

 Research Article

DIGITAL PORTFOLIO: A TOOL FOR ASSESSMENT AND SCHOOL ORGANIZATIONAL EFFECTIVENESS

Submission Date: May 10, 2022, **Accepted Date:** May 20, 2022,

Published Date: May 30, 2022

Crossref doi: <https://doi.org/10.37547/pedagogics-crjp-03-05-05>

Journal Website:
<https://masterjournals.com/index.php/crjp>

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ABSTRACT

New technologies have positioned themselves as an essential area in our educational system, not only as tools in the teaching-learning process, but also for the control of processes and results and for improving the quality of teaching in general.

This study focused on analyzing the opportunities offered by the digital portfolio in certain areas of education based on the evidence supported by the authors of the documents reviewed through studies or research as well as the impact that this tool can have on education. School organization and evaluation considering not only its positive influence in reference to student learning but also the teaching profile and the system itself.

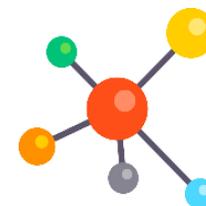
KEYWORDS

Digital portfolio, School organization, evaluation, educational inspection, school management.

INTRODUCTION

The background presented at the 40th UNESCO Summit (Paris, 2019) has already advanced in the development of previous agreements and specifically,

at this summit, it was important that, based on certain consultations on the Internet, relations between the Information Society and the New Information and



Communication Technologies (ICT) with the Sustainable Development Goals (SDG). In this sense, the vision that information and knowledge societies comprised inclusive, multi-stakeholder, human rights-based, open, diverse and participatory approaches that have been shown to have a positive effect on quality education, among other areas, was emphasized (UNESCO, Paris, 2019). And among the objectives set as of 2019 were established: quality education for all, freedom of expression, universal access to information and knowledge as the most relevant objectives of UNESCO to support the 2030 Agenda. In this way, the theme and treatment of the information in this work could not go forward without really establishing a solid base that allows justifying the choice and treatment of the data.

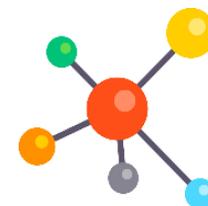
The information society was born as a result of the need to share knowledge mainly from the Industrial Revolution. That is why some authors differentiate in an exhaustive way the terms referring to the information society and the knowledge society, while other authors show the need to converge both concepts in pursuit of a complementary relationship in today's society, which builds knowledge through from information and communication technologies (Pérez Zúñiga, 2018). In this way, it is not possible to rethink the acquisition, development, transmission or management of knowledge without information and, therefore, of new technologies. If it happens in society at a global level, at a local level, it also happens in educational institutions, at any stage, in any discipline. Continuing with the social order, this same author points to a great truth in the sense that it is no longer possible to go back before what the construction of knowledge and the tools that accompany it mean, and in the projection of this axis are the technologies of the information and the communication. Currently, new technologies provide real opportunities in our

educational system to achieve great challenges, not only for the educational process at the teaching-learning level, but also in order to the proper management and direction of educational centers. But it must also be taken into account that it is true that changes of all kinds from the different spheres of society pose very important challenges to the school and to education in general, and it is no less true that these changes occur at different speeds and that in reality, even anticipating the progress of these changes, real adaptation to these changes is almost impossible (Villa Sánchez, 2019).

METHOD

This study is part of a bibliographic and documentary review of different sources that deal with the subject in question and in which an analysis is outlined based on the results of the review, also establishing the conclusions and the prospective that arise from the different investigations selected for said analysis. In general, the bibliography that was reviewed revolved around the conclusions that the authors provide on the different dimensions of the impact of this digital tool for evaluation in relation to the areas: organizational, management, technological, training, leadership development and professional development.

In this sense, the bibliographic review followed the line of searching for different perspectives on the same topic, as well as the most characteristic uses of traditional reviews, tending to focus on the presentation of states of the matter or theoretical frameworks. In this way, in the design of a traditional review, questions are formulated about the main theories and concepts in a certain field (Codina, L., 2020). This does not mean that the review work is not systematic in the very terms of its process, which is why, in the critical analysis section, the treatment of



the data and the various contrasted perspectives were analyzed.

RESULTS

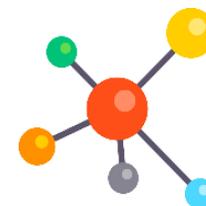
Based on the review, a bibliographical analysis of the main sources and databases were proposed social, educational, scientific and technological publications. The analysis of the conditions that facilitate the incorporation of ICT when organizing teaching and learning processes in an innovative way, as well as the use of the tool as a means to show the evidence in the evaluations of certain actions with respect to the teaching profile became the main reflection.

Some of the databases consulted were: ERIC, PsycINFO, Redined (State Network of Educational Information). Multidisciplinary databases with documents on education were also used, such as: CSIC-ISOC (Higher Council for Scientific Research) and SCOPUS in Elsevier or DIALNET and Google Scholar. In some cases specific terms were searched in WEB OF SCIENCE (through FECYT).

Publications from the Library of the Ministry of Education and Vocational Training and its virtual archive were reviewed. Of the reviewed publications, more than 80 as a general rule only the most relevant articles published approximately in the last ten or twelve years that dealt with the impact of the information society and ICT in education were accepted, based on focusing on the theme towards the direction, management, organization and quality of educational centers and the use of the digital portfolio as an evaluation tool. The exclusion criteria in the review of the sources were mainly that the documents were not part of publications endorsed by their quality, validity, ethics and scientific rigor based on promoting the dissemination of content related to the topic addressed by the work. In this occasion, those entries whose publication was a little more than a decade

away from the current date in most cases were also discarded, since the objective of the content search was to deal with a current context and the impact that it can project the digital portfolio in educational institutions

Digital portfolio, e-portfolio or electronic portfolio, consists of a group of evidence that presents the knowledge, learning or work carried out in a different way, mainly pursuing systematization, individual and/or collaborative work, motivation and participation from the development of skills (Galván-Fernández, C.2017). Starting from this definition, which is used as an introduction to the topic in question in a more specific way, it is necessary to verify that the tool is made up of resources such as: documents, files, evidence of competence development, materials created by the people who elaborate it in different formats and in different contexts, allowing the work to be commented on easily and thus acquiring feedback on the process, formative evaluation of the same and of the actions and development of self-managed learning, in the sense that the protagonist of learning is the author of the portfolio, although there is a systematic work, guided by another actor, which stimulates learning and moderates in some way the creation process that also serves as self-management for the creator. Both the organization of the management and the autonomy of the center, as well as the reference to the pedagogical-didactic field are always conditioned by principles that must govern according to the official norm established with respect to security and data protection in educational centers and in the administration itself, specifically the PDDL (Organic Law 3/2018, of December 5, Protection of Personal Data and guarantee of digital rights) so it must be taken into account that very specific and assumed instructions must be adopted by the center itself collected in the Educational Project of the Center,



within the Digital Plan and/or in the rules of coexistence, organization and operation, in addition to being cataloged as a security protocol in said documents.

The works that Martínez and Barberá (2012) present about the educational portfolio are based on published studies supported by experience in the classroom and by contrasted data in educational research through the formulation of hypotheses related to innovation and the verification of whether it really the tool and the implementation processes that serve as support and development are effective in training programs and school organization and may or may not have a positive impact on reflective skills, autonomy, critical reasoning and teamwork with respect to the professional profile of teachers. As an innovative tool, it is mainly intended to produce changes that range from cognitive to emotional and psychomotor learning, encourage work procedures and collaborative organization between students and teachers, in addition to creating a more autonomous and responsible learning.

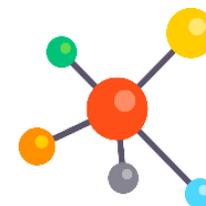
Regarding the digital portfolio as an evaluation and evaluation instrument, the analysis of the documents meant a very important area within the Educational System in relation to the establishment of methodologies and new tools when implementing the evaluation processes, mainly in a context where it is already inevitable not to consider information and communication technologies to carry out both the organization of the center, the professional development of teachers or the teaching-learning process of the students. One of the attempts of the work was to distinguish the impact and the effects also in relation to the evaluation in these areas.

The various studies on the portfolio as a student work tool and a teacher evaluation tool conclude that it is not very different in the different educational

contexts, understanding as such the process of implementing evidence and evaluation. In the dossier it contains, both students and professors can express their arguments, review errors or motivate with successes. For this reason, it supposes a profound change when evaluating and a commitment of the creators with their own learning (Rodríguez Illera, Galván Fernández and Martínez Olmo, 2013).

Almost all authors agree that the creation of a digital learning portfolio appears as a new proposal for a pedagogical procedure with great projection for the future, insofar as it fully adapts to the new educational paradigm (Ravet, 2005; Ruiz, 2009) as it was cited in Coromina, Sabaté and Ferrán (2011).

Another of the objectives in the bibliographic review was to discover or explore in the sources what characteristics would define the evaluation with the portfolio and what aspects should be taken into account when structuring it. Therefore, it is not a question of carrying out an improvised work or of not establishing pedagogical and systematic agreements with the participation of the collegiate bodies that have the power to agree on said agreements, mainly from the Pedagogical Coordination Commission, with the support of the counselors of the centers. From this perspective, students must know the learning objectives and evaluation criteria a priori (Muñoz-Justicia, Sánchez, Sahagún, M. Marc Bria, 2008). Since it really is a tool that facilitates the development of competencies, it must allow different models of activities according to the objectives of the areas and the educational context, in addition to the evaluation criteria. This will lead to the teacher being able to obtain different evidence of competence development and the evaluation not only of products, but also of processes, establishing the possibility of creating, modifying or sharing (Muñoz-Justicia, et al., 2008). In the feedback process, the teacher collects information



about the student's learning process, and the procedure is based on creating a feedback of the results so that the students can reflect on their learning. For teachers, it means the possibility of reflecting and making decisions in relation to educational actions that improve student tutoring processes (Alonso, 2019).

The portfolio as a professional development tool: The ICT for the preparation of the portfolio and its implementation in the process give rise to the digital portfolio or e-portfolio, defined as "a digital collection instrument that includes demonstrations, resources and individual, group, community, organization or institution achievements." (From the Grind, 2019)

One of the fundamental elements for educational innovation to be generated and for it to influence teaching practice is the transformation of the figure of the teacher as an observer, reflecting and evaluating their own learning process. "The innovation of the evaluation is a logical consequence of the approach to training as a development of competences and, therefore, it is an essential conditioning factor for the innovation of training" (Villardón, 2006).

The State School Council, the highest state body for educational participation and decision-making, stated a few years ago that competent professionals should have the ability to work as a team and be able to integrate into the development of collective projects, to reform autonomy and responsibility and to develop new methodologies taking advantage of the opportunities of new information and communication technologies. In this way, reflection and research on teaching practice and the possibility of engaging in a growing social demand that guarantees greater professionalization were encouraged (State School Council, 2015).

One of the normative documentations that comes closest to compliance that determines the correct implementation and homologation of the evaluation process is the one that is included in the Resolution of 12/05/2018, of the Vice-Ministry of Education, Universities and Research, by which the areas, dimensions and indicators are made public and the procedure for the evaluation of teachers in the Autonomous Community of Castilla-La Mancha is established in relation to the performance evaluation systems that must adapt, in any case, to transparency criteria, objectivity, impartiality and non-discrimination, without prejudice to the technical discretion of the evaluation, and applied without prejudice to the rights of civil servants. In its regulatory development, the digital portfolio is outlined as a specific instrument to assess the different profiles through dimensions and indicators, among them; that of the director and director (assessment that is made when the position is appointed) or that of the managerial function (of a continuous nature, more specific when the renewal takes place).

DISCUSSION

In this way, the discussion based on the review focused on the following areas:

New information and communication technologies in today's education:

With regard to the analysis of the new information and communication technologies in education today, it is based on the situation of the context that the OECD exposes through its latest reports in which a certain imbalance is highlighted between the demands of today's society and the challenges that are formulated from the perspective of new technologies in European educational systems and the gap that exists at the level of resources and training in the field of new technologies. To counteract this situation, which is not



only the objective of the aforementioned organization but also of other officially presented reports, the Educational Digital Competence Reference Framework was announced last year through the Education Conference, which develops the competencies that teachers need, perform the teachers of the XXI century for the improvement of their educational practice and for continuous professional development. Digital competence is thus integrated into a reference framework so that at some point in the regulatory updates it can be incorporated into the new curricula as a necessary and essential area of development so that students can also be digitally competent.

School organization, evaluation and new technologies:

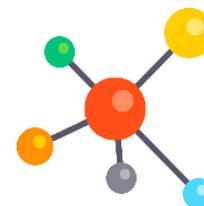
The analysis of the documentation addresses, from a continuing perspective with the previous aspects, the treatment of new technologies as evaluation tools, as it is one of the most important processes to assess or measure the achievement of objectives through the development of competencies. , the quality of the centers and the academic performance of the students. Authors such as Santín et al. (2014) define in their document the need to assess and evaluate educational practices. Likewise, they focus their attention on issues such as rethinking what they want to evaluate with respect to new technologies as an evaluation tool, what actions have been less efficient, in addition to continuing for some time (2 or 3 courses) with the evaluation of digital competence to know the impact on the organization of the center's plans.

It must be considered that currently the procedure in public centers to monitor digital plans is carried out through internal evaluations or self-assessments. The bibliographic review unraveled the intimate relationship between digital tools and some of the functions of other groups in the educational field, such as the one exercised by the educational inspection

service with respect to the evaluation of centers and new technologies. Among the functions that the current LOMLOE attributes to this external service is that of "Supervising, evaluating and controlling, from the pedagogical and organizational point of view, the operation of educational centers, as well as the projects and programs that they develop, with respect to the framework of autonomy that this Law protects" (art. 151.1, LOMLOE). Although until now supervision included the evaluation function, with the new regulations, the objective of evaluation is, among other things, accountability and assessment of the impact of education programs. This is the case of the programs that are implemented in the centers to provide them with quality resources. For example, the evaluation that is carried out of the Educational Innovation Projects where one or more inspectors act as members of evaluation commissions that proceed to assess and report on practices with digital tablets, STEAM methodologies or similar. In this case there is no doubt about whether the results have an impact on the system or not. The evaluation methodology is implemented based on both qualitative and quantitative indicators, thus providing a more reliable value to the evaluation through the mandatory reports, in accordance with the idea that Casanova (2004) provides about evaluation methods.

Another area of relevant analysis from the review was the quality of the educational system and the digital portfolio as an evaluation tool:

If the documents of the selected authors that deal with this concept are compared, it can be seen that from the perspective of the work of Delgado (2014) the main and ultimate purpose of an educational center is to ensure that its students reach quality educational levels. The quality of the center, understood in terms of results, will be closely related to effectiveness and, above all, to efficiency in the use of resources and



processes to achieve educational objectives. In a different line, it reflects the treatment of the concept of quality Gómez (2020), in relation to the centers, establishing the focus on the Management System for Educational Organizations (SGOE) and determining what resources an educational center must have to ensure quality standards. provision for comparing results. According to the work presented by the author himself on the AENOR page, the idea is that, through an international standard such as ISO 21001 (International Organization for Standardization), standards are determined that allow the quality of an educational center to be assessed .

Other authors addressed in the review understood the quality of the centers from the perspective of standards, as is the case of Bolívar (2006), who refers to the importance of external evaluation as one that is governed by the assessment of the degree of compliance with the results set in standards or competencies, also noting the need for homogeneity in the review processes. In order to corroborate their contribution, some regulations referring to evaluation were consulted, as in the case of Castilla La Mancha, where it is reported in the aforementioned Resolution of December 5, 2018 on how to evaluate the management function of a center. It coincides with the evaluation that is carried out of an educational center, with nuances, although what is widely used so that managers can receive feedback on their work is the digital portfolio (a system of spreadsheets that hyperlink documents) that is attached to this order and that serves for the same evaluation of the director. The evaluation with this digital cataloging system focuses on dimensions such as: material conditions, curriculum development, school results, programmatic documents, operation of the teaching center, coexistence and collaboration, relations with the

environment, with other institutions and training and innovation.

Digital portfolio in the educational process as a student work tool and teacher evaluation tool:

To assess the impact of the digital portfolio on the educational process as a student work tool and a teacher evaluation tool, documents were found that provide experiences and studies proposed by various authors. Specifically, perspectives such as those of Muñoz Justicia (2008) allow us to understand to what extent the construction and use of this tool implements a methodology such as the selection by the students of the corresponding evidence that must account for the acquisition of the skills adapted now to the new requirements of the Council Recommendation of May 22, 2018 on key competences for lifelong learning. At the same time, teacher training in new technologies is an imminent challenge, here and now, since the new legislation has already been pushing towards the immersion of the digital plans of the centers in a generalized way as a change in educational practices where it is necessary to pedagogical action tools such as the educational portfolio are taken into account to obtain good results among students.

Teacher assessment and evaluation tool:

In the case of the teaching profile, the construction of the artifact is similar to that of the student. For the teaching portfolio, the first phase collects and orders the compilation of evidence based on a specific subject or subjects, and it includes learning results of the type: materials, images, videos, files, creation or modification of digital content, reflections, comments, letters, circulars to the educational community, to families, guides or guidance materials, inspection instructions and, in the case of the director's portfolio; the corresponding programmatic documentation



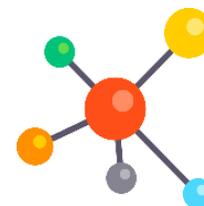
ordered according to the areas corresponding to the organization, management and direction of the center

In the second phase, the selection phase, the author makes a selection of the most important pieces of evidence. In the creation of the portfolio, the teacher has an immense amount of information that, precisely and thanks to the digital tool, he can order and catalog according to the information provided by the administration so that he knows "what he is going to be evaluated on." This ordering and cataloging work aims mainly at the deposit of important and necessary documents and significant experiences and above all, from the perspective of a look not only towards the moment of evaluation, but to work it in such a way that it really has meaning within the teaching or organization and management work of the center and that allows assessing, reflecting and adjusting or changing what does not come close to a pedagogical model or direction and management according to the referenced regulations and the context in each case.

In the reflection phase, a metacognition process is outlined that cannot be done in an unsystematic and improvised way. It needs a grounded base that needs other parallel instruments that approximate a specific construct. Therefore, a portfolio must be accompanied by a reflection process supported by a previous analysis in which criteria have been established on difficulties within a context, strengths in it, threats and weaknesses. In this sense, a digital portfolio is not a collection of works or products in itself stacked or randomly joined. Likewise, it is necessary to take into account that the evidence cannot be separated from a reflexive element, whether explicit or implicit (Martín et al., 2012), therefore related to meta-evaluation and metacognition. The publication would come later, according to the literature, of a process that prepares the portfolio for evaluation in a similar way as in the case of the student: either in a similar space or on

Google Sites, in an institutionalized platform, in an application agreed for that purpose or in an external space such as Blogger, WordPress or similar.

Pragmatism and functionality in the results will also come hand in hand with collaborative work. In this way, and according to this approach, collaborative learning environments demonstrate that the performance of processes is the result of greater and better efficiency. In the case of the director's portfolio, for example, the educational inspection services work collaboratively throughout the course on its review, since it is housed in common spaces within the educational platforms. It is necessary to remember that the assessment is always done through a rubric, an instrument proposed by Vázquez-Cano et al. (2014) and that establishes, through the corresponding criteria and indicators, the basis on which the objectification of the evaluation of the work contained in the portfolio is based, in accordance with the established objectives. It should also be pointed out, continuing with the search for meaning and the impact that the digital portfolio can project in educational environments, the special situations experienced in our world as a consequence of the different health scenarios that have been organized by virtue of safeguarding the lives of people in relation to the SARS-CoV-2 virus in recent months. A multitude of educational centers, in collaboration with students and families, established plans to continue teaching from home. In the new scenarios, teachers had to adapt teaching to non-face-to-face formats. Tools such as the digital portfolio were used, even recommended in guides published by international organizations (Rappoport et al., 2020) through suggestions for the use of learning diaries or portfolios to such an extent that hundreds of educational centers in our country were able to carry out the evaluation of the students thanks to the digital portfolio in terms of the



development of the process described in this work with a low cost, an easy and simple handling and a motivating activity.

CONCLUSION

Digital portfolio is an ordered collection of works (documents cannot be used exclusively because there are other evidences in other formats: infographics, images, sounds, mental maps, links to other spaces created or consulted, other applications, various apps, etc) content, ordered and classified as repositories of teacher's work, the student or the organization and management of the center, thus presenting and informing their efforts, progress and achievements. The application of the evaluation scope is endorsed by some descriptors through contents and indicators that in turn have a value conferred with more or less weight in relation to the objectives that are proposed to be achieved.

This research has tried to analyze the usefulness of the digital portfolio as a tool for evaluation and school organization based on a review of bibliographic documentation.

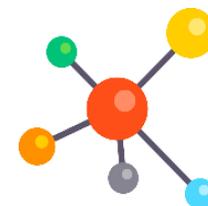
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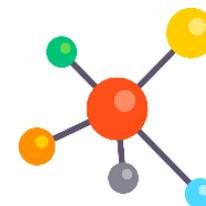
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Documents:

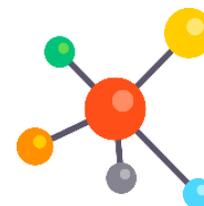
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