

Impact and Applicability of the Teaching Portfolio in the Improvement of university Academic Quality: A Theoretical Review

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Abstract

This study offers an exhaustive theoretical review on the use of the teaching portfolio as a tool for reflection and evaluation in university teacher education. Through a meticulous documentary survey, a historical panorama is traced that covers the origins, foundations and the duality of perceptions about its usefulness and limitations from the point of view of teachers and students. The research aims to enrich the educational literary corpus and to serve as a valuable pedagogical resource for the continuous improvement of teaching practice. Using a qualitative methodology based on documentary analysis, this paper highlights the advantages of the teaching portfolio and underlines the need for future research focused on its specific implementation in the Colombian context. The objective is to direct teaching practice towards a reflective and self-critical approach, theoretically and scientifically grounded, to optimize the fulfillment of institutional academic objectives.

Keywords: *teaching portfolio, academic quality, teacher evaluation, university pedagogy, teacher education.*

Introduction

The current university scenario is marked by significant transformations, emerging from rigorous curricular debates and fluctuating social conditions. These changes have led to an evolution in the understanding of pedagogy, displacing old paradigms and approaches that previously delineated the teaching of academic content.

The intricate nature of these phenomena, which question the essence of education, establishes renewed challenges and expectations for both emerging and established teachers. These challenges prompt a review of pedagogical updating strategies and methods of knowledge dissemination.

In Colombia, these considerations are particularly relevant. The structure of higher education is based on a competency-based approach, demanding continuous adaptation of curricula to meet the demands of a constantly changing historical, social and technological context. These demands include, but are not limited to, technological

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advances, the sociocultural and geopolitical environment, and both local and global economic trends.

Consequently, teacher training and practice demand perpetual updating, anchored in solid philosophical, scientific and pedagogical principles. This conceptual basis is fundamental for the development of teachers as catalysts for change, strengthening their knowledge and allowing them to assume a central role in social advancement and institutional growth, in alignment with national objectives. This premise underscores the need to develop and apply a 'toolbox' to meet the challenges of contemporary education. This toolbox should systematize knowledge and experiences in a methodical manner, favoring a vision of the future of teaching that is perfectible, theoretical, reflective and self-critical.

Thus, it is the teacher's task, through careful observation and analysis of theory- practice interaction, to generate valuable knowledge that will guide his or her work and, at the same time, enlighten and equip new educators. This knowledge will diversify the practices of reflection and self-evaluation, enriching the educational process as a whole.

The educator's responsibility lies in the generation of meaningful knowledge through a thorough evaluation of the relationship between theory and practice, orienting his or her own performance and offering an enlightening guide for new generations of teachers. This process of continuous enrichment and methodological diversification is crucial for the evolution of the educational environment.

Within this context, it becomes imperative to study the teaching portfolio, which not only acts as a self-evaluation instrument for the educator but also establishes a basis for institutional evaluation. Against this background, a central question arises:

What is the degree of effectiveness of the teaching portfolio in strengthening university academic quality?

To answer this question, the main objective is established as follows:

- Evaluate the impact of the teaching portfolio on university academic quality.

And to break down this objective, the following specific points have been formulated:

- Delineate the meaning, components and application of the teaching portfolio within the university context, considering the accumulation of prior knowledge.
- To describe the effects of the teaching portfolio on university education, based on a comprehensive analysis of the current state of research.
- Verify the benefits achieved through the implementation of the teaching portfolio at the university level.
- Calculate the influence of the teaching portfolio on the improvement of academic quality in higher education institutions.

The methodology of this research will focus on the first of these objectives, through a descriptive documentary review that allows understanding the state of the art, relying on the qualitative approach. For data collection, a survey of scientific research available in databases such as Scopus and Google Scholar will be conducted, gathering theoretical evidence documenting contributions, experiences and challenges associated with the teaching portfolio. The purpose is that these findings facilitate educators, especially those in the Colombian university context, the implementation of relevant changes that reinforce the prevailing teaching and educational culture.

The portfolio. Definition and use

There are several meanings to describe and explain what a portfolio is. In this research we will start by describing its genesis, a polysemic term whose etymological origin comes from the French *portefeuille*, which is broken down as follows: *portare* (to carry) and *folium* (to carry-sheets). The term, whose date is not recent, has been developed in

countless contexts and fields: artistic, professional, business, human sciences and recently in the academic field (Barberá, 2005), it can also refer to the credentials (position and functions) of a minister (Gaviri, 2009). Portfolio or portfolio is a handbag to carry books or papers (Real Academia Española, RAE, 2017), under this last enunciation it refers to a briefcase to store documents or other printed materials, likewise it refers us to the idea of "collections".

Its first indications come from the artistic field (photography and architecture) as a tool to publicize and accredit the quality of the work or projects carried out by a designer, photographer or others dedicated to similar fields, according to this formulation the portfolio is a tool to order and show the most representative or outstanding works (Díaz, Romero and Heredia, 2012; Elizalde and Reyes, 2008; Arbesú, and Argumedo, 2010). In addition to the professional portfolio, there is the personal portfolio (vital portfolio), from this perspective, it is understood that each portfolio has a unique and unrepeatable character, on the other hand, by indicating that it is composed of a select collection of materials and reports, it refers us to the selection capacity and the reflective-cognitive work done by its author, but also to the polyvalence of the same, since they combine different elements, supports, edges and intentions, as will be explained later.

Regarding its use in the academic context, it can function as an evaluation tool, about which we will mention some aspects later on. Gaviri (2009), taking up some historical aspects, points out that implementation was popularized in an environment marked by the educational crisis and under the need to boost the capacity of students in the United States, being a two-way tool, on the one hand it would be intended for teacher training, it was introduced in order to assess the competencies of teachers, seeking that they would not practice their role in such a rigid and bureaucratically directed way, but it was also used to potential the development of higher intellectual skills.

Díaz et al. (2012, p. 105) highlight in their research that today, the use of the teaching portfolio has experienced a substantial expansion, which they describe as a sort of renaissance due to two factors, competency-based educational models and the heyday of new technologies.

For their part, Shulman; Bates and Poole; Seldin; Barrett; Lorenzo and Ittelson and ElfEL (as cited by Sánchez, 2012) consider that in many universities in different latitudes, the portfolio is becoming an elementary part of teaching. Gaviri (2009, p. 456), emphasizes that it is currently mandatory in the state of Florida and is also used in Europe for "the evaluation of students in the Practicum" as well as in other subjects, in this sense its application has produced improvements in the professional performance of teachers in Spain (Fernández March; Cano García; Prendes and Sánchez; Bozu and Imbernon, as cited by Sánchez, 2012).

The portfolio continues to be relevant because it adapts to current teaching and learning paradigms, and also because it helps to structure answers to a series of latent questions in every university, among them: how should professors be evaluated, what criteria and indicators should be used to measure teaching performance, how should each professor self-evaluate.

The teaching portfolio, which transcends its etymological definition, has established itself as a multifaceted tool in academia. Its value lies in its ability to encapsulate the evolution and quality of teaching practice, serving not only for self-evaluation but also as tangible evidence of professional competence. It is a curated collection that reflects the uniqueness and intellectual trajectory of each educator, allowing for deep pedagogical introspection and continuous improvement based on concrete and structured feedback.

In the university context, the portfolio stands as a mirror of the teacher's commitment to excellence and pedagogical innovation. Its use, widely recognized by experts in the field, facilitates the alignment of educational strategies with the demands of a constantly

evolving labor market and the imperatives of a digitalized environment. By integrating theory and practice, this tool becomes an indispensable resource for teacher training and evaluation, bridging the gap between educational knowledge and practice.

The relevance of the portfolio lies in its adaptability to contemporary challenges in higher education. By addressing critical questions about faculty evaluation and self-evaluation, the portfolio provides a structure for scrutiny and reflection. The criteria and indicators that emerge from its analysis foster teaching performance aligned with institutional standards and academic expectations, enriching the teaching-learning process and ensuring its long-term relevance.

Below is a table with some definitions of teaching portfolio according to authors.

Table 1 Definition of portfolio

Author	Definition	Remarks
- Shulman (1994, in Lyons, N., 1999, p.18).	It is the structured documentary history of a (carefully selected) set of performances that have received preparation or mentoring, and take the form of samples of a student's work that only reach full realization in reflective writing, deliberation, and conversation.	Structured and systematic documentation of student performance is of great importance as it provides data for reflection and improvement of student learning.
- Coromina, Sabaté, Romeu and Ruiz, F. (2011).	It is a technique of evaluation, diagnosis and teaching-learning methodology. It allows the diagnosis and guidance in education, as it informs about the competencies that a person or group of people can demonstrate, the use of their learning process, facilitating the assessment of these aspects as well as the skills acquired.	Technique of diagnosis, evaluation and educational guidance, constitutes a teaching-learning methodology.
- Rodriguez (1997)		
- Ibarra (1997)		
- López, Rodríguez and Rubio (2004).	It is a tool that provides a very broad and detailed view of what students know and can do from their cross-cutting and disciplinary competencies.	The portfolio as a tool provides the ability to understand and appreciate student learning and competency development.
- Careaga (2007)	The teaching portfolio is a space dedicated to documenting pedagogical practices with due and effective reflection on them; it enables better teaching and student learning	This documented space of pedagogical practices provides inputs to improve teaching and student achievement.

	achievements.	
- Paulson, Paulson and Meyer (1991)	It is an intentional collection of a student's work, in which his or her efforts, progress and achievements in one or more areas are appreciated. The collection must be the result of the intentional participation of the students in the selection of the contents of their portfolio, must explain the criteria used to make this selection, and must justify the student's reflection processes.	This intentional collection of documents shows the student's participation and reflection in their own learning while the teacher can reflect on their pedagogical practice.
- Klenowsky (2005)	It is a deliberate selection of a student's work that allows him/her to record his/her efforts, progress, achievements, and ideas. It is a record of his or her learning and reflection on that work. The portfolio (in the selection of its content, the criteria for the selection, the guidelines for judging its merits, as well as the evidence of its reflection process) must include the participation of the student.	The deliberate selection and recording of evidence, reflections and student participation in the learning process also guides the teacher in evaluating and reflecting on the teaching process.
- Barberá, Bautista, Espasa & Guasch (2006)	It consists of an evaluation system integrated to the teaching-learning process in which evidence/samples are accumulated, corresponding to a determined period of time and that respond to a specific objective: revealing what the student has learned and the competencies acquired, allowing the teacher to follow up and provide feedback on the learning progress.	It is an information management system based on electronic media and services. The student builds and maintains a digital repository of materials. It allows monitoring and feedback in the learning process.
- Lorenzo and Ittelson (2005)	An electronic portfolio is a collection of digitized materials including demonstrations, resources and achievements that represent an individual, group or institution. It may include text, graphics or multimedia elements that can be accessed on the Internet or on another electronic	This academic, digitalized/electronic, personal and professional publication of the students, as students, is evidence of their professional competencies.

medium such as a CD-ROM or DVD.

An eP also serves as a tool to manage, organize and control the work created with different applications. ePortfolios include personal reflection and often promote the exchange of ideas and feedback

King E (2015)	The ePortfolio is like a portfolio based on electronic media and services, the difference between this resource and the traditional portfolio is the substantial increase in the number and quality of the services it provides to both an individual and a learning community, as well as not being subject to a linear sequence.	It is a tool based on media and services that offers immediate advantages due to its accessibility to both the student and the teacher.
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Lyons (cited by Agra, et al., 2003)	The dynamic process by which teachers gather data from their work and professional growth, thoughtfully assembled and written by them, shared with colleagues and students, and presented for public discussion and debate about their conceptions of good teaching.	
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Note: Authors cited, glossed by the researcher.

Typology of portfolios

Gavarie (2009); Barberà and Gregori (2008); Díaz et al. (2012) and Rigo (2013) elaborate in their research some distinctions regarding the different types of portfolios, which vary according to their purpose, type of storage and according to who presents it, among these criteria are the following:

- The author, teacher or student. In the case of the student, we refer to the learning portfolio (portfolio d'apprentissage, a term of French origin), sometimes referred to as dossier or portfolio.
- The type of record, digital or paper.
- The use, whether private or public, in this sense can be personal and/or professional, experiential and/or work-related. In this regard, it can be pointed out that there are portfolios developed under a voluntary communicative vocation, mainly oriented to the dissemination and socialization of the teacher's work and achievements.
- Its presentation: for defense (written or oral).
- The purpose of the evaluation: it may be summative; certification, selection, promotion or assessment, in the latter cases with an accreditation vocation, which seeks

to measure the productivity and performance of teachers, the criteria tend to lean towards quantitative and uniform features that are a little more rigid than usual.

In this paper we refer to the teacher's portfolio, elaborated "to make him aware of his achievements and interests, his theories, his achievements and his expectations" (Rigo, 2013, p. 65), regardless of the way it is presented, whether on paper or digitally.

With respect to the digital, analog or electronic portfolio, which are currently the most used, given their low cost, economy, ecology, ease of storage and retrieval (Rigo, 2013), some points can be made, among them, that, as its name indicates, it refers to a virtual portfolio (Sánchez, 2012) or to a digital or electronic system, which, as the case may be, allows documenting and/or leaving evidence of the progress made over a period of time regarding competencies, events, plans or products that are relevant to its users. They can be made in word, access, power point or other format, in the case of the web-portfolio or electronic portfolio or e-portfolio, its realization and storage is done on the web (Barberà and Gregori, 2008; Sánchez, 2012) or be stored on CD- Rom, memory sticks or other similar digital format that is used at the time of making the portfolio.

Positive portfolio characteristics

The educational portfolio can be applied at any educational level, however, as already mentioned, in this paper we are dedicated to studying the teaching portfolio. This must have certain characteristics, before specifying some of them, it is necessary to point out that guidelines must be established for its implementation; although there is flexibility regarding its content, it is necessary to determine if there will be any type of restriction or particular requirement regarding the organization and selection of the content, according to the institution, the purposes for which the portfolio is made and the evaluation criteria that will be taken into account, likewise, prior to its elaboration, the presentation and storage format must be specified. With respect to the methodology used, it can be said that it is "teaching-learning-evaluation-research- reflection" (Barragán et al., as cited by Sánchez, 2012).

Elizalde and Reyes (2008); Barberà and Gregori (2008); Gavirie (2009); Díaz et al. (2012); Rigo (2013) as well as García and García (2010) in their research shed light on the subject, point out some of the defining elements of the portfolio, of which the following is an interpretative synthesis that includes psychological, cognitive and didactic aspects that are intertwined with each other in the development of the portfolio:

- Flexibility in its content: this may be composed of elements that show evidence of a whole series of mechanisms related to the development of skills, competencies or abilities, as well as documents that support a personal form of intervention under different types of formats organized according to the subject or discipline, and may follow a didactic-pedagogical, linguistic-communicative, graphic-aesthetic or technical-operational order, or even combine several of these aspects. In the case of both teachers and students, they are conceived as informants, they organize products related to their exercise, even if materials from external sources are included, if they are pertinent.
- External evaluation: serves to review the students' opinion regarding the teacher's performance and the evaluation through colleagues or peers. It acts as a strategy for intra and interdisciplinary cooperative learning by favoring the exchange of information and feedback among a wide group of people. In the case of the student's portfolio, the evaluation can be for diagnostic purposes or correspond to a summative and formative evaluation through a tutoring process.
- Self-evaluation: By serving as an instrument to gather information related to individual progress and learning, it becomes a self-critical tool for the author's self-evaluation.

- **Self-knowledge:** This aspect is characterized by the influence of two aspects, one is the selection and the other is the reflection on the contents presented in the portfolio. So it serves to recover in a documentary way the individual history of the knowledge built about oneself, that is, the awareness about oneself, therefore it helps to organize and express one's own narrative, while allowing its author to open up to others and be able to explain not only to oneself, but also to others why something is done in such a particular way.
- **Cognitive aspect and development of competencies:** It promotes meaningful learning as it requires decision making and the development of a logic for the organization of everything documented in it, as it should not contain irrelevant or superfluous information, which in turn helps to develop a wide range of high-level skills or complex learning and integrate skills. In its presentation it shows a cognitive effort. In this sense, it allows the development of general competencies: knowing (general knowledge of the world, knowing how to do (skills and abilities); knowing how to be (existential competence: related to attitudes, motivations, values, beliefs) and knowing how to learn. On the other hand, given the wide range of formats that can be used to document, edit and store the information contained in the portfolio, it also allows the development of technical skills related to new technologies.
- **Continuous work:** It allows revisions and updates to be made under a systemic logic. Whether the author is a teacher or a student, the systematization carried out attests to the gradual growth and learning achieved, which in turn can be measured according to progressive levels of achievement or performance.
- **Didactic aspect:** It allows knowing the resources used by the teacher for his activity and also facilitates the evaluation of skills that could go unnoticed if not for the proper documentation or supports presented.
- **Academic rigor:** It allows the integration of learning-teaching-evaluation processes. In addition, it can provide a more comprehensive understanding of the person who prepares it. This is of utmost importance in the case of teacher performance evaluation, since this is an activity that should include numerous dimensions, so the portfolio allows gathering evidence on various elements inherent to its author, adding subjective aspects that are attached to their sociocultural context and their vision of the subject addressed in the portfolio. The evaluation ceases to be generic and adapts to a socio- historical reality on which one intervenes and reflects from multiple approaches.
- **Methodological rigor:** Its elaboration corresponds to the qualitative paradigm and is not executed in an arbitrary manner, in addition to responding to specific purposes, certain stages are also followed, additionally it should be noted that in the student's portfolio the tutor acts as a guide, orients and provides feedback so that the student reinforces his/her security, independence and control of the learning processes, in this context tutoring is understood as an organizational modality under which the formative process is personalized. Despite the subjective nature of the portfolio, its evaluation can also correspond to some quantitative criteria.
- **Diversification of strategies:** Unlike traditional evaluation, through tests or exams through which specific contents and objectives, previously established, are evaluated in a closed manner, evaluation through the Portfolio allows active participation in the learning process, so that diverse strategies can be used for the choice of the medium and processes of educational action. In this sense, it is appropriate to mention that it can be enriched with records of different types: texts (letters, articles, monographs, external evaluations, essays, series of solved problems, artistic works, specific projects, collective works, comments to readings, self-reflections, laboratory reports, worksheets), audios, videos, photographs or other personal works.

- Motivation catalyst: Given that the author recovers autonomy in the continuous process of his/her own learning, through the interaction with the materials (the correction of drafts or preliminary versions of works and exercises), the feedback and the contributions made by peers, the guide or evaluator, the portfolio becomes an incentive for progressive improvement.
- Personal commitment: For all the above mentioned helps to develop discipline, constant work also allows to reinforce creativity, own values, own philosophy, confirmation of attitudes and beliefs and personal identity through the conjugation of skills and learning styles of the one who elaborates it with other personal factors that influence in knowledge construction process, such as the cognitive variable (learning, cognitive and metacognitive strategies) and the affective or attitudinal variable that includes the socio-affective and emotional dimension, motivation, attitude, mood, empathy, self-image, among other elements.

Finally, as Barberà and Gregori (2008) point out, a portfolio (to be so) must transcend the simple collection of work or products, as it must contain a reflective element, either explicit or implicit, in each of the decisions taken for its elaboration, i.e. it has been delimited according to purposes, selection criteria and/or performance. With respect to the latter characteristics, academic peers, scales or checklists can be used to make judgments on teaching performance, provided that the established teaching profile is taken as a basis (Elizalde and Reyes, 2008).

Díaz et al. (2012, p. 112) explain it through three metaphors: it is a mirror, a sonnet and a map. It is a kind of mirror whose reflection extends and modifies over time, the self-reflection it facilitates is a way of looking at oneself, and making the evident, that which is observed susceptible to confrontation, allowing to work on professional growth, as well as the competence and professional effectiveness of the one who elaborates it. It is a map because it helps to plan, set goals and review "or navigate through the productions and artifacts that its authors have created and collected". It is a sonnet because the portfolio builds "a frame of reference for the creative expression of its authors, since despite the existence of common dimensions or entries, each portfolio will be unique as an expression of its author's identity".

Portfolio disadvantages

The brilliant presentation of the Portfolio may simply be an exhibition, in which illustration, style, presentation and formal aspects prevail, and not the content of the work (Gavarie, 2009).

For this author, another misleading tendency is to include in the Portfolio materials that distort the student's real work; these distorting elements are usually all kinds of attachments (photographs, recordings...) that simply respond to a collection of demonstrative documents and not to real work done. In this sense, the presentation of materials on the subject that have not been previously manipulated and interpreted by the student is discouraged.

If the portfolio is physical, it requires a storage place and personnel in charge of its security. If the portfolio is electronic, it requires teacher training for its creation and use (Elizalde and Reyes, 2008).

Methodology

The present inquiry is a documentary review that corresponds to an analytical study, whose investigative process adheres to certain stages, that is, its realization entails the development of a methodology that is summarized in three steps: (a) contextualization, in which aspects such as the statement of the study problem, its limits, the documentary material to be used in the research and the criteria for the contextualization itself are taken

into account; (b) classification, in this phase the parameters considered for the systematization of the information are determined: the types of documents to be studied, the chronological aspect, the objectives or purposes of the studies, the disciplines they frame as well as the lines of research with which they correspond; the conclusive level and its scope; and (c) categorization, it takes into account the hierarchization and generation of classes to carry out the treatment of the information; In synthesis, this yields information on the state of the art and conclusions in synthetic form on the subject matter (González et al., 2007, p. 51), emerging in addition to an inventory of accumulated knowledge production.

In this sense, research on the teaching portfolio at the university and other levels was taken into account, as well as research referring to the students' perspective, in order to broaden the theoretical references. The bibliographic search was carried out virtually, using the Scopus database and Google Scholar to retrieve the information. Scientific studies published in journals, research conference proceedings, doctoral theses, among others, were considered. With respect to the classification and review of the information, research carried out at the international level and other research experiences in Colombia were taken into account, although it is important to highlight that in this region, the field of study that concerns us is still emerging as an incipient object of inquiry and application, which is why only two research studies found in this region are reviewed.

In a documentary survey conducted by Jiménez, Escobar and Zea (2017) it is referred that despite the challenge assumed in the country to improve educational quality, policies have not been implemented to overcome the limitations presented in this field, therefore proposals have been made leading to qualify the teaching resource through their training, one of these proposals is the implementation of the portfolio and the development of competencies for appropriation of Information and Communication Technologies (ICT); So far it has been achieved to motivate teachers to design and use the blog and document the learning process. This portfolio includes videos, photos, class preparation, planning, audios, guides, texts, pedagogical reflections; this documentation is presented to the university institution as evidence for the evaluation of their performance. In this sense, two research studies on the teaching portfolio found in this region are reviewed.

The following is a reading of the state of the art in relation to the subject under study, with the aim of generating in future research a deeper knowledge about its application and trends, especially in Latin America and therefore in Colombia, which is where our interest is focused.

Approach to accumulated knowledge

In order to develop the approach to the accumulated knowledge on the teaching portfolio, we proceed to the construction of a documentary base that systematizes previous research. This compendium seeks to clarify the current state and evolution of the use of the portfolio in higher education, focusing on the integration of reflective and evaluative practices in university teaching.

Data collection begins with the identification of key publications that have addressed the teaching portfolio over time. Each relevant study is classified by date, authorship, and geographic-cultural context in which it was developed. In addition, the methodological perspectives adopted by each research, whether qualitative, quantitative or mixed, are distinguished, allowing an understanding of the breadth and depth of the approaches used.

Within each table, a column is provided dedicated to the conception of the teaching portfolio that each study proposes. This includes operational definitions, underlying learning theories, and the pedagogical models that support them. Following this line, the reported usefulness of portfolios is broken down, showing how they have served to improve teaching practice, competency assessment, and the ongoing professionalization of the faculty.

The application of the findings of each study is addressed. Here, we highlight how portfolios have been implemented in different disciplines and institutional contexts, and discuss the perceived effects on teaching quality and student satisfaction.

Finally, this documentary approach will serve as a valuable resource for scholars and researchers interested in the implementation of the teaching portfolio as a strategy for professional development and continuous improvement in higher education. It is intended that, by providing this organized compilation, it will facilitate the identification of trends, gaps and opportunities for future research, as well as the practical implementation of the portfolio in university teaching.

Table 2. Research experience number 1

Contextualization	Perspective	Concepcion	Utility	Application
Portfolios are a particularly genuine reflection of a learning process. Therefore, more than a new way of evaluating, they can be considered as a way of understanding the teaching process. The portfolio can be electronic or digital, the former containing analogical media; in the digital one all resources are transformed into digital language.	The theoretical perspective and the teaching-learning model, being of a cognitive, constructive and social nature, gives this tool great value for its ability to stimulate experimentation, reflection, and research; in addition, the evidence that composes it allows helping students to reflect on the objectives and tasks achieved or what has gone wrong. In the course of any practical learning, it gives the student the opportunity, according to Schön (1992), to engage in a reflective conversation with the materials of the situation.	The portfolio is a tool, as a collection of evidences (various documents, vignettes, articles, press, advertisements, web pages, field notes, diaries, stories), considered of interest to be kept for the meanings built with them. The portfolio is defined as an instrument that uses technological tools to collect multiple evidences of the learning process in different media (audio, video, graphics, texts), using hypertexts to show more clearly the relationships between objectives, contents, processes and reflections.	It is useful to show how the teaching and learning processes are produced from the experience and reflections of the protagonists. In short, this tool is a resource for life that highlights the identity of its protagonists. It reflects the evolution of the teaching and learning process as well as the dialogue with the problems, achievements, issues and key aspects of the teaching and learning process. It promotes formative evaluation and self-evaluation. -Enables the social construction of Knowledge -It is useful to constantly reevaluate pedagogical and curricular strategies.	Its application in virtual environments implies a different way of approaching information and a virtual teaching environment in which a new way of learning is learned that forces students to work with autonomy in decision making. - is applied in Training and professional development

Table 3. Research experience number 2

Contextualization	Perspective	Concepcion	Utility	Application
The teaching portfolio would be very useful in the teaching of any language, in this sense it has a great potential.	A tool for personal, work, school and social use that must be kept up to date with technology and interchangeable formats.	They are born as a presentation of results oriented to the product, not to the process, but now monitoring is gaining importance. It has a strong component of interactivity, a tool	-They allow to visualize the processes of learning to learn. -Manage shared tutoring processes. - Learning in virtual social environments. - Allow to form a social learning community. - Contain relevant information about learning and	They would be applicable in any area but especially in the deepening of linguistic and intercomprehen sion skills.

that fulfills functions of self-learning management and learning with others. self-learning as well as information concerning the learner and tutor profile.
- Allows storage of resources and materials produced

Table 4. Research experience number 3

Contextualization	Perspective	Concepcion	Utility	Application
<i>This paper</i> reflects on the limitations that have characterized traditional education, especially when it comes to evaluating students, and also for not developing the discipline to make students the protagonists of their own learning.	The teacher and the student are active agents in the construction of knowledge, and the beneficiary is not only a specific student but the whole group-classroom in general.	An instrument that can be applied from an educational and institutional point of view with important values in relation to a discipline, subject or career,	-Forming a student's "learning history" allows: -guarantee and quality of what has been evaluated and accredited. -guide and orient the entire educational process, as it establishes the type of requirements that will be demanded, defining each activity to be carried out.	Encourage students' autonomy and ability to self-manage their time and efforts without ruling out logistical support through face-to-face tutoring systems.

Table 5. Research experience number 4

Contextualization	Perspective	Concepcion	Utility	Application
Teaching through virtual teaching-learning environments has favored experiences and studies focused on electronic <i>portfolios</i> (e- <i>portfolios</i>) in higher education.	The elaboration or design of an academic <i>portfolio</i> must take into account the educational aids for the process to be successful, these educational aids are conceived from a socio-constructivist perspective, and can be contextual, tutorials and guides or documents.	Instrument that has as a common objective the selection of work samples or evidences of achievement of personal or professional objectives that, ordered and presented in a certain way, fulfill the function of promoting reflection on each one of the practices (educational, professional or civil) (Barberà, 2005).	-Allows the teacher to monitor learning progress. Useful for the student to learn to plan and self-manage based on the teacher's guidance. - It determines the teacher's reflection on his or her educational practice. -Promotes autonomy and decision making. -Facilitates continuous feedback to students.	It is applied in the qualitative, process or final assessment of learning according to the evidence. Applicable in accreditation, evaluation and self-evaluation. -To provide elements for the student to reflect and regulate his own learning.

Table 6. Research experience number 5

Contextualization	Perspective	Concepcion	Utility	Application
The purpose of this research work on <i>portfolios</i> as a resource was to	The teaching <i>portfolio</i> offers very good prospects to	The <i>teachers' electronic portfolios</i> consist of a series of teaching proposals and a	The <i>portfolio</i> is useful for monitoring the process of acquisition and improvement of	The <i>portfolios</i> are applied as an evaluation and self-

<p>guide the teacher's reflection so that: -Recover your identity and leading role - To analyze how teachers appropriate and resignify ICT in their didactic planning. - Overcoming transmissive educational models.</p>	<p>promote in young people a learning to learn to think with solid foundations in scientific knowledge, develop awareness and social responsibility towards the use of technology. Especially if implemented from a constructivist stance, situated cognition and teaching, authentic evaluation, cooperative teamwork and training through reflective practice.</p>	<p>collection of their own didactic productions, which cover the planning, conduction and evaluation of the teaching-learning process of different curricular contents. These electronic portfolios represent a training model. The development of the portfolio involves the mobilization and integration of one or more skills and abilities on the part of the teacher, which interact with his or her competencies to create a didactic product that becomes a social communication product that can be consulted on an electronic site open to the public, serving as a model for other teachers to enrich their projects.</p>	<p>teachers' knowledge and ways of acting in relation to the psychopedagogical skills to be learned. According to Bird (1997, p. 336), the main function of the teaching portfolio is "to support continuity in planning, supporting, and mentoring a teacher's professional advancement." This resource is useful to evaluate the performance of teachers considering the didactic products produced and the strategies used, since these are first-hand evidence to assess the originality and quality of their contributions to teaching.</p>	<p>evaluation strategy for teachers. -They lead the teacher to reflect on the achievements and changes required in his or her approach to teaching in the classroom, taking into account the needs and interests of his or her students. -They are important because they make it possible to link the experience of teacher training and the generation of didactic products for teaching with research work. - It allows to promote the application of constructivist teaching strategies. - It allows to study how it responds to the needs of its teaching space and to the <i>decision making</i> to shape a particular instructional design.</p>
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Table 7 Research experience number 6

Contextualization	Perspective	Concepcion	Utility	Application
<p>The portfolio is like a theoretical act, like a metaphor that comes to life to the extent that we include it within the theoretical - or ideological - orientation that is most valuable for our educational practice. This paper presents an overview of the use of the portfolio in some universities, including some Spanish institutions such as the Polytechnic University of Valencia, the University of</p>	<p>It has great potential to develop in teachers reflective attitudes towards their practice based on a personal teaching model. To favor attitudes towards teamwork as an instrument for continuous improvement. It allows the development of skills to evaluate one's own</p>	<p>A way of understanding the teaching-learning process, it is not a simple evaluation and monitoring tool. Its processual and formative conception stands out, as well as the self-evaluation and learning developed by the teachers in each step of its elaboration, and its flexibility. -(Stanford University, 2007).</p>	<p>- According to Stanford University (2007) it is useful for self-evaluation as well as for the promotion process and serves to document the teacher's experience, growth, strengths, and accomplishments. - - For the Australian National University it is a collection of materials that serve as a record of teaching experience and achievements, as well as for evaluating, maintaining and improving the quality of teaching within a given time frame. It is useful for applying for positions or promotion - The University of Toronto considers that the teaching portfolio serves to evaluate the teacher in order to improve his/her teaching practice and to be used for promotion, the portfolio should include at least materials related to the course being developed, responsibilities, statement of teaching philosophy: a statement of teaching and learning objectives, as well as a description of instructional methods. - At the University of Oxford, the portfolio is used to evaluate the teacher who prepares</p>	<p>-Training strategy. -Didactic strategy. -Evaluation instrument. Self-evaluation. -Positioning and promotion: it has a summative purpose, in the case of responding to accreditation processes, or formative, understood as professional development. - Induces a change in teacher-student relationships</p>

<p>Barcelona, the University of Alcalá, where this experience is gaining strength, but in this context, the structure and content of the portfolio are mentioned above all.</p>	<p>teaching and to improve it. It represents a space to exchange and learn about teaching practice. - Promotes a culture of professionalism in teaching.</p>	<p>it to demonstrate the quality of his or her teaching to a group of examiners and to gain access to positions within the university hierarchy. Among the criteria to evaluate the teacher are: (a) preparation for teaching; (b) facilitation of learning; (c) assessment of student learning; (d) ability to report well, based on research and critique of their own practice, within the contexts created by local and national policy. - University of Chile (2004): The portfolio or dossier serves for teacher self-evaluation, through reflection evaluation of their pedagogical practice. The process is carried out every semester through the Internet considering the elements listed below. Teaching proposal that includes the selection and organization of knowledge, how the disciplinary contents are worked to make them teachable. Evaluative principles: ideas that guide the teacher to evaluate. Linking knowledge with reality. Teacher-student interaction. - Training in values, institutional demands, among other aspects.</p>
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Table 8 Research experience number 7

Contextualization	Perspective	Concepcion	Utility	Application
<p>In this research the portfolio is considered a tool-strategy that</p>	<p>The teaching portfolio is inherent to a conception of teaching-learning processes from a</p>	<p>Valuable tool for teacher professionalism oriented to training</p>	<p>-In teacher training and professional development -An instrument of</p>	<p>Training and professional development strategy.</p>
<p>enhances the active and autonomous participation of the author in his own learning process, promotes the construction of pedagogical knowledge and emphasizes the individualization of the learning-teaching process of the novice teacher.</p>	<p>constructivist perspective, where each teacher in a process of training and professional development constructs his or her own knowledge, giving it meaning in the light of his or her previous conceptions and the functionality it has in the contexts to which it can be transferred.</p>	<p>for a reflective teaching practice and the development of teaching processes in accordance with the demands of the new knowledge society.</p>	<p>teaching professionalism that has accreditation purposes, for the evaluation, selection and promotion of teachers and for training purposes. -For the improvement and professional development of the teaching function. -Make accreditation, certification, selection or promotion decisions.</p>	<p>-Strategy to educate in responsibility and to learn to value and reflect on the individual teaching and learning process carried out by the student.</p>

Table 9 Research experience number 8

Contextualization	Perspective	Concepcion	Utility	Application
<p>The work with portfolios responds to the theoretical foundation that supports the teaching, learning and evaluation proposals that are carried out. Any strategy, when a template, outline or model for a didactic portfolio is designed, organized or created in the teacher training program, responds to a theory that determines the form and content of the portfolio.</p>	<p>It can be shaped from different perspectives: - Cognitive-constructive model of learning, a deep knowledge is developed, in which learning experiences in various contexts are related, not only in the classroom; the value and adequacy of practical knowledge and problem solving prevails.</p>	<p>A student-centered tool based on the publication of evidence of learning, it contains the most relevant achievements of a student during his or her studies and training period related to the profession, and accompanies the teaching and learning process understood as a progressive path of cognitive improvement. Portfolios designed according to the cognitive-constructive model include three elements: reflection, communication and collaboration; learning is developed on a social, contextual basis and with experiences that express the subject's activity.</p>	<p>It is useful because as a collection of documents it presents evidence of the learning process and the achievements that can be shown. -It has double function of: -Collect and reflect the most significant learning experiences and achievements of a person (student, professional, worker...) on an ongoing basis. -Clearly report the level of proficiency and other important experiences of the student throughout his or her learning or career. -In European universities, its evaluative use prevails.</p>	<p>It is applied for the evaluation, accreditation, homologation of studies and mobility of people, allowing the assessment of competencies, making the e-portfolio an instrument of evaluative use in university contexts.</p>

Table 10 Research experience number 9

Contextualization	Perspective	Concepcion	Utility	Application
<p>The advantages of this tool in relation to the processes are as follows</p> <p>Metacognitive: their capacity for self-regulation</p> <p>Validity to deal with diverse competencies and contents of a methodological nature. It provides permanent information to the teacher about the student's competence development.</p> <p>Among its limitations are the dedication of the student plus the dedication of the teacher; the student must first</p> <p>Digital competencies as well as the teacher; the dimension of collaborative work must be reinforced.</p>	<p>Based on the student's perspective:</p> <p>-Impact on the learning process.</p> <p>Teaching approach: Blended learning.</p> <p>Active methodology</p> <p>-The student is the protagonist of his learning, but not the only responsible. The student is involved in each activity, and must value his learning -</p> <p>Face-to-face and virtual learning scenarios, connected with cases and work and social situations as real as possible.</p> <p>Cognitive and meta-cognitive strategies, oriented to learning to learn.</p>	<p>-Tool, a suitable instrument for formative and progressive evaluation.</p> <p>-Didactic resource.</p>	<p>Encourage students' autonomous learning.</p> <p>- To promote a teaching role of guide, mediator and generator of authentic learning.</p> <p>- Generate continuous, formative and progressive evaluation processes.</p> <p>-To strengthen the reflective and critical dimension of the training process.</p> <p>-To allow a mediated, creative and expansive construction of learning.</p> <p>-To generate action-research situations.</p> <p>-To promote interactive processes under the. Logic of feed-back and feed-before.</p> <p>-Complementarity and methodological combination: diverse methods and organizational modalities.</p>	<p>-In the acquisition of competencies in the university context, according to the relationship between learning, cognition, technological uses and emotions.</p>

Table 11 Research experience number 10

Contextualization	Perspective	Concepcion	Utility	Application
<p>The teaching portfolio focuses on teachers' professional development and helps them to consider the complex and multifaceted nature of teaching. In this way teachers reflect critically on their practical performance.</p>	<p>Its conceptual framework focuses on the teacher's competence development, that is to say, as a tool for professional development, in this sense, it must be coherent with the methodological changes in the educational field, leading the teacher to take the reins of his or her continuous training process.</p>	<p>It is conceived as an evaluation and diagnostic technique as well as a teaching-learning methodology.</p>	<p>-It is an environment that favors learning.</p> <p>-It allows gathering information to ascertain students' abilities and achievements, how they think, how they question, analyze, synthesize, produce or create, and how they interact with others.</p>	<p>-It is applied as a method to support teaching.</p> <p>-It is an evaluation procedure.</p> <p>-Serves teachers to collect data from their work and professional development.</p> <p>-Applicable to identify students' learning of concepts, procedures and attitudes.</p>

Table 12 Research experience number 11

Contextualization	Perspective	Concepcion	Utility	Application
<p>The E-portfolio is a compilation of the best work presented during a training process; it is a tool that promotes the construction of knowledge and contains evidence of activities developed and reflections of those who elaborate it in their learning process.</p> <p>This article reviews an experience implemented in Colombia based on the formulation of ICT competencies (MEN, 2013), using the Spiral Model of Competencies as a basis. TICTACTEP for constructionist training in order to develop digital competencies given their importance in the continuous processes of teacher training.</p>	<p>- It is a tool that facilitates the knowledge construction process.</p> <p>--Responds to an active learning theory according to which the individual learns to the extent that he/she constructs objects to think about, shares them and improves them through feedback. From the teacher and the group.</p> <p>-The portfolio in education engages the teacher and the student in the act of teaching and learning, evidences formative experiences, and creates identity.</p>	<p>Constructionist tool that promotes active learning oriented to the development of competencies in educational technology.</p> <p>The teaching portfolio is a construction strategically oriented from the planning, evaluation and reflection of the teaching and learning processes and reflects the interests and competencies of the author.</p> <p>It is a space for teachers and students to meet.</p> <p>E-portfolios can be individual or group, and have the validity that the owner wants to give it, allowing it to be used throughout several academic years or to have an extensive life, to last in time.</p>	<p>-It is useful to understand the teaching and learning process.</p> <p>- It favors formative evaluation, since it allows recognition of participants' skills and abilities.</p> <p>-It is useful for receiving, producing and disseminating information.</p>	<p>Applicable in self-assessment and to understand the strengths and limitations of students and teachers.</p> <p>- It allows the evaluation of the student's performance and the teacher's self-criticism regarding the achievements and difficulties of the teaching-learning process.</p> <p>-Allows tracking of progress and weaknesses of the students,</p> <p>-Feedback the training process and establish improvement plans.</p> <p>-It is applied in knowledge management.</p>

Table 13 Research experience number 12

Contextualization	Perspective	Concepcion	Utility	Application
The purpose was to inquire about the application of the portfolio in education, to recognize good practices in its use and then to propose a structure for an electronic teaching portfolio. This study conducted in Colombia recognizes the importance of the portfolio, but there are no government policies or programs for its implementation, nor models for its design.	From the perspective of this work, the portfolio is a pedagogical strategy whose application is a function of the technological mastery that the teacher may have; in this case, the teachers admitted having limitations in the use of ICTs.	Pedagogical strategy that impacts the pedagogical practices of the decent	Useful to meet the needs of teaching from a scriptural point of view.	Although teachers were enthusiastic about this pedagogical strategy, they did not apply it, given their limitations in the use of ICTs.

Through the various research studies carried out, mostly under qualitative-quantitative paradigms and methodologies, some of them based on action research (AI), it can be scientifically confirmed that the use of the portfolio in the university context is an experience that helps the student or the teacher as evaluator of others or of him/herself.

Conclusions

The review of the accumulated knowledge on the subject of the teaching portfolio indicates that it is in Europe and North America where it has found its greatest applicability and use not only for exhaustive monitoring of the teaching-learning process but also as an artifact or tool for educational, social and institutional evaluation and self-evaluation; In this sense, its importance is recognized for the purposes of professional mobility, accreditation and homologation of competencies, since the portfolio shows evidence of the achievements, experiences and reflections that a student carries out during his or her training process, just as a professional can do in the exercise of his or her career.

The portfolio receives different denominations, dossier, digital or physical folder, repository, in any case, as a collection of documents without reflection and feedback it does not fulfill its evaluative, self-evaluative, knowledge management or competence purposes, hence the importance of understanding the theoretical support that must sustain its design, by virtue of being a strategy, tool or resource, which forms a didactic product of social communication that can be consulted in an electronic site open to the public, serving as a model for other authors.

The teaching portfolio fulfills very important functions in the academic environment, but it requires governmental and institutional policies to promote its application and break with the limitations detected in this state of the art, especially in Latin America, where its application is still incipient, firstly because teachers and students must acquire competencies for the management of information technologies, secondly to commit to its design and implementation and to make a responsible use of technology by appropriating and re-signifying ICT in their didactic planning.

The implementation of the portfolio requires the teacher to understand the theoretical perspective that supports the design of this instrument, which should be designed to break with behavioral, transmissive or merely informative educational models, in order to promote a mediated, reflective, creative and expansive construction of learning, generating spaces for autonomy, self-evaluation and self- management of knowledge, thus promoting cognitive, metacognitive and constructivist processes.

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