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Nada I. Alhothli

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INVESTIGATING THE IMPACT OF USING MOODLE AS AN E-LEARNING TOOL FOR

STUDENTS IN AN ENGLISH LANGUAGE INSTITUTE

By

NADA IBRAHIM ALHOTHLI

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Approved by:

Professor Sandy Ross, Dean of The Graduate School
GraduateSchool

Professor Douglas Raiford, Chair
Computer Science

Professor Jessy Johnson, Co-Chair
Computer Science

Doctor Sandra Janusch, Co-Chair
English Language Institute

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Abstract

Chairperson: Douglas Raiford

The research aims to gain more practical understanding of the benefits to learning language through theapplication of Moodle and video sharing tools in a university-based English LanguageInstitution environment. For the first implementation of this study, all the students in levels 1&2, which are the elementary levels in the institute, were presented with Moodle and traditional learning methods, and the results of their learning were measured respectively. After making some adjustments and reviewing how the process worked in the first implementation, the final implementation was applied. In this final implementation, All the students in level 5, which is the advanced level in the institute, was presented with Moodle and traditional learning methods, and results were measured respectively for comparative analysis. Student performance, skills improvement, and other staff impressions were measured and analyzed before making final recommendations and drawing conclusion.

It is believed that Moodle is useful in such language learning environments as proved (Jones and Lau, 2010) for other classes, teaching and professional training environments. The research includes the installation and implementation of Moodle based class materials, as well as training of students, staff and educators on the use and operation of Moodle.

Introduction

Over the last 10-15 years, several advancements in the field of technology have occurred, making several aspects of our lives more easily managed and completed through computer and online-based technologies. Today, the most popular method of purchasing a travel ticket globally is online, through channels such as Expedia, Flight Centre and others.

Furthermore, with the deployment of social and content sharing networks such as YouTube (which is now over eight years old) and Facebook, it has become very easy to share images, videos and content instantaneously with hundreds of people with a single click. As such tools become freely available and next to free, daily home and work-related tasks have become mandatory to perform online, such as ordering food, looking for retail discounts and applying for jobs. As well, although with much slower adoption rates, education and academia are also benefiting from this advancement (Fuentes, Gomez, Garcia and Ayuga, 2012).

Many schools and universities now offer students learning, examination, communication, and assignment submission options through web-based applications. While some of those methods have had noticeable positive impact on student engagement and performance, others proved less effective and in some cases even harmful. Therefore, academic experts and senior school policy makers stand along the sidelines over the use of technology-based instruction and learning (Shen, Lee and Tsai, 2011). This, therefore, has slowed down the full transition to e-learning and online-based instruction as educators exercise caution.

One of the most recent tools that was adopted and welcomed in academia is Moodle (Wiki, 2013). It is a learning management system with features including assignment, exam and material sharing among students and instructors. Extensive and diversified research has been conducted to examine different aspects of the Moodle experience in several grades, schools, subjects and populations. Other video-rich learning management systems have also be adopted and investigated by researcher, which accordingly arrived to similar conclusions which suggested that using technology-oriented resources in the field of education would most likely lead to positive results in the students' academic performance and the ease of delivering and facilitating course materials (Choi and Yang, 2010).

In thispaper, the study aims to answer questions about whether English Language Institute (ELI) students would also benefit from using Moodle and whether their performance and other interpersonal skills that complements their face- to- face classroom experiences couldbe enhanced through the use of Moodle as an online learning environment.

Literature Review

Introduction. Extensive literature review in the areas of learning methodologies, comparative studies and Moodle-based instruction is helpful to gain deeper insight into existing state of technology and teaching. The studies also help us understand the areas that required further investigation and existing evidence that can be used in the discussion. The objective of this paper is to discuss the relevance, the use, and more importantly, the impact of a relatively new electronic learning modality Moodle, as a tool for English language students enrolled in an educational institution.

This paper covered a lengthy literature review with a comprehensive conceptual framework, a research design and methodology, an implementation process, the outlining of results and findings, and a discussion and analysis of those outline results and findings. In the last part of the paper, the author summarized everything that has been gathered based on the evidences from the literatures that have been reviewed, and also based on the research implementation process and the analysis and discussion of the results and findings.

Using technology for teaching. A study about the utilization of blended traditional and technology based methodologies in teaching was completed for the subject of Geography in undergraduate studies (Moore and Gilmartin, 2010). The study discussed the use of several teaching and instruction methods as needed to minimize the costs of growing class size, limited resources and diversity of class subjects. The discussion examined how such blended methods reduced the overall costs of education as size grew. The study highlighted how face-to-face lecturing and teaching has become less effective in delivering science and social science classes in larger classes and that autonomous, technology-based, and online methodologies have become a more viable replacement. While slow adoption and management have been a factor, blended learning methodologies have already shown strong improvement over traditional methods in some universities. The test case of this research involved the use of lecturing, online contribution, group study, group work and online discussion as compared with the purely traditional face-to-face instruction method. Group participation, assignment grades, and discussion effectively were key aspects of comparison and quantitative and qualitative schemes were devised to measure results. With the aid of such schemes and study surveys, the researchers concluded that blended methodology can be a more effective tool for education and learning, especially for subjects that required group and discussion work (Moore and Gilmartin, 2010).

Web based tools provide many ways to increase communication between class members and faculty. These include but are not limited to discussion board, chats, and emails. Adding these elements to a course can increase student motivation and participation in class discussions and projects (Hoskins, 2010). Therefore, it seems that

the benefits of online learning depend on the way instructors deliver the content of the course to students. The authors used current literature to reveal evidence that support the idea that online education would be the new way to learn existing and new course material. He described the differences between online learning and traditional face to face learning as "The way the content is delivered" (Hoskins, 2010, p.4). After conducting the survey, he had come to the conclusion "The survey made me feel like I was helping to spread the word that online education is going to be the new norm in the future" (Hoskins, 2010, p.50). The results from this study emphasize the importance and merit of online education.

One of the most common technology-based methods for instruction is online forums, which are typically administered by some schools or individuals with academic background. Some are managed by students as well. A study (Zuhrieh Shana, 2009) was conducted to gauge the influence of using such methods on educational outcomes. The study specifically examined the impact of using online forum-based discussions on the performance of students enrolled in distance education programs and courses. The study took place at Ajman University of Science and Technology in the United Arab Emirates. The process was implemented on 34 enrolled students which were divided into two groups: the experimental group and control group, which were instructed in technology-based and traditional methods respectively. One-to-one interviews and surveys were conducted after both groups completed the test material. The study therefore concluded, based on collected and analyzed data that the experimental group, which was instructed with the aid of online forums performed noticeably better than the control group(Zuhrieh Shana, 2009).

While several studies seem reluctant to make definite conclusions about the superiority of technology-based methods, researchers have tried several methods to make a clear conclusion. A study (Emerson and MacKay, 2010) has been conducted with the attempt of making a definite conclusion in comparing paper-based traditional learning to online learning in higher education. The study presented material to two groups using technology-based or traditional-based presentation methodologies. The groups included 59 students presented with lessons on punctuation in English. For this specific case, the study indicated that students who were presented with the paper-based material performed 24% better than the group using online materials. With this, the researchers suggest further studies should be conducted to compare different methods for different settings, grades, materials, difficulty levels and technology employed. While technology-based methodologies maybe superior in areas of group work and discussions, they may prove less effective in other areas that required lab work presence and face-to-face tutorials.

A comprehensive study (Kutter, 2010) was conducted to examine the integration of education with technology in the past decade. The study examined the application of technology to education and learning management systems in the University of Education, Weingarten for period of three years. Two specific applications were examined: Moodle and Distance Learning Systems. The research took a comparative model comparing the use of either system in learning and education management. The longer period of study was needed to calibrate results, eliminate biases and produce more accurate conclusions. The quality, operability, access, availability and ease of administration were examined for both methods. The communication tools and

efficiency of either system was also examined as it represented the most important quality for any online management system. User-based analysis was also conducted to study students' attitude towards technology. And finally, a cost-benefit analysis was completed to gain a comprehensive understanding of the system qualities and costs over the long-term. While the study did not make clear conclusion or recommendations, as the study was still ongoing, it was asserted that Moodle-based methodologies were more effective in management and efficient in cost and implementation in the learning environment.

An interesting study (Hooper, Miller and Veletsianos, 2007) emphasized discovering the effects of digital video quality on learning for a specific class of learners. The researchers wanted to study the influence of such instruction tools on teaching American Sign Language to special students. A randomly-chosen sample of 85 students started ASL courses. Software was utilized to complete the student assessment. The course material was presented to the students with different quality levels as given by their frame per second. Typically,the higher frame rate, the better quality of the video. Videos were the main learning media for all students. While a slight correlation between quality and learning speed was noted, the researchers recommended future studies should be conducted to include a larger control group and more variation in video quality. As well, more accurate assessment methodologies should be formulated.

A study (Sherer and Shea, 2011) investigates the specific case of using Video in technology-based learning as a method to support learning and group engagement. Videos, especially in the form of shared YouTube movies, have become a primary method of learning for several institutions, colleges and educators. Several schools and

public figures communicate to their audience through the consistent use of tutorials, speeches, and lessons on video. This study focused on describing the learning components and assignments which could be delivered most effectively through video. The researchers asserted that out-side class activities and group instruction through web-based technology generally encouraged students to work together, network and eventually perform much better. Videos and other Web 2.0 technology offered several tools that can be used in learning management, communication, assessment, collaborative, discussions, and content development. The researchers examined the influence of such tools on various types of assignments which they classified as: listening and writing (such as music, speeches, plays, etc.), student production (producing video or material related to a given class subject), information collection and archiving (collection of online material to present to class about specific subject or topic), and short-presentation assignments (writing analysis with support of relevant video about specific academic case). The assignment types represented optimal ways students could use video to present assignments in a more effective ways with traditional presentation methods.

Further, a study (Fukkink, Trienekens and Kramer, 2011) specifically investigated the integration of video feedback into education instruction and training. The study aimed at evaluating the influence of using video feedback in professional instruction and training through workshops and training sessions. The study indicated significant effect on student interaction, networking and engagement skills as they completed the training assignments and video lectures. The study randomly assigned video and traditional learning methods to different groups and utilized questionnaire and surveys

to collect and analyze results. It was found that video feedback is effective, to a strong statistical margin, for improving professionals' interaction skills(Fukkink, Trienekens and Kramer, 2011).

An older study (Bremer and Bryant, 2010) conducted an investigation to compare Moodle versus Blackboard in instruction and learning management systems. The researchers implemented Moodle-based as a learning management tool for Otago Polytechnic University instead of the traditional Blackboard. Of course, teachers, students and IT administrators noticed the difference. Questionnaires and surveys were then collected to gather feedback and make conclusions. Classes were then delivered using the Moodle-based systems to students who have been always taught and managed traditionally. The feedback from different stakeholders varied. For instance, the school's systems and IT administrators recognized the little to nothing costs of the Moodle system (open source) as a positive feature. However, upfront training was required to familiarize IT staff with setting up the servers, PHP, MySQL database and other applications associated with Moodle operation. This compared with the costly ongoing licensing expenses of Blackboard. As for teachers, they noted the easy interface and the improvement over Blackboard. Resources were readily available and discussion forums are far more developed than Blackboard. 20 students were included in the test class and were surveyed after the completion of the class. Most of them had positive feedback about using Moodle and would have preferred to use it over Blackboard if given the choice.

Going even further, some researchers have investigated the use of Moodle in learning other languages. For instance, the learning of French language through the use

of Moodle has been investigated (Ali and Jaafar, 2010). The study emphasized the ability of Moodle to facilitate language learning because it makes available various resources to students such as web content, video, audio, and file which allow students to communicate, share files and collaborate on work. This generally creates a better environment for collaborative learning, requiring more discussions and interaction among students. This is exactly what is needed for an effective language learning environment because most of languages are best acquired through verbal interaction and dialogue practice. To complete the study, students seeking to learn French were randomly selected and divided into two groups. The control group was given a two hour class on basic French instructed in a traditional way while the experimental group in a self-training session where students was expected to use a custom made Moodle for their experience. A pre-test beforehand was conducted to make sure both randomly selected groups were the same in French reading, speaking and writing capabilities. After the experimental tests were completed, students from both groups had to fill out a survey about their experience and attitude towards the instruction methods with Moodle. After analyzing the results, it was found that the experimental group which used Moodle had performed slightly better than those taught in a traditional manner.

Another study (Despotović-Zrakić, Marković, Bogdanović, Barać and Srdjan Krčo, 2012) was conducted to investigate the adaptionof Moodle in LMS courses. The study focused on an offering of e-education courses. E-education systems have existed for a while and some were presented in a traditional manner. The researchers here wanted to compare the effectiveness of e-education courses delivered in adaptive to those delivered in non-adaptive manner. Students were assigned to two groups and the

courses were delivered. The results showed that students' achievement in learning was noticeably better in the courses delivered in an adaptive manner with the help of Moodle LMS.

Teaching students how to do things, learn new skills, and perform things that only professionals can do (especially in college), can be a hard thing to accomplish. For more than a hundred years, the entire educational system, not just that of the United States, has been dependent on traditional approaches in educating students. Most of the activities in schools have been conducted within the boundaries of comfort and safety of a four cornered classroom inside a rigid structure built to house students and teachers. Being more than a hundred years old now, the traditional classroom setting is starting to show signs of old age. A lot of students are starting to think that even though the traditional process of learning inside a four cornered classroom has proven to be an effective approach, or so at least in the past, a lot of things have dramatically changed now and so it should be the same for the educational system.

Some students and experts in the field of education believe that the time for a new approach in educating the students besides housing them within the boundaries of a four cornered classroom inside a linearly structured educational infrastructure is nigh. This may actually be true as recent surveys suggest that most students, regardless of the subject they are enrolled in, are starting to show regressions in terms of their learning outcomes (Jun & Lee, 2012). Students of different courses and not just English as a second language courses, are starting to show signs of slowdowns in learning outcomes. They are taking more time to learn new things. What the students today need is not just a properly educated and highly trained teacher that could teach them the things they

need to learn in their respective courses. According to studies(Jun & Lee, 2012), what the students need in order to continuously learn is variation. Unfortunately, with the traditional four walled classroom teaching approach, variation in teaching and learning are two things that can be very easy to be missed out.

The e-learning approach is the right path towards a continuous and more effective learning process for students and teachers (Hsieh, 2009). Since computers were invented, people have started to think how these machines can be used to improve the educational system and perhaps one of the greatest things that people in the field of education have come up with is the use of computers to deliver lessons, to create exercises and activities for students, and even manage an entire class virtually, without the need for tangible objects like a traditional classroom furnished with tables, chairs, and boards. Naturally, there will be some resistance to change. The traditionalists will almost certainly push for the maintenance of the status in the educational system and prevent the system from veering away from the traditional educational practices and settings, one of the best examples of which is the use of pen and paper systems in delivering lessons to students.

Enhancing the language learning. The approach used at the beginning of this paper applied a generic approach when it comes to learning new skills or things from school. It has already been mentioned, however that the focus of this paper was on the application of an electronic learning approach, specifically through the use of a university-based Moodle system in an English Learning Institute as an online learning management system. In the paper, the researcher focuses on the students' process of learning a new foreign language. Since English is a foreign language to begin with and the Moodle learning management system was applied in a university-based English Language Institute, it would make sense that the Moodle learning management system was used to attempt to improve the learning outcomes of the students trying to learn a new foreign language that is the English language. The question that the researcher of this paper basically tries to answer is whether the impacts of using the Moodle learning management system has been more positive, or if not, more negative, since the first day the English Language Institute started to implement the approach and integrate it in their course programs.

Learning a secondary language is a complex ordeal mainly because of the different challenges that a person or a group of people trying to accomplish (Baskervill & Robb, 2005). There is also a wide range of factors that may significantly affect the process of learning a new language to be used either for everyday or academic purposes. For one, people prefer different approaches when it comes to the learning process of not just a new language but of basically any other new skill or topic. Some people's learning outcomes may prove to be more positively influenced by the use of visual aids and other visually stimulating materials; there are some people, on the other

hand, who prefer and actually show improved learning outcomes whenever they arein learning situations wherein the main modality used are those that stimulate their auditory senses.There are also some people in the large pool of students in the entire educational system that enjoy the privilege of being versatile and or balanced when it comes to their preferred learning approach (Su, 2006). These are students who, regardless of the learning approach used, whether it is an auditory or visually stimulating approach, could still thrive and show marked improvements in learning outcomes, tests, and other procedures done for evaluation purposes. The percentage of this third group of students, however, is much smaller compared to the percentage of the first two groups that the author just recently discussed(Su, 2006).

The point here is that there is no such thing as a universally accepted or universally effective way of delivering a topic. This principle easily applies to the process of learning a foreign language. Each student, no matter how auditory or visually oriented he or she maybe, would still present with more unique preferences when it comes to that person's preferred learning approach (Rossing, Miller, Cecil, & Stamper, 2012). In the case of visually oriented learners, for example, it has been proven in a lot of studies that not all visual learners learn in an exactly the same or linear way. Some visual learners are more visually oriented than the others. The same principle, in fact, applies to all other types of learners and indeed, this further complicates the act and or process of delivering lessons or in this case, creating learning management systems for the students enrolled in the university-based English language institute.

There is no such thing as a universally accepted or universally effective way of teaching a student how to learn a new language mainly because of the lack of

uniformity in the students' learning styles and processes. Numerous studies have suggested that one of the best, if not the best way to teach a student how to learn a new skill or in this case, a new foreign language, is to base all discussions, activities, worksheets, and basically any type of classroom or in this case, Moodle-based activities outlined in the course syllabus, on the preferred learning style that any particular student or group of students have been objectively diagnosed to have (Mehrabi & Abtahi, 2012). The formula for a more effective or rather an ideal online and or offline learning management system are, in fact, simple. Subject instructors would just have to group the students based on the type or learning approach they prefer and then they would be provided with a different set of course materials, readings, activities, and worksheets, among other things. The learning materials that were provided would most likely be based on the learning preferences that they have been diagnosed to have.

The results, findings, and analysis in more recent studies about this educational approach have actually confided with that of older studies about the lack of uniformity in the students' learning processes not just when it comes to the task of learning a new foreign language but also when it comes to the task of learning other subjects. To summarize the findings in those studies, the author of this paper has found that this group-based approach is, in fact, more highly effective compared to the heterogeneous approach or a classroom or learning management setup that can be characterized by an even mixture of students who each have different learning styles and preferred learning approaches to begin with (Kelly & Kelly, 2009).

Learning new language can prove to be a complex process, sometimes, even more complex than learning a new subject matter, mainly because it involves a larger

group of processes, each of which can present itself as a separate challenge for the learner such as learning new grammar rules, learning how to apply them in understanding and constructing both written and spoken sentences, reading, and learning new words and or expanding their current vocabulary (Lee & Su, 2012). Of course, these processes can be considered normal if what being talked about is a person's process of learning his or her native language. Everything from the pronunciation of words up to the use of the language in everyday life situations just drastically changes.

Over the years, a variety of methods have been introduced to make the process of learning a new language, or in this case, the English language, easier, and more linear and simple. A case in point would be the introduction of a range of method and approaches done by English instructors to introduce the language to the students, the employment of a variety of learning and classroom management techniques to maximally improve the students' learning outcomes and maximize the improvements they can obtain from their often limited practice times and opportunities.

Marsh (2012) in her work about blended learning and the creation of learning opportunities for language learners discussed the fact that there is not a single and linear way to learn or to teach a single language. In this case, the worksis talking about the English language, in which, this principle may very well be applicable. In her work, she mentioned that "in short, there is no one way to learn a language, just as there is no one way to teach it" (Marsh, 2012). In the first few sections of her paper, she mentioned how undisputable this fact is and how other evidences in the field have confided with her presumption about the topic.

The author (Marsh, 2012) therefore did not spend her valuable research time and resources to delve and further investigate on a topic or an idea that she already thinks is undisputable. Instead, she focused on investigating whether there are optimal conditions for an individual or a group of individuals to more effectively learn a specific language and what conditions, if there are indeed any recognizable ones that maybe required, at least in the future, for a more effective language learning environment.

This is not the first time that this question has been raised in the English language learning community. In an academic journal published in 1999 entitled Call Environments: Research, Practice, and Critical Issues in Language Learning published in one of TESOL's newsletter authored by Egbert and Hanson-Smith, a set of criteria and or standards that describe optimal conditions for a more effective language learning environment has been identified (Egbert & Hanson-Smith, 1999).

The outlined standard criteria cited in Egbert and Hanson-Smith's work include the following: learners interact in the target language with an authentic audience; learners are involved in authentic tasks; learners are exposed to and are encouraged to produce varied and creative language; learners have opportunities to interact socially and negotiate meaning; learners have enough time and feedback; learners are guided to attend mindfully in the learning process; learners work in an atmosphere with only an ideal stress and or anxiety level; and learner autonomy is supported (Egbert & Hanson-Smith, 1999).

It is important to know, however, that these characteristics of an optimal language learning criteria are derived from just a single literature and therefore does not represent the entire view of the English language learning community about what really

are the optimal conditions for language learning. Also, the author of this paper would like to add that these criteria were derived from a collection of studies whose suggestions about the optimal language learning environment conditions have been synthesized and combined to create a list of characteristics such as the one being currently discussed.

The most commonly suggested alternative method for this group of people is web based learning or through an e-learning system. The e-learning system reviewed in the work was Moodle. According to the authors, "web based learning and adapted e-learning materials provide an alternative way of learning comparing to traditional classroom learning" (Debevc, Povalej, Verlic, & Stjepanovic, 2007). The focus of the study was on people with auditory impairments or more specifically, those who were currently in school age but are deaf or had difficulty in hearing. The study subjects were subjected to an e-learning environment in a computer literacy course.

The e-learning system's instructional materials included video streaming with interpreters and subtitles. The outcome that the authors measured in the use of the Moodle e-learning system was its accessibility, and to a larger extent, its usability. Results of the study, based on the evaluation and first-hand reports of the subjects, showed that "deaf and hard of hearing persons can successfully, efficiently, and effectively use the advantages of e-learning systems" (Debevc, Povalej, Verlic, & Stjepanovic, 2007).

Despite the relatively old age of the idea that there indeed exists a goldilocks or an optimal spot for English language learners to maximize the things that they can learn over a fixed amount of time and or exposure to the understanding and use of the

language, majority of foreign language classes still take place inside a classroom (Ybarra & Green, 2003). For decades now, language learning sessions conducted inside a classroom has proven to be an effective way of teaching the students how to read, write, and speak a new foreign language. However, despite the already proven effectiveness of this approach, should this stop those in the English language learning field, for example, to keep looking for far more effective ways to maximize the effects of an already proven, established way of delivering English language learning classes?

Most experts in the field would respond with a resounding no. As mentioned earlier, variation in the types of teaching and learning strategies used plays an important role in determining how much or what percentage of the subject matter the students actually learns or from the perspective of the instructors, what percentage of the subject matter they actually manage to impart to the students. The problem with the conduction of language learning strategies inside a classroom, which very much characterizes the traditional way of conducting a language learning process, is that it offers only a limited amount of opportunities for the students and at some point, for the instructors to actively engage in using the target language.

Often, the instructors and their respective students get too much focused on the technical aspects of learning the foreign language they are currently studying, with little to no focus on the practical aspect of it. In the case of students enrolled in a university-based English language institute, for example, instructors who have been so used in teaching the new language inside a classroom often neglect the fact that for a student to successfully learn how to read, speak, and write using the English language, they should let their students get continuously engaged in scenarios and or situations wherein there

is actual comprehension and usage of the new foreign language being studied, or in this case, the English language.

Unfortunately, this aspect of language learning is something that can be easily missed when majority of the number of language classes are being conducted inside a classroom. At some point, for the instructors to be able to fully tell that they have been able to positively influence their students' process of learning a new language, they should be able to see their students using the language they have studied in an everyday use context, even when they are not confined within the four corners of their classroom.

Ideally, English language learning students should be able to thrive in a scenario or an environment where they are surrounded by native speakers of the English language, for example, enter the real world of their target language, and still manage to communicate effectively. Unfortunately, this is not what is currently happening in the field of English language learning today, despite the claims of most English language instructors and professors that their students who are non-native speakers of the English language are allegedly learning a lot of things with regards to the use (both in writing and speaking) and understanding of it. One of the reasons that academics are looking into is the lack of variation and also the lack of interactive English language learning activities that made available inside the confinements of a classroom.

Moodle as an online learning platform. Moodle is the short name for Modular Object Oriented Dynamic Learning Environment. Moodle is a learning management system (in some literatures, it is called a virtual learning environment. In general, it is considered as a freeware, which means that it is relatively free to use(moodle.org, 2014). However, the Moodle features that free users can utilize are much more limited compared to that of premium users. Nonetheless, it is a good thing that Moodle users can choose the type of subscription (which can either be free or premium) that they want. This subscription freedom is often not available in other learning management systems or virtual learning environments(moodle.org, 2014). The original or the first version of Moodle was developed and introduced to the public by a man named Martin Dougiamas. Martin Dougiamas is a prominent educator and computer scientist in Australia(moodle.org, 2014). For a brief background about the type of education he had, he has postgraduate degrees in Education and Computer Science.

Much of his work has been directed towards the integration of constructivist models of learning and teaching through online learning platforms and classroom and course management system(Burgos, Tattersall, Dougiamas, Vogten, & Koper, 2007). His work and dedication in the field of education and computer science has led to the development of the online course management system, Moodle(moodle.org, 2014). Apart from the integration of constructivist models of learning and teaching in the currently largely traditional educational system by means of online course and classroom management systems (e.g. Moodle), he has also started researching about the different methods of application of networking and social constructionist referents on internet

technology, and the different ways how open source software development can improve the current methods of delivering courses and lesson plans(moodle.org, 2014).

What in fact led to the development of Moodle was his PhD thesis in computer science entitled "The use of Open Source software to support a social constructionist epistemology of teaching and learning within internet-based communities of reflective inquiry"(Evans & Underhill, 2013). According to media interviews, what inspired Martin Dougiamas, Moodle's head developer, to research and write a thesis about the topic was the failure and his frustration of the then existing commercial software solutions available for the educators and students' use(Evans & Underhill, 2013). Based on the results and findings of his research, he then proceeded to the development of Moodle. The first version of the Moodle learning management system was released in 2002(Evans & Underhill, 2013). To date, the Moodle learning environment system is already more than ten years old. Martin Dougiamas, the system's original developer is still an active contributor and a lead programmar at Moodle.org.

The latest versions of Moodle have been developed not just by Martin Dougiamas but also by Moodle HQ and the members of the Moodle Community(moodle.org, 2014). However, it is important to remember that the original Moodle learning management system framework has been developed by Martin Dougiamas, it is just that he decided to share the original framework with an entire community, that is the Moodle Community, making the Moodle learning management system, not just a freeware but also an open source system(Evans & Underhill, 2013).

The advantage of this approach is that the original developers or those in charge or those who have the authorization to make significant changes to the existing features

and contents of the system and applying them to the versions of the system that will be released in the future will have more ideas on how they can make improvements in the program. At some point, Moodle's being an open source teaching managements system can also be used by the developers as a form of feedback tool. With the thousands of people contributing to the future development of and using Moodle, the developers should not have a single problem when it comes to looking for real and generic forms of feedback. As of June 2013, it is estimated that there are more than 83,000 registered and verified sites that make use of the Moodle learning management system across the planet. In terms of the number of users, Moodle has been serving more than 71 million registered combined free and premium users since last year; Moodle has also registered some 7.5 million courses with over 1.2 million teachers and instructors delivering those courses.

The aim of the developing entities of Moodle was to help teachers and instructors create courses that they can deliver through electronic means in a non-traditional classroom setting or virtually online, focusing on traditional classroom-like interactions and on the collaborative construction of content(moodle.org, 2014). There are several distinct elements that make up the entire Moodle project. It is, in fact, not like any other learning management systems and software solutions that operates and gets updated in a linear way or gets developed and then maintained by only a single entity.

These elements are the Moodle Software, the Moodle Pty Ltd, the Moodle Community, and the Moodle Partner Network. The Moodle software is the tool or the learning management system itself. It carries all the features that the developers have

planned and intended to be included in the entire software package. As mentioned earlier, Moodle has been developed with emphasis on the simulation of traditional classroom-like interactions and on the collaborative construction of content.

These emphases are actually attained through the Moodle Software, with numerous improvements and optimizations being done from time to time. Moodle Pty Ltd, which is also known as the Moodle Headquarters and Moodle.com, is an Australian company currently based in Perth Australia. Simply, it is the company that is responsible for creating new features and improving existing ones for Moodle's learning management system framework. It is also the one that performs that majority of developments of Moodle's core platform. The Moodle Community, on the other hand, is a mostly online community with more than a million registered users. The Moodle Community members mostly interact via the Moodle community website to share ideas, information, codes, and offer free support to other members of the community.

It is like a forum website whose threads and discussions are solely dedicated for the use of Moodle learning management system users and independent developers. Aside from the sharing of ideas, codes, and information about Moodle's core platform, there are also non-core related threads and topics within the Moodle Community. Non-core developers, for example, are allowed to open threads and participate in discussions that are related to the development and or improvement of additional modules, plugins, add-ons, among other features. Moodle's free and open source license has allowed thousands of core and non-core Moodle platform developers to participate in a collaborative approach of developing Moodle and its various modules. Compared with

other learning management system that has been developed by a small group of core and non-core platform developers only, Moodle carries a considerably larger potential.

This is, in fact, one of the greatest advantages of open source software and platform (i.e. the Moodle learning management system). Aside from the fact that they are often free to use, modify, and distribute, their development costs are considerably lower compared to commercially developed platforms, or if not, costs only a fraction of the total costs of their proprietary counterparts; open source platforms such as Moodle also do not have to depend on the ideas, resources, and expertise of the developer company but instead on the members of the open-source community that are willing to contribute to the improvement and development of the software or platform. So, even if the parent company, or in this case, Moodle Pty Ltd or the Moodle Headquarters ideas fail, the code would still be able to continue to exist. Also, the developers may still be able to continue distributing the software or platform and even continue making improvements. And lastly, the Moodle Partner network, the organization that forms the commercial arm of the Moodle platform and at some point, the Moodle community as well. It is the one that collects and provides majority of the total source of funding to Moodle Pty Ltd (the Moodle Headquarters) through the payment of contract fees, royalties, among other revenue generating schemes in the company.

One of the main points of argument behind the use of the Modular Object Oriented Dynamic Learning Environment or Moodle is accessibility. Literature suggests that integrating the use of Moodle or any other software that can be accessed through a computer coupled with an internet or network connection can be an effective alternative mean of delivering courses, topics, assignments, projects, among other things that

instructors most often use as course requirements in a traditional educational setting. The fact that there is a significant part of the school-age population who present with disabilities, limitations, impairments, and other factors that basically disables them to attend the traditional class schedules is not particularly new information. Within the context of education, the most commonly asked question with regards to these people's condition is how they are supposed to get educated if they are unable to attend typical classroom schedules.

The aspect of education that is being questioned here is accessibility. Just how accessible are the current mainstream means of education? The answer is, in fact, simple. The current mainstream means of education is only accessible to those who can, by all means, attend the regular classroom or course hours and not to those who cannot, for whatever reason whether it is related to the person or student's medical condition or time constraints, among other reason. This exposes just how low the level of accessibility the mainstream means of education has. In an academic journal published in the Journal of Nursing UFPE in 2013, the authors analyzed the literature using the Modular Object-Oriented Dynamic Learning Environment (Moodle) in terms of its accessibility to people with limitations, disabilities, low educational levels, learning disabilities and elderlies to the virtual environment.

The study was mostly descriptive, with a focus on the review of literature. Basically, the authors attempted to determine, using a qualitative approach, the level of accessibility of Moodle. A total of 17 peer reviewed literature was analyzed from various databases. Results and findings of the review suggested that majority of the 17 literature reviewed considered the Moodle approach in delivering university courses

only partially accessible for school age people with limitations, disabilities, low educational levels, and elderlies (Carvalho, Da Silva, & Freitag, 2013). There is one thing that this literature tells and that is what majority of the reviewed literature tells that the Moodle approach in delivering university courses is only partially accessible is contrary to what most non-academically-related entities (people and organizations) suggest. Most people and organizations have the tendency to arrive at a conclusion that suggests that a virtual learning environment approach would be fully accessible to students with limitations, disabilities, and those who are subjected to factors that basically disables them from attending traditional course classes.

However, this is not simply what the literature suggests. The accessibility of an electronic learning approach in delivering course classes was also reviewed in another academic journal published by the International Center for Technology Assessment in 2007. The authors of the academic work have acknowledged the fact that there is a significant portion of the school age population that carries special needs. These, according to the authors, are people who may have learning, mental, and or physical disabilities, or those who are basically subject to factors that prevent them from participating in a traditional classroom setting.

However, there were a number of challenges that the authors have faced in the midst of implementing the e-learning approach. Some of which included the difficulty of adapting the materials required for the new approach required for the deaf and hard of hearing students to fully understand the course requirements and other contents that the instructors put in the course board. The deaf and hard of hearing approach also

dramatically increased the time it normally takes the instructors to prepare course and other instructional materials.

The authors of the paper suggested that the dramatic increase in preparation time was most likely caused by the more complex materials required to make the process of integrating the new e-learning approach to deaf and hard of hearing students effective. Naturally, instructional and other course materials intended for the use of deaf and hard of hearing students would be more complex and complicated compared to that of normal students or those without any officially diagnosed medical disabilities and or impairments. In the paper, what the researchers did was they adapted the use of an e-learning environment for people with special needs, particularly those with hearing impairments.

The mainstream materials used in the study were ICT and multimedia materials such as electronic textbooks, audio files and or podcasts, videos, and PowerPoint presentations, among others. The multimedia instructional and course materials were delivered via the web-based learning environment, or in their case, Moodle. The researchers used the computer literacy of the test subjects as the primary outcome. To measure any significant changes with regards to this outcome, the researchers conducted tests that are designed to objectively measure the participants' computer literacy before and after the implementation of the research methods. Results of the analysis suggested that majority of the participants were able to successfully adapt to the use of the e-learning environment using various multimedia instructional and course materials and successfully learn from them just like in a traditional classroom setting.

Some of the main advantages of using the e-learning approach that the authors noted in their study include but may not be limited to the high level of availability of the materials required to initiate the adaptation of an e-learning learning management system such as Moodle. In the case of their study, Moodle was browser-based, which means that any computer of device that can access the internet through an internet browser application, regardless of the device's operating system can access the instructional and other course materials.

The device mainly used to access the Moodle learning management system were desktop computers, which according to the authors proved as an advantage mainly because the basic requirements needed to access the Moodle learning management system and the ones required to download and access the instructional and course materials are already available, as these are already included in the basic configuration of the operating systems. Some of the problems and or limitations that the researchers noted include the noticeably slower processing and loading time in the Moodle learning management system with embedded interpreter and other multimedia plugins compared to that of the fully text-based Moodle system.

This is, in fact, one of the problems that the researchers have expected to face because the devices would basically have to process more multimedia-related information than usual. Naturally, it would be considerably faster to process web pages that are comprised of texts and other simple multimedia materials compared to web pages that are filled with a lot more multimedia items such as audio and video files, and even real-time interpreter software designed to be used by deaf and hard of hearing students. Nonetheless, the authors noted that with some additional work done, the joint

work of developers from the Moodle headquarters and the Moodle community should be able to create plugins that offer faster processing speeds when it comes to offering e-learning course services for students with hearing impairments.

Since people, or in this case, people working or involved in the field of education (e.g. students, instructors, and teachers) started to become dependent on the internet, a lot of things have changed. A case in point would be what happened in most major educational institutions in the United States. After earlier versions of learning management systems or virtual learning environment systems were released prior to the official release of the first version of Moodle in 2002, the perception of most people involved in the field of learning and education was mostly negative.

The majority of those people thought that it would still be more practical and convenient to stick to the old or traditional ways of teaching and instructing the students, that is within a four walled classroom in a predominantly pen and paper system. People in the academic community, however, theorized that the root cause of the negative perception of people working in the field of education towards electronic learning management systems was not the learning management systems themselves but rather the people's resistance to change. As mentioned earlier, the traditional pen and paper system has been in existence and use for more than a hundred years now. In fact, ever since school age people started to go to school, the pen and paper approach was the one they used in their school years. So practically, little to nothing has changed ever since the pen and paper approach became the mainstream means of delivering instructional and other course materials. It was not until the late 20th century that people with a revolutionary mindset started to think about new and innovative ways how

educators and teachers can deliver their hours-long planned lesson outlines to their students using a non-traditional method.

The advent of the use of electronic machines probably triggered these people's ideas, the product of which can actually be seen now as the popular learning management systems that both students and their educators can use, a perfect example of which would be the Moodle learning management system. Over time, people who are involved by profession or by any other means in the field of education's access to courses, programs, and information has shifted the responsibility and control of the learning process from the non-traditional approach to a more contemporary one, or in this case, from the use of a traditional pen and paper approach to the use of modern online learning management systems such as Moodle.

Unfortunately, unlike traditional educational models and theories that are based on the pen and paper approach, modern online learning management systems-based educational models and theories are not yet fully backed by a reliable number of researches and studies. So, academically speaking, when it comes to teaching students, regardless of the course or subject, the traditional approach would still be the surefire way to go as educational models, theories, and principles that are based on them have already been proven by a significantly larger number of literatures and or studies compared to that of the modern online learning management system-based ones. Nonetheless, it is still a good thing that despite the fact the use of web or browser-based learning management systems is a relatively new and untested practice in the field of education, there are still educators and other professionals (working in the field with either a direct or indirect contact with the learners) who have managed to tame their

fear of and resistance to change and started to integrate the use of open source products such as Moodle in their educational practice. There are a number of ways how educators and researchers can measure the usability, effectiveness, efficiency, or any other outcome measuring tool that has been used to test and identify the strengths, weaknesses, and limitations of some the older approaches in education. In an academic study sponsored by the National Science Council of Taiwan and published in the United States and China Education Review, the authors used the Technology Acceptance Model (TAM) as the foundational outcome measure to describe the perceived convenience of using an open source online learning management system that was Moodle. The focus of the study was to determine the perception of and the way how the students accepted the use of this relatively new approach in the field of education.

The authors further noted that this external factor (perceived acceptance, which can be effectively obtained using the Technology Acceptance Model) is not present in older methods and or models of education since little to no new approaches in delivering lessons and course materials have been introduced since the past decades. What the researchers did was they selectively picked out 35 senior high school students and 47 college students from undisclosed educational institutions in Taiwan (total n = 82) and contracted them to be test subjects and participate in the research. They were then subjected to various tests and interviews designed to describe their level of acceptance and their perception on the usefulness of the Moodle online learning management system.

The results of analysis of the results and findings suggested that majority of the combined college and senior high school students who were recruited as test subjects in

the study responded positively when asked with questions regarding their level of acceptance and perceived usefulness and convenience on the Moodle online learning management system (Hsu & Chang, 2013). The authors also noted in their discussion that there appears to be a direct relationship or effect on the test subjects' perceptions on ease of use, perceived usefulness, and perceived convenience.

That is, when the test subjects' level of perception on one factor (can either be one of the three) increases, the level of perception on the remaining two factors increases as well, and then vice versa when either one of the three factors decreases. It may also be easier to explain that these three factors and or outcomes just mentioned behave as a group and not as separate entities. The authors further added that "perceived use, perceived convenience, and perceived usefulness had significantly positive impacts on attitude towards using Moodle and that continuance intention to use Moodle was directly influenced by the users' attitude towards the act of using Moodle" (Hsu & Chang, 2013).

Conclusion. In summary, majority, if not all of the literatures reviewed in this study confirm that it may indeed be advantageous for the students, the instructors and professors, as well as the college or educational institution involved in providing the educational services to the students if an educational and or instructional system that makes use of the integration of technology and education be used. The use of multimedia devices and materials either as a form of visual aid or the primary or secondary form of instructional materials which the students would use along with the textbooks and other course materials in courses and classes may also prove to be an effective strategy. In one of the studies discussed in the review of related literatures, for example, particularly the one authored by Sherer and Shea (2011), the incorporation of video technologies in classes and courses proved to be an effective method that appeared to have led to significant improvements in the level of learning and group engagement observed from students. In another comprehensive study which was authored by Kutter (2010), it has been concluded that the integration of education with technology has led to generalized improvements in the field of education, especially with the way how learning management systems have been used to help students and professors provide instructions for (for professors) and complete course works (for students) in a virtual learning environment, something which conventional methods of education and or learning systems would not allow. In summary, the results and evidences gathered from the review of related literatures all support the idea that integration of education with technology or at least the products of technology would most likely prove to be helpful for the students, the instructors, and the educational institutions alike.

Statement of Problem

With the vast research aforementioned discussing various teaching methods and the availability of diversified technology-based methods, it is worthwhile to conduct a study about the use of video-rich Moodle as a learning management system.

The study in this paper, as a supplement to face- to- face classroom environment roe university level English Language Learners aimsto examine the use of Moodle as a tool of e-learning, in the University of Montana English Language Institute, gauging the influence of using it over performance and other skills of students such as engagement, communication and problem solving skills.

Research Questions

The research aims on shed more light on the following intriguing questions:

1) Does Moodle improve the achievement of ELI students?

2) What is the influence of using Moodle on students' attitudes, performance, social interaction, knowledge and collaboration with other students?

Research Methodology

In this study, a case study research design has been implemented. A case study is one of the research methods that can either or both take a qualitative or quantitative approach. This is also the most applicable research methodology for this study because of the small number of people who were recruited as respondents, and the qualitative and quantitative approaches in gathering and presenting the information that were used. Prior to the study's implementation, a Moodle online learning management system was offered to be used by both the English language institution instructors and students. Then, the courses (listening and speaking skills) for level 1&2 and 5 were developed and designed . These pre-developed courseshadsome features and should already be pre and pilot tested prior to the start of the initial and final implementations of the study. The features of the proposed courses on Moodle online learning management system include: ELI assignment submission; discussion forums among second language speakers; video files and links for the students and others; online multiple choice quizzes; an instant messaging service for the instructors and students communication; an announcement system to be utilized by the course instructor; online Moodle calendar for assignments, quizzes, and other activities, among others.

A total of 12 students in the first part of the implementation and 20 students in the final part of this implementation, all of whom are currently enrolled in the English language learning institution (ELI) course were introduced to this study. However, an important part of the study's implementation process was to expose and subject them to the use of the developed courses on Moodle online learning management system which are designed for the partial or entire duration of their courses. This would mean that majority or if not, a considerable percentage of their projects and assignments would be posted and would have to be submitted via Moodle; Their opinion and participation would be posted in the forums; their quizzes would be taken up and checked on; and significant course events and other announcements would be posted on the new Moodle system.

After the entire duration of the English language learning course, all the studentstook a survey which they answered using a five point likert scale. Whatever each student's response to a certain question had a corresponding value or rating of the impact of the new Moodle system for the English language learners, which is what the researcher is basically trying to figure out. Once all the students finished answering the questionnaire,The researcher proceeded with the compilation and tallying of results which would then be followed by the analysis of the compilation and tally of the results. By the end of the analysis, the researchershould be able to get a number that indicates how big or small the impact of using the Moodle as an online learning management system has been for the ELI students.

As mentioned earlier, there was two parts of this study's implementation. The first part focused on ESL students who did not have any prior experience to using

Moodle and those that werestill on the beginning process in their respective ELI level. The second implementation focused on ESL students who had prior experience to using Moodle and were at the advanced ELI levels. Three types of surveys were used for both the first and final part of this implementation. The first survey wasoffered online on Moodle and allowed to the students to answer during the first week of the implementation. The second one also wereoffered on Moodle to the students to answer at the end of this implementation. The third survey and questionnairewere developed by using Microsoft Word and sent to the courses instructors at the end of the implementation. The insights and responses of these two population groups were the focus of the discussions and analysis as to the effects and impacts of using Moodle as an e-learning tool for students in an ELI.

Limitations and Scope of the Study

While it is important toconduct a comprehensive study, as it is needed, the research, however, limitedthe study to a target population and focused on making accurate conclusions. the target sample included beginner and advanced levels of ELI students at university-based intensive English language institution.

There were, however, some limitations that have been noted in this study. One of the major limitations in this study was the limited number of subjects recruited to participate in the study. Naturally, a smaller number of subjects would negatively affect the overall reliability of the results and findings. In this paper's case, the number of participants was limited to less than a hundred which is atypical for studies that are aimed at establishing the reliability and or validity of a new standard of practice, or in

this case, the use of Moodle in an English language learning program. Another major limitation of the study was the limited number of activities in which the perceptions on the ease of use, usability, and convenience of the participants were assessed. In the study, the participants' different perceptions were assessed on a limited number of activities that can be executed via the Moodle online learning management system only.

Approach and Study.A Moodle system with full features was installed in a University-based ELI institution. Such features include:

- ELI assignment (listening, speaking, writing ,grammar, video for students' listening, and video taping and audio recording for students' listening and speaking) submission.

- Discussion forums among second language speakers.

- Video-files or links for the students themselves or somebody else.

- Online multiple choices quizzes.

- Instant messaging service for team member communication.

- Announcement system to be updated by instructor.

- Online Moodle calendar for assignments and quizzes

In the first part of this implementation, since it was the first time for both the instructor of level 1&2 and the students to deal with Moodle, and the students werebeginner English learner,The instructorwas given 3-day training session via workshops and face-to-face lessons on dealing with Moodle. Also, the researchermet her and answered questions or confusions regarding the use of Moodle.

The researcher then assisted her to populate all the needed course material in a Moodle-compatible format with more emphasis on video material. The researcher also

needed to help in producing some of those videos or at least screening some of the existing videos on YouTube or the Moodle Community. However, the instructor had some lab hours to teach the students how to use Moodle

The researcher also generated some tutorials for the students to help them understanding how to login to Moodle, use it, and do all the activities.

Once completed, all the students (12) in level 1&2 offered the class with the same teacher in both a face-to-face environment and an online environment through Moodle.

In the final part of this implementation, since the instructor of level 5 had a professional experience in using Moodle, and the students were advanced English learners, the researcher just generated some tutorials for the students to help them understanding how to login to Moodle, use it, and do all the activities.

Data Gathering and Analysis. All the students took a survey prior to the start of the class which focused on their English and computer skills. The two parts of the implementation, for level 1&2 and 5, wasrun in series with each level, running for 4 weeks in level 1 and 12 weeks in level 5. Once complete, all the students and the instructorstooka final survey and questionnaire about their impression of the teaching method in the blended learning environment, and these surveys and questionnaires were utilized to collect responses. Then, they were collected to determine the overall viability of using Moodle in such institutions. All responses were represented in a qualitative manner on percentile scales:

- Student performance in written assignments.

  Do they present better performance in the written assignments? Do they follow the rules that they have studied in the class or other classes? Do they improve their writing skill?

- Student performance in oral/presentation assignment.

  Depending on their voice loudness, eye contact, body movement, self-confidence, word pronunciation, sentences grammar.

- Student performance in group projects requiring extensive teamwork.

  Do they divide their tasks between group members? Do they plan for each task? Does everyone try to complete his/her task by him/her-self? Do they help each other? Do they finish the duty on time/ correctly?

- Student performance in quizzes?

  Do they do the test on the due date? Do they answer most of the questions correctly?

- Student input to the class forum (counted in messages and characters, as well as the relevancy to the topic being discussed).

  Each student should participate in each topic in the forums and replay or discuss other students' answers.

- Student utilization of the instant messaging service (counted by characters and relevance to the question being asked).

  Does the student know how to send/ replay a message? Does he use the instant messaging service in an appropriate way?

- Student impression of the overall Moodle experience.

- Student impression of using videos within Moodle.

- Student overall engagement and communication skill improvement after the class.

- Teacher input (ease of use, installation, operation, troubleshooting, etc.)

- Teacher impression of class performance, communication, class material preparation and system maintenance and interface

In order to measure the effectiveness of the Moodle-based e-learning tool that was used in the English Language Institute, the researchers utilized a questionnaire. The respondents, or in this case, the students, were asked to answer the questionnaire. Most, if not all of the questions in the questionnaire were open-ended questions and so they must be answered qualitatively. After having all respondents both from the first and second applications of the research, the researchers interpreted and analyzed the data gathered from the researchers. The interpretations and analysis were all based on primary information gathered from the respondents (i.e. the respondents' responses to

the individual questions in the questionnaires). It is important to note that the respondents in this research were composed of students and instructors. A copy of the questionnaires and the respondents' answers were provided as appendices. For record purposes, a series of tables that contain information about the demographics and other characteristics of the respondents have also been provided both for the first and second applications.

Results

The aim of the results is to gather information regarding the participants' perception on the relationship between the use of the new Moodle learning management system and their performance in their respective course's written assignments (whether there are improvements or none); their performance in their respective course's oral and presentation assignments; their performance in group projects that demand a high level of teamwork and or collaboration; their performance in both online and offline quizzes; their ability to share input in the online forums and discussions via Moodle; their ability to use modern forms of technology within the context of education (e.g. utilization of the instant messaging service, among other features of the Moodle learning management system); the students' impression of the overall Moodle experience; the integration of the use of multimedia in their courses; the students' overall engagement and communication skill improvements after the class; and lastly, the English language Institute teachers' impression on class performance, communication, class material preparation, and system maintenance, and interface in relation to the use of the Moodle learning management system.

In summary, this study on the impacts of Moodle as an e-learning tool had two phases of implementation. The first one was conducted on November 2013 on ELI Students in levels 1 and 2. There were a total of 12 students who participated as the respondents for that particular implementation stage, which only focused on the English listening and speaking course. This was the first time that the ELI used Moodle to teach students using the initial Moodle modulthat was created and used during the implementation phase. The Listening and speaking course contained discussion forums, online quizzes video activities, and other course learning materials. There were also audio-based activities and writing activities, all of which the students could use to hone their English language learning skills. Another feature of that initial Moodle modul was a messaging system which the students and instructors could use to communicate with each other, preferably for English language learning purposes. The researcher also placed surveys on the Moodle, so that she can gather data from the current users and other people who use the platform on how it can be improved in the future. Some of the training and instructional materials provided were tutorials with pictures and illustrations on how to use Moodle features and their purpose. Overall, the researcher would like to note that the purpose of this first implementation is to serve as a pilot testing study only, to test the use of Moodle project and build many module of the course, in order to know what works and what does not, and to improve the overall process in the second and final implementation.

The second implementation took place on the period between January 27 and March 17 of the year 2014. On the initial implementation of this studyin the English language Institute, the administrator decided to apply the project to higher level

students, particularly on level five students which is the highest and most advanced level in the English Language Institute. The course again focused on the students' English listening and speaking skills, and so did the course that they were enrolled in. The researcher worked with the course teacher who also happened to have a prior Moodle experience. For this second implementation, the teacher is the one who created and designed the course and the researcher just had to add some other activities and forum discussions for the course. The same procedures were followed; the students were instructed to enroll in the listening and speaking course. They were also provided with comprehensive training and instructional materials on how to navigate through the entire course and platform on Moodle. Once the semester began, everything was ready. Similar to the first implementation, the listening and speaking course for the second implementation also contained surveys. One difference it had is that it did not have online quizzes.

During the first two months of the second implementation, there were a total of 12 students in the level 5 and all of them did the first survey. Then the number of students increased to 20 so they enrolled to level five and this course. At the end of the semester, all of the 20 students finished the final survey.

In terms of the students' nationality, majority, if not all of the students in the first and second implementations spoke English as their second or in some cases, even their third language. However,in the second implementation, 50% of the students have taken either a TOEFL test or an IELTS test while the remaining half has not been exposed to any ESL-related tests before. On the other hand, none of the students in the first implementation have taken either a TOEFL test or an IELTS test.When it comes to using Moodle, 70% of the students in the

second implementation said that they have an experience in using Moodle before while the remaining 30% said that the use of Moodle was a new experience for them (figure 1).Also, all the students in the first implementation said that they have no experience in using Moodle before (figure 2).
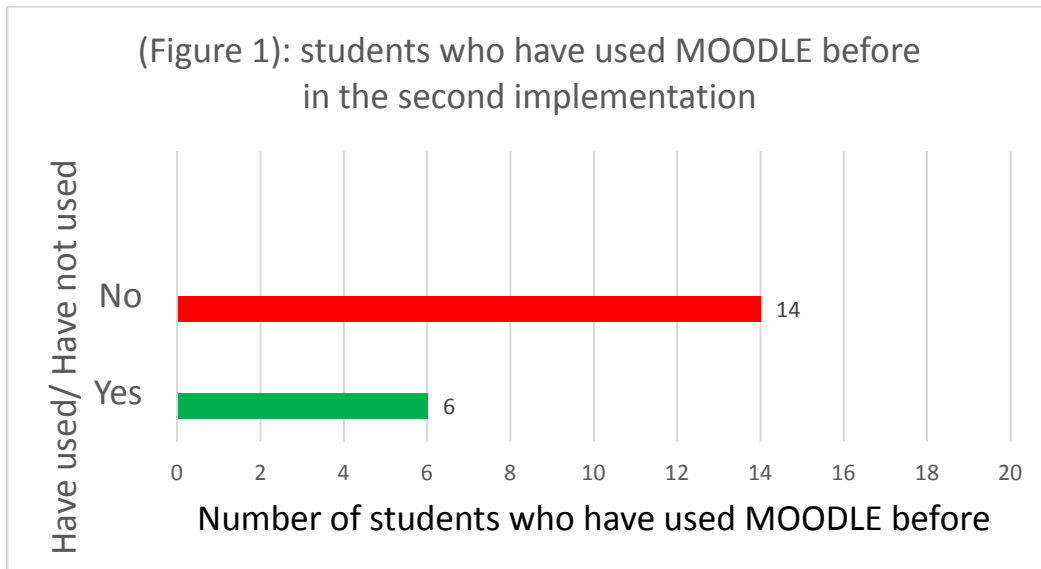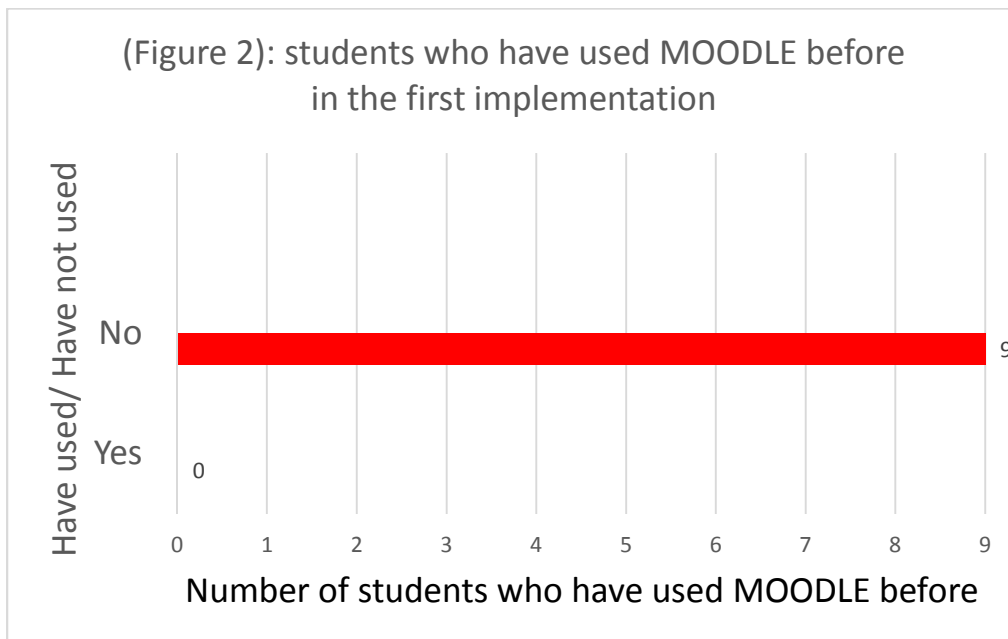

Figure 1: students who have used MOODLE before in the second implementation. This figure illustrates the number of students who have/ have not used Moodle before.

Figure 2: students who have used MOODLE before in the first implementation. This figure illustrates the number of students who have/ have not used Moodle before.

In terms of accessibility, 19 of the 20 students in the second implementation said that they were able to access the Moodle course platform at home while one said that he could not. However, all the students in the first implementation were able to access the Moodle course platform at home. Also, all respondents in the first and second implementationsreported that they were able to access the Moodle platform whenever they needed to. When it comes to quiz-taking, 100% of the students in the first implementation said that they were able to take the quiz properly and efficiently. In terms of usability, 90% of the student in the second implementation said that using Moodle helped them become more organized while the remaining 10% said that Moodle did not help them become more organized (figure 3). Futher, all the students in the first implementation said that Moodle helped them become more organized (figure 4).
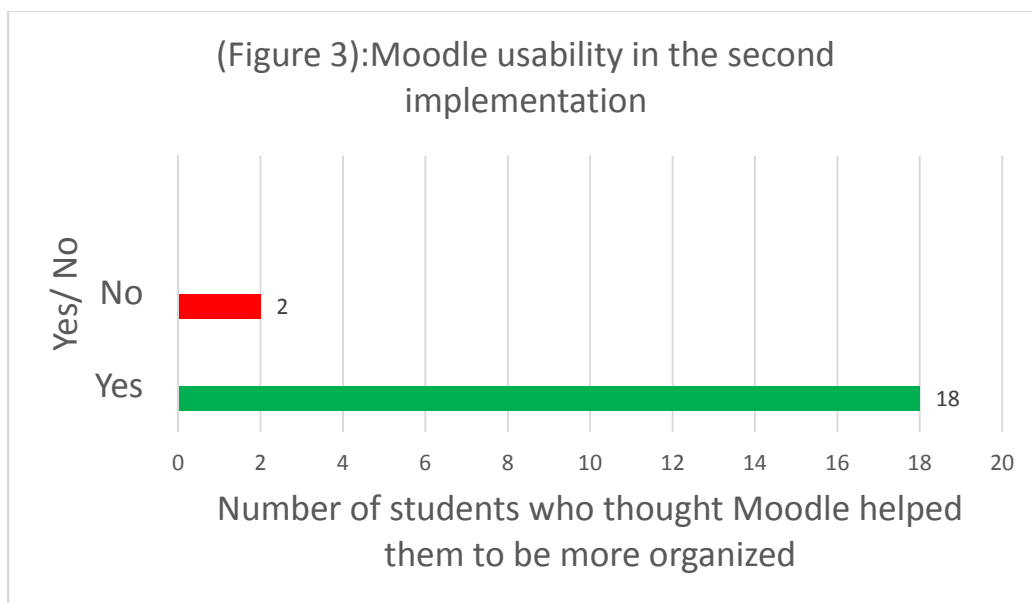
Figure 3: Moodle usability in the second implementation. This figure illustrates the number of students who (thought/ did not think) Moodle helped them to be more organized

(Figure 4):Moodle usability in the first implementation

Yes/ No

No   0

Yes   10

0   2   4   6   8   10

Number of students who thought Moodle helped them to be more organized
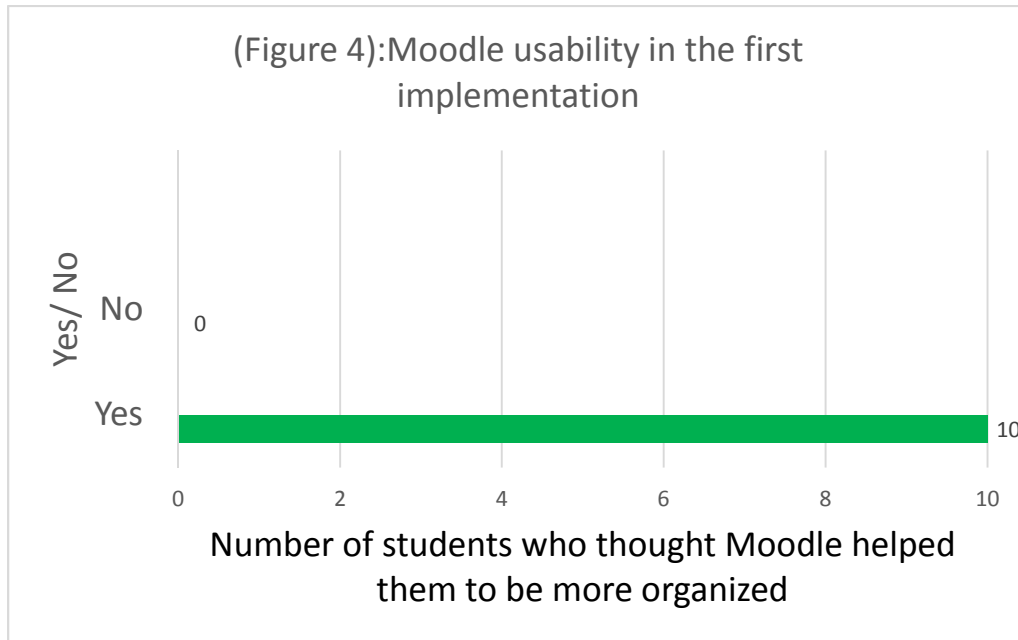
Figure 4: Moodle usability in the first implementation. This figure illustrates the number of students who (thought/ did not think) Moodle helped them to be more organized.

All in all, all students commented that they liked the idea of using Moodle as a learning platform for their respective course after having a first-hand experience with it. It is also important to note that all the remaining parameters of the survey were preferential in nature such as the finding that states that 60% of the students in the second implementation liked to send messages via the Moodle's message board while the others did not (figure 5). Also, 50% of the students in the first implementation liked to send messages via the Moodle's message board while the others did not (figure 6).
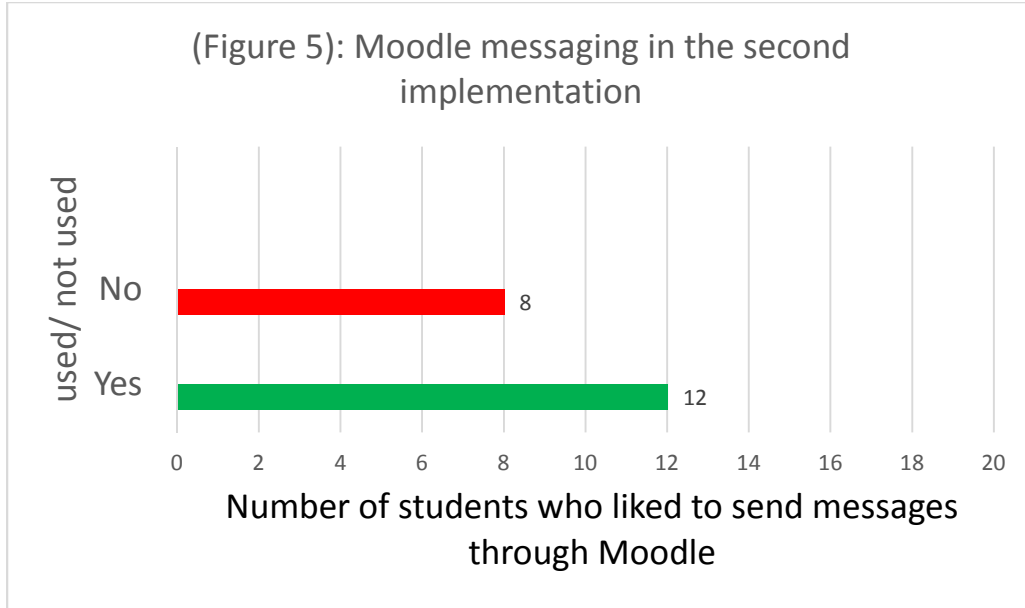
Figure 5: Moodle messaging in the second implementation. This figure illustrates the number of students who liked/ did not like to send messages through Moodle.
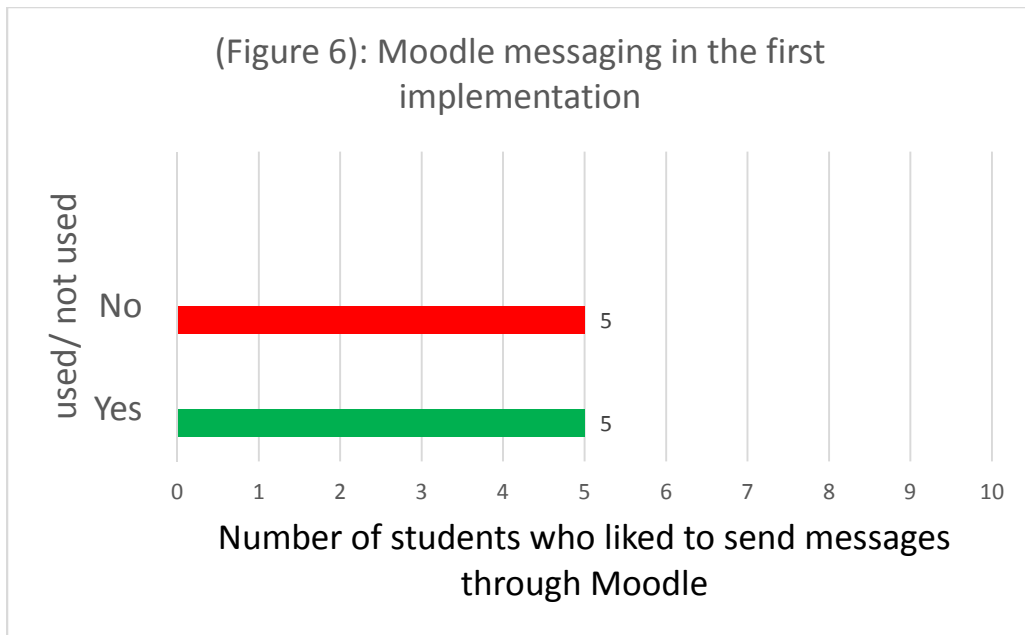

Figure 6: Moodle messaging in the first implementation. This figure illustrates the number of students who liked/ did not like to send messages through Moodle.

The important finding here is that the majority of the students in the first implementation liked the experience of using Moodle (figure 7). Also, all the students in the second implementations liked and found it comfortable to use Moodle for their course (figure 8).
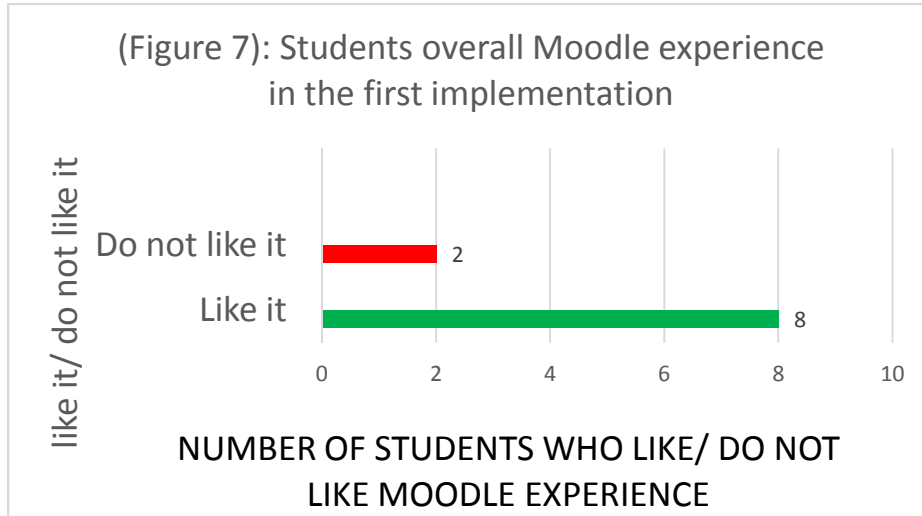
Figure 7: Students overall Moodle experience in the first implementation. This figure illustrates the number of students who liked/ did not like Moodle experience.
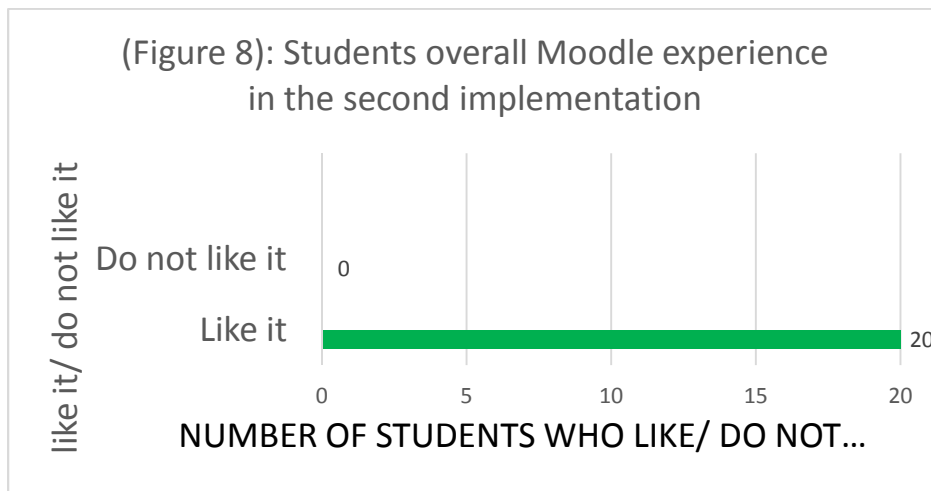
Figure 8: Students overall Moodle experience in the second implementation. This figure illustrates the number of students who liked/ did not like Moodle experience.

When the students were asked about the improvements, they wanted to make to the current platform, some of the most significant suggestions included, adding variety to the exercises and activities on Moodle; adding more video exercises particularly on the listening part; improving the design of the current platform; discouraging the idea of copying and pasting (plagiarism); adding some hints on the question; and adding more dynamic contents. All in all, the responses of the students on the use of the platform were more positive than negative. 100% of the students reported that using Moodle as an e-learning tool helped them become more organized in doing the course requirements even if it meant having no supervision.

Focusing on the Moodle administration experience of the course instructors, on the other hand, the overall response was more positive than negative. It is worthwhile to note at this point, however, that the instructor of level 1&2 who administered the Moodle-based ELI course did not have any prior experience in teaching an English class featuring a combined approach of face-to-face and online learning, although there has been a prior experience in using Moodle before. In terms of the course layout, the amount of time that saved both in the case of the students and the instructor, the flexibility in terms of delivering innovative and new approaches in teaching English courses, the level of the students' engagement, the technical support availability, and the ease and the comfort in using the platform, the instructor answered positively (between the scale of 4 to 5 in the questionnaire). The lowest score of 2 to 3 was given in the following areas: the flexibility that blended learning using the Moodle approach offers in the instructor's work schedule, whether the students enjoyed the blended course more than the traditional face to face class, the amount of interaction; the level

of student participation between the students and the instructors and between every student; the quality of the interaction, among others.

Table 1.1 (General statistics of the first survey of the first implementation)

First Application	Number of Students (n=10)	Percentage
Students who passed TOEFL	5	50
Have studied ESL for at least a year	10	100
Stayed in the U.S. for at least 3 months	10	100
Studied ESL in formal schools and educational institutions	8	80
Number of students who consider themselves as beginners in ESL	5	50
Number of students who think their English speaking and pronunciation skills are low	3	30
Number of students who think their listening skills are low	3	30
Number of students who think their writing and reading skills are low	4	40
Number of students who prefer to learn ESL with a teacher speaking in front of a class	10	100
Number of students who have a computer at their home	10	100
Number of students who used Moodle Before	0	0
Number of students who have taken online classes before	0	0
Number of students who have experienced blended learning	0	0

Table 1.2 (General statistics of the final survey of the first implementation)

First Application	Number of Students (n=10)	Percentage
Number of students who could access Moodle at their home	9	90
Number of students who agreed that Moodle was available when they needed it	10	100
Number of students who in the study access class assignments and other activities using Moodle	8	80
Number of students who liked the assignments posted in the Moodle website	10	100
Number of students who thought that Moodle helped them to be more organized	9	90
Number of students who thought that Moodle-based learning was more comfortable or convenient for their ESL course	10	100
Number of students who liked Moodle as an alternative to their classes overall	10	100

Table 2.1 (General statistics of the first survey of the second implementation)

Second Application	Number of Students (n=10)	Percentage
Students who passed TOEFL	5	50
Have studied ESL for at least a year	10	100
Stayed in the U.S. for at least 3 months	10	100
Studied ESL in formal schools and educational institutions	8	80
Number of students who consider themselves as beginners in ESL	0	0
Number of students who think their English speaking and pronunciation skills are low	0	0
Number of students who think their listening skills are low	1	10
Number of students who think their writing and reading skills are low	4	40
Number of students who prefer to learn ESL with a teacher speaking in front of a class	10	100
Number of students who have a computer at their home	10	100
Number of students who used Moodle Before	7	70
Number of students who have taken online classes before	2	20
Number of students who have experienced blended learning	7	70

Table 2.2 (General statistics of the final survey of the second implementation)

Second Application	Number of Students (n=20)	Percentage
Number of students who could access Moodle at their home	18	90
Number of students who agreed that Moodle was available when they needed it	20	100
Number of students who in the study access class assignments and other activities using Moodle	16	80
Number of students who liked the assignments posted in the Moodle website	20	100
Number of students who thought that Moodle helped them to be more organized	18	90
Number of students who thought that Moodle-based learning was more comfortable or convenient for their ESL course	20	100
Number of students who liked Moodle as an alternative to their classes overall	20	100

Analysis

The main reason why the study was split into two parts was to be able to monitor the changes in the English proficiency of the ESL students. At first, the study was performed using a pilot study platform with some minor changes. The errors and shortcomings encountered during the pilot study or testing was then noticed, marked, and studied so that they could be avoided by applying the necessary solutions over to the next phase of the study's implementation.

The second phase was the most important because it is where the real outcomes of using the e-learning tool Moodle as a learning tool in an English language institute was assessed. In the second phase of the study, the students were asked regarding their responses, opinions, and perceptions, after they have already experienced using Moodle as an e-learning tool for their classes.

The findings were mixed across all categories. In the following areas, for example, a low score of two to three was given: the flexibility that blended learning using the Moodle approach offers in the instructor's work schedule, whether the students enjoyed the blended course more than the traditional face to face class; the amount of interaction; and the level of students' participation. On the other side of the spectrum, there were some areas where the participants gave near perfect to perfect scores. In general, the results of the study were mixed.

This can be attributed to the fact that the use of Moodle as an e-learning tool for that English class in the English learning institute is an unconventional way of learning. One of the researcher's hypotheses suggests that this may be due to the fact that the

students are more used to conventional modes of studying the English language and to the use of more conventional learning materials other than those that can only be used virtually. The results in both the first and second phases of the study were basically the same in terms of their level of variability.

The main difference with the first and second phases of the study, however, is that the variations are on different levels and on different areas. Now, this may be due to the fact that there were different samples or participants recruited in those two phases. The variations in the findings and the subjects' reactions to the use of Moodle as an e-learning tool may indicate that the academe is not yet ready to experience a full transition from the conventional learning environment and the use of conventional learning materials to a fully virtual one or to a one that has ablended learning .

Conclusions and Recommendations

Overall, collating the responses of the students and the instructors on the effects and impacts of using the Learning Management System approach as an e-learning tool for students in ELI, it can be safe to state that Moodle or the blending learning approach may not, as of the moment, be used as a total replacement to the traditional face to face classroom approach, as supported by the mixed responses of the ELI students and instructors who were subjected to this study. It is worth noting, however, that the response of the students on the use of the Learning Management System were more positive than negative (although it is a close call). It was particularly positive on the part where they were asked whether the Learning Management System helped them to be more organized in fulfilling the requirements of the course. It is more appropriate to state that the blended approach or the use of the Learning Management System should be more of an educational tool alternative that can temporarily replace the traditional face to face educational approach in teaching ELI students to offer a more diverse learning experience to students and teaching experience to instructors, which as supported in literatures, should lead to improved educational outcomes.

The areas where the Learning Management System were scored the lowest by the students were in areas related to its ability to make a significant impact in improving the students' performance in oral and presentation assignments, overall engagement and communication skills, and to a lesser extent, in improving the students' ability to participate better in group projects that require extensive teamwork. In all the other questions, the students' perceptions on the ELI Learning Management System were more positive than negative. Basically, what the researcher have found out is that it is

really hard to use Moodle for English language Institute students in Level1&2 because they seemed to be so used to doing their education programs in a face-to-face environment. They also did not understand English langauge well, so it was hard for them to read, listen and understand the instructions. Another finding from the first implementation is that there were some students who needed to be instructed on what they were supposed to do every time; at the same time, there were also some students who managed to do the course requirements themselves without requiring too much supervision and instructions. What the researcher found out is that it was much easier to apply the second implementation on Level 5 ELI students because they already knew English well and did not need more time to explain every step on how to utilize the Moodle course and website, and do the essential course activities.Focusing on the response of the students on the Moodle intervention based on the two survey implementations conducted, it can be said that their response was more positive than negative. In terms of the students' nationality, majority, if not all of them spoke English as their second or in some cases, even their third language, so the results of this study can really prove to be significant for them. Moreover, the responses of the students on the use of the platform were more positive than negative. 100% of the students reported that using Moodle as an e-learning tool helped them become more organized in doing the course requirements even if it meant having no supervision. This means that from the students' perspective, using Moodle as an e-learning tool can be a great beneficial idea to their learning needs. Further, It is also important to note that all the remaining parameters of the survey were preferential in nature such as the finding that states that 60% of the students in the second implementation liked to send messages via the Moodle's message board while the others did not (figure 3). Also, 50% of the students in the first implementation

liked to send messages via the Moodle's message board while the others did not (figure 4). Such findings do not really indicate the scopes and limitations of the Moodle platform when used as an e-learning tool.In summary, Moodle as an online learning management system can be a promisingly effective e-learning tool to use for English language learners, however, it is important to remember, as what the researcher in this study has discovered that there are certain aspects of the process of learning that the traditional classroom approach may still be more effective at. Therefore, the researcher do not really recommend using Learning Management System as a replacement to the traditional face-to-face class which is done inside the classroom. On the other hand, the researcher suggests that having a blended learning environment where the teachers and students experience both online and face-to-face class could be a great idea because that could save their time, manage their tasks, and improve some English skills, like speaking and listening.

It is believed that students had a strong positive impression about the experience and student performance was noticeably better while using the Learning Management System in some areas, like participating and communicating with each other. It is also possible to note that the overall schools staff (teachers and administrators) may find the experience much more efficient and better controlledwhen they practice using Moodle and when they understand the needs of the learners.

Appendices:

Instructor Survey

Instructor survey

Answer the following questions about your Moodle experience.

1- Have you taught an English class that combined learning in face to face (in classroom) and online (on the internet)?
2- Have you used Moodle before?
3- Was Moodle always available when you needed it?
4- On a scale from 1 to 5, how would you rate your agreement with the following statements based on your Moodle experience? (1= Strongly disagree, 2= disagree, 3= Neutral, 4= agree , 5= Strongly agree)
    a- Course layout.
    b- Students enjoyed this blended course more than traditional face to face class.
    c- With the support given by Nada, it took about the same amount of time to develop my blended course as it would have taken for a new fully face-to-face course.
    d- Blended learning gives me more flexibility in my work schedule.
    e- Working on a blended course gave me an opportunity to experiment with new teaching methodologies.
    f- Nada's technical support to help to deliver this blended course was effective
    g- Students collaborated online better after building a sense of community in a face-to-face context.
    h- I feel comfortable using Moodle.
5- On a scale from 1 to 5, how would you rate your agreement with the following statements based on students' engagement? (1= Strongly disagree, 2= disagree, 3= Neutral, 4= agree , 5= Strongly agree)
    a- The students were more engaged.
    b- The amount of interaction between students was increased.
    c- The quality of interaction between students was better than face-to- face class.
    d- Teaching a blended course is a time-consuming experience.
    e- Students were reluctant to participate in online activities.
    f- I have sufficient skills to make effective use of technologies.
6- On a scale from 1 to 5, how would you rate your agreement with the following statements based on learning in blended learning environment? (1= Strongly disagree, 2= disagree, 3= Neutral, 4= agree , 5= Strongly agree)
    a- I got to know students better.
    b- Students' overall performance was better.
    c- Students lacked the ability to monitor their progress in this course.
7- What could you change to make the use of Moodle better?
8- Which activity/activities do you this is/are more helpful?
9- Which skills do you think that use of Moodle improved the students?
10- Additional Comments:

Students' First survey:

First Survey

Hello everyone,

Your opinion in response to the following questions will be given to the IT developer (NO WORRIES ABOUT YOUR COURS GRADE). We encourage you to respond honestly to all the questions. Your answers will be used by the IT developer to improve the use of Moodle.

Part1:

  1-Where are you from?
  2-What is your native language?
  3-Have you taken (TOEFL) or (IELTS) test before?

               -If yes, what was your score?

    4- How long have you studied English?

        -    In your home_____

        -    In US

_____

    5- Have you studied English in a school or institute?

     - If no, did you just practice English with friends?

    6- In English, You think you are:

          -Intermediate

          -Advanced

          -Professional

7- On a scale of 5, your listening skills are: (
1= very low, 2= low, 3= fair, 4= good , 5= excellent)

    1   2   3   4   5

8- On a scale of 5, your speaking skills are: (1=
very low, 2= low, 3= fair, 4= good , 5= excellent)

    1   2   3   4   5

9- On a scale of 5, your pronunciation skills are:
(1= very low, 2= low, 3= fair, 4= good , 5= excellent)

    1   2   3   4   5

10 - On a scale of 5, your writing skills are: (1=
very low, 2= low, 3= fair, 4= good , 5= excellent)

    1   2   3   4   5

11- On a scale of 5, your reading skills are: (1=
very low, 2= low, 3= fair, 4= good , 5= excellent)

    1   2   3   4   5

12- How do you prefer to learn English?

      -With the teacher in the class

      -With your classmates

      -Learning by yourself

      -Doing exercises online

      -Doing exercises in the book

      -Other _____

13-What would you like to practice and learn in this
class?

Part 2

1- Do you have a computer?

2- What do you use this computer for?

- Checking emails

- Using Microsoft Office

- Checking Facebook, Twitter, Instagram…etc.

- Using internet

- Communicating with your family and friends (Skype….etc.)

3- On a scale of 5, your confidence in using computer: (1= very low, 2= low, 3= fair, 4= good, 5= excellent)

    1   2   3   4   5

4- How much time do you spend using computers, I pads, iPods, or smartphones every day?
5- Have you used computers to study English before?

- If yes, how? (Ex: I use it to translate, I use it to do exercises online……etc.)

6- Have you used Moodle before?
7- Have you taken English classes online before?
8- Have you taken an English class that combined learning in face to face (in classroom) and online (on the internet)
9- Do you want to use blended learning environment where you learn both online and face-to-face?

Students' Final survey:

Final Survey

Answer the following questions about your Moodle experience.

1- Did you use Moodle to access class assignments?
2- Did you sent an e-mail for the teacher or IT administrator to ask any question about Moodle?
3- Did you try using to send a message/ email to your classmates?
4- Did you like the assignments that were posted on Moodle?
5- Did you use Moodle to upload files easily?
6- Did you like taking quizzes on Moodle?
7- Was Moodle always available when you need it?
8- Could you access Moodle from home?
9- Did Moodle help you to be better organized?
10- Did you seem comfortable using Moodle as a learning platform for the course?
   - If No, please explain...
11- How would you rate the ease of use for each of the following items based on your experience with Moodle?
   -Course Layout
   - Discussion forums.
   - Assignments.
   - Email/ messages.
   - Multiple Attempts for a quiz or assignment (homework)?
   -Student Surveys
12- Did the videos that you are watched on Moodle help you ?
   If yes, in which skills? Listening, pronunciation, reading, speaking?

13- Which activity on Moodle did you like most?

14- Did the audio submission activity (audio recording) help you?
   - If yes, please explain….

15- Overall Experience - How would you rate your agreement with the following statements based on your overall Moodle experience?

   - I am comfortable using technology and taking courses online.
   - I feel comfortable using Moodle.
   - Moodle is straight forward (easy to use).
   - I did not have any difficulty completing class assignments in Moodle.
   - I feel Moodle improved communication with my classmates.

- I feel Moodle improved communication with my instructor.
- In my opinion, feel I learned just as well in a Moodle course as I would in a face-to-face tradition course.
- Overall, I would like to see Moodle used in all of my courses.

16- What could you change to make the use of Moodle better?

Additional Comments:

References

Baskervill, B., & Robb, T. (2005). Using Moodle for Teaching Business English in a CALL Environment. *PacALL Journal*, 138.

Bremer, Dave & Reuben Bryant. 2004. A Comparison of Two Learning Management System: Moodle vs. Blackboard.

Carvalho, A., Da Silva, A., & Freitag, P. (2013). Accessibility in Virtual Moodle Learning Environment: Literature Review. *Journal of Nursing UFPE*, 969.

Debevc, M., Povalej, P., Verlic, M., & Stjepanovic, Z. (2007). Exploring Usability and Accessibility of an E-Learning System for Improving Computer Literacy. *International Center for Technology Assessment*.

Despotović-Zrakić, M., Marković, A., Bogdanović, Z., Barać, D., & Krčo, S. (2012). Providing Adaptivity in Moodle LMS Courses. Educational Technology & Society, 15 (1), 326–338.

Egbert, J., & Hanson-Smith, E. (1999). Call Environments: Research, Practice, and Critical Issues. *Alexandria, VA: TESOL*.

Emerson, L., & MacKay, B. ((September 2011)). A comparison between paper-based and online learning in higher education. *British Journal of Educational Technology*, 727-735.

FUENTES, José María; RAMÍREZ-GÓMEZ, Álvaro; GARCÍA, Ana Isabel; AYUGA, Francisco. (2012). Web-based education in Spanish Universities. A Comparison of Open Source E-Learning Platforms. *Journal of Systemics, Cybernetics & Informatics*.

Hee Jun Choi, Minwha Yang. (2011). The effect of problem-based video instruction on student satisfaction, empathy, and learning achievement in the Korean teacher education context. *Springer Netherlands*.

Henninger, M., & Kutter, A. K. (May 2010). Integration of Education and Technology -- A Long-term Study about Possibilities and Adequacy of a Learning Management System for Education. *Journal of Systemics, Cybernetics & Informatics*.

Hooper, S., Miller, C., Rose, S., & Veletsianos, G. (2007). The Effects of Digital Video Quality on Learner Comprehension in an American Sign Language Assessment Environment. Sign Language Studies, 8(1), 42-58.

Hoskins, A. ((2010)). Technological advancement and online learning. Long Island University,(the Brooklyn Center). *ProQuest Dissertations and Theses*.

Hsieh, P. (2009). The Effects of Computer Communication by a Course Management (Moodle) on EFL Taiwanese Students' English Reading Achievement and Perception. *La Sierra University Dissertation Department*, 02.

Hsu, H., & Chang, Y. (2013). Extended TAM Model: Impacts of Convenience on Acceptance and Use of Moodle. *Online Submission, U.S. - China Education Review*, 211-218.

Jun, H., & Lee, H. (2012). Student and Teacher Trial and Perception of an Online ESL Academic Writing Unit. *Procedia Social and Behavioral Sciences*, 128.

Kelly, C., & Kelly, E. (2009). Using Moodle for English Conversation Classes at AIT. *The INternational Conference on Linguistics Interfaces*.

Lee, S., & Su, H. (2012). Effects of Computer-Based Immediate Feedback on Foreign Language Listening Comprehension and Test-Associated Anxiety. *Perceptional and Motor Skills*, 995.

Marsh, D. (2012). Blended Learning: Creating Learning Opportunities for Language Learners. *Cambridge University Press*, 06.

Mehrabi, J., & Abtahi, M. (2012). Teaching with Moodle in Higher Education. *Procedia Social Behavioral Sciences*, 1320.

Niamh Moorea& Mary Gilmartin. (21 Sep 2010). Teaching for Better Learning: A Blended Learning Pilot Project with First-Year Geography Undergraduates. *Routledge*, 327-344.

Noorhayati Md Ali, Dr. Jawakhir Mior Jaafar. (2010). Transforming Moodle as a Reflective Tools In Learning French Language . *International Journal of Academic Research.*

Norah Jones & Alice Man Sze Lau (2010) Blending learning: widening participation in higher education, Innovations in Education and Teaching International, 47:4, 405-416

Pamela Sherer , Timothy Shea. (2011). Using Online Video to Support Student Learning and Engagement. *Routledge*.

Pei-Di Shena, Tsang-Hsiung Leeb, Chia-Wen Tsai. (2011). Applying blended learning with web-mediated self-regulated learning to enhance vocational students' computing skills and attention to learn. *Routledge*, 193-209.

Rossing, J., Miller, W., Cecil, A., & Stamper, S. (2012). iLearning: The Future of Higher Education? Student Perceptions on Learning with Mobile Tablets. *Journal of the Scholarship of Teaching and Learning*, 1-26.

Ruben Georges Fukkink, Noortje Trienekens, Lisa J. C. Kramer. (2011). Video Feedback in Education and Training: Putting Learning in the Picture. *Springer US*.

Shana, Z. (2009). Learning with Technology: Using Discussion Forums to Augment a Traditional-Style Class. Educational Technology & Society, 12, 214-228.

Su, C. (2006). Moodle for English Teachers. *The Proceedings of 2006 International Conference and Workshop on TEFL and Applied Linguistics*, 321-330.

Walker, D., Livadas, L., & Miles, G. (2011). Key Influencing Factors Behind Moodle Adoption in Irish Small to Medium Sized Higher Education Colleges. *European Journal of Open, Distance, and E-Learning*, 9.

Ybarra, R., & Green, T. (2003). Using Technology to Help ESL and EFL Students Develop Language Skills. *The Internet TESL Journal*, 3.