Digital Portfolio In The Learning Of University Students: Systematic Review

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Abstract:

The digital portfolio is an electronic collection of educational activities, product of personal or group work, facilitating the formative progress of the Teaching-Learning of university students. The objective is to analyze the current state of knowledge of the digital portfolio in the learning of university students during the period 2017 to 2020. With methodology based on the systematic review of scientific articles, quantitative-retrospective approach, cross-sectional bibliometric design, no experimental. To this end, scientific articles directly related to the variable under study were analyzed in journals registered in high-impact databases; information acquired through advanced search, using Boolean operators such as AND and OR, as well as inclusion and exclusion criteria, exhaustively analyzed with the CEBMa tool and graphing them in the Prism diagram, finally obtaining 22 scientific articles as a sample. The results reveal that 54% of studies affirm that the attitudes of students towards the use of the digital portfolio were positive, 18% affirm that, in the evaluation of results, cognitive skills are developed, increased self-esteem, reflection on your progress; 14% indicate that it is for all academic levels, migrating from a traditional education to the use of technology and 14% believe that intrinsic motivation improves. Concluding that, currently, university students are aware of the advantages that the use of the digital portfolio implies, in personal

and social growth and especially in the Teaching-Learning process, showing positive and optimistic attitudes.

Key Words: learning; University students; briefcase; Digital Portfolio.

1. Introduction

The use of information and communication technologies (ICT) is increasingly common, offering new tools for the teaching-learning process (E-A), within face-to-face and virtual education, free of traditional restrictions of time and space. One of these ICT tools is the Digital Portfolio.

The present research is essentially justified because as is known, university professors have always developed the E-A process with their students, in a traditional way, making use of chalk, markers, paperwork, records of notes on paper, etc. and existing multiple ICT tools, they do not make use of these resources to achieve productive, interactive and motivated class sessions. We are currently experiencing a global pandemic due to Covid19, where education is 100% virtual and the use of ICT tools such as the digital portfolio is needed for this process, where the student will collect the work done by his person in each subject and by topics, in which they evidence their skills, development and results achieved; through a Web tool and in this way build their own knowledge; For this, the question that guides the research is: What is the current state of knowledge of the digital portfolio in the learning of university students during the period 2017 to 2020?.

Etymologically the term portfolio derives from the French word portefeuille, which refers to handbag to carry books or loose papers. For architects, and artists were a means to present ideas, designs to clients. (Farrell, 2020). The meaning of portfolio evolved to be used in other contexts such as finance, government, and education. Portfolios shifted from art to education, as shown in the Manzanares study (2013, as cited in Salazar and Arévalo, 2019), the portfolio, began to be used in the 1970s in the United States, to methodologically refine the learning process; it was initially used in English-speaking countries, such as the United States, Canada, the United Kingdom and later in Spain, which allowed its use to spread to all continents. In elementary school, it began to be implemented to address deficits in standardized assessments applied to minority students who learned English as a second language; Then it is launched, in secondary and higher school as an instrument to collect

the work of students and teachers, in order to identify the teaching obtained in the classroom. (Salazar and Arévalo, 2019).

Electronic portfolio, known as eportfolio, e-portfolio, digital portfolio or online portfolio; where the student gathers his best work and demonstrates his learning (Coromina et al., 2011), with greater advantage over physical portfolios, is accessible, easy to update, with the ability to store and reference student work (Mohammed et al., 2015). Within ICT, the portfolio symbolizes a digital communication tool, where learning is considerably reinforced, with adaptability, flexibility and susceptibility; needing a good administration, organization, rubrics that systematize the evaluation before the formative process, based on a cognitive meta-praxis (Villota, 2018), its use considerably supports the E-A process in the student, promotes reflection and critical thinking, allows the restoration of learning facilitating formative assessment (Muñoz et al., 2019). It promotes the possibility for the student of an innovative process in the evaluation of what has been learned, building, meditating and self-evaluating promoting creativity, freedom to learn and teach (Cordeiro and Terezinha, 2020).

Learning is the evolution where you are reforming and obtaining capabilities, Skills,knowledge,Behaviorsandvalues (Gross, 2012), being a march of constant change in an individual originated by experience (Felman, 2009). It is one of the most remarkable psychic functions in humans, animals andArtificial systems, for this reason it is analyzed from different points of view, there are several theories that explain them, mediating different causes, such as the environment in which the human being develops, as well as the values and principles obtained in the family. In the latter, the principles of learning of every individual are established and the knowledge received is strengthened, which forms the basis for subsequent significant learning. Meaningful learning is what allows the student to establish links and relationships with their knowledge and previous experiences. Whenever a person wants to understand something, he connects with an idea or knowledge obtained in the past that allows him to organize that new knowledge. (Ausubel et al., 1990).

Some of the most important theories within modern pedagogy are: constructivist theory, Ausubel's meaningful learning and Vygotsky's Social Historical Model. Each of these theories is based on the idea that the student is the one who investigates and manufactures his knowledge with an objective, within a meaningful

context. (Bravo et al., 2017). Jean Piaget, a well-known psychologist, defender of the constructivist approach, explains his theory whose basis is to understand learning as a remodeling of the cognitive structures existing at each moment. That is, for him, the changes in our knowledge, those qualitative leaps that lead us to internalize new knowledge from our experience, are explained by a recombination that acts on the mental schemes that we have at hand. (Bravo et al, 2017). Learning is always an edification of the student together with the teacher. That is, the student builds a new knowledge, from previous knowledge and interaction with the sociocultural reality where he lives, promoted by cognitive conflict, motivated by his desire to want to know and discover the knowledge of reality.

University students are aware of their own learning and will need to demonstrate what they have learned. Mohammed et al. (2015) He mentioned that the use of the electronic portfolio gives all university students the possibility of actively intervening in the learning process, showing the progress and growth over a period of time, with everything worked on and all the reflections elaborated by them. The curriculum in the university has caused students to be disinterested, due to the lack of innovation in the contents (Ortíz et al., 2019), it is for them that more and more electronic portfolios are implemented, because they contribute to students taking control of their own education and being motivated to study (Cepik & Yastibas, 2013).

Today, nothing and no one is exempt from the profound transformative effect that the mutation of ICT has on us, our perception, our way of relating socially, on the construction of our own identity, our idea of what knowledge is and how we should acquire it, on the industries that grew using it and developing it. (Rodriguez, 2019). We currently live immersed in the virtual world and we have at our disposal various ICT tools to facilitate the E-A process, being the objective of the research, Analyze the current state of knowledge of the digital portfolio in the learning of university students during the period 2017 to 2020.

1. Methodology

Taking into account the objective of the research, the methodology used is the systematic review of scientific articles, this involves investigating, finding, examining and collecting bibliography and other materials that are useful for the object of the research. (Hernández et al., 2014), with a quantitative approach, offering the

possibility of generalizing results in a broad way, granting control over phenomena based on counts and magnitudes (Hernández et al., 2014), retrospectively, when the past is reconstructed from the data collected in the present (Cabrera et al., 2006), cross-sectional, in which information is obtained from the object of study, only once at a certain time (Bernal, 2010), of Bibliometric design, where the study is contemplated within the scientific literature and obtain conclusions about the material under study (Arias et al., 2019) and non-experimental, collecting direct data from those investigated, without manipulating any variable (Arias, 2012).

The systematic search for information was carried out in a basic and advanced manner; scientific articles directly related to the variable under study, in journals indexed to prestigious databases (DB), such as Scopus, ERIC, EBSCO, ProQuest and SciELO, where the information is structured and organized in records and fields, registered by descriptors and may include the link to full text (Fields, 2018), because we had access to the repository of the César Vallejo University, making use of exhaustive search methods using Boolean operatives such as AND and OR, these being timely, simple to use, facilitates and improves the search for scientific information (Carranza, 2018), allowing a set of well-established and reproducible results (Martínez and Rendón, 2019). In reference to the selection criteria, it has been considered according to the descriptive words including the research question. For the search for information, scientific articles belonging to the period 2017 to 2020 have been considered; considering keywords such as digital portfolio, electronic portfolio, translated into English as "digital portfolio", "eportfolio", "e-portfolio", and "electronic portfolio", as well as the keyword "learning in university students", consulting related terminology in UNESCO Thesaurus, this being a managed, controlled and organized list of terms for the study of the chosen topic and the search for writings and publications in different fields, where its multidisciplinary terminology reflects the evolution of UNESCO's programmes and activities (Thesaurus, 2020), showing us search terminology such as "learning", "university students", "college students", considering inclusion and exclusion criteria as follows:

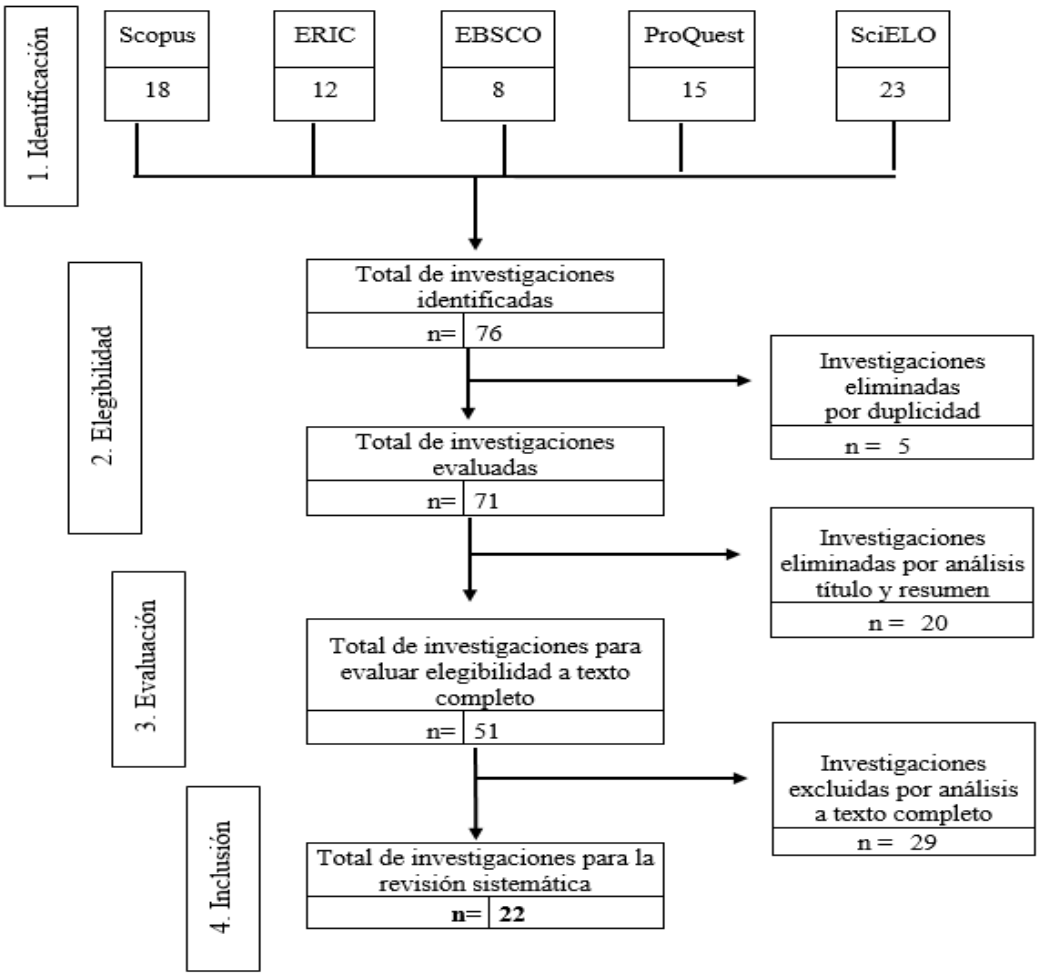
The inclusion criteria are scientific articles published in journals indexed to the Scopus DB, a general search is made, and then criteria were included such as: All open access articles, from 2017 to 2020, in the area of social sciences, article type document, with keyword "e-portfolio" and with Spanish and English language. In the ERIC database, a general search was performed, and then

criteria such as: Full-text articles, from the period Jan 01, 2017 - Dec 31, 2020, and article type document. In the EBSCO database, a general search was made, and then criteria were included such as: full-text articles, refereed publications, full text in pdf, with publication date 20170101-20201231, academic publications, English language, and with keyword: university students (undergraduates). In the ProQuest database, a general search was executed, and then criteria were included such as: full-text articles, articles evaluated by experts, article type document, from the period 2017-01-01 - 2020-12-31, Spanish language, with keywords such as university students, portfolios, education portfolios, excluding the term problem based learning and in the SciELO database, a general search was performed, and then included criteria such as: language: Spanish, year of publication: 2017, year of publication: 2018, year of publication: 2019, year of publication: 2020 and type of literature: article. As for the full-text review, the inclusion criteria have been considered using the CEBMa tool, with the inclusion criterion of 50% + 1, making concessions in relation to the breadth, depth and completeness in the search (Barends et al., 2017), finally obtaining articles that correspond to the precise characteristics for the present investigation.

In the exclusion criteria, it was taken into account to discard any article that is not scientific, those that are not available to access and download, those that are not related to keywords, duplicates; through exhaustive analysis of the title and abstract and by full-text analysis. Likewise, the quality standards of the Prism flowchart, defined by the Cochrane Handbook of Systematic Reviews of Interventions (2011), as "study flowcharts used to illustrate search results and the process of evaluating and selecting studies for inclusion in the review" (p. 348), leaving a sample of 22 articles.

2. Results

Figure 1 PRISMA Flowchart



Source: Authors.

In the **Error! Reference source not found.**, shows the number of articles obtained as a result of an advanced search in high impact DB, being a total of 76 articles initially identified, then each of these results has been analyzed, and we can see that, 05 investigations were eliminated by duplicity, 20 eliminated by title and abstract analysis and 29 excluded by full-text analysis, analyzed according to the criteria established by the Center for Evidence Based Management (CEBMa), considering 50% plus one for inclusion, finally collecting a total of 22 scientific articles, in relation to the question and the objective established in this research.

Board 1

Analysis of the conclusions of the scientific articles reviewed

Cod_Art	Title	Conclusion
1	A proposed model for the university students' e-portfolio	College students' attitudes toward the model were positive (Mahasneh, 2020).
2	Criteria for the definition of indicators in architectural learning in the design studio through the use of the E-portfolio	The e-portfolio shows the full potential of objective and collaborative evidence in learning (Roco & Barberà, 2020).
3	Investigating the Iranian EFL learners' attitudes towards the implementation of e-portfolios in English learning and assessment	The e-portfolio is an important tool to replace the traditional evaluation process (Namaziandost et al., 2020).
4	The effect of e-portfolio on biological concepts understanding and responses of students with different academic achievement levels	The implementation of the e-portfolio in learning can be done for all academic levels of students (Lukitasari et al., 2020).
5	Social media and e-portfolios: Impacting design students' motivation through project-based learning	The use of social networks to create e-portfolios improves the intrinsic motivation of students (Oh et al., 2020).
6	Implementing and evaluating an e-portfolio for postgraduate family medicine training in the Western Cape, South Africa	The e-wallet is an improvement of the paper wallet, easier to access, easier to use by facilitating feedback, tracking progress and providing sufficient evidence of learning. (De Swardt et al., 2019).
7	Impact of e-learning strategies to design e-portfolio on achievement motivation and product quality	The e-portfolio is strategic evidence of online learning (Ishmaeel & Al Mulhim, 2019).
8	The potential impact of the application of electronic portfolio on Iranian EFL learners' writing performance seeking their gender role	The use of the electronic portfolio is effective in improving the writing competence of English learners (Karami et al., 2018).
9	Longitudinal evaluation of a pilot e-portfolio-based supervision programme for final year medical students: Views of students, supervisors and new graduates	The use of the electronic portfolio, is of educational value, facilitates and motivates self-directed learning processes (Vance et al., 2017).

10	e-Portfolio as reflection tool during teaching practice: The interplay between contextual and dispositional variables	The level of digital skills of students continues to be the responsibility of institutions to be sustainable learning opportunities such as the e-portfolio (Carl & Strydom, 2017).
11	Using Student Feedback to Inform Change Within a Community College Teacher Education Program's ePortfolio Initiative	As students develop an intrinsic motivation to create an ePortfolio they should be given more autonomy over appearance and design. (Farrelly, D. & Kaplin, 2019).
12	Assessment and barriers in the integration of the e-portfolio in the initial practice process by teachers and students of higher education	The use of the portfolio had positive results, achieving objectives that did not exist before. (Arancibia et al., 2017).
13	The impact of application of electronic portfolio on undergraduate English Majors' writing proficiency and their self-regulated learning	The e-portfolio has a positive and significant effect on students' English language writing competence and their use of self-regulated strategies (Karami et al., 2019).
14	Students' beliefs regarding the use of e-portfolio to enhance cognitive skills in a Blended Learning Environment	The use of an e-portfolio enhances the experience and are necessary, useful for higher education and need to develop students' cognitive skills (Koraneekij & Khlaisang, 2019).
15	Reflecting on Reflecting: Summer Undergraduate Research Students' Experiences in Developing Electronic Portfolios, a Meta-High Impact Practice	The use of the ePortfolio formed a student learning community as meta-HIP (high impact) (Weber & Myrick, 2018).
16	Efficient and Sustainable Construction of the Career: The Professional Portfolio as a University Orientation Resource	During the construction of the portfolio, students assume a role as professionals in training, increase their self-esteem and perceive greater control over their careers (Falcón et al., 2017).
17	Design of a pedagogical path for the evaluation of competences through the electronic portfolio in distributed and heterogeneous learning environments	The electronic portfolio is innovative, of great value to feed the educational model and with it the teaching (Quintana et al., 2018).

18	E-portfolio: a tool for the development of reflective practice of teachers in training	The use of the E-portfolio appears as a technological tool that facilitates the transit through the different levels of reflective practice (Vega-Diaz & Appelgren-Muñoz, 2019).
19	Reflective portfolio: a proposal for the teaching of the Qualitative Methodology	The portfolio is a central element to strengthen the autonomy of learners (Gomez & Arellano, 2020).
20	The digital portfolio: A tool to learn to be critical teachers?: A case study	The digital portfolio is a tool consistent with the new educational demands of the XXI century, favoring the development of necessary skills (Muñoz, L., Soto, 2019).
21	Evaluation of competences in pediatric pulmonology residents: use of the electronic portfolio	The use of the electronic portfolio, allows to monitor the progress of the students in the achievement of the competences, also allowing them to visualize it themselves. (Gutierrez et al., 2019).
22	The virtual portfolio as a transversal tool for planning and evaluating autonomous learning for sustainable development	The activities of the digital portfolio were useful to achieve the objectives of promoting sustainable development and the generation of awareness and social responsibility (Fosado et al., 2018).

Source: Authors.

In the Board 1, it can be seen that 54% affirmed that the attitudes of university students towards the digital portfolio model were positive, because it was easier to use, to access, less cumbersome, innovative and sustainable, allowing teamwork, interaction with the teacher, transparency of the evaluation process, facilitating communication, autonomy, feedback, achievement of objectives and competence in writing the English language. Showing the e-portfolio, the full potential of strategic learning, teaching and evaluation, objective and collaborative evidence. 18% said that the use of an e-portfolio for the evaluation of learning results, develops students' cognitive skills, increases their self-esteem, reflects on their progress, perceives greater control over their career and favors the development of the necessary skills to face the new social challenges and professional training. 14% indicated that the implementation of the e-portfolio in learning is for all academic

levels of students, to change the traditional learning paradigm towards technology-based learning, forming a high-impact student learning community, allowing to achieve the objectives of promotion towards sustainable development and the generation of awareness and social responsibility. 14% argued that the use of e-portfolios improves the intrinsic motivation of students, therefore, they should be granted more autonomy over the appearance and design of the same and motivates self-directed learning processes.

Board 2

Amount of sample studied and Techniques and Instruments used in the scientific articles reviewed

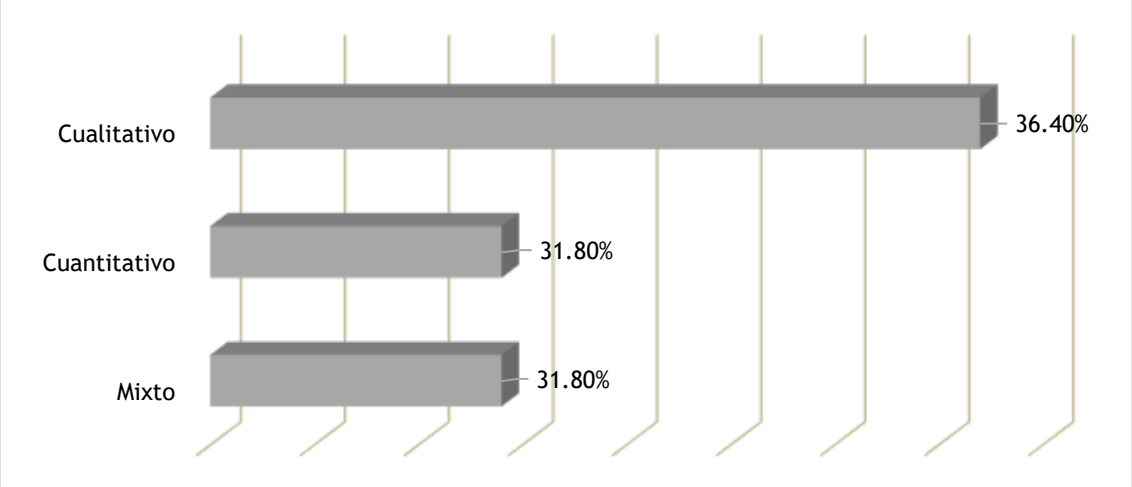
Cod_Art.	Sample Quantity	Techniques and Instruments
1	90	Questionnaire
2	144	Observation
3	160	Semi-structured individual interviews with Focus Groups - Longitudinal Survey - Questionnaire
4	40	Learning tests – quiz
5	60	Focus Group Interviews
6	28	Interviews
7	80	Questionnaire - evaluation card
8	157	Questionnaire - writing assessment rubric
9	355	Interview – questionnaire
10	11	Focus Group Interviews
11	67	Surveys - interviews
12	20	Interviews - focus group
13	143	Survey - field notes - observations
14	360	Questionnaire
15	11	Focus Group Interviews
16	17	Observation - Content Guide (questionnaire)
17	Not specified	Focus groups
18	12	Focus groups

19	95	Survey – questionnaire
20	64	Observation - interviews - questionnaires - focus groups
21	11	Observation
22	102	Observation – semantic differential

Source: Authors.

In the Board 2, it is observed that, in the different scientific articles analyzed, we worked with a very varied sample, being the smallest, 11 university students and the largest sample of 360. We can also observe that different techniques and instruments have been used for data capture.

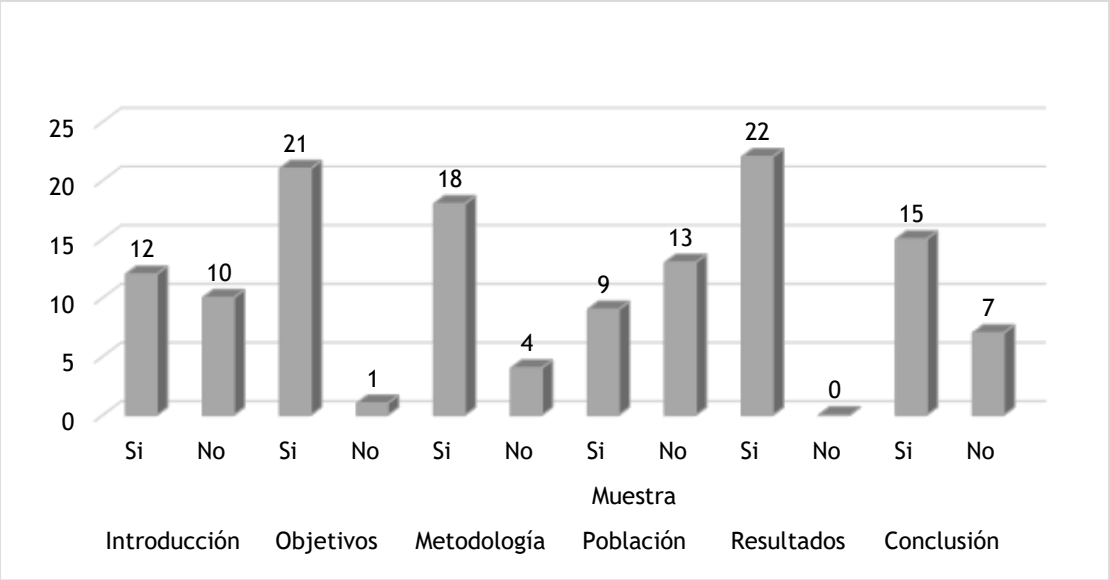
Graphic 1 Approach to the methodology of the reviewed scientific articles



Source: Authors.

In the **Error! Reference source not found.**, the approach of the methodology that was used in the scientific articles reviewed is observed, noting that 36.4% corresponds to the qualitative approach, 31.8% for the quantitative approach and in the same way 31.8% with mixed approach.

Graphic 2 Structure of the Abstract of the reviewed scientific articles



Source: Authors.

In the

Graphic **2**, it is appreciated that, the 22 scientific articles reviewed, which represent the study sample, considered specifying in the research summary, the results, 21 considered the objective, 18 the methodology, 15 the conclusions, 12 the introduction and only 09 articles considered specifying in the research summary, the sample under study.

3. Discussion

Once the articles were identified in the different databases mentioned, in an initial issue of 76 publications related to the variable under study, these were analyzed by the Center for Evidence Based Management (CEBMa), in a rigorous manner in relation to the breadth, depth and exhaustiveness in the search for information. (Barends et al., 2017), likewise the PRISMA flowchart is used, where a clear scientific evidence is visualized based on the systematic review of information that is based on the meta-analysis (Hutton et al., 2016), which serves as an aid and illustration of this process, taking into account key aspects to consider for the publication of an article (Urrútia and Bonfill, 2013), as shown in the

Figure **1**, where it is specified numerically in each of the phases of this diagram, such as identification, eligibility, evaluation and

inclusion, the analysis developed, where finally a sample of 22 scientific articles is obtained for systematic review.

From the sample under study, an exhaustive analysis of the conclusions required by each investigation is made, as shown in the Board 1, where it is seen in a higher percentage**,** that the authors affirm that, the attitudes of university students towards the digital portfolio model, were positive, because it was easier to use, to access and less cumbersome, coinciding with Mohammed et al. (2015), if the physical portfolio, was a simple and useful tool, because as an eportfolio, it is even easier to access and able to meet the needs of individuals, where learning is vital for development. It is innovative and sustainable, promoting autonomy, coinciding with Gámiz et al. (2016), where it ensures evident existence that with the use of the digital portfolio, autonomous learning increases; It also helps the transparency of the evaluation process, encouraging participation, explained by Gámiz et al. (2016), who states that, the results especially show a progressive increase in the online participation of the student in a learning context. It also helps feedback, the achievement of objectives allowing teamwork, interaction with the teacher and communication, agreeing with Mohammed et al. (2015), where he explains that in education, the ePortfolio can also be used for the purpose of communication and exposure, as well as Bolliger & Shepherd (2010), conclude in their study that, the use of electronic portfolios improves the communicative and interactive skills of students, due to the interrelation between them and with teachers, to improve their learning, ensuring that the e-portfolio, shows the full potential of strategic evidence of learning, teaching and evaluation, objective and collaborative, coinciding with the study of Peeraer et al. (2015), where it states that, the digital portfolio is the most effective tool used as an evaluation instrument, currently used in different countries of the world and Encalada et al. (2017), ensures that the application of the digital portfolio, significantly improves the learning achievements and collaborative skills of students even also effective as a method of E-A and effective assessment, to improve proficiency in English language writing, as stated in the study conducted by Wang & Jeffrey (2017), demonstrating the effective and preferred attitudes of university students towards the use of electronic portfolios in English language assessment and learning. Then a good percentage is appreciated, where the authors affirm that, the use of an e-portfolio in addition to serving as an evaluation of learning results, develops the cognitive skills of students,

increasing their self-esteem, perceive greater control over their career, favors the development of the necessary skills to face the new social challenges and professional training, encouraging reflection on its progress, coinciding with Mohammed et al. (2015), which also points out that the ePortfolio allows the student to establish synthesis, communicate the result of their achievements and make various demonstrations of their knowledge obtained. In addition, there is a good percentage that, the authors state that the implementation of the e-portfolio in learning, is for all academic levels, to change the traditional learning paradigm towards technology-based learning, forming a student learning community of high impact, allowing to achieve the objectives of promotion towards sustainable development and the generation of awareness and social responsibility, as stated Ortíz-Arismendy et al. (2019), who indicates that the benefits that emerge from the digital portfolio in the processes of E-A, making use of technology, is evidenced in access to information, optimization of time and use of ideas, promoting learning, achieving the objectives set. Likewise, it is appreciated in the same percentage as the aforementioned that, the use of e-portfolios improves the intrinsic motivation of students, and they should be granted more autonomy over the appearance and design of the same, motivating the processes of self-directed learning, coinciding with Ramakrisnan et al. (2012), who ensures that intrinsic motivation is related to the elements of students' subjects and perception.

Examining the sample, techniques and instruments used in each of the scientific articles reviewed, we can see that the sample is very varied, as shown in the Board 2, the smallest consists of 11 university students and the largest of 360; being the sample a "subset of elements that belong to that set defined in its characteristics which we call population" (Hernández et al., 2014, p. 175), which aims to achieve the highest possible accuracy in the estimation of population parameters (Lopez and Fachelli, 2015). We can also observe that the most used technique is the interview, dialogue between the interviewer and the interviewee about a defined topic, for data capture (Arias, 2012) and the most used instrument, the questionnaire, a group of questions in relation to one or more variables to be evaluated, allowing to homogenize the data selection process (Bernal, 2010).

In the same way, the methodology of the scientific articles was analyzed, reflecting that the most used approach was the qualitative one, where the collection and analysis of the data is used

to specify the research questions, improve them and redesign them in the interpretation process, considering a great variety of conceptions, visions, techniques and non-quantitative studies. (Hernández et al., 2014), as shown in the Graphic 1; followed and in equal percentage, the quantitative and mixed approach, where a quantitative research is based on the measurement of the characteristics of social phenomena, originated from a conceptual framework referring to the problem, in relation to the variables under study (Bernal, 2010), and the mixed approach being this "a set of systematic, empirical and critical research processes and involve the collection and analysis of quantitative and qualitative data, as well as their integration and joint discussion" (Hernández et al., 2014, p. 534).

Making an exhaustive analysis in each of the scientific articles, it is decided to study in depth the summary of each investigation, this being a synthesis of the article, where the interested party will understand how the research was carried out. (Mantilla et al., 2010), is undoubtedly the most important thing in the research work, because it is the first thing that the reader reviews to have a clear idea of what the work is about and what the scope is; and should be written in simple writing, without technical words. The text indicated in the abstract must demonstrate to the reader the value of the research for the achievement of a reading in its entirety. (Lopez, 2013). As a result of the analysis, we observe that not all require a basic standard structure, as shown in the

Graphic **2**, evidencing that only 03 scientific articles of the entire sample under study, comply with structuring in a complete way the summary of the research and that the others do not provide clear and precise information. It also shows that all the scientific articles analyzed, which represent the study sample, recorded in the summary of the research, the results, and very few scientific articles considered specifying the sample under study, also taking into account that each journal sets the number of words or lines that the extension of the abstract must have. In this space it is necessary to include the main ideas that are addressed in the central parts of the article (Lopez, 2013).

4. Conclusions

The analysis of the background, results and discussion leads to the following conclusions:

That, Identified the articles in the different databases mentioned, in an initial issue of 76 publications related to the variable under study, and analyzed by the Center for Evidence Based Management (CEBMa), and graphed in the PRISMA flowchart, finally a sample of 22 scientific articles is obtained for systematic review.

That, from the conclusions indicated in each study we can highlight that the attitudes of university students towards the use of the digital portfolio are positive and optimistic and the use of this is favorable in personal and social growth and even more in the Teaching-Learning process.

That, the sample studied in the different scientific articles was varied and the most used technique and instrument was the interview and the questionnaire respectively.

That, from the methodology of the scientific articles, it is reflected that the most used approach was the qualitative, followed and in equal percentage, the quantitative and mixed.

That, not all scientific articles require a basic standard structure in the summary of the Research, there are very few that comply with structuring it in a complete way and the others do not provide clear and precise information.

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