

Virtual platform, new tool in the development of local university processes ***Plataforma virtual, nueva herramienta en el desarrollo de los procesos*** ***universitarios locales***

Oscar Alberto Martínez-Barrera ¹, Rubén Edgar Casadevall-Garcells ², Eransys Núñez-Machado ³

¹ Ms. Sc. Auxiliary Professor. Las Tunas University. Cuba.

² Ms. Sc. Auxiliary Professor. Las Tunas University. Cuba.

³ Univ. Instructor Professor. Las Tunas University. Cuba.

Email:

oabarrera1988@gmail.com

rubencg@ult.edu.cu

eransys1960@gmail.com

Reception date: March 13, 2024

Acceptance date: April 22, 2024

ABSTRACT

The article describes the use that teachers make of the Moodle platform as a teaching and learning resource in the Physical Culture courses of the University of Las Tunas, Puerto Padre University Center. To collect the information, a search was carried out on the platform itself, as well as the records of users and guests who interacted with the courses during the process of preparing the subjects of the Department of Physical Culture. This information was complemented with an interview focused on the subjective experiences of 30 teachers. Among the results it appears that the teachers who participated in the study do not frequently use the virtual platform as a complement to the development of their courses.

Keywords

Physical culture; Teaching-learning; Virtual training; MOODLE platform.

RESUMEN

El artículo describe el uso que hacen los docentes de la plataforma Moodle como un recurso de enseñanza y aprendizaje en los cursos de Cultura Física de la Universidad de Las Tunas, Centro Universitario de Puerto Padre. Para la recolección de la información se realizó la búsqueda en la propia plataforma, así como los registros de usuarios e invitados que interactuaron con los cursos durante el proceso de preparación de las asignaturas del Departamento de Cultura Física. Esta información se complementó con una entrevista centrada en las experiencias subjetivas de 30 docentes. Entre los resultados aparece que los profesores que participaron en el estudio no utilizan frecuentemente la plataforma virtual como complemento para el desarrollo de sus cursos.

Palabras clave

Cultura física; Enseñanza aprendizaje; Formación virtual; Plataforma MOODLE.

INTRODUCTION

Continuing with the experiences implemented in our Faculty of Physical Culture of the University of Las Tunas, after the accreditation process of the degree, in the application of the ideas and concepts presented in the Virtual Educational Model prepared by the group of professors of the department of Physics from the University of Havana (Fuentes et al, 2007), the present work includes the materialization of these in the subjects of the Physical Culture degree and their assembly on the Moodle Platform.

Likewise, in our conception of the teaching-learning process we are based on Vygotsky's ideas that cognitive development cannot be understood without reference to the social, historical and cultural context in which it occurs, highlighting the conversational nature of a series of cognitive processes. , marked by interaction, collaboration and negotiation skills until reaching consensus.

Virtual platforms are an indispensable means for teaching-learning, the different media are based on new forms of remote and asynchronous work, workplaces, educational institutions, etc., base their achievements and advances on this form of work. that has become indispensable for every society. Ramos-Vite et al (2021) p. (1095).

Likewise, the use of Virtual Learning Spaces (EVA) is gaining ground every day in educational institutions and at all levels and teaching modalities that are currently applied and in the academic community through the use of Internet tools. and other telecommunications networks as resources for teaching is known as virtual education.

It is highlighted that the virtual platform is a valid teaching resource in the educational field, which favors autonomous work, innovation, motivation and communication with the teacher; However, there are difficulties in its implementation such as internet connectivity, costs, administration and resources necessary for this purpose, therefore, work must be done on the culture of the teacher and student for a better insertion in the digital era. Guzzetti de Marecos, (2020) p. (860).

Likewise, its didactic potential inevitably leads to the transformation of educational processes and the role of its main actors since they favor procedures focused on the student's activity aimed at the development of skills and competencies. Acharki, (2023). p. (2)

Other advantages attributed to the use of this platform are related to the creation of virtual communities for digital learning based on exchange and cooperation through communication systems mediated by technologies (Salinas, 2003).

However, teachers also require a certain level of training and investment of time and consequently, these two aspects (obligation of training and investment of time) can be interpreted by some teachers as factors adverse to their personal interests and cause resistance to adopting the use of Moodle.

There are numerous investigations that have reported the benefits and potential of using Moodle as a virtual learning space, especially in the university environment (Casales, Rojas and Paulí. 2008; Marín and Maldonado, 2011; Rivas, 2006; Machado et al., 2012). This is how the study of the strategies, potential and optimization of the use of this platform is a topic of special interest in higher education teaching communities.

In relation to the above, this research has been aimed at the use that teachers make of the Moodle platform as a teaching and learning resource in the Physical Culture courses of the University of Las Tunas, University Center of Puerto Padre. Specifically, the different guidelines recommended for the use of this tool as a pedagogical resource to plan and teach the contents of the subjects in this area are detailed.

It is important to keep in mind that from the use of this learning platform it is possible to train students of the Physical Culture career belonging to university education, which establishes an important position to contribute to the teaching process that is present in the virtual learning environments that have been established in the university. Therefore, the research finds relevance in terms of contribution to the search for positive results in the use of the preparation and assembly of subjects on said platform, which allows establishing the analysis of the pedagogical foundations for the correct use and management of this platform. educational tool.

Therefore, we propose the following reasons that justify the selection of the research topic:

1. The accelerated development of science, which implies learning with high scientific rigor on the part of students.
2. The deficiencies detected in the controls of classes and the assembly and operation of the MOODLE platform.
3. The insufficiencies in students to interact with new technologies based on their learning and in solving different situations of the profession.

Having said this, we consider as a methodological conceptual problem: Insufficiencies in the preparation of the subjects that make up the Physical Culture department, with high scientific and methodological rigor, as well as in their assembly on the MOODLE platform.

This topic is of vital importance since:

1. Achieves the development of computer and research skills in students.
2. The fulfillment of the objectives of the different subjects and courses.
3. Greater assimilation by students of pedagogical and professional skills.
4. Contributes to the development of students' cognitive independence.

Regulation of the preparation of the subject.

Resolution 2/2018. Teaching and Methodological work regulations of Higher Education.

ARTICLE 33: The preparation of the subject is the methodological work carried out by the teachers who make up this group with the purpose of guaranteeing, prior to teaching work, the planning and organization of the main elements that, supported by didactics, ensure its efficient development. and effective.

ARTICLE 34: The documents that support the preparation of the subject and that cannot be missing are: The subject file; the methodological work plan of the group and the assessment report of its results in each period of the academic year; the minutes of class controls and the minutes of the methodological activities carried out, which include the names of those absent, the topics discussed and the agreements adopted and their compliance.

ARTICLE 35: The subject file prepared by the group is the set of documents and materials that support its methodological preparation for each type of course. It is the property of the department to which the subject belongs and, therefore, this level of management is obliged to protect that information and guarantee its updating, at least for the duration of the current study plan.

ARTICLE 35: The documents listed below cannot be missing from the subject file: the program of the discipline to which it belongs; the analytical program of the subject; the calendar plan; guidelines for the preparation of lesson plans; the list of available educational resources and, if the subject belongs to the main integrating discipline, the guides for work practice cannot also be missing.

FUNCTIONS FOR THE PREPARATION OF THE SUBJECT

1. The discipline program
2. Methodological guidelines
3. The analytical program of the subject
4. The objectives of the academic year
5. The objective conditions existing in the context in which it is developed.

Authors such as Quiala Barroso, (2018), propose that the preparation of the subject must include, in addition to all the normative documents, high scientific and methodological rigor, it must provide a theoretical foundation to dialectical and historical materialism, contribute to the formation of the

scientific conception of the world, where the unity of science is combined with life, of theory with practice, where the objectives of the subject are combined with social demands, with the most current knowledge of education and science sports where through this the need for physical improvement, the elevation of their capacity for physical performance, the improvement of their health, their skills is promoted in the student's consciousness with the objective of their own benefit and for the benefit of society, in conclusion, in the organization of teaching on the basis of the general laws and regularities of the teaching-learning process and those specific to it.

ASSEMBLY OF THE SUBJECT ON THE MOODLE PLATFORM

Modular Object Oriented Dynamic Learning Environment. (Modular Dynamic Object-Oriented Learning Environment). Web address: moodle.ult.edu.cu. Martin Dougiamas, Curtin University of Technology, Australia. First use of Moodle in classes: August 20, 2002.

Requirements of the first stage of assembly.

1. Each subject must be identified with its name and the teachers who teach it. In addition to the program and P1.
2. The different sections must be identified with the name of the topic or unit and the specific themes or objectives of that topic.
3. Each topic, unit or section must include: study guides and digitalized bibliography of that topic.

USE OF THE MOODLE PLATFORM IN CLASSES

Variante 1 Guide independent study activities in the study guides located in MOODLE, the work is done in digital format (Word, Excel, Power Point) and is sent by mail.

Variante 2 Guide independent study activities in the study guides located in MOODLE, the work is done in digital format (Word, Excel, Power Point) and is delivered directly to the teacher.

Variante 3 In the laboratory, activities located in MOODLE, in Word, Excel or Power Point, are used for the development of classes.

Variante 4 In the laboratory, develop practical classes based on the activities set up in MOODLE, in (Word, Excel, Power Point).

Variante 5 Include self-monitoring learning activities through MOODLE.

METHODS AND PROCEDURES

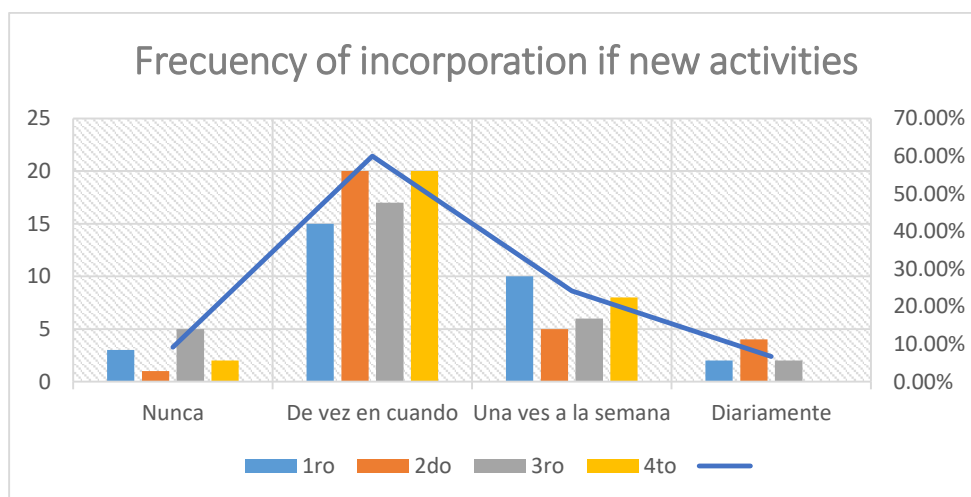
Once the instrument was applied and the results were presented using the Excel for Windows 2019 statistical program, the information was organized with the respective tabulation, which was recorded using grouped bar graphs. In order to validate the quantitative results, a qualitative element was concluded. During its development, various daily situations of its pedagogical practices were exposed

in order to provide clarity or expand information on some relevant aspects mentioned in the quantitative component.

RESULTS

The set of evaluated indicators seeks to describe and interpret the information related to the use of the virtual platform Moodle by the teachers of the Faculty of Physical Culture, University Center of Puerto Padre.

Figure 1 shows the Frequency of use of the Moodle platform to support teaching work and incorporation of activities.



As shown in Figure 1, in relation to the frequency of use of the platform, the results presented show that 6.67% use it daily, another 24.17% use it once a week and 60% of Occasionally. The vast majority of teachers use this tool as a complement to their work as a teacher; Only 9.17% expressed that they have never used it in their teaching activity.

Figure 2. Availability of technological means for the development of teaching from the 1st to the 4th year.

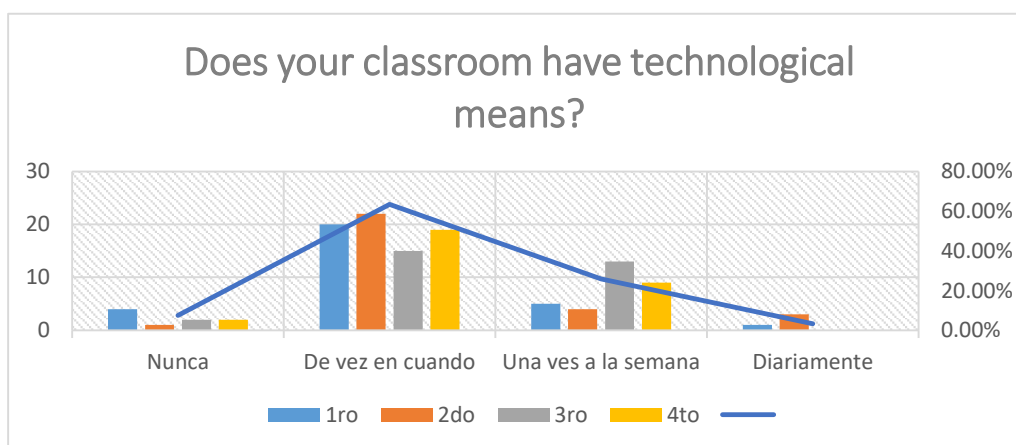


Figure 2 shows the adaptation of the classrooms to the technological means necessary for teachers to use the Moodle platform. According to the responses of those surveyed, 3.33% of classrooms always have the appropriate technological means to develop Physical Culture courses, the remaining 25.83% affirm that they almost always have them. From all the responses it can be deduced that the university's computer laboratories have the appropriate means to carry out classes. It is also evident that 30.28% of teachers develop their classes using the platform and only 7.50% do without the resource.

Figure 3. Satisfaction with the use of the Moodle platform in classes from 1st to 4th year.

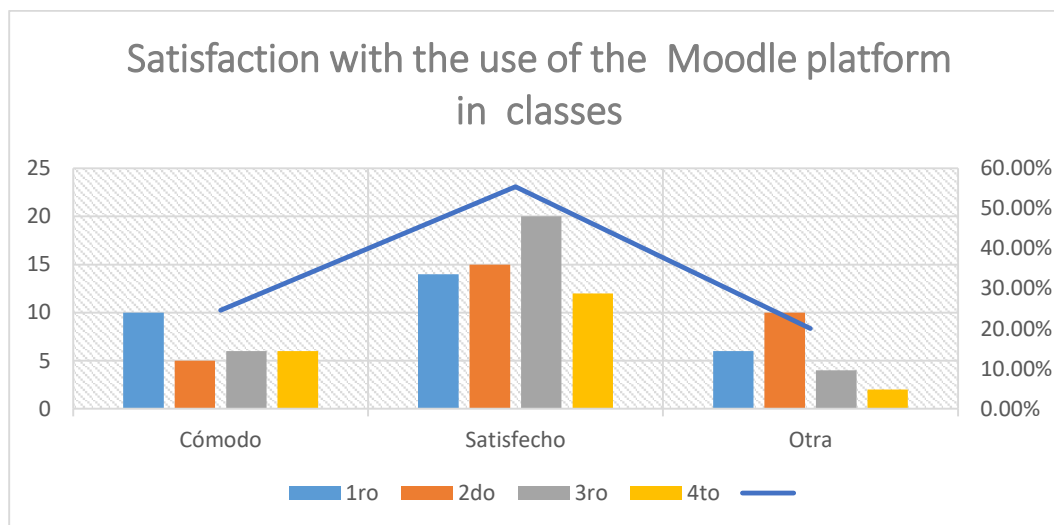
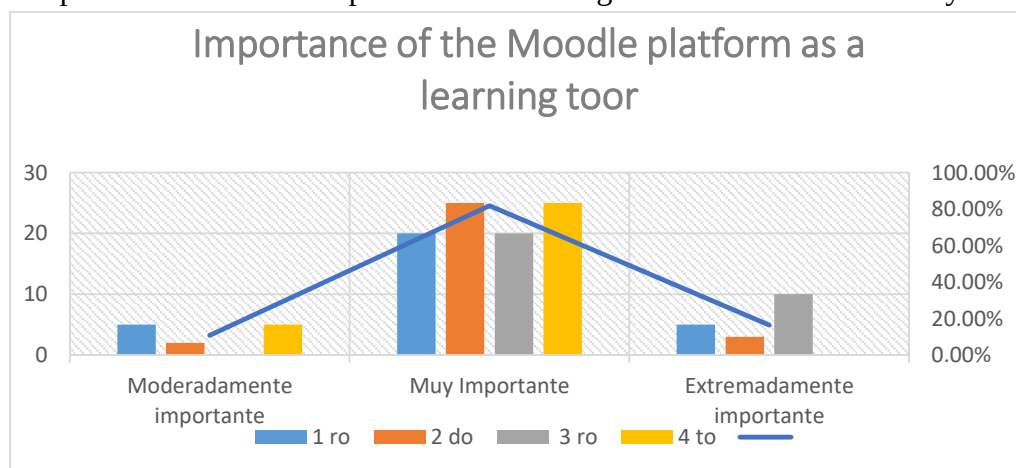


Figure 3 reflects teachers' satisfaction with the use of the platform. The results show that Physical Culture teachers feel largely satisfied when they use it in their classes; Specifically, 55.45% of teachers consider themselves satisfied and 24.55% say they are comfortable with the use of this tool in their work as a teacher. The teacher's degree of comfort with the use of the platform, therefore, is adequate. The analysis also shows that 20% of teachers do not feel pleased simply because they have not used it.

Figure 4. Importance of the Moodle platform as a learning tool from the 1st to the 4th year.



In reference to the assessment of the importance that Physical Culture teachers give to the Moodle platform as a learning tool, Figure 4 shows that for 81.82% the platform is a virtual learning classroom to which they attribute a high degree of importance. The remaining 10.91% state that its importance is moderate. In conclusion, it is clear that teachers and other teachers consider that the use of the virtual learning platform is an essential tool in the teaching-learning process of students and promotes the fulfillment of the academic objectives of the course.

DISCUSSION

The results of the research show that a significant number of teachers who teach Physical Culture subjects within the University of Las Tunas, Puerto Padre University Center, use the Moodle platform as a complement for the development of their classes. Despite the age of some of the educators, this is not an obstacle or limitation for its use, they state that the virtual Platform is not difficult to use, in addition, it is very useful for the teaching-learning process of the different levels. of knowledge of their subjects due to the facilities it provides.

This coincides with what Molina et al. (2023) propose, where they analyze the impact of technological tools that complement and enrich the traditional reading experience by providing interactive resources, access to a wide range of materials, visual and auditory elements, as well as opportunities for practice and student participation, in addition, the appropriate use of ICT also encourages motivation, commitment and interaction among students, which contributes to a better development of reading skills, however, it is essential to consider that the Successful implementation of ICT in the teaching of reading comprehension requires adequate planning, adaptation to the needs of students and a solid pedagogical base, therefore, the importance of providing adequate teacher training is highlighted so that educators can take advantage of maximize the potential of these tools and use them effectively in the classroom. p. (2292)

In this sense, the teachers who use it are aware that the Moodle platform is designed to complement classes and that, therefore, it represents a contribution to contribute to the better performance of the work carried out by the teacher in the classroom.

In other words, the virtual classroom does not replace the teacher or nullify the relevance of their face-to-face classes, but rather it is a complement. In this sense, Velásquez (2012) speaks out when he points out that it is essential to commit to the good use of virtual tools as they contribute a lot to higher education, where innovation advances in parallel with new technologies in order to contribute to correct training. of the learners.

A high percentage of Physical Culture teachers state that they use the Moodle platform to support their teaching work, which indicates that a good group of teachers is complying with the use of the platform for the development of online courses.

In another sense, within distance education with the use of virtual classrooms, each person involved fulfills an important element within this type of online learning, whether the teacher or the student, especially when technological tools are implemented in education. higher education and clearly have educational platforms to develop the teaching-learning process, with the aim of improving the academic effectiveness and efficiency of each student. Barragán, (2023) p. (54)

Authors such as Tomalá De la Cruz and others, (2020) identified through field research what type of skills and abilities are necessary to apply in students to improve their learning in database managers and how to improve these skills and abilities through work. collaborative training supported with technology, its main results allowed the development of a proposal that was the implementation of a virtual collaborative training classroom to improve the academic performance of students through a technology selected as a virtual classroom, therefore, it demonstrated to have a large number of advantages in relation to the others, the virtual platform was tested and validated with a group of teachers and students, resulting in great acceptance and good prospects for its use.

Likewise, and according to the teachers' criteria, these activities are designed to strengthen the students' skills. For the majority of teachers in the area of Physical Culture, it is very important to work with the Moodle platform as a learning tool. In addition, they express satisfaction with the complements and resources that the platform provides for the teaching-learning process of the knowledge they develop. In their classes, in the same way, teachers propose that the virtual Platform contributes to semi-face-to-face education and, according to its characteristics and design, it works perfectly as a virtual classroom for learning and the formation of skills and values that benefit education. of our students

Cotohuanca, (2021), in its systematic review, demonstrated the limitations that teachers have in the use of virtual platforms and the guidance they receive to improve learning in university education. In addition, it is necessary to develop training programs in the use of virtual platforms for the achievement of learning competencies in university education students and guide new research focused on the continuous training of teachers on virtual platforms. p (130).

Authors such as Barén and others, (2023), in their study, raised the problem of the impact of the use of the Moodle platform in the academic process of university learning management, in order to establish the main criteria on the development, effectiveness and relevance of the platform or virtual classrooms

in relation to the progress of postgraduate students, in which actions were identified in teaching work from virtualization, as support in fourth-level professional training. p. (226)

Acosta et al., (2023), in their study on the level of satisfaction of virtual learning environments in the Software Engineering career, obtained that this teaching modality is very useful for both groups, providing growth and learning, both to students As teachers, it also contributes to students being able to have greater use and mastery of technologies, which is of relevant value for their future professional performance. In this way, it is proposed to enrich the work with this type of platforms, offering the possibility to other university specialties. p. (697)

The implementation of procedures to navigate the virtual classroom platform through methodological activities and in teaching practice, allows us to verify their validity, by increasing access to virtual classrooms and the use of the resources and activities that are available in them, thereby favoring virtualization in Higher Education. Martínez and Mercantete, (2023) p. (48)

Porras, (2023) in his Master's thesis demonstrated that academic virtual platforms are related to teaching-learning in undergraduate university students; through hardware and software; information and communication technology; platform tools; the connectivity of these platforms and the teacher-student interaction on the platforms. p. (10)

BIBLIOGRAPHIC REFERENCES

Acharki, Z. (2023). Virtual platforms for the development of competences in the class of spanish as foreign language. *Revue Linguistique et Référentiels Interculturels*, 4(2), 2-9. Recuperado el 7 de abril de 2024

Acosta Espinoza, J., Díaz Vásquez, R., León Yacelga, A., & Checa Cabrera, M. (2023). Utilización de plataformas virtuales en la enseñanza en línea en la carrera de ingeniería de software a través de mapas cognitivos difusos. *Universidad y Sociedad*, 15(S2), 697-704. Recuperado el 7 de abril de 2024

Barén Vines, J., Zambrano Acosta, J., & de la Peña Consuegra, G. (2023). Moodle virtual platform in the learning process in postgraduate education, Technical University of Manabí. *RCES*, 42(1), 226-242 . Recuperado el 7 de abril de 2024, de <http://www.rces.uh.cu>

Barragán Lucas, S. (2023). Use of educational platforms in the process of learning English language skills. *Revista Universidad de Guayaquil*, 136(1), 49-59. doi:<https://doi.org/10.53591/rug.v136i1.1837>

Cotohuanca Cruz, S. M. (2021). Systematic review: In-service teacher training on virtual platforms. *Revista de Investigación UPNW*, 130-139. doi:<https://doi.org/10.37768/unw.rinv.10.01.010>

- Casales, R., Rojas, J., y Paulí, G. (2008). Algunas experiencias didácticas en el entorno de la plataforma Moodle. *Revista de informática educativa y medios audiovisuales*, 5(19): 1-10.
- Fuentes, J., Calzadilla, O. y Pérez, A., (2007). Instrumentación de Modelo Educativo Virtual en la Facultad de Física de la Universidad de la Habana: Aplicación a la Física Moderna II, CD del IV Taller Iberoamericano de Enseñanza de la Física, ISBN 959-16-0485-8. La Habana.
- Guzzetti de Marecos, P. C. (2020). Plataforma virtual: una herramienta didáctica para el Proceso de Enseñanza Aprendizaje. *Ciencia Latina Revista Científica Multidisciplinar*, 4(2), 862. doi:https://doi.org/10.37811/cl_rcm.v4i2.122
- Martínez Guerra, S., & Mercantete Guerra, Y. (2023). Procedures to navigate in the virtual classroom platform of the University of Las Tunas. *Revista Didasc@lia: didáctica y educación*, 14(2), 48-66. Recuperado el 7 de abril de 2024, de <http://revistas.ult.edu.cu/index.php/didascalía>
- Molina Jiménez, J., Rugel Llongo, J., Arredondo Alvarez, K., & Ruiz Vélez, A. (2023). Impact of ICT on the improvement of the teaching-learning process of reading comprehension in first-year high school students. *Ciencias de la Educación*, 9(3), 2292-2308. doi:<https://doi.org/10.23857/dc.v9i1>
- Machado, A. M., López, R. B., Fanjul, N. J., Y Povedano, N. A. (2012). El foro en la plataforma Moodle: un recurso de la participación cooperativa para el aprendizaje de las matemáticas. *EDMETIC*, 1(2): 29-43.
- Marín Díaz, V., y Maldonado Berea, G. A. (2011). El alumno universitario cordobés y la plataforma virtual Moodle. *Pixel-Bit. Revista de Medios y Educación*, (38): 121-128.
- Porras Cañarí, A. (2023). Las plataformas virtuales académicas y la enseñanza aprendizaje del idioma ingles en alumnos universitarios de pregrado de lima metropolitana, propuesta actual. Universidad Nacional Federico Villarreal, Vicerrectorado de Investigación. Perú: Escuela Universitaria de Posgrado. Recuperado el 7 de abril de 2024, de https://repositorio.unfv.edu.pe/bitstream/handle/20.500.13084/7025/UNFV_EUPG_Porras_Cannari_Angeelica_Celestina_Maestria_2023.pdf?sequence=5
- Quiala Barroso, W. (10 de 9 de 2018). La preparación de la asignatura Biomecánica y su montaje en la plataforma MOODLE. Las Tunas, Las Tunas, Cuba.
- Ramos-Vite, M., & Macahuachi-Núñez De Castillon, L. C. (2021). Plataformas virtuales como herramientas de enseñanza. *Ciencias de la educación*, 7(3), 1080-1098. doi:<http://dx.doi.org/10.23857/dc.v7i3.2042>

RESOLUCIÓN 2 / 2018. Reglamento de trabajo docente y metodológico de la educación superior, resolución 33 – 35.

Rivas, F. C. (2006). La plataforma de aprendizaje Moodle como instrumento para el trabajo social en el contexto del espacio europeo de la educación superior. *Acciones e investigaciones sociales*, (1 Ext), 367.

Salinas, J. (2003). Comunidades virtuales y aprendizaje digital. *Edutec*, 54(2): 1-21.

Tomalá De la Cruz, M. A., Gallo Macías, G. G., Mosquera Viejó, J. L., & Chancusig Chisag, J. C. (2020). Las plataformas virtuales para fomentar aprendizaje colaborativo en los estudiantes del bachillerato. *RECIMUNDO*, 4(4), 199-212. doi:10.26820/recimundo/4.(4).octubre.2020.199-212

Velásquez, A. (2012), Una mirada crítica a la didáctica de las ciencias, la educación científica y el papel de las Tic en la Educación Superior. Ibagué: Universidad De Tolima.