

E-Learning and the Teaching Learning Process in Students of a School in Ecuador

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Abstract: *The main objective is recognize the relation between e learning and learning process in students. This research has a quantity approach non experimental design basic type and correlational transversal. It had 45 students of basic education in Ecuador; they answered two surveys to get data, with an Alpha Cronbach 0, 943 to e-learning y 0,911 to learning process, revealing a high confiability. Spearman results $r=0,915$ showing a Sig.=0,000, when the e learning education Will improve, the educational process Will improve , too.*

Keywords: e-learning, learning process

1. Introduction

E learning is a educational technique that helps the learning process since whichever electronic device, this teaching occurs in the virtual area, so the student is involved in and auto manage his learning.

Caguana et al. (2022) with his paper about e learning like skills to teach during pandemia. He mentions like principal objective to establish the importance of e learning during pandemic time. During the process the study showed a quantitative approach with no experimental basic type and descriptive documental. The sample was 62 papers of index magazines during 2020-2022. After the analysis the authors said like conclusion that the use of e learning was low before pandemic because everybody preferred presencial classes. The pandemic show the lack of technological experience and structure in countries under develop (Africa and Latin America countries).

It revealed three determinate elements to empower e learning in classrooms, they are accessibility, content and pedagogy .that must be use with TICs, in order to improve the low indicators of learning, got by e learning

This research was of importance, because it showed the reality of e learning and actual educational institutions, whose aren't in condition to teach with this methodology, in order to secure quality education works in pair with traditional education.

Morillo & Morales (2021) with his article about manage of educational knowledge by e learning. His objective was establishing how the learning is got with e learning in some institutions in Ecuador during pandemic time.. Talking about Methodology this study showed a quantitative approach with no experimental basic type and descriptive process.. The sample was 178 students who did online surveys, It shows that 1 95,62% of teachers used e learning, and 4,38% use their creativity to continue with a semi presencial education 83% of students understood the knowledge give by teachers , and 63% said was frustrated by lack of technological devises and skills to use the platform where got the classes. Like conclusion the students learn in a better way using e learning methods. Because, it makes the classes more dynamics and participative. Depending of expertise of teachers. With the help of authorities of educational

institution.

Vivas (2022) and her research about e learning and self learning , that determined the relation between e learning and self learning in students of high education in Chinchipe. The methodology was quantitative approach with no experimental design, basic type and correlational. The sample was 116 students who answered two online surveys to get the result, it showed a low relation between e learning and self learning. $L Rho=0,229$ with a Sig.=0,013. The author conclude that e learning is so useful to self learning in high school students, so consider like a complement to semi presencial classes.

It showed that e learning has positive effects in different learning process, more in pandemic, so show how important is e learning to give a digital education.

E learning or online learning is a learning strategy, related with pedagogical factors, with implementation and protection of resources, like guide, related with teachers assistance and students, evaluation, with the continue supervision of virtual studies, and the plannifications like a clue to educational institutions. (Marshall, 2020)

Lovón & Cisneros (2020) see the e-learning like a change of pedagogical contents by any digital devise, and is a tendence thecno center continue. By the way, López et al. (2022) e-learning like the teaching process since a design, and the evaluation applied like a way of education using the internet in a digital environment with instructors and students in a direct way.

Marshall (2010) gave a dimension to e learning, the learning measure like teachers and students able to work with technology, so can work with online education., what means that they know how to use the technology and use in a right way TICs, so they can learn by discover. Develop , the teacher has to update his knowledge , to know how to create new contents and save digital resources like helpers to educational process.. Support, this is related with help give by teachers to students using digital platforms, this support must be flexible and adaptable in order to dinamize the learning process in students, by diferente sessions so students Will be focus in class.

Evaluation and organization; the process are evaluated, in order to evaluate the quality of online education to discover

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mistakes and eliminate them. Giving a Dynamic learning process to students, with planification, manage and supervisor by educational institution to optimize the adaptation of digital teaching, by physical and digital infrastructure educating them for students and actual educational system.

About scientific theories that help this study, we have mature e learning, established guides and clues to follow the organizations to evaluate in a right way whichever online learning to give a quality education (Marshall & Mitchell, 2007).

Salyers et al. (2014) believe that e learning process is a class that includes design, implementation, applied and evaluation of a course o educational plan using internet and could be describe like scholar or teaching process to people that are exclude from society and can interact with teacher using digital resources.

Online knowledge can born of a sincronic equipment like video conference, online chats or using audio channels, or whichever as in chronic media like e mails, blogs, dialogue groups (Rabiman et al., 2020)

The students are from Z generation, so they want to use e learning to be more active their learning process. The institution must offer platforms with an easy manage, so they can use them and learn with it.

Sometimes they don't have an introduction to use them, so it difficult to use it, and getting nervous to learn (Nordin et al., 2021)

Sánchez-Palacios (2020) considers the learning of knowledge doesn't depends of cognitive techniques, emotional and social factors have notable impact. The learning process is consider like an internal process that get meanings that we knows, they are evaluated and applied them.. (Aguilar, 2020)

So we can infer that learning process consist in reception and application of knowledge during the teaching process. The learning process is a result of cognitive process of each student including process, registers, rules and values. (Londoño et al., 2021)

Bautista et al. (2021) said that learning process in a virtual environment is more flexible e-help the participation and enrollment of students, mixing theoretical topics learned in class with practice It is necessary to have a instructor that is a guide to dinamize the teaching technique. Imaging the educator has all knowledge and give them to educators, has a variety of devices to assimilate the information in an independent way.(Morozov et al., 2021)

Learning process is a consistent and prepared way to improve the get of knowledge and theories, for the knowledge of students, to learn, understand and live the topics, select by experience and attitude effects and talents by scholar to face life. Working with an open system with society, to adequate with facts, personal development and reinvent. (Moncada, 2013)

By the way, The theory of learning by discover of Brunner, says that students learn by getting involve in complex learning situations, so student learns by discover in complex situations in a digital environment , for this reason the teacher doesn't have to give all gaps , he has to give goals and answer any doubt of student, so they discover in the way the answer to the situation or problem.. (Molina, 2020, p. 171).

2. Methodology

The research was focus by quantitative with a positive paradigm, with mathematics and stadistic valorations with theoretical frame of some studies and scientific in the period, with integrity, constance and objectivity. (Borda et al., 2009).

The design was no experimental the variables weren't trade in absolute, it was in a general way, it was used in finish time. It is a correlation exploration, its objective was to found a connection or synergy between e learning factors and learning process. (Arias, 2020a)

The population was 45 students of two courses A and B of basic education in Salinas, 2022 18 (40%) males and 27 (60%) female.

3. Techniques and Results

The survey had an observation approach, some questions that were answered with the people of study, in order to get results by first way. (Arias, 2012)

Questionary, some questions related with indicators -variable established in study, in order to get the objective .(Canales, 2006). It was use done questionnaire for e learning and other one for learning process.

E learning variable was disintegrated in five: learning, develop, support, evaluation and organization, at the same way in eight indicators, with twenty five questions and was evaluated in an ordinal scale.

Learning process variable was desintegrated in three: concepts, process, and aptitude. Nine indicators with twenty questions and was evaluated in an ordinal scale.

To validate the instruments they were evaluated by experts who study in a rigid way all questions, the fiability in order to not give a false result. This process was made to questionnaires and exam.

Later, was develop of fiability with a measure valoration with Cronbach of 0.911 and two items with 1 that is so viable and 0,5 that is not valid and next to 0 is not confinable. The pilot quiz was with fifteen students of a institutional education in Ecuador

4. Process

The research began with the coordination of the principal

authority of Educational institution and his authorization, the theoretical framework was based on the collection of data to applied like instruments to obtain information from students of high school. The teachers got a link and they answer the instrument. And the students got a link by their smart phones. At the end, a data base was created to estadistic manage in order to get solution to the research objective

Method of Analysis

After proceed study statistics data, it was treated by IBM SPSS 26.0, to deputation, using descriptive study that show the behavior of data, looking the different changes in aleatory way, for this reason RH Spearman was used to contrast hypothesis who said it is next to 1, they are more related. Porcentual signs and absolute frequency, showed by charts and pictures in order to demonstrate the most extrordinational characteristics of e learning and learning process in Educational Unit.

5. Results

General Objective

Prove the relation between e learning and learning process of students in Ecuador educational units.

General hypothesis Contrast

HG exists meaning relation between e learning and learning process of educational unit in Ecuador.

H0: Don't exist meanfull relation between e learning and learning process of students in Ecuadorian educational unit.

Correlation between e-learning and learning process

n=45	Spearman	Learning Process
E-learning	r	.915**
	Sig. (bilateral)	.000

Note: Student's survey
 **: High meanfull proof

This result confirms the hypothesis that exists between e learning education and educational process in student of educative unit.

Objective 1

Set e learning level and learning process of students in educational unit.

e-learning level

Scale	Frequency	Percentage	Accumulate
Good	41	91,1%	91,1%
Regular	4	8,9%	100%
Bad	0	0%	
Total	45	100%	

Note: Students questionnaire

E learning level shows 91.1% that is a high level, they usually use tics, by 5 points. 8.9% shows a Good level in educational institution.

Learning process level

Scale	Frequency	Percentage	Accumulate Percentage
Bueno	42	93,3%	93,3%
Regular	3	6,7%	100%
Malo	0	0%	
Total	45	100%	

Note: Students questionnaire

93.3%; shows high results in some questions like: Search different information sites, (books, website, virtual library, and so on to do all academics activities, 6.7% of researchers, by answers.

Objective 2

Establish the relation between e learning and students knowledge of educational unit.

Contrast of specific hypothesis 1

H1: Exists a relation between e learning and knowledge in learning process of students.

H0: Don't exist a relation between e learning and knowledge in learning process of students.

Correlation between e learning and meaning dimensional

n=45	Spearman	Meaning dimension
E-learning	R	.865**
	Sig. (bilateral)	.000

Note: Questions applied to students.
 **: High significant proof

In chart we observe the correlation between e learning and knowledge, with Spearman r=0.865, is high positive and, Sig.=0.000.is high significant, too so the research hypothesis is accepted and null hypothesis is not accepted.

Specific Objective 3

Establish a relation between e learning and process dimension of students.

Contrast of specific hypothesis 2

H2: Exist a significant relation between e learning and process dimension in learning process of students.

H0: Don't exist a significant relation between e learning and process dimension in learning process of students.

Correlation between e learning and process dimension

n=45	Spearman	Process dimension
E-learning	r	.860**
	Sig. (bilateral)	.000

Note: Questionnaire applied to students
 **: High significant proof

The chart shows the value of Spearman in r=0.860 and the correlation between e learning and procedimental dimension, is high t significant with a Sig.=0.000. so the hypothesis is accepted and the nule hypothesis is not accepted.,

Specific objective 4

Identify the relation between e learning with actitudinal dimension of students.

Contrast of specific 4

H3: Exist a relation between e learning and actitudinal dimension in learning process of students..

H0: Don't exist a relation between e learning and actitudinal dimension in learning process of students...

Correlation between e learning and actitudinal dimension

n=45	Spearman	Actitudinal Dimension
E-learning	r	.889**
	Sig. (bilateral)	.000

Note: Questionnaire applied to students

** : High significant proof

It shows a spearman of $r=0.889$, with a high positive correlation between e learning and actitudinal dimension, with a significant of $\text{Sig.} = 0.000$. So exists a significant relation, and the hypothesis is accepted, and null hypothesis is not accepted.

6. Conclusion

- 1) Exist a strong correlation, direct and meaningful between e learning and learning process of students in Salinas with a Spearman $r=0,915$ with a $\text{Sig.}=0,000$, this item allow to accepted the research hypothesis confirm the study with real elements. So if we improve e learning, the same will occur with students education.
- 2) Both process are in Good process with a results of 91,1% and 93,3%
- 3) Confirms relation between e learning and learning process with $r=0,865$ and a sign of $\text{Sig.}=0,000$,
- 4) Exist a a relation between e learning and procedimental dimension with $r= 0,860$ and $\text{Sig.}=0,000$; so e learning help learning process.
- 5) Finally, e learning is vinculated in a positive, direct and meaningful relation with actitudinal and learning process $r=0,889$ and $\text{Sig.}=0,000$.

7. Recommendations

- 1) The major must give training each 15 days to teachers, so they learn about technology and Tics resources. , so they can improve digital resources and platforms. Using dydactics and professional resources.
- 2) The academic department must design a proposal to act with a pedagogical process one a month. So we can identify the lack in students and teachers. about use of e learning and improve learning and teaching process.
- 3) Create groups of teachers to update the knowledge related to digital resources and platform.
- 4) Academic department must create plans and curricula where the use of digital resources and platform must be an obligation.
- 5) To involve students in reading groups so they can learn in autonomous way and can practice with digital resources in different spaces of their lives.

References

- [1] Aguilar Gordóna, F. (2020). From face-to-face learning to virtual learning in pandemic times.

- [2] Estudios Pedagógicos, XLVI(3). <https://doi.org/10.4067/S0718-07052020000300213>
- [2] Arias Gonzales, J. (2020a). *Proyecto de tesis. Guía para la elaboración*. Arequipa, Perú: Biblioteca Nacional del Perú.
- [3] Arias, F. (2012). *El proyecto de investigación*. Venezuela: Editorial Episteme.
- [4] Bautista Facho, T., Santa María Relaiza, H., & Córdova García, U. (2021). Achievement of competencies in the learning process during times of COVID-19. *Propósitos y Representaciones*, 9(1). <https://doi.org/http://dx.doi.org/10.20511/pyr2021.v9n1.1175>
- [5] Borda Pérez, M., Rafael Tuesca, M., & Navarro Lechuga, E. (2009). *Métodos cuantitativos herramientas para la investigación en salud. 4 Ed. Revisada y aumentada*. Barranquilla, Colombia: Uninorte.
- [6] Caguana Baquerizo, J., Caguana Baquerizo, D., & Baquerizo Cabrera, M. (2022). E-learning teaching model and its importance in times of pandemic in higher education. *Recimundo. Revista científica de la investigación y el conocimiento*, 6(2). [https://doi.org/https://doi.org/10.26820/recimundo/6.\(2\).abr.2022.366-373](https://doi.org/https://doi.org/10.26820/recimundo/6.(2).abr.2022.366-373)
- [7] Londoño Velasco, E., Montoya Cobo, E., García, A., Bolaños Martínez, I., Osorio Roa, D., & Isaza Gómez, G. (2021). Student's Perception of the Teaching-Learning Process during the COVID-19 Pandemic. *ucación y Educadores*, 24(2). <https://doi.org/https://doi.org/10.5294/edu.2021.24.2.2>
- [8] Lovón Cueva, M., & Cisneros Terrones, S. (2020). Impact of virtual classes on the university students in the context of COVID-19 quarantine: The case of the PUCP. *Propósitos y Representaciones*, 8(3). <https://doi.org/http://dx.doi.org/10.20511/pyr2020.v8nSPE3.588>
- [9] Marshall, S. (2010). *What are the key factors that lead to effective adoption and support of e-learning by institutions?Acode*. Obtenido de <http://www.acode.edu.au/>
- [10] Marshall, S., & Mitchell, G. (2007). *Benchmarking International E-learning Capability with the ELearning Maturity Model*. Proceedings of EDUCAUSE. <https://doi.org/https://revistas.udistrital.edu.co/index.php/vinculos/article/view/10522#:~:text=Los%20creadores%20del%20modelo%20de,conocer%20el%20eM%20en%202002>.
- [11] Moncada, J. (2013). *Modelo educativo basado en competencias*. Editorial Trillas.
- [12] Morozov, A., Mukhametzyanov, I., & Evdokimova, O. (2021). Using a smartphone in the learning process: the experience of the 2020 pandemic. *International Scientific Forum on Sustainable Development and Innovation*, 295(E3S Web Conf.). <https://doi.org/https://doi.org/10.1051/e3sconf/202129505017>
- [13] Nordin, H., Singh, D., & Mansor, Z. (2021). Interface Design for E-Learning: Investigating Design Characteristics of Colour and Graphic Elements for Generation Z. *KSII Transactions on Internet and*

- Information Systems*, 15(9).
<https://doi.org/10.3837/tiis.2021.09.005>
- [14] Rabiman, R., Nurtanto, M., & Kholifah, N. (2020). Design and development E-learning system by learning management system (LMS) in vocational education. *International Journal of Scientific and Technology Research*, 9(1). Obtenido de <https://eric.ed.gov/?id=ed605316>
- [15] Salyers, V., Carter, L., Carter, A., Myers, S., & Barrett, P. (2014). The search for meaningful e-learning at Canadian universities: A multi-institutional research study. *International. Review of Research in Open and Distributed Learning*, 15(6). Obtenido de <https://n9.cl/7thum>
- [16] Sánchez-Palacios, L. (2020). Impact of the Virtual Classroom in the Learning Process of The General Baccalaureate Students. *Revista Tecnológica-Educativa Docentes*, 9(1). <https://doi.org/https://doi.org/10.37843/rted.v9i1.1>
- [17] Vivas Vivas, Y. (2022). *E-learning y aprendizaje autónomo en estudiantes de secundaria de una institución educativa privada, Chíncha 2021*. Universidad César Vallejo. Obtenido de <https://repositorio.ucv.edu.pe/handle/20.500.12692/76864>