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Digital Portfolio in The Development of Documentary Competence in University Students

El portafolio digital en el desarrollo de la competencia documental en estudiantes universitarios

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Abstract

Translators face numerous challenges for doing their work, not only linguistic but also multimedia-related challenges. For this reason, translation undergraduate students must develop their documentary competence with a digital portfolio. The aim of this research is to demonstrate the effect of using a digital portfolio for developing documentary competence in the translation students from a private university in Lima. This research is quantitative and has a quasi-experimental design. It has been applied to a course of direct translation for two semesters. The sample was 32 students, 16 of them for control group and 16 for experimental group. A test was given before and after using the digital portfolio, so that documentary competence can be measured in its three dimensions: thematic field, terminology and textual genres. Findings suggest that the digital portfolio is effective for developing documentary competence in the experimental translation group. The use of a virtual platform allows students to develop documentary or instrumental competence and to familiarize themselves with the use of different multimedia resources as repository.

Keywords: Digital Portfolio, Documentary Competence, Instrumental Competence, Multimedia Resource; Virtual platform.

Resumen

El traductor se enfrenta a muchos desafíos, tanto en el nivel lingüístico como en el nivel de empleo de recursos multimedia para su labor de traducción. Por ello, es necesario que en pregrado se desarrolle la competencia documental de los futuros traductores con el empleo del portafolio digital. El objetivo de esta investigación es demostrar el efecto del empleo pedagógico de un portafolio digital en el desarrollo de la competencia documental en estudiantes de traducción de una universidad privada de Lima. La investigación fue de enfoque cuantitativo, y diseño cuasiexperimental realizado durante el desarrollo de un curso de traducción directa por dos semestres. La muestra estuvo conformada por 32 estudiantes: 16

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para el grupo de control y experimental. Se aplicó un test antes y después de la inducción del portafolio digital con la finalidad de medir la competencia documental con sus tres dimensiones: campo temático, terminológico y géneros textuales. Se concluye que el portafolio digital es efectivo para el desarrollo de la competencia documental en estudiantes de traducción del grupo experimental. El uso de una plataforma virtual permite desarrollar competencias documentales o instrumentales en el estudiante, así como también habituarlo para su uso como repositorio de diferentes recursos multimedia.

Palabras clave: Competencia Documental, competencia instrumental, plataforma virtual, portafolio digital, recurso multimedia.

I. Introduction.

One of the main characteristics of the 21st century is the overwhelming proliferation of knowledge and information. Today, there is a new computing scenario that is being redesigned in the context of globalization. Professionals in different sciences cannot ignore these new demands. One of these demands include training of competent translators who are capable of working with different types of non-specialized and specialized texts, and who have comprehensive knowledge of different fields, are capable to analyze texts and are aware of the importance of extralinguistic world in both cultures (that of source and target language). One of the skills that a professional translator must develop is the documentary competence. The translator finds that it is necessary to apply updated knowledge to approach translation tasks and that it requires skills to get information on the area of knowledge of the text to be translated. For example, when translating specialized texts it is necessary to have a good level of knowledge on text typology (Corredoira, 2018) which allows to understand the pragmatic functionality of discourse as a structure; on terminology (Guerrero, 2017), a science that studies language and specialized languages; and on the semantics and knowledge in the specific thematic area (Cortez, 2019), that consists of a type of primary knowledge. Each of these aspects also involves knowing about the characteristics of language according to subspecialties, such as technical, scientific, legal, economic, and administrative fields (Hurtado, 2001).

At the same time, Information and Communication Technology (ICT) has become part of translators' lives because of the continuous changes and transformations in our society. ICT's development as a tool for preparation, storage and dissemination of information has acquired great relevance at an economic, productive, cultural and social level. With regards to this challenge, Gisbert & Esteve (2011) say that the translator must achieve a digital competence that involves the sum of all the skills, knowledge and attitudes in technological, informational, multimedia and communicational aspects. Due to the accelerated progress of ICT, new tools that facilitate translators' work have emerged. Arrés (2011) describes the new technological possibilities today: Word processors that allow working on reading and editing multilingual texts; applications that allow increased productivity such as translation memories or computer-assisted translation tools; and resources for thematic and linguistic documentation such as online dictionaries and databases. In addition to these tools linked to their area of expertise, the translator can use other platforms, such as text repositories, dictionaries or multimedia material, such as the digital portfolio that is built based on digital platforms, and resources that allow greater versatility and flexibility (Rodríguez, 2013). There is an increasing use of virtual platforms such as tools and learning spaces in educational institutions at the university level. For this reason, translation students expect to have learning environments like those they use in their daily lives. It is important that teachers be aware

of this reality. What tools do translation students often use to collect thematic and terminological documentation? What is the effect of applying the digital portfolio on the documentary competence of translation students from a private university? The main objective of this study is to analyze the effects of the application of the digital portfolio on the documentary competence of translation students from a private university. The specific objective is to identify the effects of the application of the digital portfolio on the thematic, terminological and textual gender competences of translation students from a private university.

Pujolà (2019) states that the digital portfolio is an effective resource for learning because it does not only allow to familiarize with the information but promotes learning process. On the other hand, Odicino (2016) says that teachers must not only provide translation students with the necessary information resources, but also identify translation problems so that they can use their documentary competence. Based on these statements, we formulate the following hypothesis: The digital portfolio has a significant effect on the documentary competence of translation students from a private university.

Translation competence and documentary competence.

Hurtado (2001) defines translation competence as the ability to know how to translate. He describes it through five subcompetences: (a) linguistic competence, based on the understanding of source language and the production of target language; (b) extralinguistic competence, which includes encyclopedic, cultural and thematic knowledge; (c) translational competence, which consists of comprehending the original text and re-expressing it in the target language according to the recipient and the translation purpose; (d) professional competence, which is based on knowledge of new technologies and the labor situation; and (e) strategic competence, based on conscious and individual procedures that allow solving translation problems during the translation process.

Translation competence defined by the PACTE Group (2001) comprises five subcompetences: a) bilingual subcompetence, which includes lexical-grammatical, textual, socio-linguistic and pragmatic knowledge in each language; b) extralinguistic subcompetence, which encompasses bicultural, thematic and encyclopedic knowledge; c) translation knowledge subcompetence, which covers the principles that guide the process, methods and procedures to translate as well as professional aspects; d) instrumental subcompetence, which includes knowledge related to the use of documentation sources and information technologies applied to translation; and e) strategic subcompetence, which is responsible for problem solving and process efficiency. Finally, behavioral, psychomotor, and cognitive mechanisms are included as psychophysiological components.

This study focuses on documentary or instrumental subcompetence. First, it is necessary to prepare a summary of the history of documentation, and then define it in the context of translation.

Documentation origins date back to 3000 BC., when the ancient civilizations of Sumer and Mesopotamia used clay tablets for their administration. The Egyptian, Greek and Roman cultures also created a series of documents for administrative, literature, as well as technology and science fields (Blázquez, 2012). However, the first demographic explosion of documentation appeared with the invention of the Gutenberg printing press in the 15th century, when the book became available to more sectors of the population and improved their level of education.

With the development of the printing press in the following centuries, documentary production increased significantly, although information was initially controlled. Between the 18th

and 19th centuries, a second demographic explosion of published books, reference works, magazine articles, scientific publications, congresses, and gray literature happened and made documentary more difficult to manage. As noted, history witnessed man's need to be informed whenever he needs to acquire knowledge.

In this regard, there is a need to get informed in connection with the research topic. Merlo & Arroyo (2013) classify information needs into six categories: (a) terminological information, that is, a frequent query of concrete and simple words that are unknown and that the translation professional solves with basic tools, such as dictionaries; (b) phraseological information, which is determined through queries to specialized and specific information sources about phraseological units when the translator does not know the languages well; (c) thematic information which is based on information about text content, doubts about the subject matter, information core that are not understood and are used to achieve an optimal translation; (d) cultural information, that is, information related to doubts about names, company data, institutions or individuals that are not clear in the source text; (e) contextual information, which refers to queries about text function, for example, what audience text is aimed at; and (f) professional information, which is linked to legal responsibility as translators, to the translator's ethics, and to the responsible exercise of the professional activity.

Cerezo (2019) defines the instrumental and professional subcompetence as the ability to learn to manage different reference materials, to ensure access of students to different types of reference materials and to keep a balance with the rest of the subcompetences. It highlights the importance that future translators be aware that documentation in the foreign language must become an important part of the translation process. According to the Grupo PACTE (2011), instrumental sub-competence is a kind of procedural knowledge related to the use of documentation sources and information like dictionaries, encyclopedias, parallel texts and other sources.

Regarding translation, Cortez (2019) says that specialized documentation is an active skill that allows translator to search for information in terminology databases and parallel texts, to solve problems during the translation process. Vitalaru (2018) thinks that documentation allows translators to find possible solutions to translation problems. According to Pinto (2000), the documentation service for translation requires the implementation of an information system that includes search strategies, and management of strategies for solving translation problems. From this perspective, translators strengthen their training under two types of systems: (a) cognitive, in which the system will enhance their knowledge of the world offering a wide range of knowledge in both the source-language culture and target culture, through a general humanistic complemented with historical, sociological, literary and communicative knowledge. In addition, it promotes knowledge of the field related to the subject matter of translation and to the cognitive-affective structures of the author and future readers in the target language; and (b) linguistic, in which the language facilitates the mastery of terminology, especially for specialized documents. The science of terminology contributes to a better understanding of language problems. Therefore, translator must undertake a specific documentary research to solve more specific problems.

Gamero (2001) suggests three subcompetences for the documentation in specialized texts: (a) knowledge on the thematic field, that is, understanding basic concepts on a given topic; (b) correct use of specialized terminology, which is based on the ability to identify terms in a source text and locate equivalent and/or appropriate terms in the target text (for this, the translator uses specialized texts to acquire a list of terms related to the specific field); and (c) competence in characteristic

genres. This means the knowledge about the conventions of textual genres in each of the languages of a translation that grows and specializes to obtain a genuine and relevant corpus for the translator.

For Kuznik & Olalla-Soler (2018), the new generation that has grown hand in hand with rapid access to information and communication technology from a wide range of computing tools and devices seems to be less expert. Electronic and online documentation has also created serious difficulties to this group already familiar with the use of technology resources. Now they must determine what, how, where and how much information to search for, due to the wide variety of information search options.

Digital Portfolio.

For Rodríguez (2013), *digital portfolios* are built on platforms supported by virtual resources that allow versatility and access to different document formats. A digital portfolio has the same content as a traditional portfolio, but resources are stored, published and presented electronically. Digital portfolios contain digital photographs and multimedia files in a variety of formats (Powers et al., 2000). Pujolà & Suárez (2019) state that digital portfolios are designed as a library of multimedia resources that allows portfolio storage and also offers a class group management system that facilitates monitoring and evaluation.

Butler (2010) summarizes some advantages of the digital portfolio that are explained below: (a) the creation of a digital portfolio serves to develop technological skills, communication and digital literacy; (b) it helps students manage their own professional development and continuing education; (c) it encourages students to reflect on their work and choose the best documentary evidence to incorporate into their portfolio; promotes teamwork and integration of learning experiences; (d) students can receive fast and constant feedback through the process of portfolio development; and (f) digital portfolios allow students to be evaluated not only at the end, but during the process when they are checking or improving their portfolios.

For Chaljub (2018), the use of digital portfolios allows students to create, upload and publish academic documents with different people about a topic of interest. According to Barberá et al. (2006), The digital portfolio has three phases: presentation of students' academic background; collection, selection and publication of works; and general evaluation of the digital portfolio according to specific criteria. For Kaechele (2016), the use of the digital portfolio enhances the ability to store, organize, select, classify, and present information. Moreover, it evidences that students' competences in information and communication technology when learning the use of a new software tool, helps them to have a new perception of its usefulness and potential. From a teaching perspective, Vázquez-Cano et al. (2017) state that the e-portfolio is a learning tool that enhance learning strategies and teaching professional growth.

II. Method.

Research approach and design

This research has a quantitative approach because it focuses on the explanation, prediction and control of reality (Rodríguez, 2005). It applies an experimental method which includes organizing conditions based on a plan to search for possible cause and effect relationships using an experimental group (Sánchez & Reyes, 2009). The independent variable (digital portfolio) was manipulated to observe the effect on the dependent variable (documentary competence).

The research design belongs to Hernández et al. (2014):

GE1	O1	X	O2
GC2	O3	___	O4

Where:

GE_1: Experimental group.

GC_2: Control group.

O_1: Pre-test experimental group.

O_2: Pos-test experimental group.

X: Application of E-Portfolio.

O_3: Correlation.

O_4: Correlation.

Sample e Instrument.

Two intact groups participated in the quasi-experiment: An experimental group to which the digital portfolio was applied and a control group to which this portfolio was not applied. Both groups carried out the pretest before the application of the digital portfolio. After four months, the posttest was taken to find out if there were significant changes in both groups. The subjects in the sample were not randomized. Both for the experimental group and the control group were intentional samples. The intentionally selected sample consisted of 32 students: 16 students made up the experimental group and 16 students, the control group. Regarding the characteristics of the sample, it is made up of seventh cycle undergraduate students of Translation and Interpretation who were enrolled in specialized translation workshops.

The instrument used was a test to measure the level of documentary competence. The test was adapted from the PACTE Group's questionnaire (2011). The study also included screenshots of the documents stored by the students in their e-portfolio. The test was designed with a Likert scale with ranges between never (0), sometimes (1), regularly (2), almost always (3) and always (4). The test consisted of 10 items for the thematic field dimension; 6 items for the specialized terminology dimension; and 4 items for the characteristic gender dimension. To validate the instrument's content, it was submitted to five experts to get the Aiken coefficient V. Table 1 shows the validity of the test's content on documentary competence.

Table 1.

Validity of the test's content on documentary competence

Dimensions	Index V_j
Thematic competence:	0.93
Specialized terminological competence:	1.00

Characteristic gender competence:	1.00
Documentary competence	*0.98*

Source: Research database.

To determine reliability, a pilot test was applied to 10 students from a private university where the Translation and Interpretation degree course is also studied. The reliability calculation was submitted to Cronbach's alpha.

The reliability of the instrument was 0.901 and the coefficients for each dimension were also calculated. Table 2 shows the reliability of the test on documentary competence.

Table 2.
Reliability of the test on documentary competence

Variable	Cronbach's Alpha
Thematic competence	.923
Specialized terminological competence	.863
Characteristic gender competence	.849
Documentary competence	.901

Source: Research database.

For descriptive analysis of the data, the box plot was used to compare scores of each group in both the pre- and posttests. For inferential analysis, the normality tests, the Student's t-test and the Wilcoxon non-parametric test were carried out. Finally, in compliance with the ethical requirements of the university where the study was conducted, the test was applied to the students after a prior informed consent. The information of each participant was coded during the intervention to ensure the confidentiality of the data.

The project came from the idea that students in the sixth cycle of translation did not have a repository for filing and uploading digital documents that are important to the documentation process. For this reason, it was decided to carry out the Let´s translate with an e-portfolio project. This project was developed in seven stages: First, students were motivated through the presentation of different web pages containing digital documents, tasks and activities. Then, they used the causal tree to identify the problem and the importance of creating a digital portfolio as a tool to save translations, online dictionaries, and audiovisual texts. Subsequently, a didactic guide for preparing a digital portfolio was prepared. Likewise, a pretest was applied to collect the students' prior knowledge about the use of the digital portfolio. Twelve learning sessions were also prepared in the direct translation course to develop documentary competence. It should be noted that the students of the experimental group used the didactic guide with the aim of developing their documentary competence over three months. Finally, the posttest was applied to check whether the use of the digital portfolio enhanced the documentary competence among the students.

Procedure.

To carry out the *Let´s translate with e-portfolio* project application, the authorizations for the application of the instrument and for training on the use of the Wix platform were distributed among students of the university institution in the 2019-2 semester. Trainings were also given to teachers in charge and students on the use of the Wix platform as a digital portfolio. Then, the sample was grouped into control and experimental groups with the help of the teacher in charge of the course. This project was applied to the experimental group for three months. Finally, the post-test was applied to both groups once the project application was completed.

To answer the research question and evaluate the proposed hypotheses, the descriptive analysis was performed using the box plot in order to see the behavior of the dependent variable, before and after performing the treatment. Likewise, the normality test of the dependent variable was performed with its corresponding dimensions (Table 3). Inferential analysis was later performed using the parametric t-test for independent samples and the non-parametric Mann Whitney U-test with its respective effect size. All analyzes were performed comparing the results of the control group with the experimental group. The dimensions of the documentary competence that were analyzed are: thematic competence-*D1*, terminological competence-*D2* and the competence of characteristic genres-*D3*. The statistical analysis was performed using programs such as *Excel*, *Minitab* v. 18 and *SPSS* v. 25. To calculate the effect size, Cohen's d was used with the following equations:

$$d = (\underline{Y_1} - \underline{Y_2})/\sqrt{[(n_1 - 1) * s_1^2 + (n_2 - 1) * s_2^2]/(n_1 + n_2 - 2)} \quad (1)$$

$$A_w = (n_1 * n_2 - U)/n_1 * n_2 \quad (2)$$

d: *Cohen effect size*, A_w: effect size non-parametric estimator, $\underline{Y_1}$: sample mean 1, $\underline{Y_2}$: sample mean 2, s_1^2: sample variance 1, s_2^2: sample variance 2, n_1: sample size 1, n_2: sample size 2 y U: statistic *Mann Whitney U*. Equation 1 is used to calculate effect size when the data are adjusted to a normal distribution and Equation 2 when the data do not follow a normal distribution (Li, 2016).

III. Results.

Effect of Wix Digital Portfolio Application on Digital Competition

Figure 1 compares the scores between students in the control and experimental groups. When applying the pretest to both groups, the control group mean yielded 32.5; while, the experimental group, 44. With regards to the posttest, it is observed that the control group presents a mean of 32; while the experimental group, 48.5; showing a greater difference between the described values.

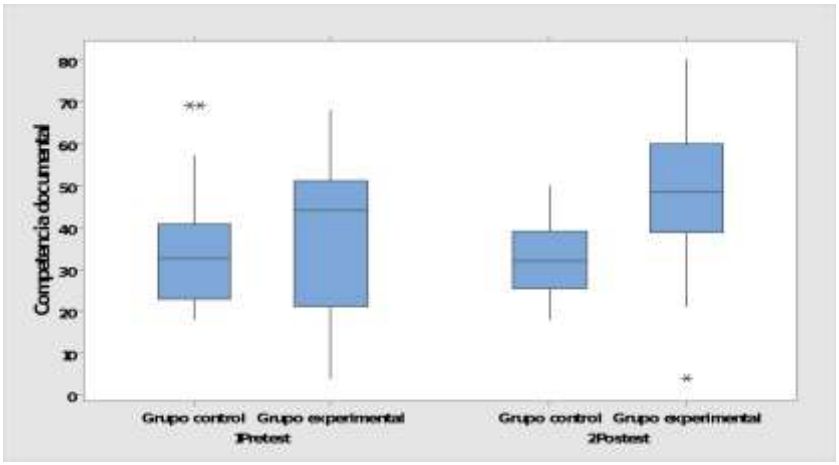

Figure 1. Box plot for documentary competence.

Table 3 shows the descriptive analysis of scores' mean and standard deviation of documentary competence and its dimensions. To evaluate the distribution of data, the normality contrast was made using the Shapiro-Wilk test. It is observed that scores of the documentary and terminological competences do not have a normal distribution (p <.05) for the control group. Likewise, the pretest scores of the terminological competence among students of the experimental group also do not follow the normal distribution (p <.05).

Table 3.

Descriptive statistics and normality Shapiro-Wilk test for pretest

Dependent variable / dimensions	Group	Mean	*SD*	*Sh-W* Statistics	Value *p*
Documentary competence	Control	36.0	16.24	0.860	.019*
	Experimental	38.8	19.44	0.917	.151
Thematic competence-*D1*	Control	16.8	7.11	0.905	.096
	Experimental	20.0	11.14	0.927	.222
Terminological competence-*D2*	Control	11.4	5.41	0.842	.010*
	Experimental	12.6	5.81	0.871	.028*
Characteristic gender competence-*D3*	Control	7.9	4.49	0.907	.102
	Experimental	6.3	3.70	0.943	.386

Source: Research database.

Note: * p < .05*; SD:* standard deviation.

Therefore, to perform the hypothesis test of the two means related to these variables, the non-parametric Mann Whitney U-test was used. Conversely, the Student's t-test was used for the other variables that follow a normal distribution.

Table 4.

Descriptive statistics and normality Shapiro-Wilk test for pos-test

Dependent variable / dimensions	Test	Mean	*SD*	*Sh-W* Statistics	Value *p*
Documentary competence	Control	33.1	9.57	0.954	.563
	Experimental	47.6	19.20	0.976	.926
Thematic competence-*D1*	Control	17.4	5.51	0.902	.088
	Experimental	23.7	9.21	0.965	.758
Terminological competence-*D2*	Control	9.9	3.55	0.953	.532
	Experimental	14.4	6.58	0.961	.673
Characteristic gender competence-*D3*	Control	5.8	2.30	0.956	.589
	Experimental	9.6	4.08	0.941	.362

Source: Research database.
Note: * p < .05*; SD:* standard deviation.

Table 4 shows that the posttest data adjust to a normal distribution (p > .05), so the Student's t-test was used to find out the effect of the Wix digital portfolio on documentary competence. In the hypothesis test, the scores about perception of documentary competence and its three dimensions

were compared between the pretest and posttest measurements. H0: There are no differences between the scores of documentary competence of the control and experimental groups; and H1: There are differences between the scores of the documentary competence of the control and experimental groups.

Pretest inferential analysis

Comparison of documentary competence perception scores was tested between students in the control group and the experimental group. As seen in Table 5, the pretest in both groups (control and experimental) shows the same level of perception of documentary competence (U = 110.5; p = .509; A_w = 0.57). Likewise, there are no significant differences in the thematic competence-D_1 (t = -0.98; p = .335; *Cohen's d* = -0.34), the terminological competence-D_2 (U = 102; p = .326; A_w = 0.60) and the competence of characteristic genres-D_3 (t = 1.12; p = .272; *Cohen's d* = 0.09) among the students of both groups.

Table 5.
Test for independent samples: control and experimental in pretest

Variable / Dimension	Control		Experimental		(U) / (t)	Value *p*	Effect size
	Mean	*SD*	Mean	*DE*			
Documentary competence	36	16.24	38.8	19.44	110.5	.509	0.57
D1	16.8	7.11	20	11.14	-0.98	.335	-0.34
D2	11.4	5.41	12.6	5.81	102	.326	0.60
D3	7.9	4.48	6.3	3.7	1.12	.272	0.09

Source: Research database.
Note. *SD*: standard deviation; *D1*: Thematic competence; *D2*: Terminological competence; *D3*: Characteristic gender competence.

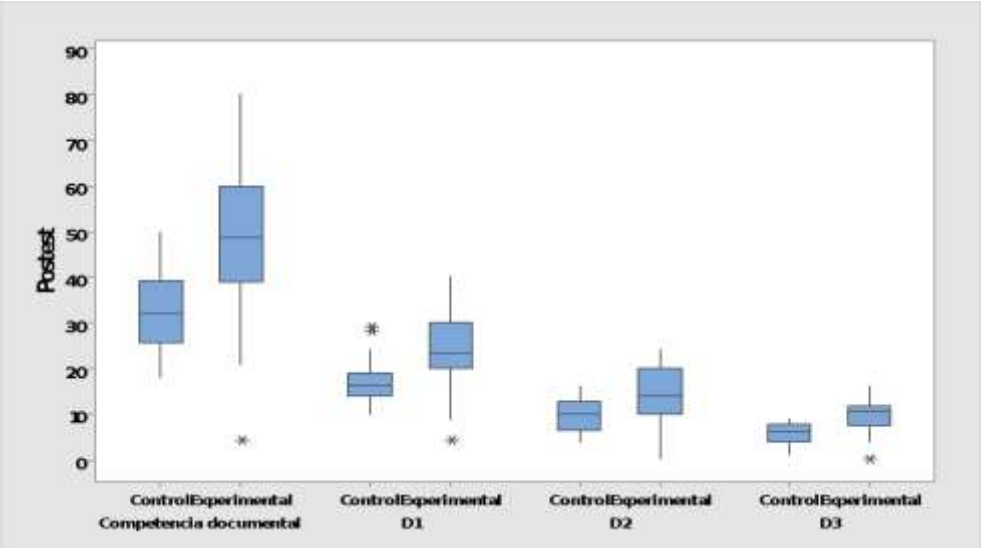

Figure 2. Box Plot for documentary competence and its dimensions in posttest.

Pos-test inferential analysis

After analysis of posttest results, Figure 2 and Table 6 show that there is a significant difference in documentary competence scores between students in the control and experimental group (t = -2.72; p = .011; *Cohen's d* = -0.96). Similarly, there are significant differences in the thematic competence (t = -2.35; p = .025; *Cohen's d* = -0.83), the specialized terminological competence (t = -2.37; p = .024; *Cohen's d* = -0.85) and the characteristic gender competence (t = -3.26; p = .003; *Cohen's d* = -1.15). The effect size values for each test show the significant influence of the Wix digital portfolio for developing documentary competence. According to Li (2016), *d* values greater than 0.8 indicate a large effect of the independent variable towards the dependent variable.

Table 6.
Test for independent samples: control and experimental in pos-test

Variable / Dimension	Control		Experimental		*t*	Value *p*	Effect size
	Mean	*SD*	Mean	*SD*			
Documentary competence	33.1	9.57	47.6	19.2	2.72	.011*	-0.96
D1	17.4	5.51	23.7	9.21	2.35	.025*	-0.83
D2	9.9	3.55	14.4	6.58	2.37	.024*	-0.85
D3	5.8	2.3	9.6	4.08	3.26	.003**	-1.15

Source: Research database.
Note. ** $p < .01$; * $p < .05$; *SD*: standard deviation; *D1*: Thematic competence; *D2*: Terminological competence; *D3*: Characteristic gender competence.

The results show that the application of the Wix digital portfolio in the experimental group significantly influences the development of documentary competence among translation students from a private university in Lima. The students collected, selected different types of documents, and reflected on the contributions of these documents used during the process of developing a documentary competence.

IV. Discusión and conclusions.

The use of the digital portfolio helps to develop technological skills among the participating students. These results are similar to those of Boéchat-Heer (2018) that show an improvement in their personal learning environment and self-efficacy attitude in the educational field. Likewise, they are like the study carried out by Ramírez-López & Sánchez-Meza (2013), who affirm that digital portfolios are tools that allow feedback and reflection, as well as self-regulation in learning. The digital portfolio also becomes a fundamental tool in the documentary competence regarding the collection, selection, reflection and publication of evidence related to learning (Barberá et al., 2016); and it enhances research, reflection, and shows students' learning experiences and their evaluations (Händel et al., 2020). Moreover, it is essential to search, organize and store information (Agustín-Lacruz et al., 2011); and upload documents and tasks to record the teaching and learning processes as an innovation tool (Chaljub, 2018). In this sense, the study shows that the materials collected, selected and stored in the digital portfolio (such as texts for scientific dissemination and specialized manuals) contribute to knowledge of the thematic field (t = -2.35; p = .025; *Cohen's d* = -0.83). Likewise, digital portfolios become a repository that stores digital photographs, scanned

images, text files, audio, video and combinations of these formats (Powers et al., 2000) and a tool highly valued by students, since it facilitates the organization of the study and a better understanding of the subject (Moreno-Fernández & Moreno-Crespo, 2017).

In addition to developing thematic competence, the translation student is required to identify specialized terminology with the help of specialized dictionaries, international terminology databases for translators, and standard databases. The correct use of terminology is based on the ability to identify the terms in a source text and use the appropriate equivalent terms in the target text through a search for specialized documents that allows the translator to acquire a glossary of terms related to the specific field (Gamero, 2001). These skills are a potential in instrumental subcompetence because they allow students to record and save words from online dictionaries (Torres, 2015; Tanaka et al., 2015). Therefore, the web is the strategic tool for documenting and solving translation problems. These arguments are similar to our results since they show that the thematic competence is developed through the digital portfolio (t = -2.37; p = .024; *Cohen's d* = -0.85).

An important aspect of the documentary competence is the identification of characteristic genres. This strategy consists of identifying the conventions of both the informative and exhortatory texts of the textual genres and then carrying out the translation which will be stored in the repository of the digital portfolio. Considering this premise, Márquez (2015) specifies that textual genres are identified during the translation process and then compiled into a digital folder. Today, there are other Google search tools that allow us to know the various textual genres as part of the development of documentary competence (Gallego-Hernández, 2019). These results are related to this work (t = -3.26; p = .003; *Cohen's d* = -1.15), since the study participants have used the strategies for consulting parallel texts and have reflected on the contributions of the different technical and scientific texts collected in the digital portfolio to identify textual genres.

The digital portfolio used for the development of documentary competence among translation students has allowed the collection and selection of scientific dissemination texts, technical texts, specialized manuals, and research articles for developing the thematic field. It also served as a repository for specialized dictionaries, international terminology databases for translators, standard databases with the help of links for the correct use of terminology, parallel texts in source and target languages for the identification of textual genres. In addition, digital portfolios are useful to create a reflection space for translation students based on the contributions of the different sources of documentation and to improve their translation proposal.

It is recommended that future researchers of the specialty improve their knowledge and use of the digital portfolio for courses related to terminology management. Likewise, it is recommended to promote research related to the use of the digital portfolio as a self-evaluation and co-evaluation tool among translation students for collaborative projects. Finally, we recommend the use of the digital portfolio as a tool for storing multimedia resources to obtain a significant learning from students when developing teaching units in Translation and Interpretation Schools.

V. Conflict of interests.

The authors of the published article declare no conflict of interest.

VI. References.

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