



Educational Program Based on Virtual Environments to Improve Learning in the Physical Education Area

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Author's contribution

The sole author designed, analyzed, interpreted and prepared the manuscript.

Article Information

DOI: 10.9734/AJESS/2023/v41i1887

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/97559>

Original Research Article

Received: 05/01/2023

Accepted: 10/03/2023

Published: 14/03/2023

ABSTRACT

The objective of this research was to identify the levels of training in physical education, design proposals for implementation in knowledgeable virtual classrooms and improve learning based on virtual environments, validate the program and determine the technical, human and economic needs. The methodology used is descriptive and proactive. Because the planning of the virtual environment allows the planning, organization, registration and certification of the evidence requested by the students, the instrument is powerful, highly adaptable and tolerable, which allows teachers to suggest complex diagnoses. Type of research was basic. Results evidenced that 34% of the students interviewed take the EVA-based program negatively, due to connectivity, lack of interest in attending virtual classes and studying, because they are used to the presence of a teacher. 10% of students do not give importance to the proposal of an EVA program. It is concluded that Google Classroom is a secure and easy-to-use tool that helps educators manage, measure, and improve the teaching experience.

Keywords: Physical Education; Learning; Virtual environment.

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1. INTRODUCTION

At present, with the advance of time, it is seen education sector in the world is facing a difficult educational problem, due to the health risks due to the presence of the Covid-19 epidemic, which has forced all countries of the world to put education sector in emergency, especially in Latin America, before pandemic, 263 million inhabitants (children, adolescents and young people) in the world missed their educational center, of which 12.7 million people in Latin America and Caribbean, and more than 1,500 million students stay away from an Educational Institution, which represents a deficit of 8.25% in educational sector (development/IDB, 2020).

In this context, teachers and students have to strengthen their skills in virtual environment, such as their ability to face uncertain and challenging situations, so that teaching-learning is not taught in person but rather online, which is not only being in front of a screen does not imply much more, such as being empathetic, flexible, creative, communicative, optimistic, managing your emotions, knowing how to manage your stress, among others, being forced to create a good climate for the practice of teaching-learning between teacher and student [1].

UNESCO, UNICEF and the World Bank have shown that 81% of teachers at primary level and 78% of secondary level in the world barely perform their duties, indicating the majority are not prepared to face the problem of a remote job. In Latin America situation is alarming, as 83% of primary level teachers have noted, 84% of secondary level teachers do not have digital instruments and face what epidemic has brought [2].

The Ministry of Education, through its PERUEDUCA platform, has trained students, teachers, managers; Through this important platform, it has been possible to enter virtual training courses. This MINEDU project works with a MOOC format (Massive Online Open Courses). Aimed at teachers, directors, students, parents, for this it is necessary to get a PC or a smart phone linked to the Internet (Educers, 2020).

The main objectives are: Collective learning, mainly the improvement of the learning process in the educational institutions of country, making use of technological tools, achieving a powerful and entertaining process. Virtual classrooms offer a number of virtual courses to prepare teacher, in

addition to being able to register and improve their educational quality. Regarding virtual courses. We can enter PerúEduca, we find a wide variety of topics and subjects, aimed at enriching the knowledge of the institution's teachers. The intention of Minedu for PerúEduca is to contribute and improve educational processes of country, while fortifying education of future generations of country [3].

The most important Platforms: Educational Resources, articles, Forums, Blog, Scoring system. This better and more dynamic educational platform for increasing the knowledge of student and teacher. The PerúEduca platform grants professional benefits to the teacher, seeks to increase the professional learning of teacher. The platform has some benefits such as virtual classrooms, Learning, latest activities, wall, Professional development. Videoconference. It benefits in increasing the knowledge of teachers at the national level, thus increasing the educational quality in different schools of country [4]. In local scenario, students and teachers are limited to developing skills in virtual environments, in this sense, the concern and interest of teachers arises, in this context, the initiative to Propose an Educational Program Based on Virtual Environments to Improve the Learning in the area of Physical Education. The same one that covers the two study variables. Therefore, we pose present research question: ¿How to approach an Educational Program Based on Virtual Environments to Improve Learning in the Physical Education Area?

This study is theoretically justified, given purpose of evaluating the reliability and validity of dimensions of variable "Virtual Environments Program" and "Learning in the Physical Education Area" in students of educational institution "Francisco Villegas Cotrina" of district of Anguía, province of Chota-Cajamarca. Based on diagnosis of both variables and knowing effect of one on the other, Educational Institutions will be able to improve or approach an Educational Program Based on Virtual Environments in a more accurate way. On the other hand, Learning variable in Physical Education Area would improve aspects of; pedagogical capacities, interaction with interest groups and results of their pedagogical work. This study will provide relevant information to educational institutions on both variables, awakening interest in similar studies, the same that will improve teaching performance as well as educational quality provided. From the above, general objective of research was to propose an

Educational Program Based on Virtual Environments to Improve Learning in the Physical Education Area.

2. METHODOLOGY

Type of design is descriptive and purposeful: since a virtual environment plan facilitates the planning, organization, preparation of records, and qualifying evidence required of the students, it is a very effective and manageable instrument enables teachers to create coherent forms. and propose evaluation methodologies that could be difficult to carry out on paper. In addition, it supports the generation of digital units, interactive books and learning activities through the development of pages, which present different alternatives to add content or activities. Highlighting in this way the learning activities as fundamental components of activities, exercises or dynamic games applied to the students in order to support the learning processes [5]. Research is descriptive and proactive. Descriptive, because it is oriented towards the problem and purposeful, because it gives alternative solutions will reduce problems and overcome them.

2.1 Operationalization of Variables

2.1.1 Independent variable

Virtual Environments Program:

According to [6], the independent variable (VI) is what is changed or controlled to see its effect on dependent variable (VD). Nowadays, transmission of knowledge based on innovation is very important and in this way improve the increase in skills in educational institutions. The EVA are scenarios that facilitate student learning with the support of tools. In addition, new technologies refer to definitions, tools and innovations used in educational institutions. [7] set of pedagogical activities to be developed using virtual environments to improve learning in the Physical Education Area at the I.E. "Francisco Villegas Cotrina" Chugur-Anguía.

2.1.2 Dependent variable

Learning in the Area of Physical Education:

The dependent variable (VD) is the one modified by the independent variable (VD). That is, of the consequence of what is measured [8]. When talking about Physical Education, we emphasize

an educational discipline that treats the human body from a different physical perspective, aiming at a comprehensive education about the human body, contributing to care and health, but also to sports training and against sedentary lifestyle.

2.1.3 Population

It refers to a group of people or animals of the same species, being the same at a certain time and place [9]. In this study, it will be made up of 136 students who belong to the EBR of the Full School Day Institution "Francisco Villegas Cotrina" Chugur - Anguía.

2.1.4 Sample

For [10] it is a subset of the population that is the object of study; Therefore, 31 students of the 5th grade of secondary school of the Full-Day School Institution "Francisco Villegas Cotrina" Chugur - Anguía have been selected.

2.1.5 Sampling

Each member of the world has a possibility, it is the designation of different human beings or individuals to examine their data or knowledge of interest (Perez, 2021).

For [11] the sampling will be of a probabilistic type, specifically, that of convenience, since the researcher is in charge of the Physical Education area.

Inclusion criteria: All students who attend the 5th grade of secondary education of the Full School Day Institution "Francisco Villegas Cotrina" Chugur - Anguía.

Exclusion criteria: All students who are not in the 5th grade of the Full-Day School Institution "Francisco Villegas Cotrina" Chugur - Anguía.

2.2 Data Collection Instruments and Techniques

One of the techniques to be used will be constant, credible and reliable observation and tracking of the manifested behavior. This measurement technique, in different situations, will be useful to establish the approval of a group in relation to its teacher, to study conflicts in the family environment, etc. In addition, we will propose an observation rubric, this is an instrument that favors the evaluation of student learning, causing them to analyze and become aware of their mistakes

through a self-assessment. Likewise, it promotes the description of different levels of quality of a job or project, offering informative feedback to students about the progress of their tasks during their development and a meticulous evaluation of their completed work (Sure, 2021).

When carrying out a research work, it is necessary to consider the methods, techniques and instruments as those elements that ensure the empirical fact of the investigation, representing the method, the path to follow in the investigation, the techniques, the instruments. Whose method is carried out while the instrument contains the resource or medium that helps to carry out the investigation, in addition, the use of information retrieval techniques is a phase in which the data is examined and transformed in order to highlight information useful, propose conclusions and support decision-making [12].

2.3 Procedures

First, the sample will be selected, then the rubric will be elaborated that allows to identify the level of

learning of the competences of the Physical Education Area; Then, said instruments will be validated through expert judgment and reliability will be verified through Cronbrach's Alpha [13]. Subsequently, the instrument will be applied to the members of the study sample, the result of which will serve as material for the extraction of the approach. This will be validated in a timely manner. Then the analysis and discussion of results, conclusions and suggestions will be carried out. Finally, the report will be prepared, which will be supported according to the time and date arranged by the university.

2.4 Data Analysis Methods

Data analysis is the in-depth study of a set of information, whose objective is to draw conclusions that allow the entity to make a decision [14]. The analysis of the information collected will be carried out using the tabulation technique and statistical graphs, measures of central tendency and dispersion will be used.

Table 1. Technological tools used in distance education

Tool	Description	Comunication
GOOGLE CLASSROOMS	Free educational platform, part of Google Apps, as well as Google Docs, Gmail and Google Calendar. Initially, it was used to save paper, since its task is to simplify and impart responsibilities, to evaluate contents. Google Classrooms optimizes communication with the parent, students and teacher.	Synchronous
CHAMILO	With this tool, teachers can develop 100% online courses or courses with face-to-face assistance. It has various pedagogical tools that the teacher can select according to their criteria, which may vary depending on the task in question.	Synchronous
MOODLE	An open source program, it designs highly recognized virtual education and learning environments. It currently has a total of 75,000 registered users, interpreted in 75 languages. Designed based on the perspective of knowledge development supported by oral communication between participants and social constructivism. It is elementary and intuitive, which makes it possible to carry out classes 100% online.	Synchronous
EDMODO	It is an instrument to prepare virtual classrooms that is very popular worldwide. Whose purpose is to develop virtual classes where students intervene, contribute and interact. It has 58 million users internationally. The importance of Edmodo for being made up of teachers, students and parents. Edmodo puts communication as a key point and the teacher creates his virtual classroom. The student has a virtual classroom in her profile.	Synchronous

Source: Five tools for virtual education [15]. Graciela Monroy Correa, *Technological Tools Applied to Distance Education* [16]

3. DISCUSSION

Synchronization tools like Google Classroom, Chamilo, Moodle and Edmodo eliminate the need for students and teachers to share the same physical space and time to interact. Today, cutting-edge technological tools that stand out for their proximity to traditional education are free. online course. In addition, the increased interaction between students and teachers reduces the isolation caused by distance learning. We work with Google Classroom, a secure and easy-to-use tool that helps educators manage, measure and improve learning experiences, but the Moodle platform is considered one of the leading learning management systems because, as open source, it allows than an institution: as a joint work environment, and free. Each time, technology develops, and as education is increasingly associated with the technological means of imparting knowledge, it evolves with it, which confirms the expansion of distance education [17-20].

4. CONCLUSIONS

It has been demonstrated and it is also possible to understand the distance education introduced in the academic life of the school of the Full-Day School Institution "Francisco Villegas Cotrina" Chugur - Anguía, in the use of virtual environments. It has been possible to carry out a field research analysis, to find out what most impacts the students of the Full School Day Institution "Francisco Villegas Cotrina" Chugur - Anguía, with the proposal of the use of a digital program for the student, the same one that let us see in the majority of students interviewed, 56% of the total, has been positive despite the existing difficulties. The students point out that the proposal to use the Educational Program Based on Virtual Environments to Improve Learning in the Physical Education Area would improve the academic system, even not connecting sometimes, it facilitates student learning, the students consider that the proposed EVA program. is flexible, easy and appropriate. Likewise, complementing with bibliographic material by the teacher. On the other hand, 34% of the students interviewed take the EVA-based program negatively, due to connectivity, lack of interest in attending virtual classes and studying, because they are used to the presence of a teacher. 10% of students do not give importance to the proposal of an EVA program. We realize that despite the challenges, the majority of students consider that the proposal to use an

Education Program Based on a Virtual Environment to Improve Learning in the Area of Physical Education has a positive impact on students, taking into account It counts to improve its academic, practical and easily accessible aspect, it also facilitates academic life, in various sectors, both in disciplines and in information on the situation of students in the Educational Institution. It is also concluded that Google Classroom is a secure and easy-to-use tool that helps educators manage, measure, and improve the teaching experience.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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Peer-review history:
The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/97559>