PalArch's Journal of Archaeology of Egypt / Egyptology

RELATIONSHIP OF THE VIRTUAL PLATFORM MOODLE IN THE LEARNING OF THE PARTICIPANTS OF THE SPECIALTY OF TECHNICAL NURSING IN A PUBLIC INSTITUTE

Julio Javier Larico Tipula[1], Edward Flores[2]
[1]Universidad Cesar Vallejo
[2]Universidad Nacional Federico Villarreal

Julio Javier Larico Tipula, Edward Flores, Relationship of the virtual platform Moodle in the learning of the participants of the specialty of Technical Nursing in a public institute-Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(12), ISSN 1567-214x

ABSTRACT

The present research was developed in a public technological higher education institute with the objective of determining the incidence of the virtual platform Moodle in the learning of the participants of the technical nursing specialty. The research was applied with a quantitative approach with a non-experimental, transectional, causal correlational research design. The study population consisted of 170 students from both shifts, of which 118 participants were taken as an intentional non-probabilistic sample. The instrument for the moodle virtual platform variable had three dimensions: management of resources and activities, communication and evaluation and for the second variable Learning, we worked with three dimensions: learning by assimilation, learning by discovery and significant learning. The research results showed that the moodle virtual platform affects learning.In this sense, it is important that the teachers of the institute have skills in the management and management of the virtual moodle platform so that the students achieve the skills and abilities.

KEYWORDS. Virtual platform moodle, learning, technical nursing, causal correlational

INTRODUCTION

During this last decade, the evolution, development and consolidation of information and communication technologies, provides the facilities to access all kinds of information, causing interactivity with different people from different continents, providing the alternative to develop their capacities in different

aspects such as remote work, medicine and education. The appearance of covid 19 represents a difficulty for education while 1.5 billion students from 165 countries (Unesco, 2020) are affected.

At the international level, the United Nations (UN, 2020), specifies that the appearance of covid-19 has led the entire world into a worse crisis, even the one generated by the Second World War. It also indicates that from now on the world we knew will be different. Most of the countries that face the covid-19, have taken measures such as quarantine, mandatory social distancing, the closure of borders, immobilization and it has also been decided to suspend classes in educational institutions in person.

Access to online learning is now more important, since we are witnessing the dramatic changes that are taking place in the educational area, in that sense the Moodle platform, which is an open source project, is one of the tools of In-demand learning used by two-thirds of the world's higher education institutions (Moodle, 2020).

At the national level, the Ministry of Education, through Vice-Ministerial Resolution No. 084-2020-Minedu, and with the aim of continuing to provide classes at the productive technical levels and higher-level institutes and schools, offers the opportunity to offer the service non-face-to-face educational education, exceptionally recognizing those dictated as part of the study program (Vice-Ministerial Resolution 084-2020, Minedu).

At the regional level, Luis Lescano, manager of the Federation of Private Higher Education Institutes (Fipes) and the Association of Technological Higher Institutions and Higher Schools of Peru, argues that the appearance of Covid 19 shows that distance education in A virtual context is vital in the learning process in educational institutions, institutes and universities and the educational service does not stop (Regional Communication Network, 2020).

The virtual environment is the only alternative to avoid suspending the educational service. He also highlighted that we are currently in a different academic regime where the state is accepting the use of information and communication technologies through the Ministry of Education (RCR, 2020).

The Arturo Sabroso Montoya Institute to continue providing the educational service remotely and in compliance with the vice-ministerial resolution 157-2020-Minedu, has implemented the virtual platform Moodle available at the following url: https://www.aulavirtual.iestpasm.edu .pe

This research work seeks to identify the relationship that exists between the virtual platform Moodle in learning in the specialty of Technical Nursing at the Arturo Sabroso Montoya public technological higher education institute, for this the following general problem has been raised.

What is the impact of the virtual Moodle platform on learning in the technical nursing specialty of a public technological higher education institute? With the following specific problems: What is the impact that exists between the virtual Moodle platform on learning By assimilation in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute? What is the incidence that exists between the Moodle virtual platform on the discovery learning in the nursing specialty of the Arturo Sabroso public technological higher education institute Montoya? What is the incidence between the Moodle virtual platform on meaningful learning in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya?

Regarding the justification, according to Hernández, Fernández, Baptista (2014, p.40) this research is justified because it is convenient since it will help us determine the relationship that exists between the virtual platform Moodle on learning, it is social relevance because this research will benefit students because it will allow to know the relationship of the Moodle platform on learning by assimilation, discovery and meaning, it has practical implications because it will establish the relationship that exists between the virtual platform Moodle on learning, It has theoretical value because the information obtained will be used for future research, since objectives will be formulated and results will be obtained, it is of methodological utility since it will serve as a reference for future research.

In addition, the general objective has been formulated to identify the relationship that exists between the Moodle virtual platform in learning in the technical nursing specialty of the Arturo Sabroso Montoya public technological higher education institute, with the following specific objectives: to identify the relationship that exists between the Moodle virtual platform in learning by assimilation in the technical nursing specialty of the Arturo Sabroso Montoya public technological higher education institute, identify the relationship that exists between the Moodle virtual platform in learning by discovery in the technical nursing specialty of the education institute public technological superior Arturo Sabroso Montoya and identify the relationship that exists between the virtual platform Moodle in the

meaningful learning in the specialty of technical nursing of the public institute of technological superior education Arturo Sabroso Montoya.

In the same way, the following general hypothesis has been established: The Moodle virtual platform is related to learning in the technical nursing specialty of the Arturo Sabroso Montoya public technological higher education institute, with the following specific hypotheses: the Moodle virtual platform is relates to learning by assimilation in the technical nursing specialty of the public technological higher education institute Arturo Sabroso Montoya, the virtual platform Moodle is related to learning by discovery in the technical nursing specialty of the public technological higher education institute Arturo Sabroso Montoya and also the virtual platform Moodle is related to meaningful learning in the technical nursing specialty of the public technological higher education institute Arturo Sabroso Montoya.

MATERIALS AND METHODS

Research type and design

Kind of investigation

For Cívicos and Hernández (2007), the research is of an applied or practical type and is characterized by the way in which it analyzes social reality and applies its discoveries in the improvement of strategies and specific actions, in the development and improvement of these, that, in addition, allows to develop creativity and innovate.

Research design

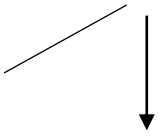
The research design is Non-Experimental, transectional, causal correlational. (Hernández, et al, 2014, p. 152).

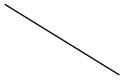
Hernández, et al. (2014) indicated that cross-sectional non-experimental designs are responsible for "collecting data in a single moment, in a single time. Its purpose is to describe variables and analyze their incidence and interrelation at a given moment "(p. 151).

Also Hernández, et al. (2014) indicated that "these designs describe relationships between two or more categories, concepts or variables at a given moment. Sometimes, only in correlational terms, others in function of the cause-effect relationship (causal) "(p. 160).

Scheme: Causal relationship

X_1





- Where:
- M: Sample
- X: Measure of the independent variable
- Y: Measure of the dependent variable
- r: Incidence of variable X on variable Y

Moodle platform

According to Dougimas (2002) creator of the platform, Moodle is the acronym for the English expression modular object oriented dynamic learning environment, which translates into Spanish as a dynamic, modular and object-oriented learning environment, it is a virtual learning platform within the teaching-learning process management systems through the creation of online courses, allows the creation of a center capable of managing different courses through the network, characterized by having a modular structure and being built under the concept constructivist learning.

Dimensions

According to Dougimas, cited by Ros (2008), he specifies three dimensions for Moodle: Content Management, communication and evaluation.

Content management

Present the course notes as images, graphics or videos.

Communication

Moodle has several options, the most used being forums.Evaluación

For student evaluation we have multiple options

The learning

Starting from the approach that learning is a key aspect of teaching, it seems prudent to consider the approach made by Ausubel, Novak and Hanesin cited by García, Fonseca and Concha (2015) in relation to the fact that “learning theories are more interdependent than mutually exclusive ”, which allows us to understand the strong link or

association with theoretical and practical aspects for Education Sciences and as such focused on educational praxis. Namely, the concept of learning has been associated and centered in its beginnings with relatively permanent changes in human behavior (behaviorism), to later focus on the acquisition of knowledge or skills.

Learning dimensions

-By assimilation

-By discovery

-Significant learning

Population, sample, sampling and unit of análisis

The research project will be carried out with the students of the technical professional career of Technical Nursing of the Arturo Sabroso Montoya public technological higher education institute which is located in ProlongaciónRaymondi 1020, district of La Victoria, for this questionnaires will be virtual using the construction of forms through Google form.

The participants are made up of the students of the technical professional career of Nursing of the day and night shift of the public technological higher education institute Arturo Tasty Montoya of the second, fourth and sixth semester respectively.

Population

According to Lepkowski, cited by Hernández, Fernández and Baptista (2014), the population is the set of all cases. In this project, the population is made up of forty students from the second semester of the day shift and forty students from the second semester of the night shift, twenty-five students from the fourth semester of the day shift and twenty-five students from the fourth semester of the night shift, twenty students from the sixth semester of the day shift and twenty students of the sixth semester of the night shift of the technical professional career of Technical Nursing of the Arturo Sabroso Montoya Public Technological Higher Education Institute and that amounts to a total of 170 students registered in the registration system web "Registra" of the Ministry of Education, below is detailed in the following table:

Table 1: Study population

Turn	Semester 2	Semester 4	Semester 6	Total
Day	40	25	20	85
Night	40	25	20	85
Total	80	50	40	170

Note. This table shows the number of students per semester and shift

Muestra

Next, applying the formula to determine the sample, a total of n = 118 was obtained, therefore, applying stratification, the sample would be as follows:

Table 2: Study sample

Turn	Semester 2	Semester 4	Semester 6	Total
Day	30	15	14	59
Night	30	15	14	59
Total	56	34	28	118

Note. This table allows you to view the sample data

Sampling and unit of analysis

Martínez (2006) maintains that the unit of analysis, that is, the specific object of study emerges from the interaction of the constituent parts. In this sense, this research project considers each student of the second, fourth and sixth semester of both sexes as the unit of analysis, respectively.

Data collection techniques and instruments

Table 3: Technique and instrument used in the present investigation

Téchnique	Instrument	Importance	Subject
Survey	Questionnaire	Collectinformationrelated to the Virtual Moodle platform Collectinformationrelated to thelearningprocess	Students IESTP ASM

The instrument is made up of:

30 Questions related to the Moodle variable.

58 Questions related to the Learning variable.

That uses the Likert scale.

The rigor and quality to carry out and evaluate the instrument are basically a function of how reliability and validity are considered, essential properties that must be presented in the development of the process of collecting and analyzing the information that will subsequently lead to guaranteeing a greater credibility on the conclusions that will be obtained.

Reliability refers to the degree of stability that a certain instrument presents when measuring. This in the sense that if we repeatedly apply an instrument to the same subject or object under the same conditions and in the near future, it should produce the same results. An instrument can be said to be reliable if, when weighing or measuring twice in a row, the same results are obtained.

Instruments

a) Instrument to measure the virtual Moodle platform

A Likert-scale questionnaire was developed with a total of 30 items, distributed in three dimensions: resource and activity management, communication and evaluation, that is, the use of the Moodle virtual classroom is measured with these aspects.

b) Instrument for learning levels.

Content:

There is a Likert scale questionnaire with a total of 58 items, distributed in three dimensions: learning by assimilation, learning by discovery and meaningful learning.

Validity

The validity of the instruments is given by the judgment of experts and is corroborated with the validation of the instruments (Questionnaires) that present favorable results in the validity of the content through the judgment of experts.

According to Hernández et al. (2010) for the elaboration of the questionnaire about the virtual platform Moodle, the Likert scale was used because: "it consists of a set of items presented in the form of statements or judgments, to which the reaction of the participants is requested" (p 245). The Learning questionnaire is adapted from Calderón et. to the.

Reliability

The reliability of an instrument refers to the "degree to which its repeated application to the same subject or object produces the same results" (Hernández, Fernández, Baptista 2014, p. 200). There are varied procedures to mediate it, but most produce a coefficient that varies from 0, zero reliability, to 1, maximum reliability.

The most widely used coefficient is the internal consistency measure Cronbach's Alpha Coefficient, which has the advantage that it is applied only once to a sample and then calculated. The recommended values are between 0.7 and 0.9 (Celina and Campos, 2005).

Reliability of the Moodle Virtual Platform and Learning instrument was performed according to Cronbach's Alpha, whose formula determines the degree of consistency and precision.

Two questionnaires were prepared, one for the Moodle variable and another for the Learning variable. Both were applied in a pilot test to a group of 30 subjects and then the reliability coefficient a was calculated for each variable.

To determine the reliability of the Learning Process instrument, the Cronbach's alpha reliability coefficient will be calculated, as a single administration of the measurement instrument is required. (Hernández and Baptista, 2010).

Table 14: Reliability statistics: Moodle platform

Cronbach's alpha	N of elements
,940	30

Cronbach's alpha	N of elements
,970	58

Table 16: ReliabilityStatistics: Learning

Veryhighreliability

Process

In this research project, the survey technique will be developed as the central axis for data collection and taking into account the current situation in which we find ourselves due to the coronavirus outbreak and declared a global pandemic by the world health organization , the data collection instrument will be applied

synchronously using information technology services such as the google form.

The project is developed by proposing the introduction where the current problematic reality, the objectives, the research problem and the justification are considered. Next, the theoretical framework is addressed where international research and national research related to the research project are considered.

The variables are defined for: Moodle platform and learning process. In relation to the methodology, the type and design of research to be carried out, variables and dimensions and the operationalization matrix of variables are exposed, the study scenario, participants, as well as the data collection technique and instruments are specified.

The questionnaire of questions for both variables will be designed and submitted to the judgment of experts. Then the procedures will be carried out in a virtual way using technological resources such as email, WhatsApp, telephone calls, videoconference with google meet to request the respective authorization from the institution where the questionnaire will be applied and subsequently the processing of the data obtained will continue .

With the data obtained, the information will be tabulated and entered into the SPSS v22 program for the respective processing. Finally, the project concludes by making the respective conclusions and suggestions.

Data analysis method

For data management and analysis, the IBM SPSS Statistics software version 25 was used, which is a complete set of data and predictive analysis tools easy to use for business users, analysts and statistical programmers.

Ethical aspects

The ethical considerations that will be taken in this project are aimed at protecting the integrity of people and maintaining the anonymity of their opinions, for which consent is contemplated. After analyzing the results, a report will be written on the results obtained from the students. Finally, as this project is original, it respects intellectual authorship and APA standards in the source registry, and avoids plagiarism and the following principles will be taken into account:

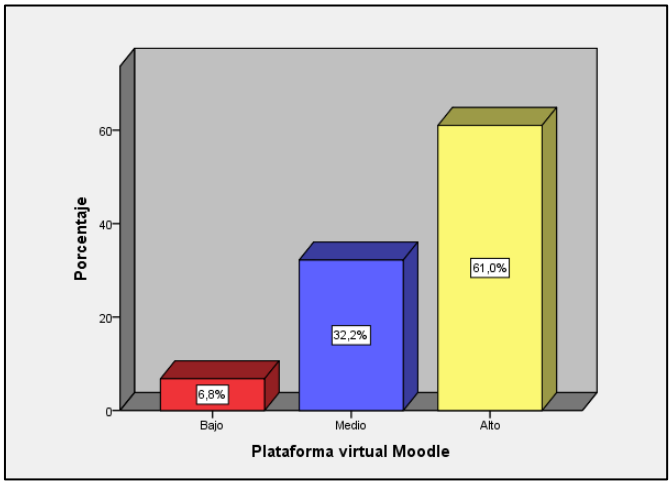
• Respect for autonomy: The participants will be given full freedom regarding the decision to participate or not in the study. No treatment and coercion will be made to limit your freedom.

• Confidentiality: The information obtained from the participants will only be used for study purposes.

RESULTS

Descriptive analysis of the research

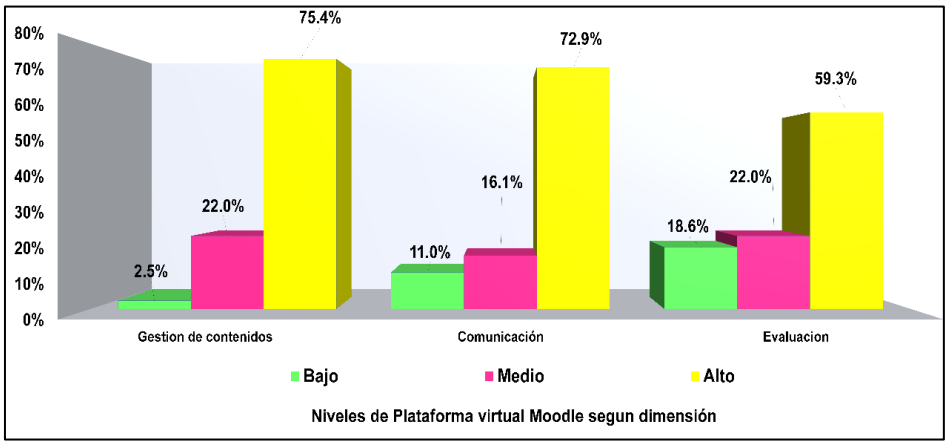
Figure 1: Level of use of the virtual Moodle platform



Note. Levels of use of the virtual Moodle platform

Table 17 and figure 1 show the levels of use of the Moodle virtual platform variable in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; it was obtained that 6.8% considered Low level, 32.2% Medium level and 61.0% High level.

Figure 2: Description of the Moodle Virtual Platform dimensions



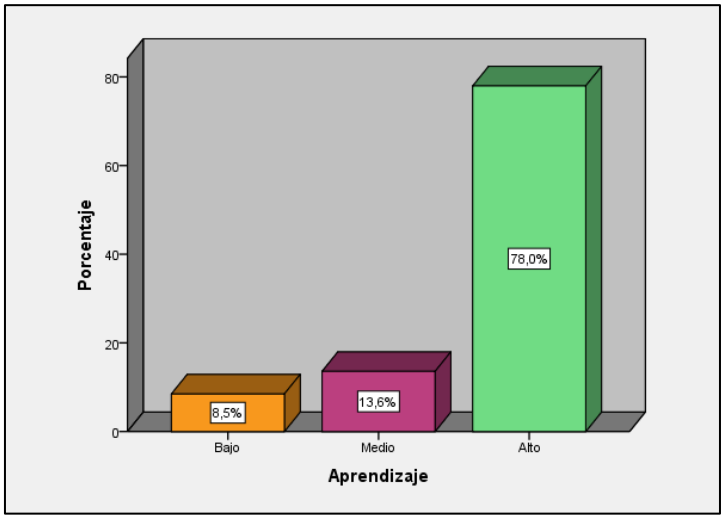
In relation to the levels of the Content Management dimension in the nursing specialty of the Arturo Sabroso Montoya public

technological higher education institute; It was obtained that 2.5% considered Low level, 22.0% Medium level and 75.4% High level.

In relation to the levels of the Communication dimension in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; It was obtained that 11.0% considered Low level, 16.1% Medium level and 72.9% High level.

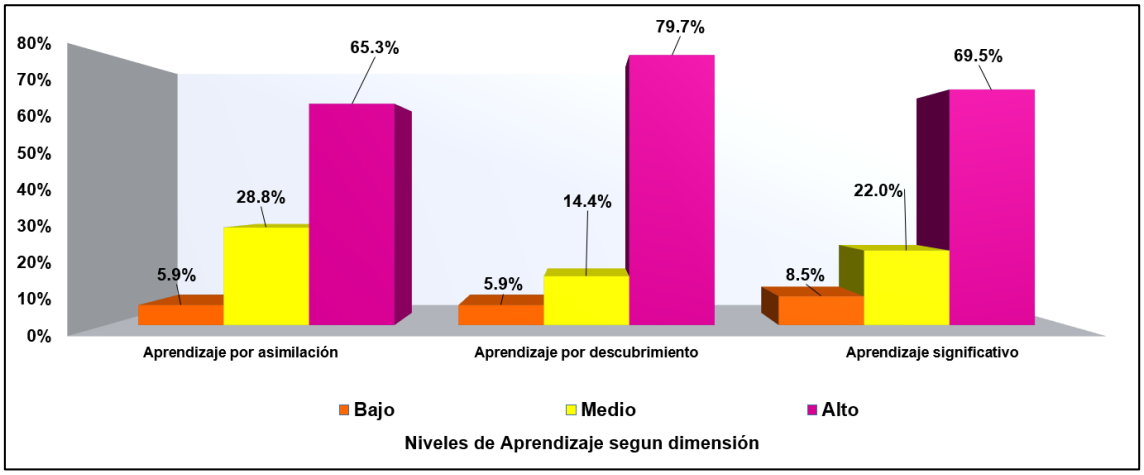
Regarding the evaluation dimension in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; It was obtained that 18.6% considered Low level, 22.0% Medium level and 59.3% High level.

Figure 3: Distribution of learning levels



In figure 3, the levels of the variable Learning in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya were presented; It was obtained that 8.5% considered Low level, 13.6% Medium level and 78.0% High level.

Figure 4: Learning levels according to dimension



In relation to the levels of the Learning by assimilation dimension in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute; It was obtained that 5.9% considered Low level, 28.8% Medium level and 65.3% High level.
Regarding the Learning by discovery dimension in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; It was obtained that 5.9% considered Low level, 14.4% Medium level and 79.7% High level.
Regarding dimension 3 Significant learning in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; It was obtained that 8.5% considered Low level, 22.0% Medium level and 69.5% High level.

Relationship of variables

Table 21: Normality test of the data of the variables and dimensions

	Kolmogorov-Smirnov		
	statistical	gl	Sig.
Content management	,460	118	,000
Communication	,442	118	,000
Evaluation	,368	118	,000
Moodle virtual platform	,379	118	,000
Assimilationlearning	,403	118	,000
Learningbydiscovery	,477	118	,000
Significantlearning	,423	118	,000
Learning	,468	118	,000

In order to select the type of statistical test for the analysis of the research hypothesis, we proceed to determine the type of distribution of the data in the case of the origin of normal distributions; In this regard, the assumed sample presents a total of 118 in the nursing specialty, which is why the so-called Kolmogorov-Smirnov test was used with a significance level of 0.05 and for this the following was proposed:

Ho: The distribution of the variable does not differ from the normal distribution.

Ha: The distribution of the variable differs from the normal distribution.

We consider the decision rule:

$p < 0.05$, Ho is rejected.

p> 0.05, Ho is not rejected.

According to table 21, the ρ_value of the variables and dimensions are less than 0.05 established as the level of significance, that is, Ho is rejected and Ha is accepted, which indicates that these data do not come from a normal distribution and therefore the parametric statistics do not correspond, that is, in this case the ordinal logistic regression test was used.**Validación de hipótesis**

General Hypothesis Check

H0: The Moodle virtual platform does not affect Assimilation Learning in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute.

Ha: The Moodle virtual platform does affect Learning by assimilation in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute.

Statistical test chosen: Ordinal logistic regression analysis.

Significance level: A significance level of 0.05 has been established.

Table 22: Information on the adjustment of the model that explains the impact of the virtual Moodle Platform on Learning.

Model	Logarithm of thelikelihood -2	Chi-square	gl	Sig.
Intersectiononly	91,054			
Final	32,732	58,321	5	,000

Function: Logit.

The contrast test of the likelihood ratio indicates that the logistic model is significant (x2 = 58.321; p <0.05). This means that the Moodle virtual platform affects Learning.

Table 23: Goodness of fit of the model that explains the impact of the Moodle virtual Platform on Learning.

	Chi-square	gl	Sig.
Pearson	13,272	5	,021
Desvianza	18,910	5	,002

Function: Logit.

With the construction of the regression model, the quality of the fit of the model values to the observed values is checked. It was observed that the Deviation (x2 = 18.910) show a p <0.05; It was

established that the regression model considered that the Moodle virtual platform affects Learning, is valid and acceptable.

Table 24: ***Psedo R - square of the model that explains the impact of the Moodle virtual Platform on Learning.***

Pseudo R^2	
Cox y Snell	,390
Nagelkerke	,527
McFadden	,367

Function: Logit.

The Nagelkerke Pseudo - R squared value (0.527) indicates that the proposed model explains 52.7% of the dependent variable Learning.

Table 25: ***Estimation of the parameters of the model that explains the impact of the virtual Moodle Platform on Learning.***

							Confidenceinterval 95%	
		Estimate	Error standar	Wald	gl	Sig.	Lowerlimit	Upperlimit
threshold	[Aprezj = 1]	-4,988	,729	46,858	1	,000	-6,416	-3,560
	[Aprezj = 2]	-3,113	,592	27,656	1	,000	-4,273	-1,953
Location	[Apren_asim=1]	23,790	1,518	245,559	1	,000	20,815	26,766
	[Apren_asim=2]	20,327	,965	443,815	1	,000	18,436	22,218
	[Apren_asim=3]	0[a]	.	.	0	.	.	.
	[Aprend_desc=1]	-24,378	,983	615,061	1	,000	-26,304	-22,451
	[Aprend_desc=2]	-21,470	,000	.	1	.	-21,470	-21,470
	[Aprend_desc=3]	0[a]	.	.	0	.	.	.
	[Aprendz_sig=1]	-3,463	,765	20,486	1	,000	-4,963	-1,963
	[Aprendz_sig=2]	0[a]	.	.	0	.	.	.
	[Aprendz_sig=3]	0[a]	.	.	0	.	.	.

Function: Logit.

to. This parameter is set to zero because it is redundant.

The table indicates that the operational or missionary process (Wald = 615.061; p = 0.000 <0.05) predicts Learning.

Specific hypothesis check 1

H0: The Moodle virtual platform does not affect the Learning by assimilation by assimilation in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute.

Ha: The Moodle virtual platform does affect Learning by assimilation by assimilation in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute.

Statistical test chosen: Ordinal logistic regression analysis.

Significance level: A significance level of 0.05 has been established.

Table 26: Information on the adjustment of the model that explains the impact of the Moodle virtual platform on Assimilation Learning

Model	Logarithm of thelikelihood -2	Chi-square	gl	Sig.
Intersectiononly	90,645			
Final	19,666	70,979	5	,000

Function: Logit.

The contrast test for the likelihood ratio indicates that the logistic model is significant (x2 = 70.979; p <0.05). This means that the Moodle virtual Platform affects Learning by assimilation.

Table 27: Goodness of fit of the model that explains the impact of the Moodle virtual platform on Assimilation Learning.

	Chi-square	gl	Sig.
Pearson	2,462	5	,007
Desvianza	3,433	5	,026

Function de enlace: Logit.

With the construction of the regression model, the quality of the fit of the model values to the observed values is checked. It was observed that the Deviation (x2 = 3.433) show a p <0.05; It was established that the regression model considered that the Moodle virtual platform affects Learning by assimilation, is valid and acceptable.

Table 28: ***Psedo R –square of the model that explains the impact of the virtual Moodle Platform on Assimilation Learning.***

Pseudo R^2	
Cox y Snell	,452
Nagelkerke	,565
McFadden	,374

Function: Logit.

The Nagelkerke Pseudo - R squared value (0.565) indicates that the proposed model explains 56.5% of the dependent variable Learning by assimilation.

Table 29: Estimation of the parameters of the model that explains the incidence of the Moodle virtual Platform in Learning by assimilation.

							Confidenceinterval 95%	
		Estimate	Error standar	Wald	gl	Sig.	Lowerlimit	Upperlimit
threshold	[Aprezj = 1]	-5,521	,743	55,210	1	,000	-6,978	-4,065
	[Aprezj = 2]	-1,684	,329	26,235	1	,000	-2,329	-1,040
Location	[Apren_asim=1]	25,416	1,797	199,997	1	,000	21,894	28,938
	[Apren_asim=2]	21,813	,825	698,882	1	,000	20,196	23,430
	[Apren_asim=3]	0	.	.	0	.	.	.
	[Aprend_desc=1]	-25,416	1,094	539,743	1	,000	-27,560	-23,272
	[Aprend_desc=2]	-21,548	,000	.	1	.	-21,548	-21,548
	[Aprend_desc=3]	0	.	.	0	.	.	.
	[Aprendz_sig=1]	-3,603	,734	24,078	1	,000	-5,042	-2,164
	[Aprendz_sig=2]	0	.	.	0	.	.	.
	[Aprendz_sig=3]	0	.	.	0	.	.	.

Function: Logit.

The table indicates that the operational or missionary process (Wald = 698.882; p = 0.000 <0.05) predicts Learning by assimilation.

Specific hypothesis check 2

H0: The Moodle Virtual Platform does not affect Discovery-by-Discovery Learning in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute.

Ha: The Moodle virtual platform does affect Learning by discovery by discovery in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute.

Statistical test chosen: Ordinal logistic regression analysis.

Significance level: A significance level of 0.05 has been established.

Table 30: Information on the fit of the model that explains the impact of the Moodle virtual platform on Discovery Learning.

Model	Logarithm of thelikelihood -2	Chi-square	gl	Sig.
Intersectiononly	80,491			
Final	27,437	53,054	5	,000

Function: Logit.

The contrast test of the likelihood ratio indicates that the logistic model is significant ($x2 = 53.054$; $p < 0.05$). This means that the Moodle Virtual Platform has an impact on Discovery Learning.

Table 31: ***Goodness of fit of the model that explains the impact of the Moodle virtual platform on Discovery Learning.***

	Chi-square	gl	Sig.
Pearson	15,300	5	,009
Desvianza	13,719	5	,017

Function: Logit.

With the construction of the regression model, the quality of the fit of the model values to the observed values is checked. It was observed that the Deviation ($x2 = 13.719$) show a $p < 0.05$; It was established that the regression model considered that the Moodle Virtual Platform affects Learning by Discovery, is valid and acceptable.

Table 32: ***Psedo R – Square of the model that explains the impact of the Moodle virtual Platform on Discovery Learning.***

Pseudo R^2	
Cox y Snell	,362
Nagelkerke	,506
McFadden	,358

Function: Logit.

The Nagelkerke Pseudo - R squared value (0.506) indicates that the proposed model explains 50.6% of the dependent variable Learning by discovery.

Table 33: ***Estimation of the parameters of the model that explains the impact of the Moodle virtual platform on Discovery Learning.***

							Confidenceinterval 95%	
		Estimate	Error standar	Wald	gl	Sig.	Lowerlimit	Upperlimit
threshold	[Aprezj = 1]	-5,453	,814	44,869	1	,000	-7,048	-3,857
	[Aprezj = 2]	-3,111	,591	27,674	1	,000	-4,269	-1,952
Location	[Apren_asim=1]	20,825	1,551	180,239	1	,000	17,785	23,866
	[Apren_asim=2]	19,543	,875	499,193	1	,000	17,829	21,257
	[Apren_asim=3]	0	.	.	0	.	.	.
	[Aprend_desc=1]	-21,515	,977	484,600	1	,000	-23,430	-19,599
	[Aprend_desc=2]	-21,161	,000	.	1	.	-21,161	-21,161
	[Aprend_desc=3]	0	.	.	0	.	.	.
	[Aprendz_sig=1]	-3,592	,772	21,629	1	,000	-5,106	-2,078
	[Aprendz_sig=2]	0	.	.	0	.	.	.
	[Aprendz_sig=3]	0	.	.	0	.	.	.

Function: Logit.

The table indicates that the operational or missionary process (Wald = 499.193; p = 0.000 <0.05) predicts learning by discovery.

Specific Hypothesis Check 3

H0: The Moodle virtual platform does not affect significant learning in the nursing specialty of the Arturo Sabroso Montoya public technological higher education institute.

Ha: The Moodle virtual platform does affect significant learning in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya.

Statistical test chosen: Ordinal logistic regression analysis.

Significance level: A significance level of 0.05 has been established.

Table 34: Information on the adjustment of the model that explains the impact of the Moodle virtual platform on meaningful learning.

Model	Logarithm of thelikelihood -2	Chi-square	gl	Sig.
Intersectiononly	78,501			
Final	37,462	41,040	5	,000

Function: Logit.

The contrast test of the likelihood ratio indicates that the logistic model is significant (x2 = 41.040; p <0.05). This means that the Moodle Virtual Platform affects meaningful Learning.

Table 35: Goodness of fit of the model that explains the impact of the Moodle virtual platform on meaningful learning.

	Chi-cuadrado	gl	Sig.
Pearson	15,471	5	,009
Desvianza	22,377	5	,000

Function: Logit.

With the construction of the regression model, the quality of the fit of the model values to the observed values is checked. It was observed that the Deviation (x2 = 22.377) show a p <0.05; it was established that the regression model considered that the Moodle virtual platform affects significant learning, is valid and acceptable.

Table 36: Psedo R - square of the model that explains the impact of the Moodle virtual platform on meaningful learning.

Pseudo R^2	
Cox y Snell	,294
Nagelkerke	,369
McFadden	,219

Function: Logit.

The Nagelkerke Pseudo - R squared value (0.369) indicates that the proposed model explains 36.9% of the dependent variable Significant learning.

Table 37: Estimation of the parameters of the model that explains the impact of the virtual Moodle Platform on significant learning

							Confidenceinterval 95%	
		Estimate	Error standar	Wald	gl	Sig.	Lowerlimit	Upperlimit
threshold	[Aprezj = 1]	-3,717	,508	53,485	1	,000	-4,713	-2,721
	[Aprezj = 2]	-1,508	,310	23,688	1	,000	-2,115	-,900
Location	[Apren_asim=1]	23,215	1,535	228,758	1	,000	20,207	26,224
	[Apren_asim=2]	21,262	,821	670,986	1	,000	19,653	22,870
	[Apren_asim=3]	0	.	.	0	.	.	.
	[Aprend_desc=1]	-23,874	,987	585,099	1	,000	-25,808	-21,939
	[Aprend_desc=2]	-20,806	,000	.	1	.	-20,806	-20,806
	[Aprend_desc=3]	0	.	.	0	.	.	.
	[Aprendz_sig=1]	-1,954	,574	11,571	1	,001	-3,079	-,828
	[Aprendz_sig=2]	0	.	.	0	.	.	.
	[Aprendz_sig=3]	0	.	.	0	.	.	.

Function: Logit.

The table indicates that the operational or missionary process (Wald = 670.986; p = 0.000 <0.05) predicts significant learning.

CONCLUSIONS

The conclusions of the study are presented below:

First: The result obtained from the general hypothesis, the virtual Moodle Platform does affect Learning inthe nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; due to the likelihood ratio, that the logistic model is significant (p <0.05); it fits the data well (Deviation with p <0.05); and explains 52.7% of the dependent variable (Learning).

Second: The result obtained from the specific hypothesis 1, the Moodle virtual platform does affect learning by assimilation in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; due to the likelihood ratio, that the logistic model is significant ($p < 0.05$); it fits the data well (Deviation with $p < 0.05$); and it explains 56.5% of the dependent variable (Learning by assimilation).

Third: The result obtained from the specific hypothesis 2, the Moodle virtual platform does affect the Learning by discovery in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; due to the likelihood ratio, that the logistic model is significant ($p < 0.05$); it fits the data well (Deviation with $p < 0.05$); and it explains 50.6% of the dependent variable (Learning by discovery).

Third: The result obtained from specific hypothesis 3, the Moodle virtual platform does affect significant learning in the nursing specialty of the public technological higher education institute Arturo Sabroso Montoya; due to the likelihood ratio, that the logistic model is significant ($p < 0.05$); it fits the data well (Deviation with $p < 0.05$); and explains 36.9% of the dependent variable (Significant learning).

REFERENCES

Cívicos, A. y Hernández, M. (2007). Algunas reflexiones y aportaciones en torno a los enfoques teóricos y prácticos de la investigación en trabajo social. Revista Acciones e investigacionessociales, 23, 25-55

García, Fonseca y Concha (2015). Aprendizaje y rendimiento académico en educación superior: un estudio comparado, *Revista*, 15(3), Recuperado de https://www.redalyc.org/pdf/447/44741347019.pdf

Pamela M. H. Kwok , "Using Facebook and Moodle in HigherEducation: 1 + 1 = 3? ", International Journal of EducationalScience and Research (IJESR), Vol. 4, Issue 5, pp. 67-72

RidipDevChoudhury, KhurshidAlam Borbora &ShikharKumarSarma ,"ESOA: A Web-BasedExpertSystemfor Online Assessment: PrototypeDesign and Implementation "International Journal of ComputerScienceEngineering and InformationTechnologyResearch (IJCSEITR), Vol. 3, Issue 2, pp. 449-458

Hernández Sampieri, R., Fernández Collado, C. y Baptista Lucio, P. (2014). Metodología de la investigación (6ta ed.). México: McGraw-Hill.

Jiménez. A. (2017). *Percepción de los estudiantes acerca de nuevas formas de aprendizaje usando plataforma Moodle en el contexto del convenio de desempeño sistema territorial de educación universidad del biobío 1202* (tesis de maestría). Universidad Católica de La Santísima Concepción, Concepción, Chile.

JanNealbert V. Calimag, Pamela Anne G. Miguel, Romel S. Conde & Luisa B. Aquino , "UbiquitousLearningEnvironmentUsing Android Mobile Application ", IMPACT: International Journal of Research in Engineering&Technology (IMPACT: IJRET), Vol. 2, Issue 2, pp. 119-128

GayatriRai , "Global Imperatives in HigherEducation (Perceptions&Challenges) ", International Journal of Humanities and Social Sciences (IJHSS), pp. 189-196

Martínez, M. (2006). La investigación cualitativa. Síntesis por asimilación. Revista IIPSI. 9(1). Recuperado de https://sisbib.unmsm.edu.pe/bvrevistas/investigacion_ psicologia/v09_n1/pdf/a09v9n1.pdf

Red de Comunicación Regional, (2020). Educación a distancia es importante para que el aprendizaje no se detenga por epidemia del covid 19 https://www.rcrperu. com/educacion-a-distancia-es-importante-para-que-el-aprendizaje-no-se-detenga-por-epidemia-del-covid-19/

R. Padmavathi , "Virtual ClassRoom Management ", IMPACT: International Journal of Research in Humanities, Arts and Literature (IMPACT: IJRHAL), Vol. 2, Issue 3, pp. 77-82

Unesco, (2020). Covid-19 es una gran crisis de educación, asegura la Unesco. Gestion. Recuperado de https://gestion.pe/mundo/covid-19-es-una-gran-crisis-de-educacion-asegura-la-unesco-noticia/

Hernández, R., Fernández, C. y Baptista, M. (2014). *Metodología de la investigación* (6ª. ed.). México D.F.: Mcgraw-Hill / Interamericana Editores, S.A. De C.V.

SandhyaLohakare , "ObjectivelyStructuredClinicalEvaluation (OSCE) Versus ConventionalExaminationMethodUsedfor Dental PostgraduateStudent in Practical", BEST: International Journal of Management, InformationTechnology and Engineering (BEST: IJMITE), Vol. 3, Issue 9, pp. 23-30

Celina, H. y Campos, A. (2005). Aproximación al uso del coeficiente alfa de Cronbach. *Revista colombiana de psiquiatría*, *34*(4), 572-580. Recuperado de http://www.redalyc.org/articulo.oa?id=80634409