacy (MIL)? There are different interpretations. Aguaded et al. (2021) consider Digital Competence (DC) as part of Media, audiovisual, and information competence. It is the knowledge to capture, process, and broadcast information through digital devices. UNESCO (2018) includes Digital Literacy inside the concept of MIL, where 22 other literacies are grouped (Social Media Literacy, Computer Literacy, and Internet Literacy, among others).

Further than knowledge, the concept of Digital Competence provided by the UNESCO (2018) conceives the DC as "a range of abilities to use digital devices, communication applications, and networks to access and manage information"(p. 3). Cabero-Almenara and Palacios-Rodríguez (2020) precise the TDC as all those skills, attitudes, and knowledge required by teachers in a digital world. It is strictly related to the use of ICT, from a didactical and pedagogical perspective, in an educational context. The TDC needs to be defined, to be developed, and to be assessed.

## Teachers’ digital competence frameworks

Several frameworks proposed by different Ministries of Education and organizations have intended to establish a path to train teachers in developing digital competence according to the context of each region. Yang et al. (2021) constructed an outline of the leading global frameworks published from 2010 to 2022 to analyze their contributions to the development of TDC. Among these frameworks, it is worth mentioning the ICT Competency Framework for Teachers from UNESCO (first version 2008, last version 2014), the ISTE Standards from the USA (2008-2017), the DigComp from the EU (2013-2017), a Global Framework of Reference from UNESCO (Law et al., 2018) and the Competency Standards for Teachers (Ministry of Education of People’s Republic of China, 2012). In Latin America, Chile and Colombia have proposed their guides. Chilean Ministry of Education (Ministerio de Educación. Gobierno de Chile, 2011) determines five dimensions for the development of digital competence in teachers and four progress levels. Colombia’s framework (Ministerio de Educación de Colombia, 2013) comprises five competencies and three levels of expertise presented as a pentagon.

The current study uses the DigCompEdu framework Redecker and Punie (2017) not only because it is the most robust but also because it contains and expands the five competencies and three levels of expertise considered by the Colombian Ministry of Education; besides, the DigCompEdu provides a questionnaire that can be adapted to local needs of the community under study and to specific requirements of intended research studies. This questionnaire allows placing the participants of the investigation into the six proficiency levels, which ranks answers from A1 to C1: A1 Awareness, A2 Exploration, B1 Integration, B2 Expertise, C1 Leadership, and C2 Innovation. The framework comprises 22 competencies organized into six areas (see Figure 1).

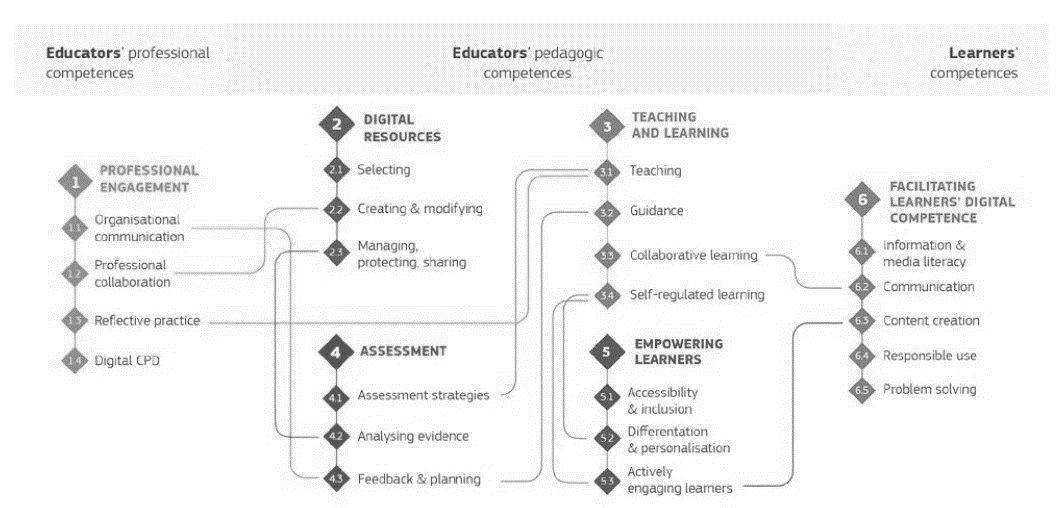


Figure 1. The Digcompedu framework. Source: Redecker and Punie (2017).

## Teachers’ digital competence in Colombia

Among the studies that intend to determine TDC in Colombia, we can mention the following ones:

Using two online questionnaires, Paz et al. (2022) sought to ascertain the TDC, viewpoints about the use of technologies, and specific activities that a group of 162 university lecturers does. For the first purpose, they administered the COMDID-A questionnaire (Lázaro & Gisbert, 2015), which consists of four dimensions that are assessed using 22 statements in a Likert scale to place contestants into four levels (True beginners, false beginners, intermediate, experts, and transformers). The second purpose is reached via a self-assessment rubric based on the SABER-TIC items (Taquez et al., 2017). The question that arises is why design a rubric and a questionnaire when other frameworks have already done it? The study results show that 50% of the teachers belong to the intermediate level (50%). For the first dimension, teachers are placed in the expert (35%) and intermediate (34%) levels, while for the other dimensions, they are in the intermediate level (47%, 46%, and 46, % respectively). The analysis was done using IBM SPSS Statistics Software for Windows from two perspectives: descriptive results of central tendency to establish the level of CDD and frequency of educational actions; and correlational analysis using Spearmen’s Rho coefficient.

Pinto-Santos et al. (2022) used the same instrument to assess TDC in a population of 252 teachers. As well as in the previous study, dimension 1 scored the highest average (2.3%); most teachers are classified as beginners (40,5%). This study should have mentioned the methodology used to analyze quantitative data. Roa et al. (2021) used in their study the University Teachers’ Digital Competence Model proposed by Prendes et al. (2018). This model is similar to the model presented by the Ministry of Education of Colombia. It comprises five dimensions (Social ethical, Analytical, Educative, Interactional/communicative, and Technical) and three levels of progress (explorers, integrators, and innovators). The data analysis concludes that 77% of the teachers belong to the integrator level in all competencies. The authors used a factorial analysis on the principles of Kaiser (1974).

Torres-Flórez and Diaz-Betancourt (2021) also conducted research at the university level to analyze digital competence in faculties of economic and administrative sciences in Colombia, using Gazca et al.’s questionnaire (2020) to diagnose tertiary education staff members. The instrument consists of five dimensions (D1: Information, D2: communication and collaboration, D3: Digital Citizenship, D4: Use of Digital Tools and Devices, D5: Content Creations), and four levels of performance (Nule, Low, Intermediate, and High). The authors conclude that most teachers have a high level of digital competence but do not show global results to establish clear scores for each dimension. The SPSS was used to determine the descriptive association elements.

Finally, it is pertinent to note Gomez' study (2017) which intends to determine the TDC index for a University in Colombia by implementing the Pentagon of TIC competencies for the Development of teaching. The scores of each dimension were classified into five levels (from A to E), demonstrating that most of the teachers reached level B in most dimensions. The author remarks that the obtained results underwent a cross-check or triangulation to compare different data analysis types; however, the manuscript does not mention a specific statistical analysis tool.

The goal of the current study is to determine the digital competency level of 299 surveyed English teachers from different educational levels and belonging to private and public institutions in Colombia as input to formulate the design of a Web-Based Learning methodology. The DigCompEdu instrument was administered to assess 5 of the six competence areas and 13 of the 22 competencies.

To this end, this study poses the following questions:

RQ1: Where are the surveyed teachers placed in the Digcompedu competence scale?

Sub questions:

Which level has the most significant proportion of answers?

Which level has the lowest proportion of answers?

RQ2: Which area do teachers feel they are strong in?

Sub question: Which is the competence in each area teachers feel stronger/weaker?

RQ3: Are there significant differences in the development of the areas and the competencies between male and female teachers concerning the years of teaching experience?

# Method

## Research Design

This is a quantitative study that uses different statistical techniques to analyse the results inside the five areas, and their competencies independently and compare them globally. The percentages or response proportions were calculated for each level to establish significant differences between the performance levels of teachers within each competence, and Quesenberry and Hurts (1964) confidence intervals for multinomial proportions were constructed. Graphical representations were made using heat maps and bar charts. To interpret the results, A1 and A2 levels were considered basic, B1 intermediate, and B2 and C1 as advanced.

To evaluate the performance of each competence within each area, averages and standard deviations were calculated for each competence. Values ranging from 1 to 5 were assigned to each level, respectively. A competence with an average of 3 is considered at the intermediate level. If the average is greater than 3, it is considered advanced level; if it is less than 3, it is considered basic level. The Kruskal-Wallis test was used when the conditions for applying an ANOVA were not satisfied. The H test follows a chi-square distribution with k-1 degrees of freedom, where k is the number of competencies being compared (Hollander et al., 2013)

Pearson's chi-square non-parametric statistical tests, likelihood ratio test, and Fisher's test were used to find the relationship between performance levels, gender, and years of practice of the surveyed teachers (Acuña, 2004). The associated hypotheses for gender and performance level by competence are as follows:

Ho: No relationship between the performance levels of each competence and the gender of the surveyed teachers.

H1: There is a relationship between the performance levels of each competence and the gender of the surveyed teachers.

The associated hypotheses between years of experience and performance level by competence are:

Ho: No relationship between the performance levels by competence and the years of experience.

H1: There is a relationship between the performance levels by competence and the years of experience.

Contingency coefficients and phi coefficients were also calculated. Both coefficients range from 0 to 1. A coefficient of zero indicates no association between the variables. A coefficient greater than 0.30 indicates a good association between the variables (Acuña, 2004). A coefficient greater than 0.3 and less than 0.4 indicates a good relationship between the variables, while a coefficient greater than 0.40 indicates a high relationship. A coefficient between 0.25 and 0.30 indicates a moderate relationship, and a coefficient less than 0.25 is considered a low relationship. Finally, the Stanine methodology was used to find differences between the areas, which involves dividing raw test scores into nine intervals. Stanine scores between 3 or less are considered below average or basic, between 4 and 6 are considered average or intermediate, and scores greater than or equal to 7 are above average or advanced.

Considering that each level was assigned a score from 1 to 5, the scores of the competencies in each area were summed for each teacher. For example, a teacher who responded A1 in all three competencies of Area 1 would have a minimum score of 3; if they responded C1, they would have a maximum score of 15. The final scores were divided into nine intervals, the Basic category was assigned to intervals 1, 2, and 3, the Intermediate category to intervals 4, 5, and 6, and finally, the Advanced category to intervals 7, 8, and 9. This way, we can indicate the performance level of each teacher in each area, regardless of the number of competencies being evaluated, facilitating their comparison with a global score measure.

## Software

The data analysis was conducted using the statistical software R version 4.2.2. The Likert package version 1.3.5 and ggplot2 package version 3.4.0 were used for generating graphs and descriptive statistics. The Stats package version 4.2.2 was used to perform the Kruskal-Wallis and Wilcoxon comparison tests. All analyses were conducted with a significance level or error rate of 5%.

## Working Group

The population belongs to a non-probabilistic convenience sample. Three hundred-four surveys were answered, and 299 were valid for the study. 43,5% were female, 56,2 were male, and 0,3% did not mention the genre. The participants work for public and private basic, media, high schools, private and public universities, and language institutes. 20,4 % had 1 to 5 years of experience, 31,6% had 6 to 10, 19,1 % had 11 to 15, 11,0 % had 16 to 20, and 17,7% had more than 20 years of experience.

## Instruments and data collection

Data for this study were collected through a questionnaire that included an explanation of the study, a consent letter participants needed to agree with, a section about demographic information, and three dimensions: Teachers' Digital Competence, the use of blogs for English Teaching, and the use of Digital Technologies for English Teaching. Data were collected via a Google Forms questionnaire sent through e-mail or personal request during school visits and recess times in two national English Teaching events. This article presents the results of the first dimension of this questionnaire, which assessed 5 of the six areas and 13 of the 22 areas of the DigCompEdu.

The item for each competence presents five answer options that locate the participant in a Digcompedu progression level.

# Data Analysis and results

## Where are the surveyed teachers placed in the Digcompedu competence scale?

In general, Integration Level B1 got the most significant proportion or the highest percentage of answers in 8 of the 13 competencies (62%). It demonstrates the majority of teachers are at the Integration Level. The next in the rank corresponds to Expertise Level B2, which is the second most considerable proportion or the highest percentage of answers in 4 of the 13 competencies (31%). Table 1 shows the results of two of the 13 competencies.

Which level has the most significant proportion of answers? Which level has the lowest proportion of answers?

Awareness Level A1 obtained the lowest number of answers in each assessed competency, demonstrating that a low percentage of English teachers are at a preliminary level. Similarly, the second lowest number of answers was in Leadership Level C1. In conclusion, most of the surveyed English teachers are located at the intermediate level, and few are at the advanced level.

Considering these results with the aim of teachers’ training in developing digital competence applied to English Language teaching implies that most teachers are false beginners whose basic skills enable them to advance to the highest level of competence. It also reveals the need to encourage teachers to move to Leadership and Innovation Levels, where they adventure to create, produce and combine digital resources.

Table 1. Sample of results of level per competence obtained with Quessenberry-Hurst’s Confidence Intervals for proportion estimation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Competence** | **Item** | **Estimation** | **LI** | **LS** |  |
| 1  Organizational Communication | C1 | 5% | 3% | 11% |
| B2 | 38% | 30% | 47% |
| B1 | 28% | 21% | 36% |
| A2 | 19% | 13% | 27% |
| A1 | 9% | 5% | 16% |
| 12  Information and Media Literacy | C1 | 3% | 1% | 7% |  |
| B2 | 18% | 12% | 25% |
| B1 | 28% | 21% | 37% |
| A2 | 42% | 33% | 51% |
| A1 | 9% | 5% | 16% |

In this analysis of the 13 surveyed competencies, it is also relevant to highlight that the items with the highest proportion of answers were related to collaborative learning competence (45%) and creation and modification competence (44%), where teachers recognize that their students use digital technologies during teamwork and that teachers create their digital resources and modify and adapt the existing ones; however, it is necessary to take teachers to use online collaborative spaces, such as LMS platforms, blogs or wikis, to exchange and build knowledge, and design and adjust advanced interactive assets.

On the other side, the items with the lowest proportion of answers in this analysis of competencies (the ones where A1 option was the lowest) were Selection (0%), Assessment Strategies (1%), and Feedback and Planification (1%), which indicates that teachers are genuinely using the Internet to look for digital resources, they keep track of student's learning progress and consider that feedback is necessary for the learning process.

## Which area do teachers feel they are strong in?

Sub question: Which is the competence in each area teachers feel stronger/weaker?

The comparison of areas was carried out using the Kruskal-Wallis Test. As differences among the competencies inside each area were found, the Wilcoxon rank-sum test was applied to precise these differences. Table 2 presents the results of descriptive statistics per area, table 3 makes comparisons among the areas through, and Table 4 makes the exact comparisons.

Table 2. Results of Descriptive Statistics per Area

|  | **Question Item** | **Basic** | **Intermediate** | **Advanced** | **Media** | **D.E** | **Heat Diagram** |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Competence** | **A1 A2** | **B1** | **B2 C1** |  |  |  |
| **Area 1**  **Professional Engagement** | **QI 8**  **Organizational Communication** | 28,76% | 27,76% | 43,48% | 3,10 | 1,08 |  |
| **QI 9**  **Reflective practice** | 29,76% | 41,47% | 28,76% | 3,00 | 1,05 |
| **QI 10**  **Digital CPD** | 27,76% | 30,10% | 42,14% | 3,28 | 1,18 |
| **Area 2**  **Digital Resources** | **QI 11**  **Selection** | 27,09% | 42,14% | 30,77% | 3,10 | 0,88 |  |
| **QI 12**  **Creation and Modification** | 15,05% | 31,10% | 53,85% | 3,42 | 0,99 |
| **Area 3**  **Teaching and Learning** | **QI 13**  **Teaching** | 34,11% | 17,73% | 48,16% | 3,30 | 1,17 |  |
| **QI 14**  **Guidance** | 21,74% | 19,06% | 59,19% | 3,39 | 1,33 |
| **QI 15**  **Collaborative Learning** | 20,74% | 45,48% | 33,78% | 3,24 | 1,03 |
| **QI 16**  **Self-Regulated Learning** | 37,12% | 30,10% | 32,78% | 2,93 | 1,20 |
| **Area 4**  **Assessment** | **QI 17**  **Assessment Strategies** | 30,10% | 40,47% | 29,43% | 3,06 | 0,91 |  |
| **QI 18**  **Feedback and Planning** | 41,47% | 35,79% | 22,74% | 2,89 | 0,96 |
| **Area 5**  **Facilitating Learners’ DC** | **QI 19**  **Information and Media Literacy** | 51,17% | 28,43% | 20,40% | 2,63 | 0,97 |  |
| **QI 20**  **Communication** | 41,47% | 33,11% | 25,42% | 2,77 | 1,06 |

Table 3. Comparisons among the areas of competence.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Comparison among the areas** | | |
|  | **Kruskal Wallis Test** | | |
| Areas |  | Valor P | P < 0,05 |
| Area 1: Professional Engagement | 9,04 | 0,0109 | \* |
| Area 2: Digital Resources | 25,874 | 3,64E-04 | \* |
| Area 3: Teaching and Learning | 28,805 | 2,46E-03 | \* |
| Area 4: Assessment | 3,2563 | 0,07115 |  |
| Area 5: Facilitating Learners’ DC | 6,8941 | 0,008648 | \* |

Note: \*Kruskal-Wallis Test with a 5% level of significance or error.

There are statistically significant differences among the competencies within the areas of A2, A3 and A5. (p=0.0003, p=0.0024, and p=0.0086, respectively). In A1, there are significant but not as substantial differences among the competencies (p=0.0109). A4 did not show statistically significant differences among the competencies (p=0.0711)

Table 4. Multiple Comparisons among the areas

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Multiple Comparisons** | | | | | | |
|  | **Wilcoxon rank-sum test with continuity correction** | | | | | | |
| **Area 1: Professional Engagement** | QI 8 | Organizational  Communication | (3,10702) a |  |  | | |
| QI 9 | Reflective Practice | (3,00334) a | (3,00334) b |  | | |
| QI10 | Digital Continuous Professional Development |  | (3,28428) b |  | | |
| **Area 2: Digital Resources** | QI11 | Selecting Digital Resources | (3,10033) a |  |  | | |
| QI12 | Creating and Modifying Digital Content |  | (3,42141) b |  | | |
| **Area 3: Teaching and Learning** | QI13 | Teaching | (3,30435) a |  |  | | |
| QI14 | Guidance | (3,38796) a |  |  | | |
| QI15 | Collaborative Learning |  | (3,24080) b |  | | |
| QI16 | Self-regulated Learning |  |  | (2,93311) c | | |
| **Area 4: Assessment** | QI17 | Assessment Strategies | (3,06020) a |  |  | | |
| QI18 | Feedback and Planning | (2,89298) a |  |  | | |
| **Area 5: Facilitating Learners’ DC** | QI19 | Information and Media Literacy | (2,62542) a |  |  | | |
| QI20 | Digital Communication and Collaboration |  | (2,76589) b | |  |

The Teaching and Learning area showed significant differences among the evaluated competencies. The competency of self-regulated learning had the lowest average score, while the competencies of Teaching" and "Guidance had the highest scores (above 3).

In the Area 5, there were statistically significant differences between QI19 and QI20. These two competencies also had the lowest average scores (below 3) among all the competencies across different areas.

The competency with the highest score (above 3) and statistically different from the others was QI12 in the Area 2. The competencies in the Area 1 and Area 4 did not show statistically significant differences, and the scores for each competency were around 3, indicating an intermediate level of performance.

## Are there significant differences in the development of the areas and the competencies between male and female teachers and years of experience?

Since the p-values in both Pearson's χ^2 test and the likelihood ratio test are more significant than the significance level of 0.05, it can be concluded that there is no association or evidence linking the gender (male, female, or other) of English teachers with their performance in each of the evaluated digital competencies. Gender is not an essential factor determining teachers' performance in different competencies.

For the analysis of the relation between TDC and years of experience, the answer options were grouped using the following codes: 1 for one to five years, 2 for six to ten years, 3 for eleven to fifteen years, 4 for sixteen to twenty years, and 5 for more than twenty years.

In the competence that corresponds to Question Item 10, Digital CPD within the Professional Engagement area, the χ^2 Pearson, Fisher, and likelihood ratio tests had a p-value of 0.001, indicating an association between years of experience and performance levels A1 to C1. Teachers with more than 15 years of experience do not have high-performance levels in their digital training.

In the competency corresponding to Question Item 16, Self-regulated Learning, within the Teaching and Learning area, the likelihood ratio test had a p-value of 0.0429, weakly indicating an association between years of experience and performance levels A1, A2, B1, B2, and C1. Teachers with more than ten years of experience appears to have low levels of performance in self-directed learning. In conclusion, no statistical evidence determines the relation between the genre and the expertise time with the performance levels in each of the assessed competencies within the five areas.

# Discussion and conclusions

Considering that the current study aims to determine the DC level of the target population as input to formulate the design of a Web-Based Learning methodology, the following are relevant conclusions for this purpose:

None or a few surveyed teachers are in the basic or advanced level of TDC. It implies that most teachers possess a base of knowledge that allows them to continue growing in their competence. Many teachers belong to the intermediate level (B1-B2), as in the studies carried out by (Paz et al., 2022; Roa et al., 2021). According to the Digcompedu descriptors, it means that teachers take their time to select and incorporate digital tools into pedagogical strategies. A training methodology should provide them with criteria that enable them to make better decisions on this regard. The SAMR framework (Puentedura, 2006), for integrating technology into education may serve as a reference because it defines levels in this incorporation process. Teachers may improve the use of digital tools by substituting or augmenting them. Other teachers may substitute activities in face-to-face instruction for ones in the virtual environment but with the same effects and intention and a better functional result. On the other hand, teachers may transform digital tools by modifying and redefining them. Using TIC allows for redesigning and creating new learning activities, even inconceivable ones. Training programs and methodologies should incentive teamwork with colleagues to be updated with new developments and become a source of inspiration for other teachers.

Although teachers recognize that they use digital technologies for collaborative learning (45%) and create digital resources (44%), they manifest that using online collaborative learning environments could be enhanced. Web-Based instruction seems to be better administered using an LMS platform like Moodle and integrate other teamwork resources like blogs, wikis, and video conference tools where students may construct knowledge cooperatively. Numerous studies have proved the effectiveness of LMS platforms in fostering students' collaborative learning and English Language Learning (Kataoka et al., 2018; Terzioğlu & Kurt, 2022; Truong, 2021; Lyashenko & Frolova, 2014).

Concerning the competencies in each of the areas, in the Teaching and Learning area, self-regulated Learning competence got the lowest score, while Teaching and Guidance was the highest. It implies that teachers use technology to guide and support students' learning outside the classroom. Still, they need to increase the use of technology to stimulate students' learning strategies dealing with planning, monitoring, and reflecting on their learning process. A Web-based Learning methodology needs to provide spaces for students to self-assess their performance during the learning trajectory by addressing the strategies with weaknesses and strengthening those that are properly working.

In the Facilitating Learners' Digital Competence area, the Information and Media Literacy and Digital Communication and Collaboration competencies had the lowest average scores among all. It reveals that teachers need to stimulate students' abilities to find information in digital environments, organize, process, analyze and interpret it. It also demands creating a critical sense to evaluate the credibility and reliability of information sources. It implies that the intended methodology includes moments when students are instructed about strategies for trustful searches and moments where students communicate the sources they used to assess the reliability and provide feedback for further inquiries.

Regarding Digital Communication and Collaboration, English teachers must incorporate learning activities, assignments, and assessments that encourage students to use digital technologies wisely and consciously with communication, collaboration, and civic participation aims. The new Web-Learning methodology has to embrace these three objectives by creating opportunities for students to transcend the mere information function of learning and move to make concrete links with their classmates and their nearest community. Emerging Community-Based Pedagogy principles in the Social Justice Teacher Education (SJTE) framework could be incorporated into the learning model, where students and teacher-learners plan their learning based on satisfying classroom and local community problems. Teacher-learners need to decide which TDC to develop based on the realities of the context they want to transform. Sharkey et al. (2016) say that “an illustration of teacher learning could be how they use a notion, as CBPs, to design and proclaim a social activity related to their working surroundings and how it might transform their activities in the school settings” (p. 2).

Results show that no statistical evidence demonstrates that genre and time of expertise have an incidence on the level of DC. It denotes that participants engaging in the Web-Based Learning methodology implementation stage may be in the same groups. A proposed methodology should contribute to differentiated learning instruction, where each learner targets to develop specific competence goals according to their own levels and classroom needs.

Finally, some of this study's limitations have to do with the length of the questionnaire, which included, besides the Teachers' Digital Competence dimension, two others about the use of ICT and blogs for English Teaching. For further research, limiting the number of question items would be better. Besides, some teachers were reluctant to solve the online questionnaire via email. The researchers had to visit schools and approach teachers at ELT National events to make personal requests. The data analysis was time-consuming since studies in the area of Language Teaching that do interpretative analysis through multinomial portions of variables were not found.

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