



Moodle Platform as a technological tool in the performance of face to face courses at FAREM-Carazo, UNAN-Managua during the first semester of 2017

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SUMMARY

With the objective of evaluating the impact of the MOODLE Platform as a technological support for the development of face-to-face courses at FAREM-Carazo, UNAN-Managua during the first semester of 2017, a descriptive, correlational and analytical study was carried out, where were analyzed the data on the level of satisfaction of students and teachers regarding the use of the Moodle platform, in addition, the characteristics of the Moodle courses implemented in the FAREM-Carazo were analyzed, in which it was possible to determine that there is a high level of satisfaction on the part of students with a positive trend of 75.72%, on the other hand, thanks to the collaboration of the FAREM-Carazo teachers who implemented Moodle courses during the first semester of 2017, they were able to identify the benefits and difficulties of the use of Moodle based on their experience, and through an analysis of the different courses implemented by these teachers were able to identify their characteristics of these.

INTRODUCTION

In the world, important changes are being experienced in all areas of human activity; one of them is the access to knowledge. We live in what we call the era of knowledge and technological

development, which today allows us to access large information resources and process them and transform them in order to support people intelligence. Technology is radically changing the ways of working and the means through which people communicate and learn.

Technology has been incorporated into the academic field, and the development of computer science. In the sixties the use of computers for educational purposes was consolidated, focusing on computer-assisted teaching, likewise, with the introduction of personal computers, this option took larger dimensions. For the eighties, the term technology come under the name of New Technologies of Information and Communication Renewed, alternatives that are supporting the development of machines and devices designed to store, process and transmit in a flexible mode large amounts of information.

The online courses implemented in the Moodle platform are one of the modalities of distance education and blended learning that are currently used in various educational environments. This uses the Internet resources and communication technology tools to perform the teaching-learning process. This teaching method is considered as one of the most important advances that technology has made within the educational field

Moodle is a platform that brings many benefits to the processes of information, interaction and communication, as Cabero (2006) points out Moodle offers to students a wide range of information as well as offering different synchronous and asynchronous communication tools for students and teachers.

UNAN-Managua in its process of continuous improvement, considers the use of diverse methodologies and techniques to support the teaching process. Among these, is the implementation of online education which through the creation of virtual activities in an educational environment, pose different moments such as the conception, planning, construction, application and evaluation

The present investigation seeks to know the impact of the Moodle platform as a support to the face-to-face classes of the UNAN-Managua, FAREM-Carazo, mainly in the level of satisfaction of the students and teachers, as well as the benefits and difficulties they faced.

OBJECTIVES

This study develops within the framework of the thesis work to apply for the Master's Degree in Scientific Research Methods, from the UNAN-Managua, and seeks to know the impact of Moodle within the scope of Higher Education of this faculty, for which the following objectives were set:

1. Characterize the level of acceptance with respect to Moodle courses by students of the FAREM-Carazo.

2. Determine the benefits and difficulties in the use of Moodle platform by teachers of the FAREM-Carazo.
3. Identify common elements in the courses developed by the FAREM-Carazo teachers in the Moodle Platform.
4. Analyze the level of interaction of the students enrolled in the courses that are on the MOODLE platform of the FAREM-Carazo.
5. Create a technical-methodological manual for the design and management of Moodle courses.

METHODOLOGY

The evaluation tool used to obtain the information of the students was a questionnaire designed for this purpose, applied to a sample of 346 students belonging to the different degrees offered by the FAREM-Carazo. This sample was obtained by means of simple random sampling for finite populations. The questionnaire is presented with a section of general data and a Likert scale and its purpose was to measure the level of student satisfaction with the use of the platform. This instrument consists of a set of items in the form of affirmations or judgments, before which the reaction (favorable or unfavorable, positive or negative) of the individuals was requested. The students had five response options, for each proposed statement, including: totally dissatisfied, dissatisfied, do not know or do not think, satisfied and totally satisfied.

Likewise, a non-probabilistic sampling was used for the selection of the sample of teachers for the application of the respective instrument. It was taken into consideration the teachers of this faculty who developed Moodle courses in the first semester of 2017 and maintained the courses assets throughout the period under study. The non-probabilistic sample size according to the expert-based criteria was determined using the procedure defined by Arias (2012) who defines that the researcher himself is capable of selecting the subjects he considers appropriate.

On the other hand, a focus group was made in order to know the experience of teachers in the use of Moodle courses. This was aimed at all those teachers who had had more than two courses during the semester.

This work was carried out under the mixed research approach, with weight balance between the quantitative and qualitative approach. There are many authors who currently recommend the use of both approaches, in order to complement the benefits of each of them, thus orienting towards methodological triangulation, highlighting in this case, the approach of quantitative data analysis and qualitative information proposed by Hernández, Fernández and Baptista (2014).

According to the nature of each of the variables and guided by the commitment defined in each of the specific objectives, the corresponding descriptive analyzes were carried out. In the quantitative part, the frequency analysis and descriptive statistics were made according to each case. In addition, bar or pie charts were performed univariate or multivariate, as required, to achieve the analysis that would allow the response of multiple factors to be described.

DISCUSSION AND ANALYSIS RESULTS

Level of satisfaction of the Moodle courses

As a result of the survey carried out to the students who study the degrees offered by the FAREM-Carazo, the following results were obtained: The analysis of the variable *Average Assessment of student satisfaction* with respect to the use of the Moodle platform during the classes evidenced that There is a high level of satisfaction among students, with a 75.72% positive trend. This allows us to infer that students are satisfied with the use of Moodle as a support for their face-to-face classes.

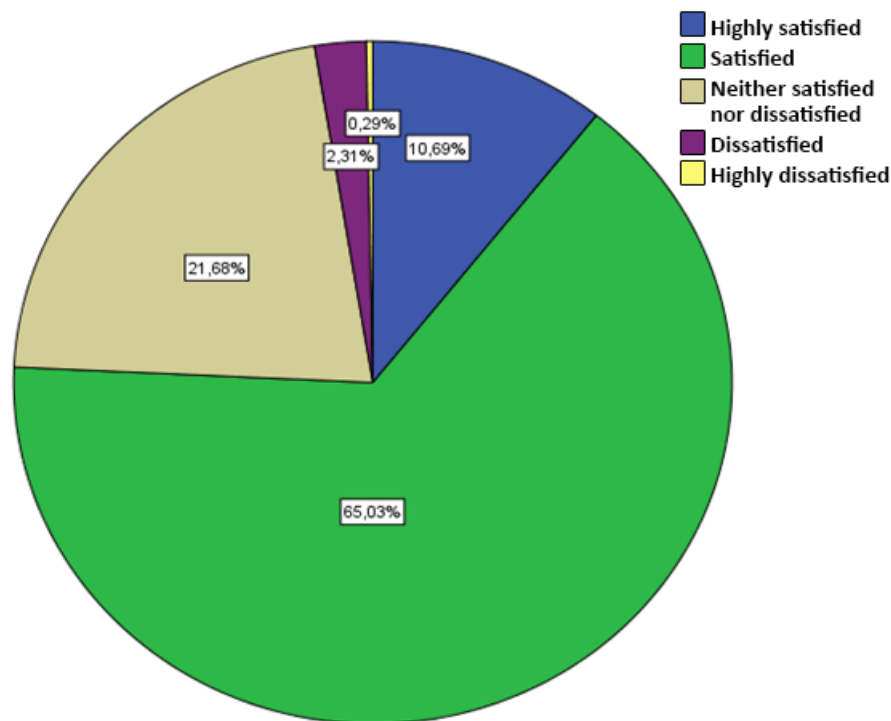


Figure 1: Evaluation of student 's level satisfaction

Benefits and difficulties in the use of Moodle platform by teachers from FAREM-Carazo

Regarding the benefits and difficulties, Marcos Soza (2017, minute focus group 00:10:36 - 00:10:51) points out the following: "Moodle is a platform that provides more benefits than difficulties, among these benefits it can be highlight a change of paradigm in the methodology, which facilitates the teaching-learning process, this due to the large number of tools that improve

aspects such as feedback, the delivery of tasks and the promotion of collaborative activities at a distance between teachers and students , likewise, it allows the teacher to provide a greater amount of didactic resources related to the subject, through the platform, therefore, this change of paradigm makes the student more interested and more immersed in the teaching process”.

This idea is complemented with the general perception that students have regarding the quality of feedback processes provided by teachers, whose statistical results showed that there is a high index of positive satisfaction on the part of the students.

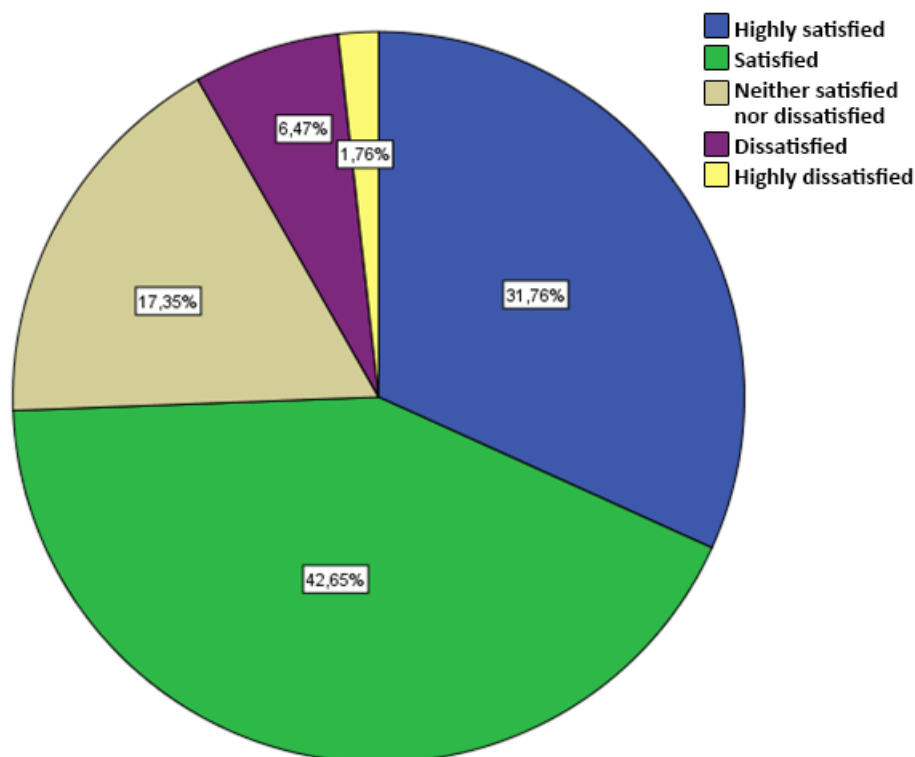


Figure 2: Quality of the teacher’s feedback on performing Moodle platform

Likewise, with regard to the diversity of teaching resources that teachers upload to the platform to be downloaded and thus strengthen the topics taught in classes, the results again show a positive trend.

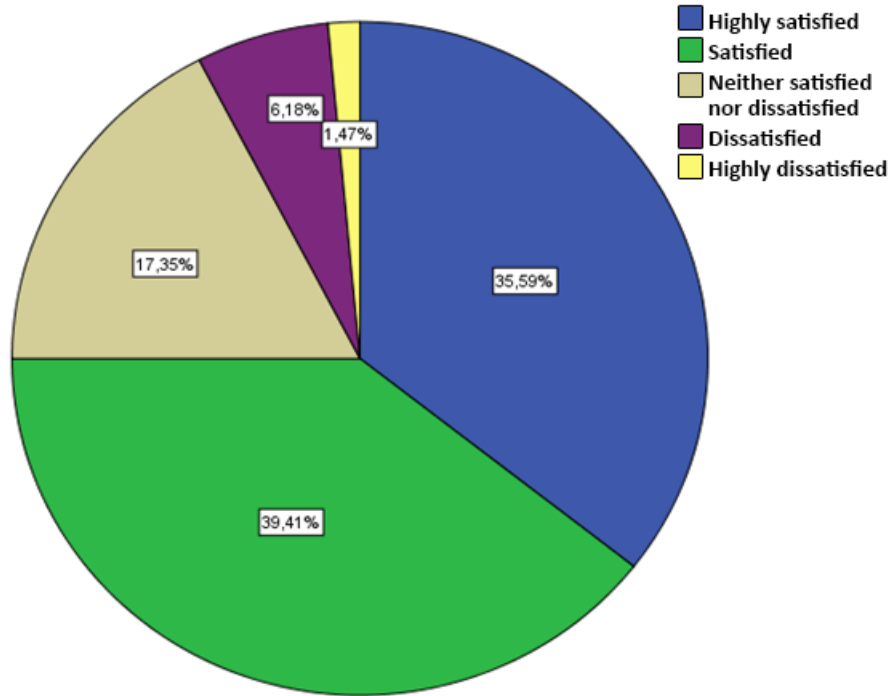


Figure 3: Types of didactic resources uploaded by the teachers to the Moodle platform

In this same line, the teacher Raúl Medrano (2017, minute focal group 00:12:07 - 00:12:36) said: “I believe that positive aspects mainly predominate in the use of the platform, we are definitely in the digital era , more and more online education is being promoted, it is something that has been mentioned since 2007 and now more than ever we are seeing it with the online university concept that the Central Government of Nicaragua has been developing”.

Darío Rodríguez (2017, minute focus group at 00:14:30 to 00:15:22) commented: “One of the positive parts that should be highlighted is the communication outside the class that we have with the students”, same adds that, another advantage that Moodle offers is the possibility of creating learning communities within the same environment, since this allows to make discussion forums, communication through chats or the realization of remote tutorials. When comparing with the results shown by the survey applied to the students, we have that in both aspects, both in the use of chats and forums, there is a positive trend.

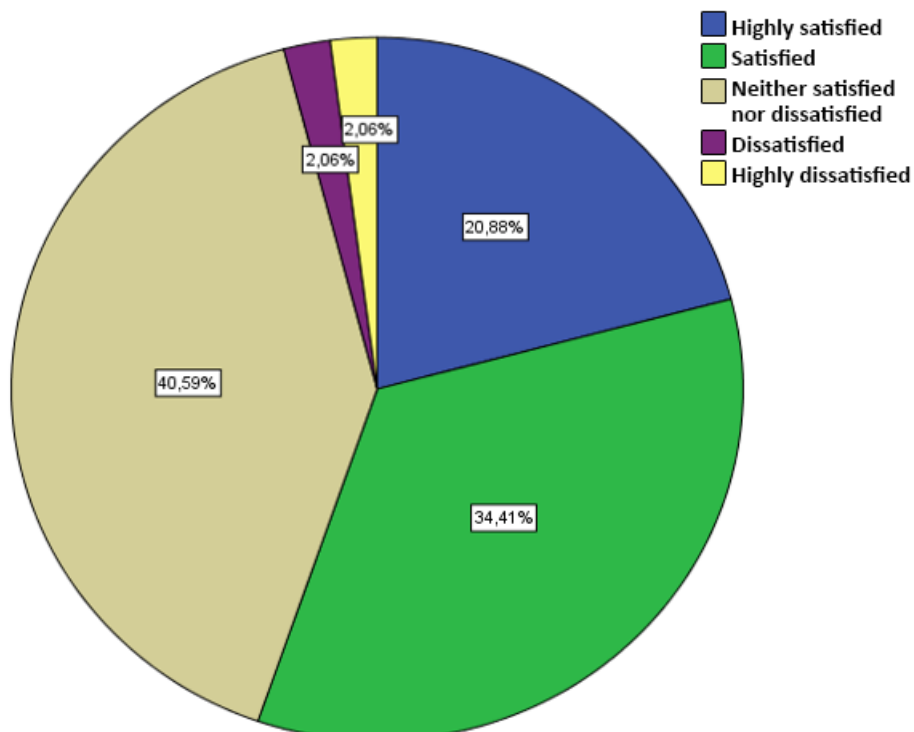


Figure 4: Effectiveness of chat as a synchronous communication

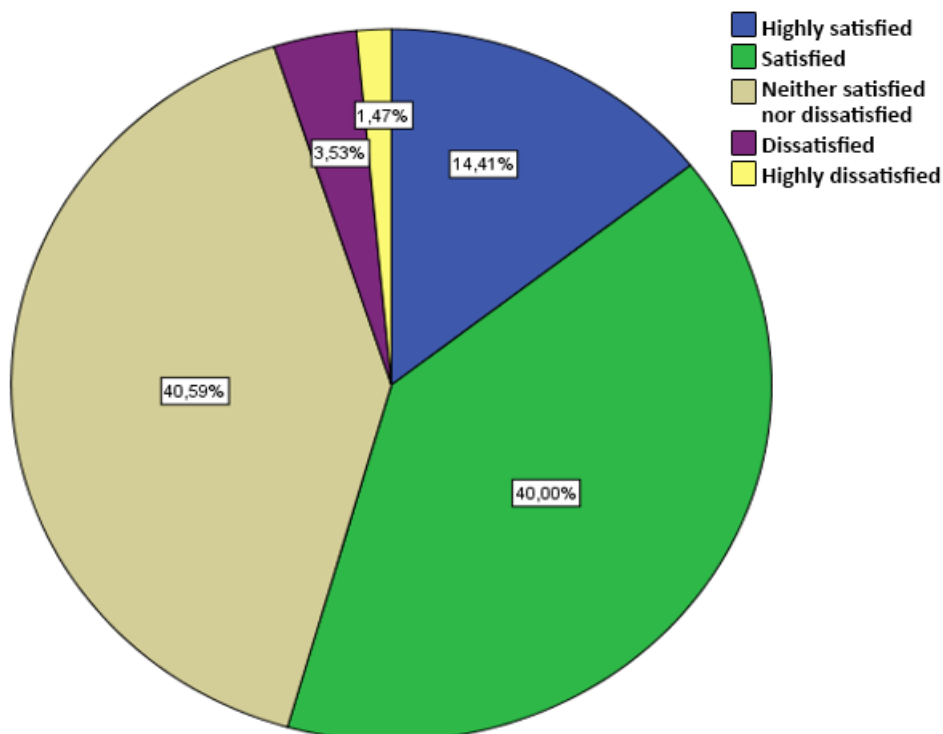


Figure 5: Effectiveness of forum as a synchronous communication tool

On the other hand, Roberto Robleto (2017, focal group minute 00:08:46 - 00:10:04) added: “Although in the first instance gives the impression that Moodle incurs an overload of work for teachers, This actually represents an important data bank that facilitates the

organization and reuse of the documentation used for the subjects, thanks to the system of upload and file organization that it has. In addition to that, the evaluation management system significantly improves the control of deliveries and the management of grades, facilitating the work done by teachers”.

From the mention above, it is inferred that the benefits provided by Moodle in the teaching-learning processes have a high degree of positive impact, both in teachers and students who have been immersed in the use of this platform. Regarding the difficulties, it was found that one of the most frequent with respect to the use of Moodle is the lack of training on design and management of these courses.

Master Marcos Soza (2017, minute focus group 00:40:50 - 00:41:10) said: “Training has been received, but most of them have always been from the technical point of view, but there have not been trainings that advise methodologically on the use of the platform”. As the teacher Rodríguez says, this aspect is very important because mistakes can be made with the structure of the course and the didactic quality of the documents that are shared through this platform (Rodríguez, 2017, focal group minute 00: 45:10 - 00:41:10).

From the information thrown by the applied instruments, it is observed how the participants agree that Moodle is a very important tool to improve the educational processes, since this platform provides a great amount of benefits that can be exploited to improve the experience of the students. Students in classes and in this way, face some of the demands of the current knowledge and information society. This coincides with the approach of Rodríguez, Migueláñez and Sánchez (2014), who explain that Moodle places its greatest emphasis on the idea of interaction with others, through learning communities that favor collaborative work that ultimately translates into learning significant, thanks to the exchange and connection of knowledge that favor and facilitate its construction from those previously acquired.

Among the difficulties that teachers express about the management, design and management of the Moodle platform, the most predominant are: technical failures related to accessibility and Internet connection, as well as the lack of teacher training and resistance to change by a faculty sector that clings to traditional teaching methods. This is consistent with what was expressed by Cabero (2011), in whose work these and other difficulties expressed by the teachers of the FAREM-Carazo are expressed.

Common characteristics in the courses developed by the teachers of FAREM-Carazo in the Moodle Platform

In regards to the characteristics of the Moodle courses implemented by the teachers of FAREM-Carazo, the following results were obtained:

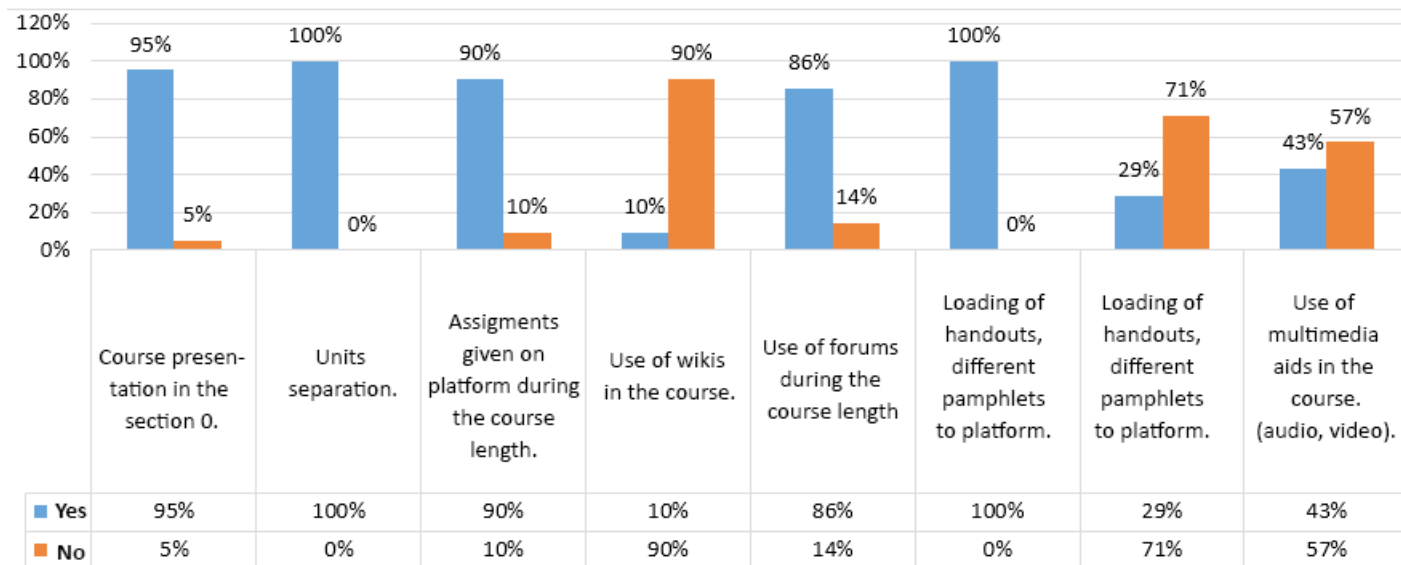


Figure 6: Characteristics of the Moodle courses implemented at FAREM-Carazo, in the first semester in 2017.

When analyzing the characteristics, it is observed that, although there is no correct methodological orientation regarding how a Moodle course should be created and designed, the teachers of the FAREM-Carazo have assumed common tendencies in the way they are created. The courses which have shared features that allow the student to adapt quickly to the environment. But despite these similarities, the findings show a low level of interaction on the part of students, so it is necessary that teachers are not only administrators of the courses they implement on the platform, but in addition to this, they are a motivating agent, that guides the students to have a better experience in the use of the platform and in this way, influence significantly during their training.

CONCLUSIONS

After analyzing the results of the instruments applied to both teachers and students of the UNAN-Managua, FAREM-Carazo, it was possible to determine that the acceptance level of both teachers and students regarding the use of the Moodle platform as support to face-to-face classes is quite high, and for the most part, they are highly satisfied with the benefits and tools it offers.

Likewise, it was possible to determine that Moodle is a platform that offers a large number of benefits and that its use as a support tool for face-to-face classes allows improving the interaction, communication and information processes. But although it is a tool that offers

great advantages, during all the time it has been online within the faculty, many difficulties have been present; on the one hand, those that are of a technical nature, that have to do with issues of connectivity and accessibility to the platform, and on the other hand, those that are of a methodological nature, those that have to do with limitations of the teachers with respect to the design and management of the courses, this due to the lack of regulations that allow to standardize and guide them about the way in which a course must be implemented in Moodle.

With the information gathered and the review of the characteristics of the Moodle courses implemented by the teachers of the UNAN-Managua, FAREM-Carazo, it is concluded that, in spite of the lack of a correct methodological orientation about the design and management of Moodle courses, it is possible to identify that there are common methodological characteristics among the courses created by the teachers, among which the format of the course, the inclusion of tasks and discussion forums, which give the possibility of increasing the level of interaction of the students in the activities of the course.

When making a careful analysis of the level of interaction of students with the assignments implemented in each of the courses, it was found that despite the high level of acceptance that students have in relation to the use of the platform, they do not interact frequently with This and in many cases, do not comply with the activities proposed by the teacher.

Based on the findings of the study, a normative proposal is generated for the design and management of Moodle courses in the FAREM-Carazo, UNAN-Managua, which contemplates technical, methodological and procedural aspects related to the work of the different actors involved in the use of this important technological tool: support staff, teachers and students.

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