# Journal of the Scholarship of Teaching and Learning for **Christians in Higher Education**

Volume 11 | Issue 1

Article 6

2021

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#### **Recommended Citation**

Mendivil-Carrión, N.P., & Campana, A. (2021). The Influence of Teacher Training on the Moodle Platform and ESL Language Learning on Students at a Latin American University. Journal of the Scholarship of Teaching and Learning for Christians in Higher Education, 11(1), 15-28. https://doi.org/10.31380/ sotlched.11.1.15

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# THE INFLUENCE OF TEACHER TRAINING

ON THE MOODLE PLATFORM AND ESL Language learning on Students at a Latin American University

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> Journal of the Scholarship of Teaching and Learning for Christians in Higher Education 11.1 (2021) 15–28 http://digitalshowcase.oru.edu/sotl\_ched/

**Key Words** platform, Moodle, learning, English as a second language **Palabras Clave**: plataforma, Moodle, aprendizaje, inglés

#### **Abstract**

**Objective:** To accurately know the influence of teacher training on the Moodle platform and English learning in ESL students at a Latin American university. **Materials and Methods:** For this pre-experimental study, the pre- and post-tests were applied to a sample of 29 students and then processed with the SPSS (Statistical Analysis Software) program. **Results:** The pre-test reached an average score of 13.86 compared to the post-test, which reached an average score of 17.83. This indicates a positive influence with an increase of 3.97 points, P =000. Therefore, the hypothesis stating that ESL students are able to learn in a virtual class is accepted. In the four specific hypotheses, increases of 4.00,

3.50, 3.74 and 4.20 points between the pre- and post-tests, respectively, verify the improvements. **Conclusion:** We can conclude that there is a positive influence with the Moodle platform teacher training in the learning of English as a second language. Clear evidence is shown in the increase of 3.97 points between the pre- and post-tests, which indicate an academic progress of the students of a regular average to very good.

Objectivo: Conocer la influencia de la capacitación de docentes en la plataforma Moodle y aprendizaje del inglés básico en estudiantes de ingles basico de una universidad. Materiales y **Método:** Para este estudio pre experimental para ello se aplicó el pre y pos test a una muestra de 29 estudiantes, que será procesada con el programa SPSS. Resultados: El pretest alcanzó un promedio de 13.86, a comparación del postest con un puntaje promedio de 17.83, con ello una influencia positiva con un incremento de 3.97 puntos. P = .000, se acepta la hipótesis planteada. En las hipótesis específicas también se comprobó un incremento de 4.00, 3.50, 3.74 y 4.20 puntos, respectivamente. Conclusión: Existe una influencia positiva de la Capacitación docente plataforma Moodle en el aprendizaje del inglés básico, ya que entre la prueba pre y pos test se experimentaron un aumento de 3.97 puntos, lo que permite señalar un progreso académico de los estudiantes de un promedio regular a muy bueno.

# Statement of the Problem

Many English as a second language (ESL) students complete a full ESL program each year with the inability to communicate in the target language. We confirm and relate this inability to communicate with poor oral production during the process of the language course. This problem is attributed to inadequate or inappropriate methods of second language instruction. It can be determined with some precision

that the level of expertise of the teacher mastering the second language is a positive determining factor in the acquisition and production of the second language.

Another determining factor in the acquisition and production of the second language is the frequency in which the second language is taught. It is common to teach during monthly periods of an hour and a half to three hours a day with teachers who are mostly native Spanish speakers teaching ESL, and their proficiency in their second language ranges from excellent to poor. Although it is true that universities have teachers trained in didactic subjects, unfortunately not many have the knowledge or cultural immersion necessary to really understand the language in a context stemming from real-life experiences. In other words, these teachers have learned the second language in their country of origin in an unfavorably controlled environment. This is very unfortunate due to the inconsistency and incompetence of many of our students learning their second language.

Despite three years of second language instruction, students who complete the English language programs are ill-prepared to respond to the demands of using the second language in various real-life situations. Life experiences show us that a significant number of language students show incompetence in communication skills in the target language. Indeed, not all students successfully face the new challenges that the university courses pose, such as increased demands, growing need to organize academic work, greater dedication to study, preparation during exams, autonomy, etc. Having observed all these factors, we monitored three groups of students, with 10 students in each group taking ESL classes in which the teacher chosen was trained in the usage of Moodle as a tool of technology. Moodle is a learning platform designed for virtual instruction that enables students to have the opportunity to personalize their learning environment.

# **Background**

The research is based on the advances found in Oré (2017), who found a notable improvement in the skills of the study population after the use of the Moodle platform. Most of the grades were average before Moodle; however, afterwards the averages were significantly better. This shows the effective contribution of the technology.

Abanto and García (2017) developed a study of an English virtual platform, which—despite not being Moodle—showed that it was effective in improving English skills, which allows us to understand that numerous virtual elements can help a student's academic progress. Therefore, the objective of this investigation, stated in the general hypothesis (GH), is to know the influence of teacher training on the Moodle platform and the learning of English as a second language at a university. Finally, the specific hypotheses (SH) seeks to identify how the teacher training in Moodle positively affects the learning of English in ESL students in the four skills of writing, reading, listening, and speaking.

#### **Materials and Methods**

# **About the Training**

Teachers were trained in the 2020 fall academic semester teacher training program in 10 sessions divided into two different topics: (1) the role and competencies of the virtual tutor, and (2) organization and implementation of the virtual Moodle classroom. Each session lasted three hours, during which the teacher actively participated in the development of fundamental aspects of E-learning, the strategies for the virtualization of an online course, the use of the Moodle tool for the creation of digital resources, and the protocol to create videos in virtual environments.

One of the main topics of this training was the role of the teacher and the skills of the virtual tutor. Here, the teachers learned strategies and skills that enabled them to develop successful tutoring techniques and provide permanent motivation to students, while applying empathic feedback. It was very important to educate the teachers in the role of motivator. Student motivation in virtual learning is a fundamental element of successful second language learning. According to Huertas (1997), motivation is defined as the desire to learn. The teachers were trained in aspects of motivation, which activates and exponentially improves communication between teacher and student; it also activates and involves the student in the learning process.

To reach the objective of this training, the teacher was taught how to generate intrinsic motivation in students through the creation of online learning activities. It is worth mentioning that these activities should allow the inclusion of different learning styles favoring innovation and student autonomy. The role of the teacher is not to teach classes full of grammatical theories in the second language but to create lifelong learning in students and motivate them to communicate in the target language. The teachers become this new virtual environment in which they guide, facilitate, and stimulate autonomy without ceasing to accompany their pupils. Using feedback is a learning strategy that allows students to identify their strengths and weaknesses, and the teacher can help students overcome their shortcomings and encourage their achievements. This metacognitive part promotes reflection.

During the development of the topic organization and implementation of the Moodle virtual classroom, teachers learned to prioritize the planning of activities. Likewise, they were trained to implement activities (e.g., homework and forums), to properly configure various assessments, and to implement different types of questions to optimally evaluate their students; this would contribute to the proper development of their asynchronous lessons. Moreover, the teachers learned to integrate Zoom and Microsoft Teams to create synchronous online lessons.

#### **About the Tests**

Regarding the pre- and post-tests, a test similar to the international KET (Key English Test) was developed and applied by the researcher. This exam corresponds to level A2 (basic level) of the Common European Framework and measures the student's knowledge of English in simple situations. The students had to demonstrate their ability to understand phrases and expressions frequently used in everyday life and to recognize and use simple words and phrases in the different sections of the test.

The students also had to demonstrate their knowledge of both written and spoken English, as well as their listening and reading

comprehension skills. To corroborate the differences in means between the pre- and post-test, the student's T-test was used, as it had a sample of 29 students. The pre-test as well as the post-test were validated by three researchers who are experts in the subject and the methodology of second language acquisition. Their validation was 90%. Then, a pilot test was given to 10 students, and the results obtained using Conbrack Alpha indicated a 95% reliability in the test results. Therefore, it is confirmed that the designed test was validated to be applicable to the sample.

# **About the Population**

At the university there were 90 students enrolled in the 2020 fall academic semester in different levels and sections of Basic, ranging from Basic 1 to Basic 6. The sample of 29 students who were enrolled in Basic 1 (true beginners) was taken, representing 30% of the population.

- N = 90 (basic 1-6) Therefore, it was considered as a sample:
- N = 29 students that represent 30% of the population enrolled in Basic 1 course.

The student population consisted of 95% women and 5% men, had an average age of 22 years, were Hispanic and native Spanish speakers, and belonged to the middle social class. Since the sample was homogeneous in this aspect and due to the characteristics of the sample, it was not necessary to compare it.

#### **Methods**

This pre-experimental research was processed with the SPSS (Statistical Analysis Software) program with a descriptive and inferential analysis. It was used in T-tests for students to verify the difference between the pre- and post-tests, as presented in Tables 1 and 2 below. The students' T-tests were used because of the small sample size.

		Frequency	Percentage	Accumulated Percentage
Validated	Bad	2	6.9	6.9
	Regular	16	55.2	62.1
	Good	11	37.9	100.0
	Total	29	100.0	

Table 1. Pre-Test Frequencies for Basic English Learning Source: Nora Mendivil

		Frequency	Percentage	Accumulated Percentage
Validated	Good	10	34.5	34.5
	Very Good	19	64.5	100.0
	Total	29	100.0	

Table 2. Post-Test Frequencies for Basic English Learning Source: Nora Mendivil

Tables 1 and 2 indicate the results in the pre-test: 55.2% attained a "regular" grade before applying the teaching strategy through the use of the Moodle platform. Then in the post-test, a result of 65.5% attained as "very good" learning. For that reason, it is appropriate to say the strategy worked.

The test of difference of means indicates values between the results for the pre-test = 13.86 and for the post-test 017.83. Evidence of improvement in the learning of the Basic English language in 3.97 points from "fair" to "very good." Gender differences are not detailed because the sample majority consisted of women with the same characteristics of age, social class, etc.

### **Results and Discussion**

The data and statistics established the following:

# **General Hypothesis Test (GH)**

**GH.** The Moodle platform teacher training significantly increases the learning of ESL students at the University.

	N	Mean	Standard deviation	Standard error of the mean
Pre-Test ESL Student Learning	29	13.86	1.329	0.247
Post-Test ESL Student Learning	29	17.83	0.966	0.179

Table 3. General Hypothesis Mean Difference

The general hypothesis proposes a positive influence of the Moodle platform teacher training on ESL students' learning, and this research confirms the main objectives of the investigation. The statistics in Table

Source: Nora Mendivil

3 clearly identify the differences in the mean of the pre-test (13.86), ranking as below average, and the mean of the post-test (17.83), ranking as "very good." The difference between these scores shows an increase of 3.97 points in the results.

# **First Specific Correlation Test**

**SH1.** Teacher training in Moodle increases the learning of writing skills in ESL students at the university.

	N	Mean	Standard deviation	Standard error of the mean
Pre-Test Learning Writing Skills	29	13.40	1.315	0.231
Post-Test Learning Writing Skill	29	17.40	0.945	0.169

Source: Nora Mendivil

Source: Nora Mendivil

Table 4. Mean Difference of SH 1

An analysis of the first specific hypothesis of the independent variable in the learning of writing skills found a difference in the means between the pre- and post-tests, as recorded in Table 4. In the pre-test, students had an average score of 13.40, which is considered a low average. On the other hand, the post-test mean was 17.40, which is considered a very good grade. The increase of 4.00 points between the means in the pre- and post-test scores indicates a positive influence that teacher training in Moodle increases the learning of writing skills in ESL students at the university.

# **Second Specific Correlation Test**

**SH2.** Teacher training in Moodle increases the learning of reading in ESL students in the language center at the university.

	N	Mean	Standard deviation	Standard error of the mean
Pre-Test Learning Reading Skills	29	13.74	1.321	0.232
Post-Test Learning Reading Skills	29	17.24	0.938	0.165

Table 5. Mean difference of SH 2

The second specific hypothesis examines the influence of teacher training on a virtual platform (Moodle) in learning reading skills. It identifies a mean difference in the pre-test score of 13.74, which indicates a "regular" average, while the post-test score of 17.24 indicates a "very good" score (See Table 5). An increase of 3.50 points was confirmed, indicating teacher training in Moodle increases the learning of reading in ESL students in the language center at the university.

# **Third Specific Correlation Test**

**SH3.** Teacher training in Moodle increases the learning of listening skills in ESL students at the university.

	N	Mean	Standard deviation	Standard error of the mean
Pre-Test Learning Listening Skills	29	13.61	1.321	0.245
Pre-Test Learning Listening Skills	29	17.35	0.954	0.172

Source: Nora Mendivil

Table 6. Mean Difference of SH 3

The third specific hypothesis proposes that teacher training in Moodle increases ESL student learning of listening skills at the university. Research results allow the general conclusion that this is true. As seen in Table 6, the mean difference in the pre-test score of 13.61, considered an average score, and was increased by 3.74 on the post-test with an average score of 17.35.

# **Fourth Specific Correlation Test**

**SH4.** Teacher training in Moodle increases the learning of speaking skills in ESL students at the university.

	N	Mean	Standard deviation	Standard error of the mean
Pre-Test Learning Speaking Skills	29	13.52	1.310	0.247
Post-Test Learning Writing Skills	29	17.72	0.948	0.179

Source: Nora Mendivil

Table 7. Mean Difference of SH 4

The fourth specific hypothesis was examined to determine the influence of the teacher training of the Moodle platform regarding learning speaking skills in the target language. Results recorded in Table 7 show a mean score in the pre-test 13.52, considered an average grade; however, the post-test mean was 17.72, considered to be a very good score. The difference between those scores show an increase of 4.20 points, so statistics indicate teacher training in Moodle increases the learning of speaking skills in ESL students in a language center at the university.

Contrasting with previous studies, we found similarities in the conclusions. For example, Fernández (2015) identified that teachers with limited competencies and abilities of virtual tools such as the Moodle platform limit teaching to students.

Finding teachers from different universities with difficulties regarding knowledge of the virtual environment and technological tool, harms the student, limiting their learning. In the present study it is evidenced, nowadays, that teachers must be prepared to handle these tools; therefore, it is necessary for teachers to be trained in the use of the Moodle platform as well as other platforms, which the present study encourages, providing alternative solutions to improve ESL learning in Latin America.

This is a situation that we were able to verify in this ESL course where most of the students who had teachers trained in Moodle achieved very good averages. Teachers need to be more aware of new technologies to help their students achieve academic objectives. Teaching methods and many computer-based instructional programs have changed the view on learning. It is moving from the pedagogy of the acquisition of knowledge to a pedagogy of process learning.

In his study "The Virtual Learning Environment Based on the Moodle Platform and the Relationship in Free Access Teacher Training," Fernández (2015) found that the teachers in the educational institution of the study present certain difficulties in terms of their knowledge of the virtual environment. This is because there is no consistent training. Likewise, it warns that the institution has not been making teacher training a priority, thus reducing the possibilities of strengthening teaching skills related to the use of technological tools. This results in the students' poorer performance in terms of ESL learning.

Regarding learning English as a second language, Gońi (2019) discusses that the emotional state is an important factor to learn this language since speaking in public is not an action that comes easily to everyone. Although this research does not examine these conclusions, it takes into consideration that virtual platforms manifest varied alternatives in which the student can choose the most comfortable way to participate in class. These dynamics allow very good grades in writing, reading, listening, and speaking.

#### **Conclusions**

This current study confirms the general hypothesis that there is a positive influence of the Moodle platform teacher training in ESL learning as evidenced by the 3.97-point improvement of the post-test average over the pre-test average. These results indicate an academic progress of the students of an "average fair" to "very good."

In the first specific hypothesis (SH 1), the initial forecast is repeated: both the pre- and post-test show an increase of 4.00 points. This confirms that teacher training on this virtual platform positively influences writing. It also verifies that students presented improved scores from being low in the pre-test to being very good in the post test.

The second specific hypothesis (SH 2) confirms a favorable influence of teacher training in reading skills. The regular grades became very good. Between the pre- and post-tests, they verified an increase of 3.50 points, which represents the benefits of the dynamics of the virtual elements.

The third specific hypothesis (SH 3) verifies the positive influence of the Moodle platform teacher training in listening skills. The preand post-tests experienced an increase of 3.74 points. This shows an academic progress of the students from a regular average score to a very good score.

The fourth specific hypothesis (SH 4) confirms the positive impact of teacher training on the virtual platform used by the institution of study. Since the differences in means between the pre-and post- tests indicate an increase of 4.20 points, this confirms the benefits of the virtual Moodle platform where most of the ESL students achieved knowledge in English by increasing their grades from fair to very good.

These results show a clear improvement in students' learning English as a second language in all four areas: writing, reading, listening, and speaking. The increase in the mean scores range from 3.50 points to 4.20 points between the pre- and post-tests. Improvements in learning the second language are credited to good teacher training, including training with the Moodle platform.

# **Acknowledgement**

I would like to thank my students who spent the time, the effort, and the dedication to make this research possible.

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