

"Moodle": A Courseware Applied in EFL

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□ ABSTRACT □

Moodle is an open source course management system for online learning allowing teachers and instructors to make use of its tools to create student-based and cooperative learning course. Such courses can be accessed by students either from the internet or even through a specially designed LAN network.

This research investigates the effects of using Moodle on English language learning in one of the secondary schools in Latakia. This study was conducted in the first term of the academic year 2009. The study sample included two groups of eighth graders, one of which was taught via the conventional methods, and the other was taught an adapted e-version of the same course designed to fit into Moodle.

Tests were administered, and the results were analyzed to find out the important role of Moodle in enhancing students' skills in English based on Bloom's Taxonomy of intellectual skills (Bloom et.al, 1956). The results of the study reveal that the overall achievement scores of the Experimental Group students have notably improved compared to those of their peers in the Control Group. They also show similar improvement in their performance on various levels of intellectual ability including comprehension, application, synthesis, and evaluation.

Keywords: *Moodle, CALL, ICT, LMS, LCMS, EFL.*

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"المودل" - تطبيق الأداة البرمجية لتعليم اللغة الإنكليزية

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□ ملخص □

يعدّ الـ "مودل" (Moodle) أحد البرمجيات المجانية مفتوحة المصدر والتي يمكن الاعتماد عليها في تصميم مناهج تعليمية إلكترونية للطلاب عبر الإنترنت، أو بصورة مستقلة عنه عبر الشبكة المحلية (LAN). ويتيح هذا البرنامج للمدرسين قدرة على الاستفادة من باقة أدواته البرمجية الخاصة في تصميم مناهج دراسي محفّز للطلاب، وفي بيئة تعلّم تعاونية.

وتم في هذا البحث دراسة تأثير استخدام الـ "مودل" على عملية تعلّم اللغة الإنكليزية في إحدى المدارس الإعدادية بمحافظة اللاذقية. وأجريت الدراسة ضمن فترة زمنية شملت أشهر الفصل الدراسي الأول من عام 2009، وشملت عيّنة الدراسة مجموعتين من طلاب الصف الثاني الإعدادي، طبّق على إحدهما طريقة التعليم التقليدية للغة الإنكليزية، بينما تعلّمت الأخرى المنهاج الدراسي ذاته بعد تصميمه إلكترونياً بالاستعانة ببرنامج الـ "مودل" وإجراء التعديلات المناسبة عليه.

وخضع الطلاب لعدد من الاختبارات التي درست نتائجها لاستخلاص أهمية الدور الذي يلعبه "مودل" في تعزيز مهارات الطلاب في اللغة الإنكليزية وذلك اعتماداً على مستويات مهارات التفكير العليا (هرم بلوم). وأظهرت نتائج البحث تحسناً ملحوظاً في إجمالي الإنجاز الذي حققه طلاب المجموعة التجريبية مقارنة بأقرانهم في المجموعة الضابطة. كما أظهرت تحسناً مماثلاً من حيث الأداء وفق مختلف مستويات القدرات الفكرية بما فيها الفهم، والتطبيق، والتركيب والتقييم.

الكلمات المفتاحية: مودل، تعليم اللغة باستخدام الحاسب، تكنولوجيا المعلومات والاتصالات، نظام إدارة التعلّم، نظام إدارة محتوى التعلّم، تعليم اللغة الإنكليزية لغير الناطقين بها.

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Introduction:

In recent years, computers and the internet have become part and parcel of our life. We can hardly find a person who does not use such technology in carrying out various types of tasks such as communication, working, exchanging information, playing, and above all learning. However, building a customized e-learning environment requires the use of authoring systems such as the *Authorware*, *Director*, *Dreamweaver* etc., which places high demands on design, programming skills, and time.

An alternative to using such applications is the deployment of a system that has been gradually gaining popularity all over the world which is known as Moodle.

"Moodle" in brief

The word "Moodle" stands for *Modular Object-Oriented Dynamic Learning Environment*. It is possible to find a clear definition of Moodle at its official website describing it as a course management system for online learning. *It is a free web application that educators can use to create effective online learning sites* (www.moodle.org). It refers to "an enjoyable tinkering that often leads to insight and creativity" (Cole and Foster 2007: ix). It provides a set of tools to support an inquiry-based approach to online learning. It also helps to create an online learning environment with collaborative interaction among students as a standalone tool, or even as a supporting tool in conventional classroom instruction. In contrast to other commercial software, Moodle is available free of charges, and thus it is accessible to anybody.

The Moodle system consists of templates to which content must be added. Its interface is simple and laid out in blocks organized around independent sections. Each one of these sections has its own interlinked courses, lessons, wikis, glossaries, forums, and quizzes. Moodle gives the course designer the ability to arrange blocks and move the elements within the sections around, or even hide them. *Fig-1* shows a course setup in the welcome screen format.

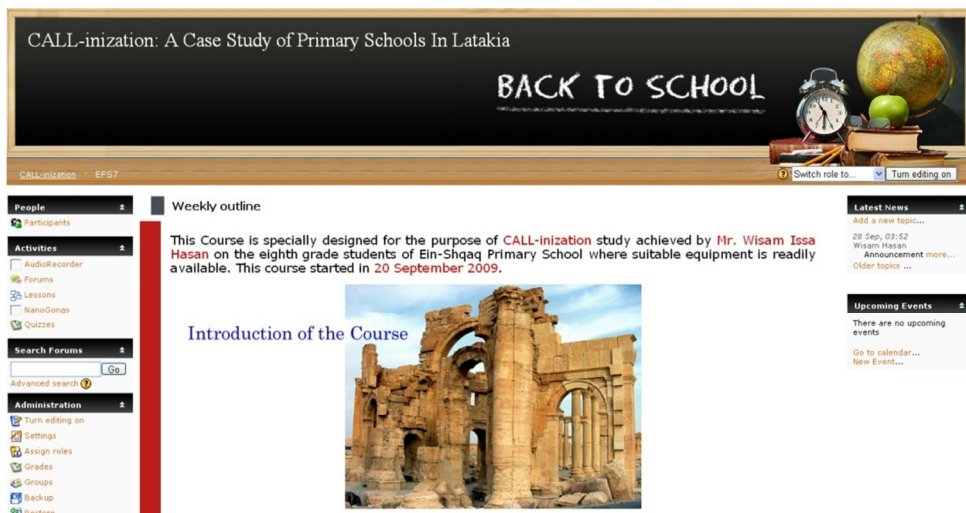


Fig- 1. Sample of a course setup in the topic format

Language Learning and Moodle

With the advent of the 21st century, using technology in teaching English has become "a fact of life" (Chapelle, 2001). In other words, it has become a part of the broader ecology of life at the turn of the century (Warschauer, 2009). There is a wide assumption that, if used effectively in the context where learning takes place, technology has a great potential to improve the learners' achievement by expanding the students' learning experience, facilitating collaboration, increasing motivation and developing language skills.

Social interaction between the teacher and the student, and among the students themselves, is one of the main benefits of using Moodle in teaching. Computers have long been regarded as supportive tools only. However, the invention of the internet, and the integration of advanced technologies into the teaching/learning process emphasize the importance of using computers and computer-based applications in language teaching (Cziko, 2003). The importance of Moodle stems from its utility and efficiency. Being a simple learning system and a courseware package, Moodle can be efficiently used both as a supporting tool in conventional classroom instruction and as an independent e-learning platform. Jarvis (1998) argues that by integrating basic IT skills in the EFL classroom, we are developing language skills and equipping learners with technology skills.

Moodle is also a learning management system (LMS) where lesson module allows the designer to create lessons that closely control the learning process guiding learners step by step, and allows for advancement only if sufficient mastery has been achieved. It also creates a virtual learning environment (VLE) with the ability to offer a collection of integrated tools enabling the management of online learning, providing a delivery mechanism, student tracking, assessment and access to resources (Graus, 1999); and this is exactly where the importance of this study lies. It evaluates the distinctive role of Moodle in enhancing students' skills in English as a foreign language.

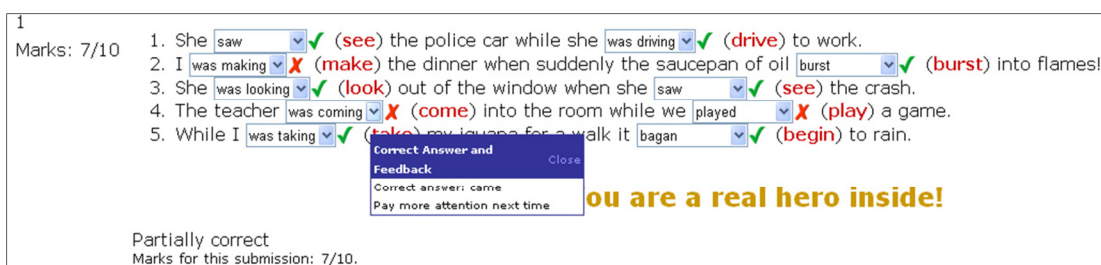


Fig- 2. An example of a quiz module used to evaluate a student achievement

Fig-2 demonstrates an example of a quiz module used to evaluate the students' achievement. It includes the both required feedback and the grading procedure.

Aims and Objectives of the Study

This research aims at demonstrating the effects of applying Moodle in one of the Syrian primary schools. In the light of the studies which view motivation as a main factor in language learning success, Moodle seems to create a positive-motivational environment, where learners do not feel bored or anxious because they are less threatened, and thus are expected to take more risks and, therefore, be more spontaneous (Davies and Elder 2004; and Roumeih et al. 2009). My main contention is to apply and examine this methodology

on the eighth graders at Ein Shqaq Primary (one of the Syrian schools where suitable equipment and facilities are readily available to serve our purpose).

My hypothesis rests squarely on the assumption that the students who are taught through Moodle are more successful learners than those who are not. This will be verified through suitable tools such as achievement and cloze tests.

This study, then, aims at examining the effects of applying Moodle on students' Comprehension (*Understanding information*), Application (*Using information*), Synthesis (*Putting information parts together to form a whole*) and Evaluation (*Assessing the value of information*) levels (CASE) of Bloom's taxonomy. Consequently, this would give rise to the question: Would students taught English via CALL become more successful learners than those taught via conventional instruction methods at the Comprehension, Application, Synthesis, and Evaluation levels?

Tools and Procedures

This study was conducted during the first semester of the academic year 2009 at *Ein Shqaq Primary*, Jableh, Lattakia. It was convenient to choose this particular school since the researcher is a teacher in the same school and, most importantly, the school is equipped with a suitable computer lab which is a necessary requirement for conducting the study. Eighth graders were divided into two groups (17 students each). One group was taught the English course (English For Starters 7) using the conventional method of instruction, and the other was taught the same course using Moodle.

Tests were administered to investigate students' achievement and proficiency levels. These tests included Progressive Test One (PT-1), Progressive Test Two (PT-2), Final Test (FT) and the Cloze Test (C-Test). The results of these tests were imported to SPSS software for analysis.

Data Analysis

Data was collected and then analyzed to test the efficiency of Moodle application in English language teaching. For this purpose, the mean scores of the achievement and proficiency of the two groups, and the mean scores of students' advancement with regard to CASE were analyzed. *Table-1* shows the mean scores of students' achievement in the Progress test one (PT-1), Progress test two (PT-2), and the Final test (FT). It also shows the students' overall performance on the Cloze test (C-Test), which is considered a proficiency measure.

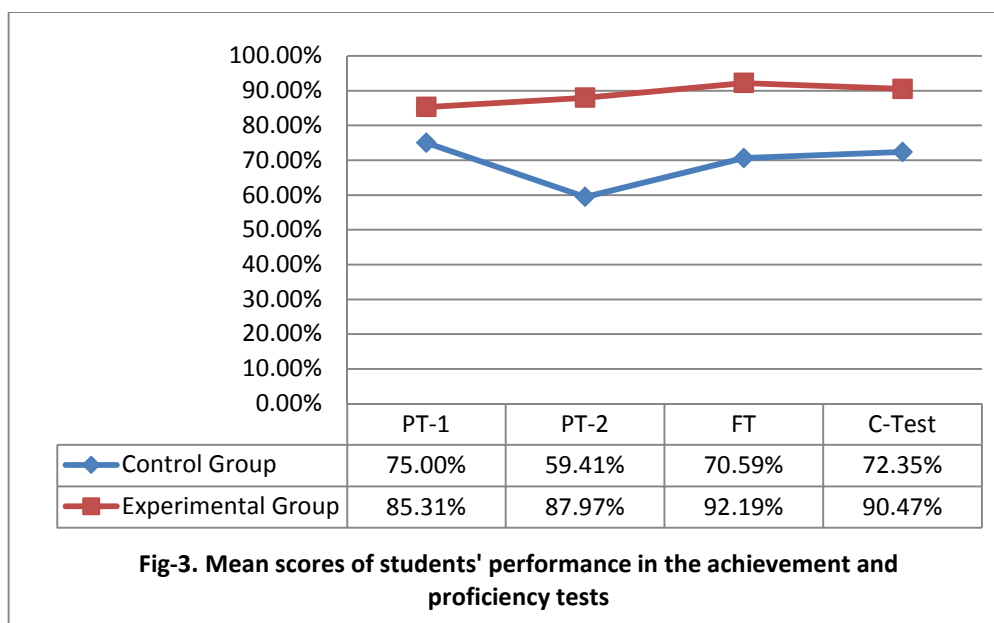
(Table-1 Mean scores of students' performance in the administered tests)

Test Type	Control Group	Experimental Group
PT-1	75%	85.31%
PT-2	59.41%	87.97%
FT	70.59%	92.19%
Average	68.33%	88.49%
C-Test	72.35%	90.47%

Table-1 indicates that the Experimental Group performed significantly better than the Control Group on both achievement and proficiency measures. It also shows that the performance of the Control Group has fluctuated in the achievement throughout the course of study. The performance of the Control Group on PT-2 is apparently below average (59.41%) compared to their performance on other tests. This might be attributed to factors related to what is known as the mid-term rest (a period in which school students relax and

temporarily lose interest) intertwined with the rather speedy introduction of more complex material which is a natural requirement of syllabus. The Control Group's decent performance on the FT (70.59%) is attributable to the importance of this test in determining their overall scholastic achievement in the entire semester.

On the other hand, the performance of the Experimental Group has shown a constant improvement on the various tests administered throughout the course. This improvement might be attributed to the advantage of using Moodle as a teaching interface in the classroom. It seems that the use of Moodle has motivated the students and made the whole learning process more enjoyable. This is further illustrated by the following chart.

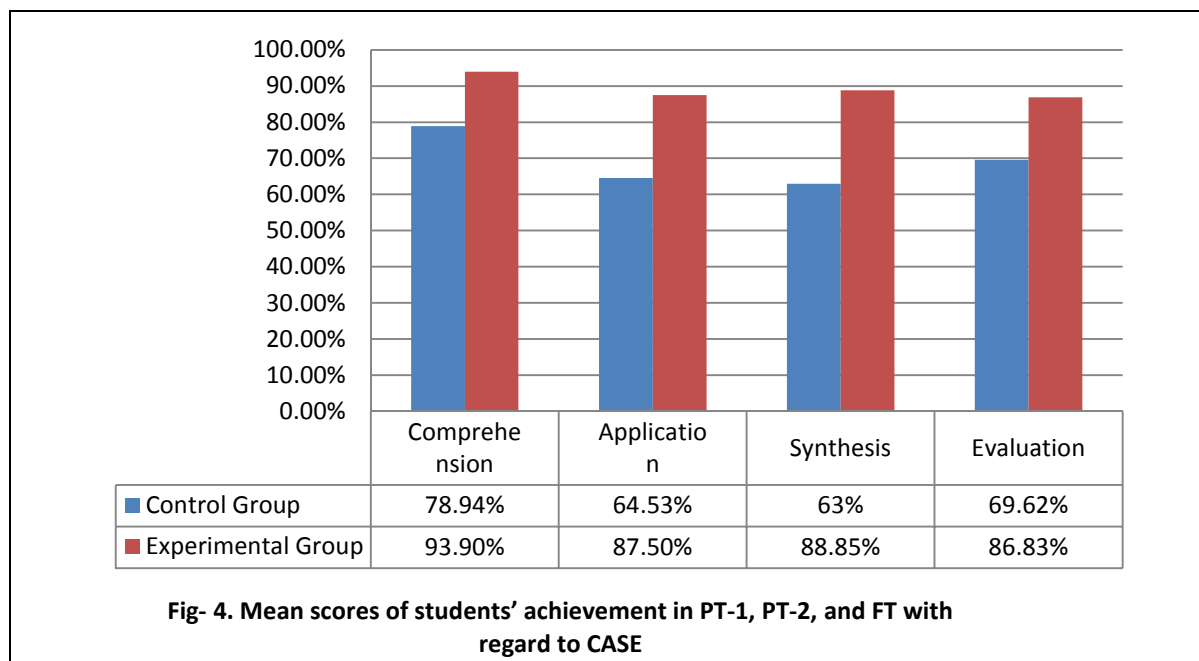


This study, however, aims at investigating the role of Moodle in developing students' intellectual levels according to four levels only in this taxonomy, namely comprehension, application, synthesis and evaluation. For the purpose of this study, we call these levels "CASE".

Table-2 shows the mean scores of students' achievement in PT-1, PT-2 and FT, with regard to CASE.

Table- 2 Mean scores of students' achievement in PT-1, PT-2 and FT, with regard to CASE

	Comprehension	Application	Synthesis	Evaluation
Control Group	78.94%	64.53%	63%	69.62%
Experimental Group	93.90%	87.50%	88.85%	86.83%



Apparently, the students of the Experimental Group have performed better than their peers in the Control Group on the targeted levels of Bloom's taxonomy of intellectuality. The Experimental Group performed better than the Control Group on Comprehension, Application, Synthesis and Evaluation. In other words, the students taught by Moodle were better at CASE levels of Bloom's taxonomy of intellectual thinking.

Achievement tests were analyzed and the correlation analysis between the various aspects of achievement and the teaching method were investigated in order to determine the effects of using Moodle on both the achievement and proficiency of the target groups. SPSS was utilized here to calculate Pearson Correlation between the study variables. This is illustrated in the Table-3 below.

Table-3. Pearson Correlation between the teaching method, CASE, the achievement and proficiency measures

	Teaching Method	Comprehension	Application	Synthesis	Evaluation	PT-1	PT-2	FT	C-Test
Teaching Method	1								
Comprehension	.504**	1							
Application	.613**	.860**	1						
Synthesis	.518**	.912**	.906**	1					
Evaluation	.539**	.867**	.952**	.876**	1				
Progress Test 1	.376*	.814**	.873**	.794**	.860**	1			
Progress Test 2	.603**	.869**	.941**	.917**	.941**	.748**	1		
Final Test	.605**	.902**	.940**	.909**	.923**	.792**	.886**	1	
Cloze Test	.603**	.827**	.934**	.863**	.909**	.845**	.910**	.859**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table-3 shows that there is a significant correlation between the use of the Moodle software as a teaching support and various achievement and proficiency measures. It indicates that there exists a highly significant correlation between the application of Moodle and students' performance on the proficiency test C-Test ($r=.603$; $P\leq 0.01$), on the one hand, and students' overall achievement scores in the PT-2 ($r=.603$; $P\leq 0.01$) and the FT ($r=.605$; $P\leq 0.01$), on the other. A significant correlation has also been found between Moodle and the students' scores in PT-1 ($r=.376$; $P\leq 0.05$). It is worth mentioning, however, that, although significant, the correlation coefficient value holding between these two variables is the least significant of all. This can be attributed to factors related to the novelty of the experience and to students' shaky start with handling the software application.

Table-3 also indicates a significant correlation between the use of Moodle and the four assigned levels of intellectual thinking defined in Bloom's taxonomy. A highly significant correlation is found between the application of Moodle and students' scores at the Comprehension level ($r=.504$; $P\leq 0.01$); the Application level ($r=.613$; $P\leq 0.01$); the Synthesis level ($r=.518$; $P\leq 0.01$) and at the Evaluation level ($r=.539$; $P\leq 0.01$). This is a further assertion of the importance of applying Moodle in enhancing students' performance, which eventually leads to their success.

Findings and suggestions

Having presented the research data, it is possible to present the general conclusions drawn from the context in which the research was conducted. Based on data analysis, the following conclusions can be outlined.

1. The Experimental Group students performed significantly better than the Control Group students on both achievement and proficiency measures.
2. The performance of the Control Group has had its ups and downs in the achievement throughout the course of study. This might be attributed to factors related to what is known as the mid-term rest, and to the lack of motivation.
3. This study proves that using Moodle in English language teaching has significantly and constantly enhanced the achievement of the Experimental Group students who seemed more cooperative and responsive than the students of the Control Group. It was noticed that students tended not to miss their English classes in the Experimental Group, while some students from the Control Group were eager to attend Moodle classes.
4. This study was applied to primary school students, and can be adopted by teachers of English at all stages, in addition to any other school modules.

Based on the above findings, it is possible to outline certain suggestions and recommendations. This study illustrates the possibility of using a computer software similar to Moodle in teaching/learning foreign languages. This necessitates the launch of teachers' training sessions and workshops on how to manipulate Moodle and other similar softwares in teaching and learning.

This study encourages the improvement and enhancement of constructing a more appropriate computerized English course for Syrian students. It also encourages foreign language teachers to use such a software and teaching method in class.

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