



The digital portfolio as a tool to support the teaching process

El portafolio digital como herramienta de apoyo en el proceso de enseñanza

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ABSTRACT

Keywords:

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In the current high-quality accreditation faced by Universities in Colombia, the adoption of tools that promote the dynamization of the teaching process is relevant, one of these trends are the digital portfolios, so, this study aims to highlight the impact (benefits and difficulties) of the use of a platform to support teaching and development in the teaching process at a public university in north-East Colombia. To this end, quantitative research was developed, where descriptive level research was used, using as a population the teachers and students of a program of the Faculty of Engineering of the Universidad Francisco de Paula Santander, to whom a structured questionnaire, Likert scale type, the data was analyzed using the SPSS office program. It is evident that the benefits of the use of PLAD in the teaching and learning processes show access to information, as well as the optimization of time and the use of ideas, as regards the difficulties present in the use of PLAD in the teaching and learning processes, there is an inadequate connection, as well as ignorance and forgetfulness in relation to the organization of the material in the form, regarding the impact of the use of PLAD in the development of teaching and learning processes.

RESUMEN

Palabras clave:

Portafolio
Portafolio digital
Proceso de enseñanza y
aprendizaje
Trabajo independiente

En la actual acreditación de alta calidad que enfrentan las Universidades en Colombia, es pertinente la adopción de herramientas que promuevan la dinamización del proceso de enseñanza, una de estas tendencias son los portafolios digitales, por lo cual, el presente estudio se plantea como objetivo determinar el impacto (beneficios y dificultades) del uso de una plataforma de apoyo a la docencia en el desarrollo en el proceso de enseñanza en una universidad pública del nororiente colombiano. Para tal fin se desarrolló una investigación cuantitativa, donde se empleó una investigación de nivel descriptivo, empleando como población a los docentes y estudiantes de un programa de la Facultad de Ingeniería de la Universidad Francisco de Paula Santander, a quienes se les aplicó un cuestionario estructurado, tipo escala de Likert, los datos fueron analizados mediante el programa ofimático SPSS. Se evidenció que en los beneficios que se desprenden del uso de PLAD en los procesos de enseñanza y aprendizaje, se evidencia el acceso a la información, así como también la optimización del tiempo y el aprovechamiento de las ideas, en cuanto a las dificultades presentes en el empleo de PLAD en los procesos de enseñanza y aprendizaje, se evidencia una inadecuada conexión, así como desconocimiento y olvido en relación con la organización del material en la forma, respecto al impacto del uso de PLAD en el desarrollo de los procesos de enseñanza y aprendizaje.

1. Introduction

The reality of universities at the general level, offers a somewhat discouraging characterization, since these places are places where the apathy and the little value that students give to it, to this, adds another cause that generates the lack of appreciation by the university, it is the little commitment that

students give to it, to this, it adds that there is also no respect for the teaching work, on the contrary, despite the enormous efforts that they make to manage to energize their classes, is almost zero, i.e. it does not generate an adequate impact on reality.

This situation, which makes it possible to mention that the behavior of the students, adds the poor willingness of the teachers, to ensure that

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they reflect an adequate academic performance, it is regrettable that the apathy of the students, has also become a widespread evil, teachers far from innovating in strategies and resources have become managers of student failure, attend classrooms where they meet a certain content, without using motivating elements that promote the interest of the student to learn, quite the opposite teaching has become an element that does not generate a boost to the development of the student population.

Since the teacher is not committed to the development of effective teaching activities, the student does not find the fixation of his own learning system, on the contrary, it is based on a Table unfavorable towards the development of effective concretions that do not give way to the cognitive development of the subject. In university spaces, young people do not find a motivating element that encourages them to adequate learning, but on the contrary, is that to treat the skills of the students, the teachers were not trained and, in this way, they are far away of reality. In this regard, it is relevant to note what Bravo has said (2010):

Generational change is evident in universities, although at the university where we were trained we were summed up and did everything the teachers did not say, at the present times that does not happen because students have even better abilities than those of the teachers, given their closeness to the media, these can often dominate topics that for the teacher are unknown and that fact alone puts the student in the lead with the teacher (p. 21).

In relation to the above, curriculum in the university, has caused young people to lose interest in it, because there is no innovation in the contents, the university students want their expectations to be met, but since they do not appear in the curricula, they are not given the necessary attention, it is unfortunate since the students at the knowledge in most cases manages to recognize the fact that it outperforms the teacher, which calls into question the training of

teachers, this is how the topics that are evidence in the curriculum does not provide any support for the development of the child's knowledge.

This may result in the fact that little assertiveness is considered in the training of future professionals in the country, hence that to the east not be taken into account, you will lose interest in the university center and prefer to stay at home, thus generating the university desertion, in this way manifests the fact that the conditions of university education, in the future will be unstable and inadequate to the demands of the social system in which the human capital that requires an education of quality, this is how the situation is alien to these spaces of real development.

Another obvious consequence in the problem would be that teachers, not being reflected in the development of the student's cognitive structure, would not develop attractive classes, on the contrary they would fall into monotony, which would lead to a university scenario, uninteresting for anyone who wanted to insert themselves in it, to this, is added that professional devices, do not respond to the demands of the university sector, which, highlights the development of the training system University.

Based on this, the Universidad Francisco de Paula Santander (UFPS), in order to address the dynamization of the teaching and learning process, put into force the digital portfolio, which is a telematic tool that offers the oxygenation of these processes. Given this situation, the UFPS rector led the design, implementation and training of the Teaching Support Platform (here in after PLAD); as a support resource for teachers to raise their various activities in the development of their courses.

This platform, offers a didactic sustenance to the development of the classes, that is, from it, the contents are systematized and the construction of meaningful learnings by them is promoted, all this effort, has been made with the purpose to adapt the teaching and learning processes to the current technological moments, and also to achieve the commitment of both teachers and students, in order to scale the training process of young university students.

Although multiple efforts have been made in the dissemination of this platform and in its many goodness's, few teachers have implemented it, due to the complexity that it implies, that is, the disinterest of teachers is manifested, given that in some cases, the rejection by the use of this technological tool is demonstrated, in addition, teachers show fear when confronting together with students, a technological tool, so many prefer not to use it, so, the university community is not committed to the development of it.

For the purposes, it is necessary to consider the assessment of the impact of the digital portfolio, in the teaching processes, therefore, it is necessary to define the use, through its benefits and difficulties in operability, especially in those courses where it is used, in addition to contribute to the development of phenomena that affect didactics, in this way, it is possible to possess the necessary evidence for the determination of options that serve as the basis for the definition of a teaching process, aimed at improving the quality of life of college students. For the reasons previously expressed, it is necessary to consider that at the UFPS, the PLAD platform is applied, which is fed by teachers for the development of workshops and work that serve as the basis for the dynamization of the in the various programs presented there, where teachers have committed themselves to the application of the platform and for which, students have joined such situations, given that teacher-mediated education is not the because it generates demotivation and rejection by students of content that develops in class.

2. Theoretical References

Means of interaction for learning. One of the means that add to the above, are the asynchronous (no need to connect simultaneously, example: email or forums) or synchronous (communicate simultaneously, example chats), which are the ones that started the path of the communication via web. These have been catalogued universally and almost obligated, such as email, chat and discussion forums,

in this sense, Palacios and Salas (2012) explain in relation to these means of interaction:

...could break with the limitations of space and time, information would be disseminated more smoothly, conditions that would facilitate the flexible learning process for students. This non-face-to-face education alternative could bring the student closer to the classrooms but in virtual form and as a consequence would not break with student-teacher contact but communication levels would be more effective through virtual classes, conference videos, forums, chats, assessments and other activities that the teacher can schedule in their virtual space. (p.125)

In view of the above, these means of interaction, represent another means of teacher-student communication, more flexible, more creative, which can again foster freer communication through the Web. However, with regard to synchronous media, Interian (2011) states that "it helps us to understand the importance of the "space" where communication takes place, and, in this sense, learning can be understood" (p. 117). For example, with chat, participants must stick to a specific meeting time and stick to a set of rules. The advantages are that doubts can be elucidated simultaneously and perhaps the fact that it does not face to face the teacher, could remove the limitations existing in the classroom in person. Currently there are a range of online chats, such as Messenger, Yahoo Messenger, learning management systems such as moodle or blackboard, which are easy to manage and manage, as well as have had a wide acceptance in education.

In turn, there are discussion forums, which participants do not necessarily have to match simultaneously and there is no restriction on participation or comments; Perera (2007) is very clear in pointing out the following:

...is perhaps the communication tool with the greatest communication potential that

has the greatest potential for learning and interaction in training courses through the web. It also has an important advantage over email: promoting collaborative learning... For your part the discussion forum allows everyone to see what is written at all times. For example, if a student raises a question to a tutor using email, communication is left between them only two. On the contrary, if you cast the doubt into the discussion forum, it can be answered or commented on by that tutor or by the other tutors or colleagues, reaching everyone, in addition, the answer or reaction. (p.118).

Portfolio. For Knapper and Wilcox (1998) “the portfolio concept in the educational field was introduced by the Canadian Association of Professors of Universities in 1980, and has since been used in universities around the world” (s/p). For Pérez, Rojas and Santamaría (2011) a portfolio is “an objective description of a teacher’s main strengths and achievements in his teaching practice; it contains documents and materials that together show the scope and quality of the teachers’ exercise” (cited for García y García, 2012).

According to Valencia (1993), cited by Maldonado (2012), he describes the portfolio as an organization of the evidence of students in a certain educational cycle, which account for the process of training the competencies and the achievements obtained. In addition, it allows both facilitators and students themselves to monitor the evolution of the process of building and rebuilding the competencies.

According to Goig (2012), in the educational field, the portfolio becomes a teaching and evaluation methodology that makes its appearance as an alternative methodological strategy to those of quantitative style, and a procedure for evaluating learning trajectories that is based on the executions and achievements achieved. Grisola y Marisa (2011), they indicate that the teaching portfolio can be an effective instrument in the university field that houses a double virtuality: training resource and evaluation instrument.

Camacho (2012), in his article “the portfolios in the educational field: uses and benefits” states that there are several types of portfolios, which respond to different purposes and purposes, are aimed at different audiences, can be prepared by people or by Institutions. Although there are several categorizations, it cites that presented by Martín and Quintana (2011) as the most complete and didactic, according to: the purpose, the issuer, the audience, the support and the content.

Ayala, Rivas and Salas (2008), notes that the emergence of the e-portfolio opens up the possibility of the use of ICT for educational purposes and the proposal to develop collective portfolios that allow communication between different audiences in the form of social productions, around which processes of interaction, collaboration and social learning can be promoted.

According to the definition of the digital portfolio, Alvarado and Piñero (2012), defines it as a portfolio based on electronic media and services, which differentiates it from the traditional portfolio in the substantial increase in the number and quality of the services contributes to both a person and a learning community, not contingent on a linear sequence.

Gipuzkoa (2008) emphasize that “the use of the university digital portfolio as a teaching strategy facilitates the teacher’s knowledge of the learning processes and the degree of acquisition of the competencies of the students or the possible difficulties”(p. 5).

For García Córdoba (2009) point out that “the use of the university digital portfolio facilitates the knowledge by the teacher of the learning processes, the working methodology of his classes, the tutoring processes” (s/p). In short, it helps to oversee the teaching-learning process.

3. Methodology

The method is considered by Fernandez and Díaz (2002), as a “broad means of logically applying a procedure to a particular action for the purpose of addressing circumstances of formal and perhaps

actual validity, and of verifying the performance of a fact with which it works” (p. 12). The method is created according to the object of study and the reasoning on which scientific knowledge is based. For PLAD research the scientific method should be applied since depending on this set of procedures, new thoughts will be discovered, in their research process they establish different methodological paradigms.

As a first phase of study, quantitative research was applied, which Fernández and Díaz (2002) establish that it determines “the force of association or correlation between variables, the generalization and objectification of the results through a sample to make inference to a population from which every sample comes from” (p. 1). The quantitative method as an initial part of the research refers to the exhaustive measurement of study variables, through a numerical relationship. After the association of data for the explanation of the questions raised in the problem in a way determined by the research objectives.

The level of research is given by the degree of depth and scope that is intended with it, in this way this study, based on its initial characteristics, will be located in explanatory level research, which for Arias (2012), indicates that “it is responsible for finding the reason for the facts by establishing cause-effect relationships” (p. 26). In this sense, the purpose of explanatory research is to find the cause of events or phenomena, which are considered as the origin of the problem posed, the central objective will be to characterize the study event globally, identifying and describing the elements defined in the use of PLAD in the university context.

According to the level of explanatory research, the study was non-experimental in design, defined by Palella and Martins (2006), as:

The one that is done without deliberately manipulating any variable. The researcher does not intentionally replace the independent variables. The facts are observed as they are presented in their real context and in a certain time or not,

and then analyze them. Therefore, this design does not build a specific situation but observes those that exist. Independent variables have already occurred and cannot be manipulated, preventing influencing them to manipulate them. (p. 96)

The non-experimental design is aimed at responding to the causes of physical or social events and its interest is focused on explaining why and under what conditions a phenomenon occurs, or why two or more variables are related. The research observed situations that already exist, without being provoked or designed by the researcher. The results acquired from the corresponding statistical analysis will support subsequent interpretations in the second qualitative phase.

Population and Sample. The population according to Malhotra (1997), “is the set of all the elements that share a common group of characteristics, and form the universe for the purpose of the problem”. The population according to Malhotra (1997), “is the set of all the elements that share a common group of characteristics, and form the universe for the purpose of the problem”(p. 359). Therefore, in this study he was represented by two population groups, the students and teachers of a program of the Faculty of Engineering who make active life at the Francisco de Paula Santander University.

For Tamayo (2009), “the most common element to obtain a representative sample is random selection – random, that is, that each of the individuals of a population has the same possibility of being chosen” (p. 181). From the following criterion: teachers who used the resource for two consecutive semesters, a sample of 96 students corresponding to 5 teachers was consolidated.

Table 1. Operationalization of Variables

Variable	Dimensions	Indicators	Items
Impact	Information	- Training	1-2
		- Educational Performance	3-4 5-6
	Communication	- Social media - Connections	7-8 9-10
Benefits	Strategies	- Research - Tool	11-12 13-14
Difficulties	Operation	- Constructivism - Space - Time	15-16 17-18 19-20
		Organization	- Ideas - Teaching instrument
Using PLAD	Digital Portfolio	- Teaching strategy - Group work	25-26 27-28
		- Time optimization - Reflection	29-30 31-32

Techniques and Information Analysis. For the collection of information, the survey technique, described by Hernández, Fernández and Baptista (2006), was applied as:

...the application or implementation of a standardized procedure for gathering information (oral or written) from a broad sample of subjects. The sample must be representative of the population of interest and the information collected is limited to that outlined by the questions that make up the pre-coded questionnaire, designed for this purpose. (p. 240)

The research by its quantitative study profile, proceeded to the use of the survey to obtain information from the randomly selected population sample. As for the type of instrument, as many questionnaires as subjects were used for each programme. It allowed the application of the same to the students and teachers defined for the sample of the study, developed in two sessions, one with students and one with teachers, the survey took the form of a Likert scale, detailed by Martínez (2008), as “a structured, primary data collection instrument used to measure variables at an ordinal measurement level through an organized set of items, also called sentences, judgments or reagents” (p. 539).

Instrument selected for the measurement of attitudes, under a set of items that were analyzed quantitatively with the use of the statistical computer program SPSS (Statistical Product and Service Solutions), to why this software and the type of

instrument was applied, it is basically due to the high level of accuracy and reliability. The answers will be weighted in terms of intensity, in the degree of; totally always agree, almost always, sometimes, almost never and never, the scale includes 32 questions to select the level that compensated for each student's opinion.

4. Results

The analysis of the data in quantitative studies correspond the development of a pre-established protocol, in order to understand the impact of the results in relation to the objectives of the study, in this sense, in the quantitative phase, a collection of information serving a Likert-like scale, to then produce a table, where the data is located with their respective responses, after that, they were grouped into the dimensions established in the operationalization of variables and thus be able to demonstrate correspondence with the objectives of the research, in this way, it is necessary to refer to the following systematization:

Variable: Impact

Dimension: Information

In this dimension, aspects related to the information held by the university community, on PLADs, in the teaching and learning processes are considered, for this reason, these data refer to:

Table 2. Dimension: Information

Items	Answers											
	Never		Almost Never		Sometimes		Almost always		Always		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
1	4	4,2	1	1,1	27	28,4	28	29,5	35	36,8	95	100
2	46	48,4	12	12,6	20	21,1	10	10,5	7	7,4	95	100
3	1	1,1	6	6,3	28	29,5	30	31,6	30	31,6	95	100
4	2	2,1	5	5,3	28	29,5	31	32,6	29	30,5	95	100
5	2	2,1	14	14,7	36	37,9	29	30,5	14	14,7	95	100
6	29	30,5	10	10,5	21	22,1	15	15,8	20	21,1	95	100

In accordance with the above, it is necessary to refer that in item number one, reference was made to the use of the PLAD for obtaining information that is relevant to the student for training, so it is evident that the highest percentage is located in the answer option always with 36.8%, followed by 29.5% in almost always, according to the above, it is necessary to refer that PLADs, are instruments that allow the student to access the information necessary for their training.

In addition to the above, item number two is presented, which refers to the access that PLADs give students to achieve information related to their training, so the highest percentage is located at 48.4%, followed by 21.1% at times, which, is contradictory according to the answers issued in item number one. In the same order of ideas, it is relevant to mention item number three, in which they refer to the educational benefits of PLAD, where 31.6% always manifest and an equal percentage is almost always located, so that students agree that the PLADs have an educational benefit.

Also, in item four, emphasis is placed on the educational information held by PLADs, where 32.6% refer that almost always and 30.5% that always, according to the above, students mostly agree to the educational use of PLADs. In the case of item number five, it should be noted that in this one the contribution of PLADs with academic performance was assumed, 37.9% consider that sometimes and 30.5% that almost always, so that students consider PLADs as a means that contributes to improving his academic performance. Finally, item number six is presented, where PLAD is proposed as a training tool for academic performance, 22.1% state that sometimes and 21.1% than ever, so that students indicate that information on academic performance is presented in PLADs.

Variable: *Impact*

Dimension: *Communication*

Communication, is one of the means that governs today, the various social and academic spaces, so the

importance of social networks is assumed, as a basis for its development, in this sense, it is necessary to refer to the data collected from reality:

Table 3. Dimension: Communication

Items	Answers										Total	
	Never		Almost Never		Sometimes		Almost always		Always			
	f	%	f	%	f	%	f	%	f	%	f	%
7	53	55,8	13	13,7	14	14,7	8	8,4	7	7,4	95	100
8	35	36,8	17	17,9	27	28,4	14	14,7	2	2,1	95	100
9	9	9,5	6	6,3	29	30,5	31	32,6	20	21,1	95	100
10	6	6,3	10	10,5	33	34,7	25	26,3	21	22,1	95	100

Item number seven, where the use of social networks in PLADs is referred to, 55.8% consider that it is never used, followed by 14.7% in a number of times, in this sense, it is necessary to argue that social networks are scarcely used in PLADs. In item number eight, the promotion of the use of social networks through PLADs as a communicative aspect is raised, 36.8% replied that never and 28.4% that sometimes, so it is relevant to refer that social networks are rarely used as a communicative aspect within The PLADs.

In the same order of ideas, item number nine is presented, where it refers to the quality of the connection for the PLAD application, 32.6% indicates that almost always and 30.5% that sometimes, so that the connection is moderately suitable for that application. Regarding item number ten, the benefit of communication in pedagogical practice is presented, so 34.7% state that sometimes and 26.3% that almost always, according to the above, it is necessary to show that communication is medianly valued in PLADs within pedagogical practices.

Variable: *Benefits*

Dimension: *Strategies*

Considering the teaching strategies, allows to refer that the development of pedagogical practices, needs to be analyzed, so it is necessary to delve into each of the data found for this purpose:

Table 4. Dimension: Strategies

Items	Answers											
	Never		Almost Never		Sometimes		Almost always		Always		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
11	4	4,2	12	12,6	32	33,7	25	26,3	22	23,2	95	100
12	19	20	17	17,9	34	35,8	17	17,9	8	8,4	95	100
13	4	4,2	10	10,5	43	45,3	22	23,2	16	16,8	95	100
14	4	4,2	17	17,9	30	31,6	33	34,7	11	11,6	95	100

With regard to item number eleven, the development of research work from The PLADs as a teaching strategy is raised at times with 33.7%, followed by 26.3% in almost always, so that the investigative work through the PLADs. In the case of item number twelve, the development of research in PLADs is considered, 35.8% replied that sometimes and 20% that never, accordingly, is actually developed research as a teaching strategy.

In addition, item thirteen is presented where the pivot offered by PLADs to the teaching process is assumed, 45.3% replied that sometimes, followed by 23.2% in almost always, according to this evidence, it is necessary to refer that students consider that PLADs are moderately used as a teaching tool. In addition, item fourteen raises the contribution of PLADs as a teaching tool in the teaching process, where 34.7% responded almost always and 31.6% responded that sometimes, so it is appreciated that the trend is similar in both cases, since PLADs are applied medianly in the teaching process.

Variable: *Difficulties*
Dimension: *Operability*

At the digital level, the operational is one of the fundamental aspects so it is necessary to pay attention to such situations, therefore it is relevant to refer to the data that emerged from the application of the instrument in this case.

Table 5. Dimension: Operability

Item	Answers											
	Never		Almost Never		Sometimes		Almost always		Always		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
15	9	9,5	11	1,6	40	42,1	22	23,2	13	13,7	95	100
16	3	3,2	13	13,7	44	46,3	24	25,3	11	11,6	95	100
17	1	1,1	9	9,5	36	37,9	22	23,2	27	28,4	95	100
18	3	3,2	9	9,5	37	38,9	28	29,5	18	18,9	95	100
19	1	1,1	5	5,3	29	30,5	39	41,1	21	22,1	95	100
20	1	1,1	11	11,6	42	44,2	30	31,6	11	11,6	95	100

Referring to item number fifteen, the construction of learning through PLADs is raised, 42.1% replied that sometimes, followed by 23.2% in almost always, according to these percentages, it is evident that the construction of learning with the use of PLAD. In the case of item number sixteen, the value of previous knowledge in the PLAD is raised, where 46.3% reflects that sometimes they are valued and 25.3% that almost always, so that prior knowledge in PLADs is averagely valued.

With regard to item number seventeen, where the value that PLADs give to the pedagogical space is raised, 37.9% reported that sometimes and 23.2% that are almost always valued, so that the assessments of the pedagogical space are actually presented PLADs. In the case of item number eighteen, the need for technology for the use of PLADs is presented, it is characterized because 38.9% refers to sometimes and 29.5% that almost always, so that students consider that the part is moderately required technology to carry out PLADs.

As for item number nineteen, it refers to the optimization of time by applying PLADs, so 41.1% consider that almost always and 30, 5% that sometimes, it should be noted that students consider that eventually PLADs contribute to the optimization of time. Item twenty presents the optimization of time spent learning with PLADs, so 44.2% refers that sometimes and 31.6% so students consider that occasionally PLADs allow the optimization of time dedicated to learning.

Variable: *Using PLAD*
Dimension: *Organization*

The digital portfolio contributes to the development of active teaching processes that generate motivation in students for the construction of meaningful learnings, therefore, this information is assumed:

Table 6. Dimension: Organization

Item	Answers											
	Never		Almost Never		Sometimes		Almost always		Always		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
21	7	7,4	10	10,5	20	21,1	27	28,4	31	32,6	95	100
22	7	7,4	14	14,7	40	42,1	17	17,9	17	17,9	95	100
23			5	5,3	31	32,6	29	30,5	30	31,6	95	100
24			7	7,4	27	28,4	33	34,7	28	29,5	95	100

It is necessary to analyze the twenty-one item, where it refers to the organization of ideas through PLADs, so 32.6% reflects that always and 28.4% that almost always, so that the PLAD allows the organization of ideas. With regard to item number twenty-two, it refers to the use of ideas through the PLAD, 42.1% argue that sometimes and 17.9% that almost always, percentage that is also presented in the answer option always, so that for the most part the students believe that ideas are being used with the use of PLAD.

As for item number twenty-three, PLAD as a teaching tool, 32.6% consider that sometimes, followed by 31.6% on an all the time, so it is necessary to argue that for the most part, Students consider PLADs as a teaching tool. In the case of item number twenty-four, the motivation towards teaching is raised through the PLAD, 34.7% indicates that almost always, followed by 29.5% indicates that always, so students consider that motivation is achieved through the use of PLADs.

Table 7. Dimension: Digital Portfolio

Item	Answers											
	Never		Almost Never		Sometimes		Almost always		Always		Total	
	f	%	f	%	f	%	f	%	f	%	f	%
25	5	5,3	9	9,5	20	21,1	34	35,8	27	28,4	95	100
26	1	1,1	4	4,2	20	21,1	27	28,4	43	45,3	95	100
27	19	20	21	22,1	27	28,4	12	12,6	16	16,8	95	100
28	18	18,9	22	23,2	27	28,4	16	16,8	12	12,6	95	100
29	2	2,1	5	5,3	33	34,7	29	30,5	26	27,4	95	100
30	6	6,3	10	10,5	32	33,7	27	28,4	20	21,1	95	100
31	14	14,7	16	16,8	33	34,7	21	22,1	11	11,6	95	100
32	15	15,8	18	18,9	29	30,5	18	18,9	15	15,8	95	100

In item twenty-five, it is expressed if the digital portfolio is a teaching strategy, 35.8% indicate that almost always and 28.4% that always, according to the above, students mostly consider that they are digital portfolios, a strategy Didactics. With regard to item number twenty-six, the provision for the implementation of THE PLAD as a teaching strategy

is evident, in this regard, 45.3% replied that always, followed by 28.4% in almost always, according to this it is considered that there is an adequate provision to take on digital portfolios as a teaching strategy.

Item number twenty-seven presents the promotion of the digital portfolio for group work, so 28.4% responded that sometimes and 22.1% almost never, which is inferred that the digital portfolio moderately promotes group work. With regard to item number twenty-eight, the value of group work for the development of work through the digital portfolio is presented, 28.4% responded that sometimes and 23.2% that almost never, so it is established that group work is rarely favored from this digital portfolio.

However, it is necessary to mention what is stated in item number twenty-nine, where the optimization of time is raised through the digital portfolio, in this case 34.7% indicates that sometimes and 30.5% that almost always, so it is established that mostly e according to the way that digital portfolios contribute to time optimization. With regard to item number thirty, the use of time with the use of the digital portfolio is raised, 33.7% replied that sometimes, followed by 28.4% in almost always, therefore, the population under study, is in full agreement that portfolio allows the use of time.

As for item number thirty-one, where the promotion of reflection is evident through the use of the digital portfolio, 34.7% replied that sometimes, followed by 22.1% in almost always, so it is established that the reflection is moderately generated with the use of the digital portfolio. In the case of item number thirty-two, it is evident to obtain information through the digital portfolio to generate reflections, 30.5% consider that sometimes, followed by 18.9% in almost never, so it is necessary to mention that it is moderately promoted reflection.

5. Conclusions

The conclusions are the answers to the objectives of the study, so it is necessary to remember that the general objective of this study is framed in ending the impact (benefits and difficulties) of the use of

PLAD in the development of teaching processes at the Universidad Francisco de Paula Santander.

Achieving this objective requires describing the impact of PLAD use on the development of the teaching process, so it was established that PLADs provide little information on the training topic to students, so it is not adequately assessed, it is also necessary to refer to the assumed of a variety of educational benefits, such as the case of online evaluation, the use of office tools, among other elements that promote the construction of meaningful learning, in the same way, it is necessary PLADs have a favorable impact on the progressive improvement of students' academic performance.

It is also important to recognize that communication between teachers and students is promoted in relation to the use of PLADs, in the case of social networks, they are not used, however, they are an option in the dynamization of the platform, it is considered that they are the quality of the connection must improve, in order to increase the productivity of this element, since the platform allows access of information, in addition to which communication promotes the optimization of time.

In the same order of ideas, as regards teaching strategies, it is necessary to refer that research is scarcely used, to promote content development, however, access to information causes mechanical research to be carried out PLADs are, however, considered a teaching tool that promotes the motivation of both teachers and students, since it promotes the development and consolidation of cooperative learnings, which allows the use of time.

As for the diagnosis of the benefits evidenced in the use of PLAD in the teaching process, it is evidenced that PLAD, is a mechanism that promotes the development and organization of ideas, since elements are generated that allow them to assume as an instrument of teaching, in addition to this, digital portfolios constitute a didactic strategy, where group work is not evident, however it is fundamental for the optimization of time, however, little is promoted.

Finally, as regards the identification of the difficulties present in the use of PLAD in the teaching process, there is a positive impact, as the academic performance of the students has improved significantly and are motivated towards teaching and learning, in addition to being in constant interaction through PLADs, access to information and consultations have a positive impact on the construction of the knowledge society, as there is fundamental evidence, such as drive digital tools, to achieve meaningful learning.

6. References

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