

**A Blended Language Learning Model: Adolescent Learners'
Attitudes towards it and its Effectiveness in the Teaching
and Learning of L2 Writing**

**نموذج التعلم المختلط: اتجاهات المتعلمين المراهقين نحوه و
تأثيره في تعليم و تعلم الكتابة في اللغة الثانية**

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ABSTRACT

A blended learning approach is a new concept in the field of modern education which combines face-to-face and online instruction, and is considered an essential aspect of education advancement in the current century (Thorne, 2003). This dissertation uses a mixed method research design so as to collect qualitative and quantitative data required in investigating three main areas related to English language teaching (ELT) and to adolescent learners (12-16 years) who learn English as a foreign language (EFL). First, it provides a description for a blended language learning model that combines face-to-face and online modes of instruction. Second, the study investigates students' attitudes towards implementing blended language learning approach. Third, it assesses the effectiveness of this approach on improving students' second language (L2) writing levels.

In general, research on 'blended learning' that studied the difference between traditional and blended learning in foreign language does not indicate significant differences in learning output although showed positive students' attitude towards this type of instruction. Nonetheless, the studies conducted on 'blended learning' did not include adequate description of interaction and activities in this learning environment as they did not have sufficient description of its features like teaching and learning materials, teaching methods, types of interaction, and roles of participants. Moreover, some of these studies did not base their work on the literature that focuses on students and teachers' attitudes.

Overall, the study provides a description of a blended learning model following the guidelines suggested by Neumeier (2005). Moreover, the findings of the study show that the adolescent students (14-16 years) had positive attitudes towards using blended language learning approach. It was also found that class learned by a blended learning approach had a significant improvement in students' writing scores comparing with the one that learned by traditional learning.

ملخص البحث

"نظرية التعلم المختلط" مفهوم جديد في مجال التعليم المعاصر حيث يمزج بين التعليم "وجها لوجه" و "على شبكة الانترنت" و يعتبر جانبا أساسيا من جوانب التقدم التعليم في القرن الحالي (ثورن 2003). هذه الرسالة تستخدم أسلوب "طريقة البحث المختلط" لجمع البيانات الكمية و النوعية اللازمة للبحث في ثلاثة نطاقات مرتبطة بتدريس اللغة الانجليزية وكذلك بالطلاب المراهقين (12-16 عام) الذين يتعلمون اللغة الانجليزية كلغة أجنبية. أولاً: تعطي هذه الدراسة وصفاً لنموذج تعليمي مختلط يمزج بين نمطي التعليم: "وجها-لوجه" و "على شبكة الانترنت". ثانياً: تستطلع الدراسة آراء الطلاب حيال تطبيق "نظرية تعلم اللغات بالنموذج المختلط". ثالثاً: تفحص هذه الدراسة أثر تطبيق هذه النظرية على تطوير مستويات الكتابة لدى الطلاب الذين يدرسون الانجليزية كلغة ثانية.

بشكل عام ، تشير الأبحاث التي أجريت لدراسة الفرق بين مخرجات التعلم لطريقة التعلم التقليدية و مخرجات التعلم لطريقة التعلم المختلط إلى عدم وجود فروق جوهرية و لكن الطلاب أبدوا اتجاهات ايجابية حيال استخدام نظرية التعلم المختلط. و مع ذلك، فإن الدراسات التي أجريت على "التعلم المختلط" لم تشتمل على وصف كاف للتفاعل و الأنشطة التي تمت في بيئة التعلم تلك ، كما لم تشتمل أيضاً على وصف لمكوناتها مثل طرق مواد التعليم و التعلم، و طرق التدريس، و أنماط التواصل و أدوار المشاركين. كما أن تلك الدراسات لم يبنى عملها على المرجعيات التي تركز على آراء الطلاب و المعلمين.

إجمالاً، تقدم الدراسة وصفاً لنموذج تعليمي مختلط يتبع الخطوات المقترحة في (نيومير 2005). علاوة على ذلك، تشير نتائج هذه الدراسة أن الطلاب المراهقين (14-16 عام) أبدوا اتجاهات إيجابية نحو "نظرية تعلم اللغات بالنموذج المختلط". كما أظهرت الدراسة أن المجموعة التي تعلمت باستخدام النموذج التعليمي المختلط أحرزت تحسناً ملحوظاً في مستويات الكتابة مقارنة بالمجموعة التي تعلمت باستخدام نموذج التعليم التقليدي.

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CHAPTER 1: INTRODUCTION

Objective of the Study

The first objective of this study is to give a description of a blended learning model that is appropriate for teaching adolescent learners who learn English as a second/foreign language ESL/EFL. Moreover, it examines the attitudes of participants/learners towards employing a blended approach in language learning. Also, it evaluates the improvement of learners' writing proficiency in one text type, narrative, after engaging them in a blended language learning course that combines traditional and online instruction. The findings of this study contribute to enhancing the quality of teaching and learning in general and enhancing teaching second language to adolescent learners aged 12-16 years in particular.

This dissertation assumes that adopting a blended learning approach would improve students' engagement and interaction, provide more time and opportunities for learning, monitor students' progression and behavior, and improve communication with parents. Moreover, it helps instructors who teach without textbooks as it provides them with a platform that contains learning materials and activities without incurring printing and photocopying costs.

Significance of the Study

The current century is characterized by the amazing technology revolution that dominates most aspects of life creating more demands for embedding technology into the teaching and learning environment. Thus, language learning is one area that is seen as the most influenced by technology since technological hardware and software use English as their medium of communication. As claimed by teachers and learners of ESL, a 45-minute language lesson per day is insufficient to practice language, get feedback and engage in language activities. Therefore, this study assumes that a blended model of learning which combines online and face-to-face learning would have better results especially in the writing skills which need more practice beyond the classroom time.

Furthermore, having reviewed a blended learning literature, it shows that there is still a need for more research that investigates different features of the model such as: learning materials, pedagogies, types of interaction, and learners' and teachers' roles, which represent the essential features needed for designing and implementing effective blended models (Neumeier, 2005).

Statement of the Problem

The new trend in education is to integrate technology in learning and teaching as the idea has become common in all aspect of life. Students in the current century tend to receive a percentage of their learning by computer-mediated instruction especially in higher education. Picciano (2009) explains that lessons that plan to integrate face-to-face and online activities together and use an appropriate pedagogy and online activities are considered blended learning classes. Therefore, language learning, in particular, should not be limited to using classroom hours and pedagogy.

Thus, a blended learning approach is viewed as an expected outcome of the twenty-first century developments (Thorne, 2003, p. 2). This expectation is stressed by Graham (2006) who argue that a blended learning approach “may even become so ubiquitous that we will eventually drop the word *blended* and just call it learning” (p. 7). So, this approach is expected to be dominant in the field of education in general. Most research done on “blended learning” investigates effectiveness of this approach by comparing students learning by this approach and students who learn by traditional classroom instruction in addition to investigating learners’ attitudes towards the approach.

Nonetheless, a few studies focused on how a blended model is designed. In this regard, White (2006) recommends this area for future studies: “a crucial avenue for research concerns *how* students work within environments comprising typically classroom instruction, independent learning and online learning environments both individual and collaborative” (p. 259-260). So, the focus of future research should be on how blends are made so as to help teacher construct their models according to criteria that follow theory. Therefore, this dissertation provides a description of a blended model and how it works.

Hypotheses

This study sets two main hypotheses to test throughout the study. The first hypothesis assumes that a blended learning approach to language learning is appropriate for engaging adolescent ESL/EFL students, 12-16 years old. This hypothesis is tested by conducting two questionnaires that examine students’ attitudes towards the approach and the model used in the study. The second hypothesis assumes that this approach is more effective than traditional teaching in improving students’ writing proficiency levels. This is tested by conducting a pre-test and a post-test to compare the results of these two types of instruction.

Having many technological innovations and advancements in the current century, students in general and adolescents in particular have become 'digital natives' who tend to use technology and internet tools so skilfully not only in learning but also in all aspects in life. They are so familiar with using online communities and social networks to communicate with friends for hours per day.

They are keener on experiencing new things and usually accomplish tasks when challenged and engaged by authentic contexts and tasks which that meet their preferences. Nonetheless, they would not accomplish their tasks or learn effectively without having teacher's guidance and also differentiated learning opportunities. In description of the adolescent behaviour, Tapscott (2004) states: "They are not viewers; they are users and they are active. They do not just observe; they participate. They inquire, discuss, argue, play, shop, critique, investigate, ridicule, fantasize, seek and inform." Therefore, these digital natives, the young learners of the twenty-first century, not only want to inquire and learn but also to share their opinions either with teacher or with peers and they tend to do this online. So, there is a growing need for creating a blended learning environment that provides learners with advantages of traditional classroom learning and engages them after school time which results in enhancing learning time and opportunities.

However, having a well-structured blended model is not easy as it has to improve instructional designs and add more benefits to students and teachers. Many scholars may call this kind of learning 'hybrid' as it implies mixing two learning environments, face-to-face and online learning. This shift from purely traditional learning to having mixed methods in instruction creates and fosters a more effective and student-centred way of learning as well as making students more engaged whether in or outside classrooms. "This blended approach combines the best elements of online and face-to-face learning. It is likely to emerge as the predominant model of the future" (Watson, J., 2008, p. 3).

So, the importance of blended learning lies in its contribution to fostering: pedagogy, interaction, motivation, engagement and autonomous learning while also enhancing what occurs in traditional learning environments.

Belief

Since a blended learning approach enhances communication and provides learning opportunities beyond the classroom time, adopting and implementing this approach requires a shift in teachers and students' attitudes and thinking as it introduces new concepts to learning and teaching. It focuses on individualized learning which is considered a big challenge of fostering autonomous learning. "Blended learning combines online delivery of educational content with the best features of classroom interaction and live instruction to personalize learning, allow thoughtful reflection, and differentiate instruction from student to student across a diverse group of learners" (Watson, 2008, p. 4).

So, this approach does not aim to leave students to learn an online course without his/her teacher's guidance or to just learn in the classroom without any extra learning opportunities beyond classroom. It provides an environment in which students have online learning materials that complement what they learn in class.

A blended learning environment is more student-centred and has more chances for differentiated learning that is fostered by giving students activities that suit their learning styles, preferences and intelligences. It gives teachers as well as students a high level of flexibility to include online/virtual communities, blogs, discussion boards and learning resources which gives teachers more opportunities to meet their learners' needs.

Research Questions

As was previously mentioned at the beginning of this dissertation, the purpose of this study is to examine the appropriateness of a blended learning approach for adolescent Arab students who learn English as a second language and its effectiveness on improving their proficiency in writing narrative texts. As the study aims to describe a blended learning model, it does describe the model following the criteria mentioned in the literature of blended language learning (Neumeier, 2005). It also examines students' attitudes towards the blend and assesses its effectiveness on improving students' writing. The following research questions are the main focus of this study:

Research Question 1:

How is a blended learning model used? How are the two methods, face-to-face and online, integrated?

The first research focuses on examining a blended learning model structure using the six-criteria framework suggested by Neumeier (2005). When reviewing a blended learning research, it shows that it has been examined in CALL, but the literature shows a lack of details about learning materials, teaching methods, types of interaction, and roles of participant.

Research Question 2:

What are the attitudes of students towards this blended learning model?

The second research question investigates the attitudes of students towards a blended language learning model as the researcher believes this examining this area is so significant for adolescent students in the twenty-first century who tend to think of everything in life as interactive and electronic. So adding methods that engage them is likely to enrich their and foster motivation.

To answer the second research question, the attitudes of students towards a blended learning model are examined by administering two student questionnaires at the end of the nine-week program so as to investigate students' perception of the approach. In this regard, Echavez-Solano (2003) and Scida and Saury (2006) mention a number of studies that showed benefits of a blended learning such as: fast feedback and having more control over learning. Moreover, and in a relevant study, Yoon and Lee (2010) note that students had positive attitudes towards this approach. Thus, a number of studies show that learners did have positive attitudes towards using the blended approach in learning.

Research Question 3:

Is there a significant improvement in students' writing skills when using a blended learning model?

To answer this research question, the study compares the scores pre-test and pot-test for groups of students: the experimental group that learns by a blended learning approach and the control group that learns by traditional classroom instruction. This comparison aims at finding whether a blended learning language course can have a statistically significant improvement in students' narrative-writing levels.

There are a few studies that assessed the effectiveness of blended language learning approach on improving students ESL/EFL writing proficiency. Behjat, Yamini & Bagheri (2011); Ferriman (2013); Miyazoe & Anderson (2010); Yoon & Lee (2010) mention that using a blended learning approach did improve student-teacher interaction as well as students' writing skills. Green and

Youngs (2001) and Adair-Hauck et al. (2000) note that students made an improvement in the courses. Yoon and Lee (2010), in a similar study, states that students' showed positive attitudes towards the approach and it improved their test score.

Scope of the Study

The purpose of this study is to: a) provide a blended language learning model that suits adolescent ESL learners; b) investigate students' attitudes towards a blended learning approach and c) evaluate blended learning effectiveness in improving students' writing skills. The previous three areas can contribute to recommending a blended model that suits ESL learners aged 12-16 years taking into consideration the model effectiveness and the learners' perceptions when designing a blended model. The study relies on a mixed method research design in order to collect qualitative and quantitative data required for the research. The qualitative data are essential for the model description and they include teacher's observations, time distribution, learning materials, location of learning, online platform, and feedback strategies. On the other hand, the quantitative data are mainly needed to answer the second and third research questions and they include student questionnaires responses and test scores.

Context

The study was conducted in a public cycle 2 school in the United Arab Emirates (UAE) for boys aged 12-16 years. The school had been part of a big educational plan that aimed to improve educational outcomes in the emirate of Abu Dhabi, the capital city of the UAE as well as the national curriculum to be more student-centred and improve curriculum to be more student-centred. It also focused on creating a biliteracy learning environment with Arabic and English as media of instruction. The school in this study provides 5 English language lessons per week and each lesson is 45-minutes. The school timetable allows each class to take a lesson in at one of the two computer labs where there is an LCD data projector, a computer with internet connectivity for each student (30 computers). The five weekly lessons teach students all language skills with a flexibility of content and skills distribution over the week.

The participants in this study are 60 students divided into two classes/groups: a control class who learned by traditional classroom instruction and an experimental group that learned by a blended leaning course. Both groups learned how to write a narrative text type and they were tested prior to and after the course. The two classes writing abilities are similar as the school

used to distribute them according to their overall achievement level in the previous year. (See Appendix 12)

CHAPTER TWO: LITERATURE REVIEW

This chapter reviews literature that formed the framework for this dissertation and shaped the main elements of the study. ‘The pedagogical rationale behind BLL [blended language learning] is the desire to allow for a higher degree of learner independence in the teaching and learning of second/foreign languages.’ (Stracke, 2007b, p. 1).

Definition of Blended Learning

For a wide range of teachers a blended learning approach is new to the field of education although the idea of blending instructional methods has been used in other fields than education. Nowadays, academics agree that face-to-face and online learning environments have various advantages and disadvantages. To maximize the advantages of both types of instructions and reduce the disadvantages, many organizations have commenced to blend components of both learning environments. This type of instruction delivery is usually mentioned as, ‘Blended Learning’ as it combines different methods of pedagogy aiming to have the best learning outcomes.

In the effort of blending the best practices of instruction and learning environment, ‘blended learning’ has been a sign of advancement in educational contexts. However, this ‘new’ trend is still vague in some of its aspects especially that is of term and its definition. (Laster, 2004, p. 154), for example, stated that blended learning:

“[A]t one extreme; one could argue that ‘blended’ learning can be any kind of learning. However, in an applied view, one generally equates blended learning to a teaching and learning experience that uses technology. Within the bounds of the applied view, great variability still exists around a firmly established blended learning definition”

Four different features are put together to refer to blended learning;

1. “To combine or mix modes of web-based technology (e.g., live virtual classroom, self-paced instruction, collaborative learning, streaming video, audio, and text) to accomplish an educational goal.

2. To combine various pedagogical approaches (e.g., constructivism, behaviourism, cognitivism) to produce an optimal learning outcome with or without instructional technology.
3. To combine any form of instructional technology (e.g., videotape, CD-ROM, web-based training, film) with face-to-face instructor-led training.
4. To mix or combine instructional technology with actual job tasks in order to create a harmonious effect of learning and working.” (Driscoll, 2002, p.54)

The concept of blended learning was first introduced in business and in professional development in particular (Sharma and Barrett, 2007). Then this term was used in tertiary education (MacDonald, 2006) before entering into the field of English language teaching (ELT). Literature on blended learning is debatable whether blended learning approach belongs to corporate training or to education. Masie (2006) argues that ‘...blended learning has always been a major part of the landscape of training, learning and instruction’ (p. 22) and invites people to recall their university experience when they learned by various types and strategies of instruction. However, the appearance of this term in modern education is usually connected with what to blend and in general it often refers to including computer technology, online activities and learning materials in teaching and learning.

Tomlinson & Whittaker (2013) argue that blended learning is more common in professional development, tertiary education and recently in (ELT). Yet, it is still not easy to provide a unified definition for ‘blended learning’ (Kerres and de Witt, 2003; Oliver and Trigwell, 2005; Sharpe et al. 2006; MacDonald, 2006; Sharma and Barrett, 2007). This term is used differently by different contexts and described by different words. It is ‘hybrid or mixed learning’ in (Stracke, 2007, p. 57); it is ‘e-learning’ in (Shepard, 2005) and it is described as ‘b-learning’ in (Banados, 2006, p. 534).

Smith and Kurthen (2007) in (Gruba and Hinkelman, 2012, p. 4) distinguish between them by mentioning the percentage of each component. The table below shows the terms used in connection with blended learning:

Term	Definition
Web-enhanced	Subjects that employ online materials at a minimum level by uploading materials or making announcements.
Blended	Subjects that use online activities, bedside face-to-face learning, but less than 45% is online.
Hybrid	Subjects that combine online and face-to-face when online activities represent 45:80% of teaching time.
Entirely online	80% or more is online activities and materials

Table 1: Terms used for ‘blended learning’. (Gruba and Hinkelman, 2012, p. 4)

In the field of (ELT), there is a distinction between web-designed learning, blended language learning, and face-to-face language learning (Dudeney & Hockly, 2007). Although many terms like these seem similar, a blended learning approach often refers to combining face-to-face teaching and computer learning that might include online/offline activities and materials.

With reference to corporate sector, (Singh and Reed, 2001, p. 1) define a blended learning model as ‘a learning program where more than one delivery mode is being used with the objective of optimizing the learning outcome and cost of program delivery’. In their definition, Singh and Reed (2001) do not describe what ‘the delivery modes’ are. However, Valiathan (2002) suggests a more specific definition that includes: ‘face-to-face classrooms, live e-learning, and self-paced learning’ (p. 1). Reid-Young (n.d.), as well, mentions other modes of delivery and explains that delivery modes may include different activities such as classroom lessons or coaching sessions that aim at improving certain areas of weaknesses.

Banados (2006) gives a definition for blended learning in higher education by stating that it:

‘a combination of technology and classroom instruction in a flexible approach to learning that recognizes the benefits of delivering some training and assessment online but also uses other modes to make up a complete training program which can improve learning outcomes and/or save costs.’ (Banados, 2006, p. 534).

Therefore, in the context of higher education the definition includes the modes of technology and classroom instruction, and though does not explain specifically what the

‘other modes’ are. (de Gregorio-Godeo 2005) and (MacDonald 2006) give similar definitions to that of (Banados 2006). On the other hand, the definitions of blended learning in higher education are briefer than those used in the corporate sector and therefore blended learning definitions in relation to language teaching and learning seem brief. With regard to higher education, (Neumeier 2005, p. 164), in her study, defines blended learning as ‘a combination of face-to-face (FtF) and computer assisted learning (CALL) in a single teaching and learning environment’. In her study ‘Why a good blend is important’, Stracke (2007) gives a very similar definition for blended learning explaining that it is “a particular learning and teaching environment, that combines face-to-face (f2f) and computer assisted language learning (CALL). In this instance, the “blend” consisted of learners’ independent self-study phases at a computer, with a CD-ROM, and traditional f2f classroom learning.” (Stracke, 2007, p. 57). So, defining blended learning in higher rely on combining face-to-face and computer-assisted learning.

Dudeney and Hockly (2007) and Sharma and Barrett (2007), well known as ELT experts and authors in the area of blended language learning, offer similar definitions to those of Neumeier (2005) and Stracke (2007) but they have one little difference related to the use of the term (CALL) mode. Therefore, in many studies done on blended learning ‘technology’ is used instead of ‘CALL’ as the term ‘technology’ indicates:

“a language course which combines a face-to-face (F2F) classroom component with an appropriate use of technology. The term technology covers a wide range of recent technologies, such as the Internet, CD-ROMs and interactive whiteboards. It also includes the use of computers as a means of communication, such as chat or email, and a number of environments which enable teachers to enrich their courses, such as VLEs (virtual learning environments) ..., blogs ... and wikis ...” (Sharma and Barret, 2007, p. 7).

So, technology is seen a broader term that includes electronic devices and software relating communication and education. However, Dudeney and Hockly (2007) give a broader definition by explaining that using technology does not necessarily mean an online activity as it can be imply using a CD and a computer for instance. So, they prefer to give the term (CALL) a broader definition that includes using electronic devices, such as computers, and using online tools as well.

Why should instructors use a ‘blended learning approach’?

Dewar and Whittington (2004) highlighted the reason why corporate sector and education should use blended learning. In the context of ‘corporate sector’, (Dewar and Whittington, 2004, p. 5) mention a list of reasons for why blended learning should be employed. These reasons include; the ability to meet different learning styles (80%); differentiation and providing individualized learning solutions (70%); fostering learning level (62%); use the investments they have already made in re-usable training resources (59%); lack of time cover all classroom activities(57%). They do not provide details about each reason in this list, and do not mention indication if any of them is really effective and not just a hypothesis like what is mentioned about ‘fostering learning level’.

There are common features between the previously mentioned list of reasons and that list of (Singh and Reed 2001). Singh and Reed (2001), two years before conducting the above study, listed four advantages for using a blended learning approach: foster learning effectiveness; foster accessibility; save cost and time; improve business results (cut costs of transportation and faster to achieve learning goals). Sharma and Barrett (2007) mention the advantage of cost saving with regard to the business world and they highlight the appropriateness of a blended learning approach for learners’ learning conditions who can access online learning materials and study them when they wish to and as fast or slow as they want.

In relevance to the field of education, Dewar and Whittington (2004) and Graham (2004) mention the six reasons why Osguthorpe and Graham (2003) believe in effectiveness of using blended learning. They argue that it should be used as it: improves teaching methods; enhances availability learning materials which can be accessed at any time; improves interaction of student-student and student-teacher; individualizes learning by giving students more freedom in making choices and decisions; cuts cost of learning; and it is easy to use at revision times. Marsh et al. (2003) mention that ‘blended learning’ can be used to work out learning problems such as reducing cost of leaning in university education, and improving instruction and pedagogy when teaching large size classes and groups. Similarly, (MacDonald, 2006, 22) mentions that online media is an effective solution to meet the non-stop class-size increase and also to work out ‘changes in student demography...a growth in part-time study’.

In their review of blended e-learning in the tertiary sector, Sharpe et al. (2006) found out that blended e-learning was employed in different contexts for special reasons relating to each

institute, yet they it was characterized by: high accessibility, variety of support, fostering face-to-face learning, functioning according international criteria. The view provided by (Sharpe et al. 2006) that focuses on the approach's flexibility and argue that there is a need for providing more flexible learning opportunities to suit social, cultural, economic and political changes, especially in the context of Britain.

In higher education, Graham (2004) summarized the reasons for employing a blended learning approach: a) better teaching methods; b) more access opportunities to learning materials; and c) less cost. Statements such as 'pedagogy before technology' (Beetham and Sharpe, 2007, p. 3) have been used by some insightful experts to highlight the need for technology in order to improve pedagogy because it has become a necessity in education and not just an extra option or add-on.

Moreover, 'Improved pedagogy' is mentioned and highlighted in blended learning for ELT. However, it seems that this topic has not been fully elaborated and has been mentioned in general phrases like: "Blended learning seeks to combine the best of the taught element of a course with the benefits of technology so that, the argument goes, better learning outcomes can be achieved" (Sharma, 2007). The need for embedding technology in education is mentioned more directly: 'we will assume that you have decided to incorporate technology into a language course for a pedagogical reason, and by doing so, you are adding value to the teaching' (Sharma and Barrett, 2007, p. 7). Sharma and Barrett (2007) three main reasons for employing blended learning in business world: cost, convenience and ability to work within your favourite time and at your own speed which makes it appropriate in language learning. However, there is a need for investigating Sharma and Barrett's (2007) argument about the cost effectiveness as a basic reason for incorporating blended learning into ELT. They base their argument upon the belief that initial cost of hardware and software is high, add to that the regular service, replacement and hardware and software development. Yet, this cost is dependent on the blend design and its context as in some contexts students use their own devices such as computers and electronic tablets.

(Hockly, 2011, p. 58) gives three reasons for adopting blended learning in ELT additional ones:

1. **Learners' expectations** (who expect that modern language classes should incorporate technology).

2. **Flexibility** (to meet the needs of learning in the twenty-first century busy, especially in higher education.)
3. **Education policies**-Some education system policies require teachers to provide blended learning.

How effective is blended learning?

There are two main reasons beyond adopting blended learning as a teaching approach; first of which is to improve learning and the second is reduce cost of learning. However, the focus should be on “Is blended learning effective? And in which aspects is it effective?” (Dewar and Whittington, 2004, p. 5) mention that literature that highlights effectiveness of blended learning, its definition and how to implement it is so little, mentioning that:

“There is some anecdotal evidence about how well participants liked blended learning and many articles outlining the costs saving associated with integrating technology. There is also a growing literature base about the learning outcomes achieved through using various types of technology. The biggest challenge is finding studies that specifically address blended learning, as opposed to the use of technology alone.” (Dewar and Whittington, 2004, p. 5)

In higher education, blended learning courses were successful in improving students’ achievements. (Dziuban et al., 2004, p. 5) note that: ‘the potential to increase student learning outcomes while lowering attrition rates in comparison with equivalent fully online courses’, and they also discovered that blended learning outcomes in terms of ‘success and attrition rates were comparable to the face-to-face modality for all ethnicities.’ In a relevant study applied on English for Academic Purposes (EAP), findings showed that learners of similar achievement levels were more engaged by blended learning than distance learning (Harker & Koutsantoni, 2005).

In terms of motivation, a number of researchers investigated students’ opinions about blended learning. For example, Leakey and Ranchoux (2006) argue that the majority of students in their study showed positive attitudes towards having a blended learning approach in learning and preferred it to any traditional learning occurring within classrooms. Moreover, Brett (1996), in a similar study, notes that students had positive attitudes towards the approach and

argued that they did learn better when used multimedia which gave them individualized learning opportunities. Furthermore, in a Taiwanese study it was found that Taiwanese learners of EFL:

‘had a positive attitude towards the use of multimedia resources in their language programme, appreciating, in particular, opportunities to practice and extend their language abilities by surfing the internet, to take laboratory-based listening tests via a test analyser, and to record and save their own writing and to make use of multimedia resources for developing their reading skills.’ (Lin, 2003, p. 1).

Thus, the previously mentioned study shows that learners had positive attitudes towards using internet facilities along with the available technology to foster their learning and develop their language skills.

Why Blended?

In his study, Stracke’s (2007) mentions that designing an appropriate blend model is so important so as to engage learners and impact their retention. He also explains that students who do not complete the blended learning course as a result of:

- lack of teacher support and lack of integration between the two modes of the blend,
- feeling of uselessness of paper materials used for reading and writing
- unaccepting computer as an appropriate used tool for language learning.

Stracke (2007) highlights that two of the above mentioned reasons are used in other articles to refer to blended learning. The first one is the ‘complementarity’ aspect which Sharma and Barrett (2007) emphasise as important for blended learning. Also, Banados (2006) discovered that learners favoured the face-to-face mode to the online, and therefore developed a course to go with it. Banados (2006), also, discovered that learners favoured the face-to-face mode to the online, and therefore developed a course to go with it. This finding is also correct when considering context that have always given the lead to the face-to-face mode. Therefore it is important to create a balanced model that considers distributing the course time on each mode and also considers how the two modes are integrated.

Although there is a wide range of blended learning models mentioned and proposed in many

studies, finding the correct and appropriate model is still not easy. Thus, defining and describing the appropriate blend is not easy (Hofmann, 2001), and this opinion is also adopted by Sharma (2007) and Neumeier (2005). Moreover, a blended learning program that is implemented without following a certain design could be considered eclectic but may result in combining the disadvantages of both modes. (Sharma and Barrett, 2007)

Research conducted on creating blended models and studying how best to integrate technology into syllabus and face-to-face learning, is likely to support the previous studies. McKee (1999), for example, highlights that integrating CALL and technologies into learning environments should be planned and done according to certain rules and not to be randomly used. Another relevant research concluded that technology should be embedded into language learning as it was found that the study results: ‘may be interpreted that it is both feasible and desirable to integrate in principled ways Technology Enhanced Language Learning (TELL) activities into the language learning curriculum’ (Adair-Hauck et al. 1999, p. 269)

Other studies continued and seemed to get similar conclusions. (Yang, 2001, p. 91) mentions a study that was conducted at a university that used a web-designed research and concluded that ‘computer learning networks have the potential to empower students in well-designed learning environments’. Therefore, it is fundamental to know that ‘effective implementation of technology is not accomplished just as an ‘add-on’ to existing tools, it must be synergised into the language learning environment with the support of surrounding educational systems’ (Yang, 2001, p. 92).

Nonetheless, most researchers admit that finding a perfect blend ‘there is, of course, no single perfect blend – the concept is grounded on the notion of flexibility’ (Lamping, 2004, p. 7). Also, creating a blended model is an interactive work that depends on planning, implementation and reflection. This meaning is highlighted by Beetham and Sharpe (2007) who argue that ‘effective designs will evolve only through cycles of practice, evaluation and reflection’ (p. 8). Therefore, there is a growing demand for having more research and empirical studies on this area so as to cover aspect relating to implementation and evaluation. Rossett et al., (2003), with to using blended learning in business, call for having more studies on blended learning and argue that: ‘there’s no cookbook for blends....the topic cries out for empirical research’ (p.1)

In the field of ELT, a number of researchers share the previous views. As example, Neumeier, (2005) highlights that there is a need for more research so as to improve the

quality of learning and teaching provided by blended learning environments. Moreover, there is an emphasis on having more studies to be conducted on contexts other than university and colleges. Westbrook 2008) admits that most studies on blended learning were conducted in tertiary education and explains that this is: ‘a huge deficit in terms of research on using blended learning by individuals or small language schools’ (p.14).

Therefore, this study will contribute to increasing the empirical research that focuses on fostering this research area that aim to study and develop blended learning models that suit adolescent ELT learners aged 12-16 years old.

Constructing a Blended Learning Model

“A blended course is defined as a course that combines face to face learning and distance learning to provide students with the best practices of both delivery methods” (Hijazi, Crowley, Smith & Shaffer, 2006, p. 67). In review of the ‘blended learning model’, it is obvious that researchers set student engagement and learning via online technology among the essential features of any proposed blended learning model or design. Blended learning namely focusing on student academic achievement using the appropriate teaching and learning technology that meet students’ different skills and learning styles (Singh & Reed, 2001).

English Language Teaching (ELT) Blended Models.

Sharma (2007) explains that blended learning can be effective when ‘two component parts should be integrated with the technology complementing and not replacing the efforts of the teacher’. So the two components should complete one another and not to work as spate units of work. Sharma (2007) also mentions five examples that show what to do in a blended lesson.

1. Teaching students how to give a presentation, to discuss, to use a CD-ROM.
2. Using an online class wiki.
3. Creating an electronic audio file.
4. Downloading Moodle software that helps have a virtual classroom.
5. Creating an online blog/diary.

(Sharma and Barrett, 2007, p. 13:14) propose these steps to develop a blended learning approach:

1. To ‘separate the role of the teacher and the role of technology’ because their roles are integrating and complementing one another.

2. To 'teach in a principled way' that considers meeting learners' needs selecting appropriate pedagogy.
3. To 'use technology to complement and enhance F2F teaching', which indicates that the two modes integrate each other with that face-to-face mode given the lead.
4. To consider the skills and quality of instruction rather than just relying on providing well-designed materials, 'It's not so much the program, more what you do with it' Jones (1986).

Also, Dudeney and Hockly (2007) explain that a possibly good blended learning course is the one that gives 75% to the online component while only 25% is given to the face-to-face component. They argue that a blended learning model that suits the learning environments can take three forms:

- A fully online course in which it is similar to the textbook.
- A blended course that gives 75% for online learning and 25% for the face-to-face mode. (p. 138:139)
- A face-to-face program supported by online learning activities

Moreover, Dudeney and Hockly (2007) refer to the importance of having standards that identify a good blend designer and explain that this person should be able to answer checklist of questions that functions as criteria that assess a blended design and its designer. These questions should focus on five main relevant topics: delivery mode (online/face-to-face), activities and learning materials, students, instructors, assessment.

Banados (2006) mentions a study that used a blended learning model for teaching English at a Chilean university. This model consisted of the following four components:

- a. Learners' independent work using an online English software.
- b. Face-to-face EFL lessons taught by teachers who are also the online tutors.
- c. Online progression assessment led also by classroom teachers.
- d. Weekly classroom discussions lessons led by English native speakers.

However, this study does not mention how the previous components were integrated and how time was allocated for each component. On the other hand, before conducting the study, it described how it understood the student's preference of face-to-face mode to online mode, the course's main content and that students' need for learning more ICT skills.

Why writing?

The issue of the low level of proficiency in writing among adolescent Arab learners is so evident. So there is a growing need for more innovations that encourage Arab learners of English to improve their writing proficiency. Teachers and students' efforts are usually made during class-time, yet learners need to expand their learning time so they get engaged in personal experiences that enable them to learn and even acquire the correct writing skills.

Limited research has been added to the area of 'effectiveness of blended learning' later after (Dewar & Whittington 2004) had noticed the insufficient research and literature on this area. Many researches were conducted to examine 'students' attitudes, and found that they were positive towards applying CALL or multimedia. At tertiary level, research results point out that blended approach may enhance learners' retention rates. Yet, limited research are in favour of using blended learning as an effective instruction. This is still a questionable area for many researchers to find out why many researchers and educational providers employed 'blended learning' especially in higher education and in learning EFL.

Moreover, writing is still a challenging area in EFL that needs more focus and more tools so as to enthuse young EFL learners to practice and foster this skill. Pennington (2003) lists some benefits of involving computer into teaching and learning L2 as it increases: writing proficiency, motivation, writing production, interaction, learning new genres of writing, accessibility to materials and texts.

Nature of Writing

"Writing is a basic communication skill and a unique asset in the process of learning a second language" (Chastain, 1988, p.244). Sokolik (2003) explains that writing is a perceptual process that includes creating ideas, thinking of how to organize them and utter them so that others understand and respond to them. So, it is a basic skill used for and developed by social communication.

Writing does include many sub skills and categories depending on the purpose of categorization. For example, the context of the current study employs the genre approach to writing, which teaches EFL students how to write different text types/genres. The genre approach implies teaching, explicitly, how to write different genres/types of texts such as: narrative, argument, exposition, information, procedure, explanation, email, diary, memo, description, letter, and others. Swales (1990) and Martin (1984) explain that text types/genres do

serve as communicative tools needed by certain communities/ and each genre has its own structure and language tools that support its communicative purpose (Kay and Dudley-Evans, 1998).

CHAPTER THREE: THE STUDY

Research Methodology

This chapter gives a description of the research approach used in conducting the current study which was carried out in an intermediate school for adolescent public school boys aged 12-16 years. The course is designed for the ninth graders learning English as a second language (ESL) in a biliteracy learning environment. Classes started during the second trimester and were focused upon improving students' abilities in writing a 'narrative text type. It also demonstrates a discussion on qualitative and quantitative data analysis and it ends with assessment the instruments of student questionnaire. Moreover, the study investigates the attitudes of learners towards this model. The study collected both qualitative and quantitative in order to provide a description of the blended model and also collect data about students' opinions and writing scores. Thirty students, formed the experimental group, were engaged in a blended language learning course while another group of thirty students were in the control group.

A mixed method research design was used with an experimental design focusing on investigating the effectiveness of the intervention, a blended learning model, in improving students' L2 writing. An experimental research design examines and assesses the effectiveness of an intervention in improving an aspect of the experimental group and then evaluates the results. An experimental research design examines and assesses the effectiveness of an intervention in improving an aspect of the experimental group and then evaluates the results. It includes an independent variable that does not vary, such as an intervention, an experimental group and a control group.

The mixed methods approach is used in research to benefit from the advantages and reduce the disadvantages of the quantitative and qualitative research methods. In this current study, the researcher qualitatively, needs to describe a blended learning model as a phenomenon by focusing on a small sample, and at the same time supports the study by, quantitatively, surveying students' attitudes and assessing the intervention depending on statistics of the results. So, the mixed methods design allows researchers to collect and analyse data both quantitatively and qualitatively which enables them to examine or create a theory. A mixed

methods research design enables researchers to design a study that covers and corresponds to complexity of a phenomenon which might include surveying participants' attitudes and measuring effectiveness of different variables. Thus, it is a suitable research design to: investigate, predict, explore, describe, and understand a phenomenon (Carr, 1994; Creswell, 2003; Johnson & Onwuegbuzie, 2004; Mingers, 2001; Sale, Lohfeld, & Brazil, 2002; Tashakkori & Teddlie, 2003).

As explained in the previous chapter, studies on blended language learning attempted to assess the performance of blended in comparison with traditional classroom learning and ignored what students feel about this new innovation. In general, research in linguistics is often described as qualitative or quantitative and though with a thorough investigation, many studies are considered a combination of the two methods (Miles and Huberman, 1994). Moreover, literature of blended learning in higher education does not recommend comparative studies that compare performances of online leaning against face-to-face learning as they are more focused on investigating separate components of the blend rather than investigating the blend (Bliuc et al., 2007).

Therefore, a mixed method research approach which has the advantages of both qualitative and quantitative methods is appropriate for this study which collects qualitative and quantitative data. It can be defined as “a research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry.” (Tashakkori & Creswell, 2007b, p. 4).

Unlike quantitative studies, this study, in its first research question, gives a description of a blended model that can be used in similar contexts and help course designers to implement new models in language settings. Moreover, it gives a deeper understanding of the blended model as it mentions the attitudes of participants towards the approach which has always been a missing area in many previous studies. Onwuegbuzie and Leech (2004) mention three advantages of using a mixed-method research design: a) to examine a phenomena in a flexible and comprehensive method, b) to research both micro and macro aspects of a setting or phenomenon, and c) to support qualitative data analysis by quantitative analysis and vice versa. Moreover, the main advantage of mixed methods research that combines qualitative and quantitative methods is the integration of strengths and non-conflicting weaknesses (Johnson & Turner, 2003).

Participants

The participants in this study were 60 grade 9 Arab students learning ESL in an Emirati public school for boys. 30 students were engaged in a nine-week blended course that aimed at improving students' abilities in writing narrative texts. The students were taught by an ESL teacher, the researcher in this study, who employed the blended learning approach in this perspective. All of the students were Arabs native speakers aged 15 to 16 years who had learned by the same learning materials in both face-to-face and online modes. They also had similar language proficiency levels as they were accommodated into classes based upon their previous year achievements.

In addition to that, they had the same curriculum which assigns each class five lessons a week: one of them was taken in the computer laboratory where each student had a computer to use. The data on students' English narrative writing proficiency were collected by the pre-test that was administered in the first week of the study. The pre-test is a test that asked students to write a narrative text and they were referred to the rubrics against which they would be assessed. Moreover, the following table (No. 2) shows the number of years each student had learned English.

Class Type	Sex	Number	Age	No. of Years learning English
Experimental Class	Male	30	15-16	8
Control Class	Male	30	15-16	8

Table 2: Number of students with history of language learning

Each class consisted of 30 boys (see Table 1). The students of the experimental class were also 30 boys who had studied ESL/EFL for at least 8 years. The participants were grade nine students who studied all subjects in their native language, Arabic, for nine years while they studied English as second language for nine years and studied Science and Mathematics bilingually, in Arabic and English, for four years.

In order to measure students' writing proficiency in writing 'a narrative text type', they had a pre-test in which asked them to write a narrative text about a topic they were learning. Students' writings were marked using the 'writing for purpose' rubric provided by the government education district (see Appendix 11). The students did the pre-test at the end of Trimester 1. For the control class, the scores were measured and varied from 6 to 15 out of 16 marks against the rubric used for this purpose. As for the experimental class, the mean

score was 9.4 in the pre-test and 11.3 in the post-test with a standard deviation of 2.75 in the pre-test and 2.78 in the post test (see Appendix 12 and Table 3). The control class made a little higher/lower scores making a mean of 9.87 in the pre-test and 11.4 in the post-test with a standard deviation of 2.42 in the pre-test and 2.03 in the post-test.

Experimental Class Test Scores			
	Previous Year	Pre-test	Post-test
Mean	11.8	9.4	11.3
StDev	2.1	2.7	2.8
Control Class Test Scores			
	Previous Year	Pre-test	Post-test
Mean	11.5	9.9	11.4
StDev	1.8	2.4	2.0

Table 3: Test scores

The majority of students in the two classes had sufficient skills and experience in using computers and online. Generally, the students were used to using computers and online applications as the two classes used to learn information and communication lessons via the same tools. However, the majority of students participating in this study were new to blended language learning approach.

Instructor:

The instructor, also the researcher in this study, is an Arab non-native English speaker who had been teaching ESL/EFL for 17 years. He teaching experience in Egypt is 4 years and 13 years of experience in the UAE. He holds a bachelor's degree in Education and majored in TESOL. He is a very good user of computer and blogs used for educational purposes such as the free domains provided by wkiis.com and wordpress.com. Moreover, one of the instructor's goals is to find a solution of the issue of increasing usage of paper learning materials as students had to learn English language without textbooks.

Learning Materials.

The online course materials were created to integrated with the face-to-face ones so they contribute to making a blended model for language learning that provides more opportunities for language practice and learning using this new approach (Solorzano & Schmidt, 2009, p. iv). The online materials complement the content and the syllabus of they learn in class.

In order to access the online learning materials, students were given an access code. The teacher and students used the online materials at school once a week per class and they used the computer lab for this purpose.

According to the curriculum used in this context, students learned writing using the genre approach and the curriculum is considered a ‘dogme’ approach in which students learn English without a textbook and they learn from the materials they and their teacher brings to the classroom. This approach gives teachers a wide range of flexibility in choosing activities and learning materials.

In this study, the online materials included, content files, activities, assessment, e-mailing and a discussion board. There were three types of activities for practicing the writing skills. The assessment activities were given at the end of each unit (2-3 weeks) and either graded either automatically or by manually with electronic corrective feedback.

The automatically graded activities gave immediate feedback, were added to the student gradebook so teacher could monitor the progression/regression of each student throughout the course. The ‘edmodo’ platform, as a learning network, provides various forms of activity and quiz making such as: multiple-choice, True/False, fill-in-the-blanks, and matching. See (Figure 1) that shows examples these activities.

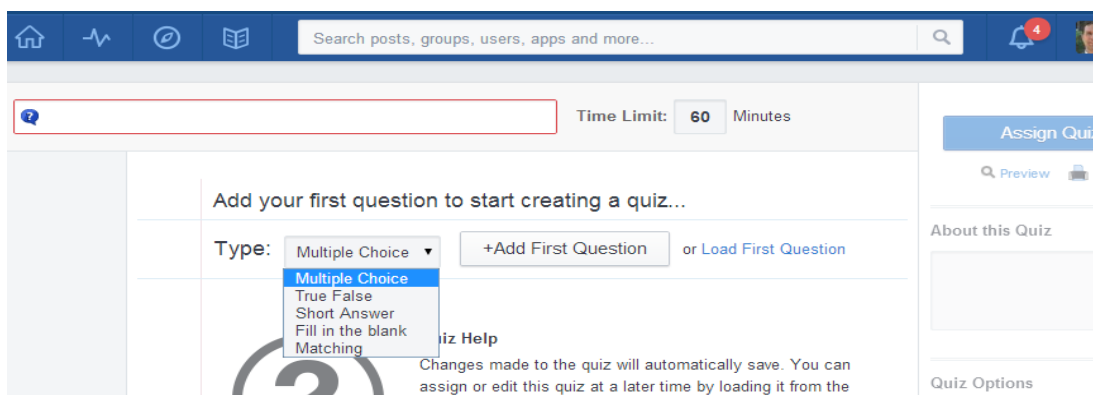


Figure 1: Online Activity and Quiz Options

The other type of activities and assessment was the teacher manually graded activities were in the form of open questions that required students to write part of/a narrative and the teacher gave electronic corrective feedback along with the grade. Moreover, using electronic corrective feedback enables the teacher to give comments so students can clearly understand how to improve. Figure 2 shows how the teacher annotated the students’ writings in order to give them corrective feedback and comments on how to improve.

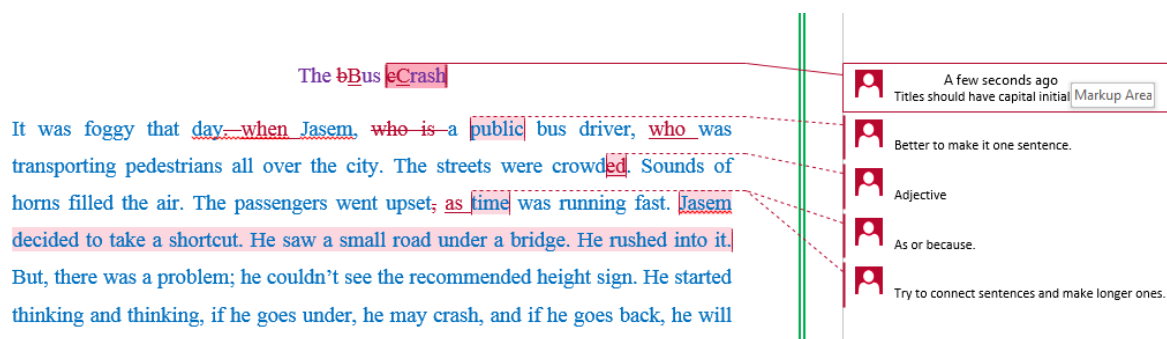


Figure 2: Online Electronic Corrective Feedback

Data Collection

The data collected for this study were both qualitative and quantitative. They tests and student questionnaires to collect the quantitative data whereas observations and interviews collected the qualitative data.

A pre-test and a post-test were conducted to collect quantitative data of students' achievement levels before and after the intervention (blended model). The tests asked students to write a narrative text and follow the rubric provided for marking. (Appendices 7, 9 and 11)

Student Questionnaires (Appendices 1&2)

Two student questionnaires were administered to students, in this study, in order to collect quantitative data about their attitudes towards this blended learning model. The questionnaires' questions were close-ended although it provided a space at its end to add additional comments, which were very helpful in understanding their responses. The questions put against Likert-scale type with five answers (strongly disagree, disagree, not sure, agree and strongly agree).

Student Questionnaire 1 surveyed the students' opinions about the blended learning model used in the study in order to investigate their motivation about blended learning approach. It also examined their interaction, and the integration of modes. Student Questionnaire 2 investigates the attitudes of students towards the model and its impact on their learning in general and on their writing performance in particular. The questionnaires were administered at the end of week 9 when the students had completed the whole course.

CHAPTER 4: RESULTS AND DISCUSSION

This chapter presents and discusses the results of the study by referring to the blended learning model effectiveness, its design and participants' attitudes towards the blended model. The research questions' results are presented one by one. The blended learning model is analysed and described based on the six parameters of Neumeier (2005).

Research Question 1:

Designing a Blended Learning Model

The first research question studies how the blended language learning model is designed and how its two modes are combined. It mainly focused on how the blended model was used with the experimental class that employed this model throughout the writing course that took 9 weeks. The study describes how the two modes of the blended model, face-to-face and online, are combined. The description and analysis of the control class blended model is done according to Neumeier (2005) six parameters: mode, model of integration, distribution of learning content and objectives, language teaching methods, involvement of learning subjects (students, tutors, and teachers), and location. After discussing each parameter, the blended learning model of this study is described.

The Modes

The blended language learning model in this study consisted of the face-to-face classroom mode and the online mode. The face-to-face mode included 45-minute lessons taken in the classroom 4 times per week (see Table 4). While the online mode included a 45-minute lesson a week in the school computer lab where students completed homework, got teacher's feedback and worked out technical issues for their online accounts.

Experimental Class	Mode		
	Face-to-face	Online	
Place	Classroom	Computer lab	Other
Time	Mon, Tue, Thu, Wed	Thursday	25 minutes a day
Control Class	Mode		
	Face-to-face	Online	
Place	Classroom	Computer lab	Other
Time	Sun, Mon, Tues, Wed	Thursday	At School Only

Table 4: Modes Time & Place Distribution for the Experimental Class and Control Class

The time assigned for the two modes is shown in (Table 5&6) for the two classes in the study. The table shows the nine-week course from January 12 to March 13 for both classes.

Table 5: Time spent on each mode for the Experimental Class.

Week #	Month		Face-to- face	Online	
		Date	Time Spent	Computer Lab Time	Online Home
Week 1	January	12 Sun	45		25
		13 Mon	45		25
		14 Tues	45		25
		15 Wed	45		25
		16 Thurs	45	45	25
Week 2		19 Sun	45		25
		20 Mon	45		25
		21 Tues	45		25
		22 Wed	45		25
		23 Thurs	45	45	25
Week 3		26 Sun	45		25
		27 Mon	45		25
		28 Tues	Fieldtrip		25
		29 Wed	45		25
		30 Thurs	45	45	25
Week 4	February	2 Sun	45		25
		3 Mon	45		25
		4 Tues	45		25
		5 Wed	45		25
		6 Thurs	45	45	25
Week 5		9 Sun	45		25
		10 Mon	45		25
		11 Tues	45		25
		12 Wed	45		25
		13 Thurs	Missing class- bad weather	Missing class bad weather	Cancelled

Table 5.... (Continued)

Week #	Month		Face-to-face	Online	
		Date	Class time	Comp. Lab Time	Online Daily Activity

Week 6		16 Sun	45		25
		17 Mon	45		25
		18 Tues	45		25
		19 Wed	45		25
		20 Thurs	45	45	25
Week 7		23 Sun	45		25
		24 Mon	45		25
		25 Tues	45		25
		26 Wed	45		25
		27 Thurs	45	45	25
Week 8	March	2 Sun	45		25
		3 Mon	45		25
		4 Tues	45		25
		5 Wed	45		25
		6 Thurs	45	45	25
Week 9		9 Sun	45		25
		10 Mon	45		25
		11 Tues	45		25
		12 Wed	45		25
	13 Thurs	45	45	25	
Total minutes			1935	360	1100
Total hours			32	6	18

Table 6: Time spent on each mode for the Control class.

Week #	Month		Face-to- face	Online	
		Date	Time Spent	Comp. Lab Time	Online Home
Week 1	January	12 Sun	45		
		13 Mon	45		
		14 Tues	45		
		15 Wed	45		
		16 Thurs	45	45	25
Week 2		19 Sun	45		
		20 Mon	45		
		21 Tues	45		
		22 Wed	45		
		23 Thurs	45	45	25
Week 3		26 Sun	45		
		27 Mon	45		
		28 Tues	Fieldtrip		
		29 Wed	45		
		30 Thurs	45	45	25
Week 4	February	2 Sun	45		
		3 Mon	45		
		4 Tues	45		
		5 Wed	45		
		6 Thurs	45	45	25
Week 5		9 Sun	45		
		10 Mon	45		
		11 Tues	45		
		12 Wed	45		25
		13 Thurs	Missing class bad weather	Missing class bad weather	Cancelled

Table 6: (Continued)

Week #	Month		Face-to-face	Online	
		Date	Class time	Comp.	Online Home
Week 6		16 Sun	45		
		17 Mon	45		
		18 Tues	45		
		19 Wed	45		
		20 Thurs	45	45	25
Week 7		23 Sun	45		
		24 Mon	45		
		25 Tues	45		
		26 Wed	45		
		27 Thurs	45	45	25
Week 8		2 Sun	45		
		3 Mon	45		
		4 Tues	45		
		5 Wed	45		
		6 Thurs	45	45	25
Week 9		9 Sun	45		
		10 Mon	45		
		11 Tues	45		
		12 Wed	45		
		13 Thurs	45	45	25
Total minutes			1935	360	225
Total hours			32	6	3.75

The following table compares the number of hours spent by each class in the study in regular classroom lessons, in school computer lab and online from homes. The data collected show that both classes spent the same number of hours on the traditional classroom learning and also the computer lab.

Class Type	Face-to-face	Online	
	Class Time	Comp. Lab Time	Online Daily Activity
Experimental	32	6	18
Control	32	6	3.75
Difference in hours	0	0	14.25

Table 7: Time spent by the Experimental Class and the Control Class during the nine-week course (in hours)

Neumeier (2005) refers to the lead mode and explains that its definition is based on having two variables, time and content. So, the lead mode can be recognized when “learners often spend most of the time in this mode, they are guided through the learning process here” and “the sequencing and organization of content or negotiation of content is done and presented in the lead mode” (Neumeier, 2005: p. 167). Thus, according to the previous definition this study gave the lead to the face-to-face as it was given more time and students spent most of the course time in this mode, around 65% (see Table 5, 6 and 7.).



Figure 3: Monitoring Class Overall Progression

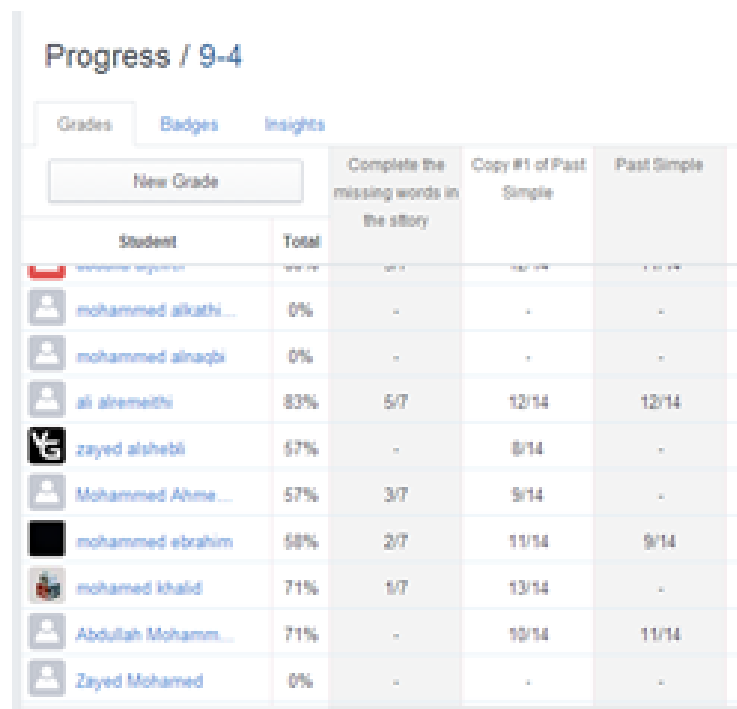


Figure 4: Monitoring Class Overall Progression

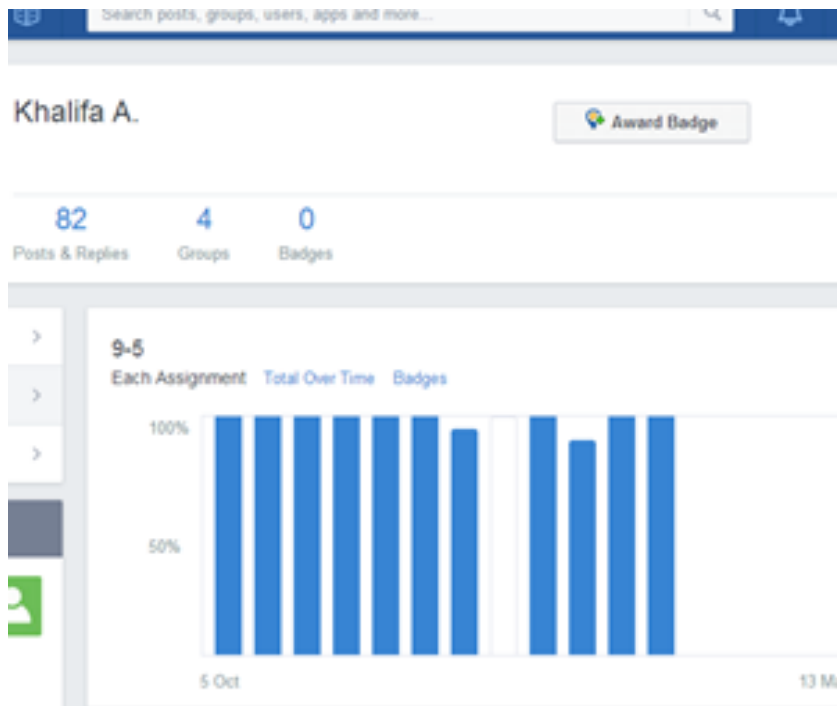


Figure 5: Monitoring Individual Student Progression

In addition to the online activities, the course used the ‘edmodo’ platform as a communicative blackboard through which the teacher posted emails, gave feedback, made announcements and alerts and also shared discussions (see Figure 6).

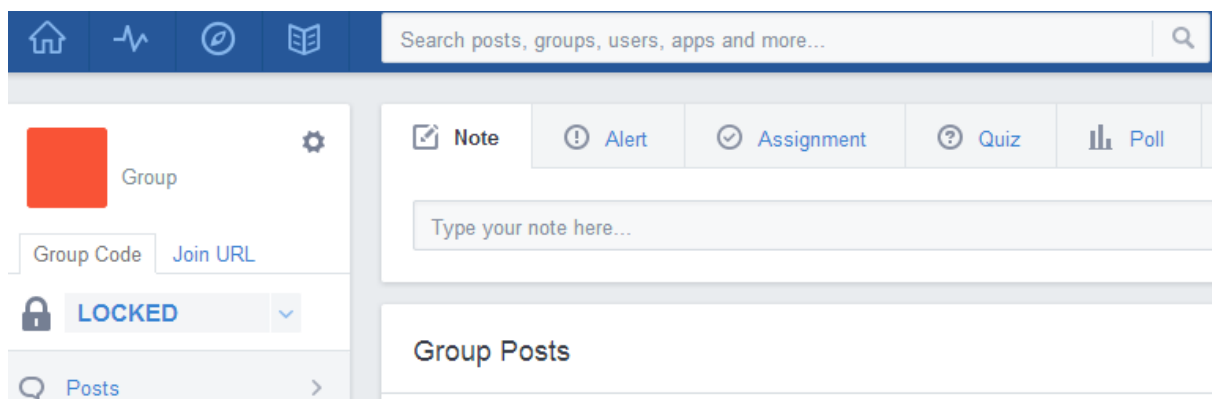


Figure 6: edmodo platform communication options

Thus, the previous features were included in the design so they could be used by both the teacher and students in order to reinforce the students’ writing skills and their abilities to create and develop their ideas.

Modes Integration

Neumeier (2005) explains that the level of integration relies on ordering the modes and setting their level of integration. In this dissertation, the teacher has a high level of freedom to order the modes, sets a timetable for the lab and activities. The term “level of integration” refers to the

degree of flexibility teachers and students can have when designing or doing activities which enables them to modify learning materials, adapt their levels, and make them optional or mandatory. This flexibility is high due to adopting 'dogme approach' to language teaching, as was previously mentioned. According to Neumeier (2005), blended learning always make the face-to-face activities obligatory unlike online activities. The degree of flexibility aims at making students take responsibility of their learning and preparing them to become autonomous learners.

Moreover, the teacher monitored the students' progression using the classroom time and also the online platform and gave in-class feedback for the two classes. The experimental class opinions were surveyed and they enjoyed having more opportunities for online electronic feedback.

The data analysis done for the two classes indicate that they were similar in terms of levels of writing proficiency. The teacher employed a blended learning model in which he gave electronic corrective feedback on the students' online entries and gave traditional written corrective feedback on the face-to-face mode activities. The teacher, the researcher in this study, used the face-to-face classroom time to enthuse students about the online part of the course, discussed the online tasks feedback and encouraged for more online work. Furthermore, differentiated activities and practices were used to meet students' individual differences and thus the level of integration varied according to students' language levels ability to accomplish tasks.

Content Distribution

In the experimental class, the online learning materials relied on the activities that complemented and integrated one another. The study relied on teacher's notes and feedback after each class, (see Table 5) as well as observations done by other teaching staff members. Observations and feedback showed that at the beginning of the course, students lacked motivation towards completing certain activities that required much writing, especially the ones that did not assign marks. They also found difficulty in dealing with the school network and internet server that had many filters that slowed down their speed in their computer lab sessions. Therefore, the teacher had to depend on the homework time so as to accomplish the work and also to communicate with students more actively.

Overall, the teacher and students had a lot of flexibility to adapt the learning materials and content distribution when needed by negotiating the students' learning needs after lesson by considering the teacher's and students' face-to-face and online feedback.

Teaching Methods

In a blended model planning teaching methodology within this environment must be

examined in order to verify three main types of impact: online learning materials, online instructor, and the face-to-face teacher (Neumeier 2005, p. 172). In this study the face-to-face teacher is also the online instructor. He provides both online and classroom learning materials and selects the appropriate teaching methodology.

The teaching methodology for this blended model focused on developing activities that connect students to their daily life topics such as: car accidents, transportation means, weather and problems they faced every day. This connection helped to engage students in online and in-class discussions that aimed to work out current issues in the community such as: parking problems, pollution, traffic accidents and electric and hybrid cars. To sum up, the teacher adopted the communicative approach in teaching the two classes so as to engage them in a lifelike context that would encourage them to produce more writing.

On the other hand, and as a classroom management affair, ‘edmodo’ platform involves parents in monitoring what their children learn achieve since it provides them with codes through which they can access their children’s accounts. Moreover, the researcher appreciates the use of “Class Chart”, an extra tool/app added to this edmodo platform, as it helps monitor and manage the students’ behaviour. This tool is practical for reinforcing good behaviour and controlling misbehaviour. Figure 7, below, shows how to manage and monitor student behaviour using the “Class Chart” App/Tool.

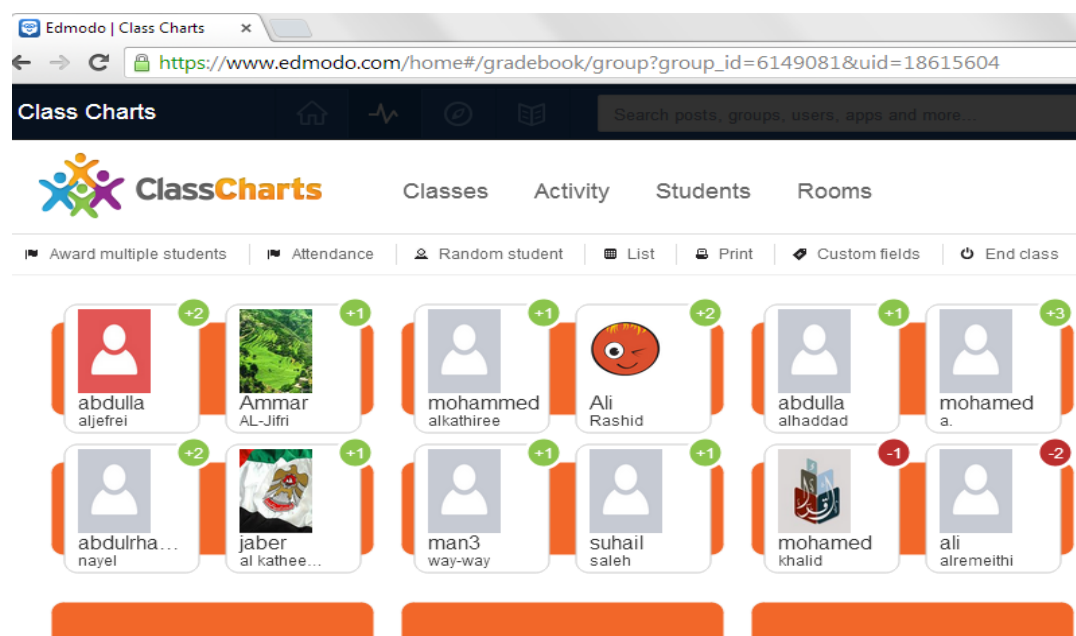


Figure 7: Class Chart (behaviour management)

Interactional Patterns

Interactional patterns are **types of** communication that link individuals in a learning process

(Neumeier, 2005). Table 8 below, shows the types of interaction in the study divided between the face-to-face and online modes. These patterns were observed throughout the course time. The observations, Appendix 13 revealed that the most used types of interaction in both modes were teacher-student and student-student. Yet, the online student-student, pair and group, was increasing and the interaction improved to be more student-centred due to students' familiarity with work procedure and management of online accounts.

Table 8: Interactional Patterns

Face-to-face Mode	Online Mode
student-student	Student-student
Student-teacher	Student-teacher
Student to student in group work	Student to website

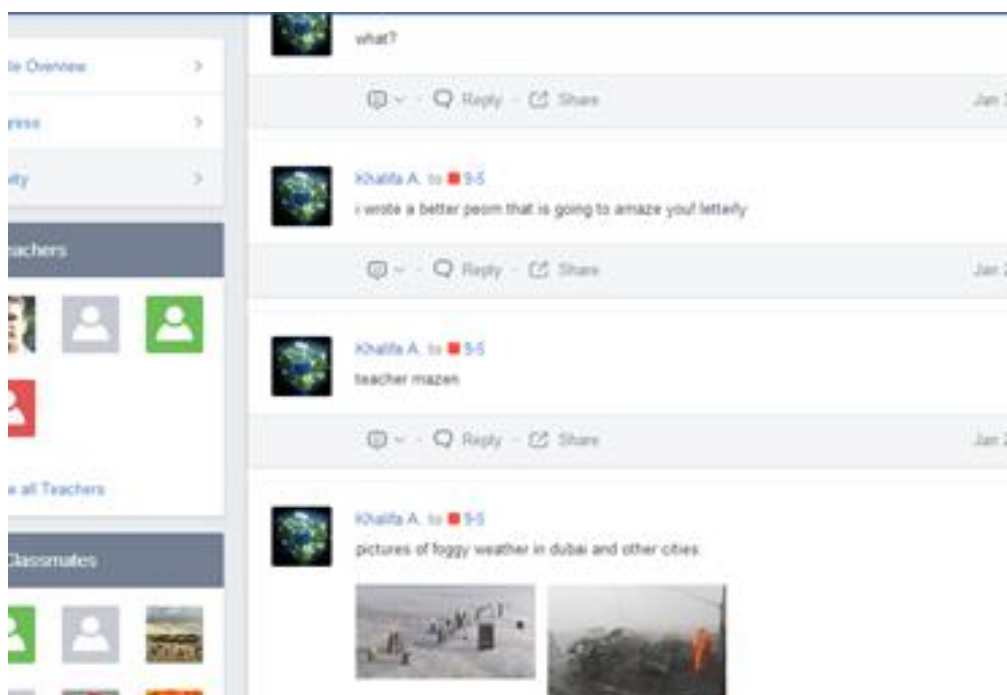


Figure 8: Student-teacher interaction individualized learning



Figure 9: Student-student Interaction

Roles of Participants

By introducing a new approach of learning, participants' roles seems an important feature in the blended model that assigns new or different roles for teachers and student. The 'role', as mentioned by (Lam and Lawrence), can be defined as "what one does or is expected to do in a given environment" (Neumeier, 2005, p. 174) and Neumeier explains that participants in a blended environment tend to have a more various roles than in a one-mode environment. The observations and feedback conducted throughout the study showed that participants had various roles that differed according to course stages and teacher and students' familiarity. Moreover, the computer lab and online environments gave students more autonomous learning opportunities that increased by the time they got used to the model.

Location

The Experimental group in this study is the 30-student class who were exposed to the blended learning model for nine weeks. They worked in three different places that included classroom, school computer lab, and at home. In-class and computer lab lessons were essential for giving feedback on correcting errors, completing tasks and working out issues with student online accounts.

Student Questionnaires 1 and 2 investigated that students' opinions about learning English by activities that combine online and classroom face-to-face activities. The data analysis shows that more than half of students in the experimental class liked learning English in class as well online. In their comments, many students mentioned that the blended model helped them learn English better and they recommended it to other students.

Research Question 2: Student Attitudes

The second research question investigated the students' attitudes towards the employing the blended learning model. Their responses were collected in Student Questionnaires 1 and 2 (Appendices 3 & 4). The two questionnaire are close-ended with a space at the end for comments and suggestions. They are translated into students' first language, Arabic, so as to get accurate responses for the study. They are in the form of 1:5 Likert scale as 1 refers to (strongly disagree) and 5 refers to (strongly agree). Data from the two student questionnaires were recorded and analysed by MS Excel and SPSS.

Student Questionnaire 1 (Appendix 1):

This questionnaire consisted of six questions examining students' attitudes towards implementing the blended learning program. The Quantitative data, student' responses, were collected and recorded by MS Excel and converted into percentiles and were analysed by SPSS. Reliability of this questionnaire was tested and the Cronbach's alpha value was 0.812 to indicate a high reliability for the questionnaires' items. (Tables 9 & 10 and Appendix 14)

Table 9: Case Processing Summary

	N	%
Valid	30	100.0
Cases Excluded ^a	0	.0
Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

	Cronbach's Alpha Based on Standardized Items	N of Items
	.812	6

Table 10: Questionnaire 1 Reliability Test

The students' responses were recorded by MS Excel and converted into percentiles as shown in Table 10. According to the data in Tables 10 & 11 as well as Figures 10 & 11, the students showed highly positive attitudes towards the blended learning approach as the 'Agree' and 'Strongly Agree' responses represent 82 per cent of the total responses which indicates that students enjoyed learning by this approach.

Table 11		Likert Scale (%)				
Experimental Class (N=30)		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	I like learning in the class as well as online.	3	0	13	30	57

2	Learning online and in class helps me learn English better.	3	3	13	27	57
3	I like the classroom activities and the online activities as well.	0	7	10	47	37
4	English language learning should include online activities and also classroom activities.	3	3	13	37	43
5	I advise other learners to learn by the model that have classroom and online activities	3	0	17	30	53
6	I like to learn English again in course that combines classroom and online activities.	7	3	10	27	47
	Mean	3	3	13	33	49
	StDev	2	3	3	8	8

(Table 11) Student Questionnaire 1: Students' attitudes towards the blend learning model

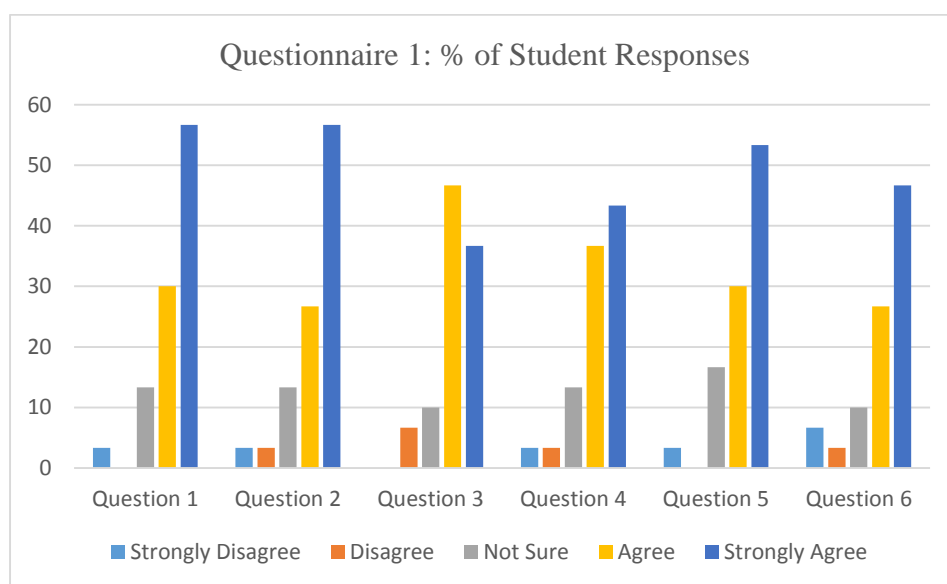


Figure 10: Questionnaire 1, % of Student Responses

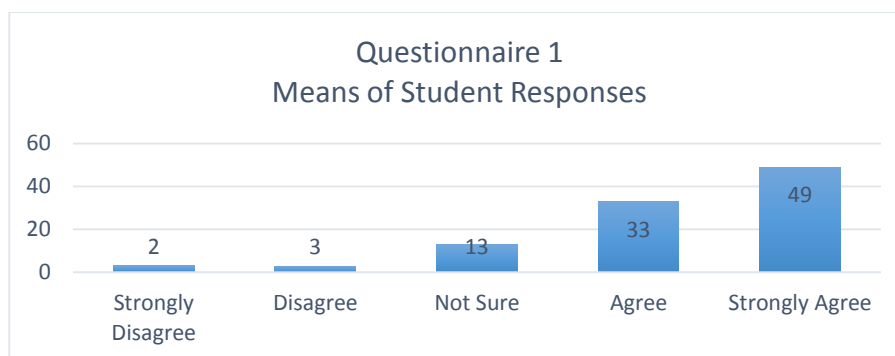


Figure 11: Questionnaire 1 % of Student Responses

Student Questionnaire 2

This questionnaire investigates the students' attitudes towards the online learning mode. It consists of 4 questions using the Likert Scale 1:5. (Table 12) shows how student responses were recorded, using MS Excel, in percentiles so as to calculate the means and standard deviations for each item. The questionnaire's reliability was tested using SPSS and the Cronbach's alpha value was 0.844 which is a high reliability value for this questionnaire. (Tables 13 & 14 and Appendix 15).

Table 13: Case Processing Summary

	N	%
Valid	30	100.0
Cases Excluded ^a	0	.0
Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Table 14: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.844	.851	4

The students' responses were analysed by MS Excel and showed that around 80% of students strongly agreed and agreed that online activities encouraged them to write more, identify spelling and punctuation mistakes and get more feedback (Questions 2, 3 and 4). Also, 56% of them had the same expresses their agreement with online activities helped them improve their writing.

On average, the majority of students, about 80% of the experimental class population, agreed that online activities helped them in: practicing more writing, identifying punctuation and spelling mistakes and finally getting more teacher's feedback. Moreover, 60% of them agreed that online activities helped them improve their writing skills and get more teacher feedback. Qualitatively, a student commented: 'online activates were useful and I liked way the teacher gave feedback'. Another student added that "it, the online mode, reminds us of the homework and it is also interesting and useful". A third student said that he felt that his writing on computer became better and he advised other students to study online.

However, a student argued that it was not useful as his parents did not allow him to use the computer at home. Another student claimed that it would be better to include the online activities in school lessons only.

	Experimental Class (N=30)	Likert Scale 1:5				
	Questionnaire No. 2 Questions	1	2	3	4	5
1	Online activities help improve my writing.	0	10	30	26	33
2	Online activities help me write more.	0	10	10	50	30
3	Online activities help me identify punctuation and spelling mistakes.	0	7	13	33	47
4	Online activities help me get more feedbacks on my writings	0	10	10	43	37
	Mean	0	9	16	38	37
	StDev	0	2	10	11	7

Table 12: Student Questionnaire 2 Mean and Standard Deviation of Student Responses

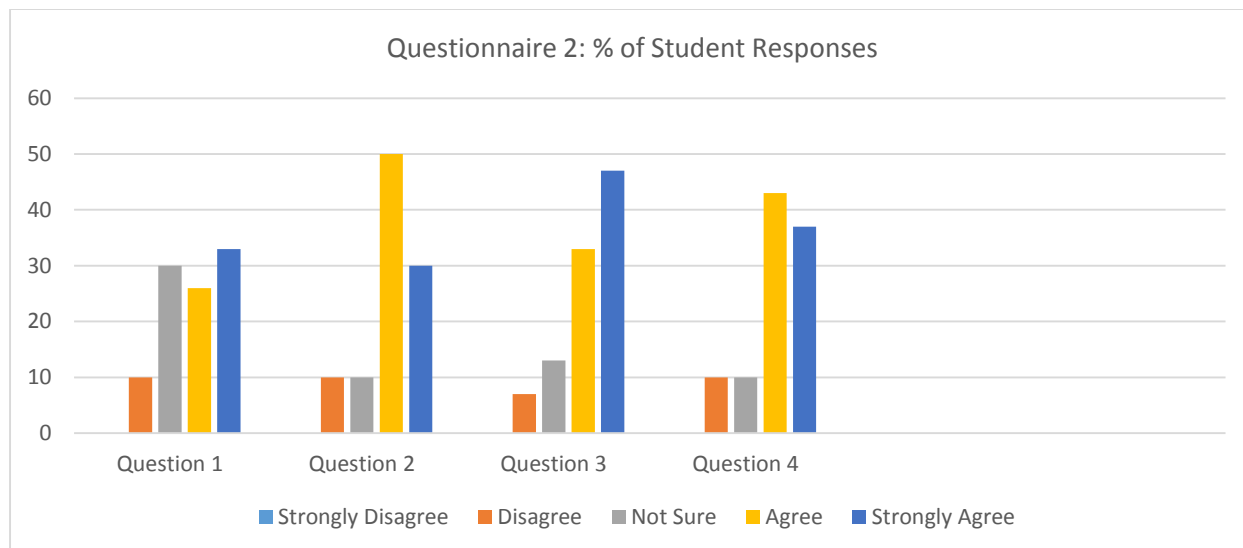


Figure 12: Percentages of % of Student Responses

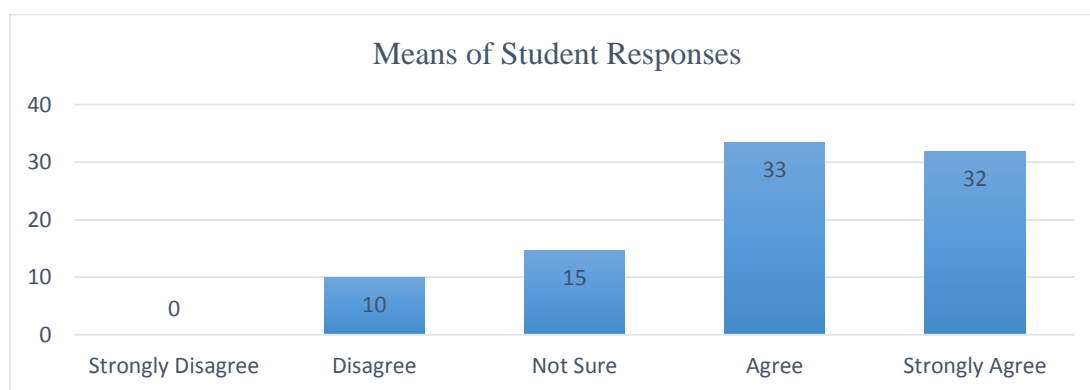


Figure 13: Means of Student Responses

Research Question 3:

The third research question investigates whether there is a significant difference/improvement in students' writing scores between the experimental classes that used blended learning and the control class that learned using traditional classroom instruction. To collect the data from the experimental and control classes, the researcher administered a pre-test prior to the course and a post-test at the end. The scores of the two tests were recorded and analysed by MS Excel and SPSS.

In a relevant study, Al-Jarf (2004) examined the effectiveness of blended learning on improving students' scores in EFL to find if there is a significant difference in achievement between students learned writing using the traditional face-to-face classroom instruction and those students who learned via a blended model that mixed traditional classroom instruction and online instruction. The sample in this study is 113 students learning EFL in a higher education college in Saudi Arabia. The students had a pre-test before exposing them to a

traditional EFL learning course of twelve weeks, while the experimental group learned via a blend of traditional and online modes of instruction. The experimental group used an online discussion board/blog to post comments, replies, and assignments such as: short paragraphs, stories, or poems. The course provided students with learning materials and resources related to their textbook themes on websites like “Yahoo! Movies” and “WebMD” and they used Microsoft Word application to submit their writing entries. Finally, the students sit a post-test at the end of the 12-week course and it was found that the experimental group that learned via blended learning, scores were significantly higher than the control group.

To answer the third research question, the study sets three variables which include: a blended learning course, students’ writing level and writing skills improvement. The researcher exposes the experimental group to learning by blended learning approach whereas the control group was exposed to learning by the traditional face-to-face classroom instruction only. The experimental and control groups were taught by the same ESL teacher for nine weeks.

Sample

The sample in this study is 60 students divided into two groups, experimental and control, and each one contains 30 students. Table 13 shows the sample distribution between the two groups

Sample Size	Sex	Experimental	Control
60	Boys	N=30	N=30

Table 15: Sample

The two classes involved in this study are grade nine students aged 15-16 taught by the same teacher who is the researcher in this study. The two groups were two grade nine sections who were randomly selected with a variety of EFL proficiency levels. The groups were exposed to a pre-test to measure their abilities in writing a narrative text type.

Variables

The study has two types of variables:

1. The independent variable (blended learning course)
2. The dependent variable (students’ English writing scores)

The data of the students’ pieces of writing in the two groups were recorded and analysed by MS Excel and SPSS so as to compare the results and to find whether there were significant differences between the group that used the blended learning approach and the other group that used the face-to-face learning. The table below shows the mean scores for the total and each component in the tests.

	Pre test							Post Test				
	N=30	Presents ideas	Organises ideas	Uses language tools	Spelling	Test Score		Presents ideas	Organises ideas	Uses language	Spelling	Test Score
Mean	Experimental	2.9	2.2	2.2	2.7	9.4		3.1	2.5	2.6	3.2	11.3
	Control	2.8	2.1	2.4	2.7	9.87		3.2	2.3	2.6	3.3	11.4
StDev	Experimental	0.7	0.7	0.5	0.8	2.75		0.8	0.7	0.8	0.8	2.78
	Control	0.7	0.55	0.6	0.7	2.42		0.6	0.6	0.68	0.65	2.03

Table 16: Experimental and Control Classes Test Scores Mean and STDEV

The study sets four hypotheses to evaluate the differences in the performances for each test and each class. They aim to assess the progression and regression for each class and also to compare the scores of the post-test of the two classes.

The first hypothesis:

The first hypothesis compares the pre-test scores of the two classes. It assumes that there is no significant difference between the pre-test scores of both the control and the experimental classes if the p-value is greater than or equals (0.05). For this purpose, an independent T-test was conducted using SPSS software which showed that the significant value was 0.48. (See Tables 17 and 18). This result indicates that there was no significant difference between the two classes in the pre-test test which means the two classes started at similar levels of writing proficiency no differences that would affect their progression or regression.

Table 17: Group Statistics

	Class	N	Mean	Std. Deviation	Std. Error Mean
Pre-Pre	Expm	30	9.4000	2.74929	.50195
	Cntrl	30	9.8667	2.41737	.44135

Table 18: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)		Std. Error	95% Confidence Interval of the Difference		

							Mean Differen ce	Differe nce	Lower	Upper
Pre-Pre	Equal variances assumed	.703	.405	-.698	58	.488	-.47	.66839	-1.80459	.87126
	Equal variances not assumed			-.698	57.07	.488	-.47	.66839	-1.80506	.87173

The second hypothesis:

The second hypothesis tests the difference between two classes' performances in the post-test. It assumes that there is no significant difference between the two classes' scores in the post-test if the significance value is greater than or equals (0.05). To test this hypothesis, an independent T-test was conducted and it showed that the two classes did have similar as the post-test was 0.833 which is greater than the Null hypothesis (0.05). See Tables 17 & 18.

Table 17: Group Statistics

	Class	N	Mean	Std. Deviation	Std. Error Mean
Post-Post	Expm	30	11.2667	2.77841	.50727
	Cntrl	30	11.4000	2.02740	.37015

Table 18: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-Post	Equal variances assumed	6.406	.014	-.212	58	.833	-.13333	.62796	-1.39033	1.12366
	Equal variances not assumed			-.212	53.061	.833	-.13333	.62796	-1.39282	1.12615

Conclusion: there is no significant difference between the two classes' scores.

The third hypothesis:

This hypothesis assumes that there is no significant improvement in the experimental class' pre-test and post-test scores if the significance value is 0.05 or greater. To compare the experimental class' pre and post test scores, a paired T-test was conducted and the data analysis shows that there was a significant improvement in students' scores in favour of the post-test as the significance value was 0.001, i.e. less than 0.05. Thus, the experimental class did significantly improve. See Tables 19, 20 and 21.

Table 19: Paired Samples Statistics

Experimental Class	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre	9.4	30	2.75	.50
Post	11.3	30	2.78	.51

Table 20: Paired Samples Correlations

Experimental Class	N	Correlation	Sig.
Pair 1 Pre & Post	30	.473	.008

Table 21: Paired Samples Test

Experimental Class	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre – Post	-1.86667	2.83735	.51803	-2.92615	-.80718	-3.603	29	.001

Conclusion: there is a statistically significant difference/improvement in students' scores as the p-value is less than 0.05.

The fourth hypothesis

This hypothesis sets no significant difference between the control class pre and post test scores if the significance value is 0.05 or greater. To test this hypothesis, a paired T-test Score was conducted and the data shows that there was a significance difference in scores in favor of the post-test and thus the students' writing did significantly improve. See Tables 22, 23 & 24.

Table 22: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CntrPre	9.8667	30	2.41737	.44135
	CntrPst	11.4000	30	2.02740	.37015

Table 23: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	CntrPre & CntrPst	30	.722	.000

Table 24: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	CntrPre – CntrPst	-1.53333	1.69651	.30974	-2.16682	-.89984	-4.950	29	.000

To conclude, the significance value was less than 0.05 (0.000), which indicates that the control class did significantly improve

CHAPTER 4: FINDINGS

This gives a summary of the study findings and reviews them by referring to the research questions. The first research question investigated the description of the blended learning model used in the study. Then, the second research question focused on students' attitudes towards the blended. Finally, the study aimed to find whether blended learning had a significant improvement in students' writing skills. The participants in this study were 60 male students aged 15-16 years learning ESL at a public school in an Arab country that taught school subjects in Arabic and English.

Description of the Blended Model

The first research question investigated how the blended learning was designed and used and how the component of the blend, online and face-to-face, were integrated. The main framework used to design and describe the blended model in the study is suggested by Neumeier (2005).

The experimental class consists of the face-to-face and online modes. The time assigned for the face-to-face mode ranges between 65-75% of the learning-teaching time whereas the time assigned for the online mode is 25-35%. This time distribution is affected by the amount of homework students have for each day. However, more time is assigned for individual students depending on their progression/needs either in class or online. Moreover, the teacher, when needed, used the school computer labs to have more lessons focused on working out technical issues or giving collective and general feedbacks.

The online learning materials were designed to complement and integrate the face-to-face mode so students and teacher can connect the two modes and the teacher can reinforce this integration by giving feedback on students' work by referring to their common errors and mistakes during classroom time.

Student Attitudes

The second research question investigated the attitudes of students towards using blended learning in learning ES/EFL. The data were collected by administering two student questionnaires to the experimental group and they showed that the students had positive attitudes towards the blended learning model.

In general the data analysis show that the experimental group students agreed that the blended learning model helped them learn English better. According to the questionnaires, around 80 per cent of the experimental class liked the blended model. Moreover, they also showed positive attitudes towards adding similar online activities to any future English lessons and they mentioned that they would recommend the course to their peers. These results are similar to the ones found in a number of empirical studies in various non-English speaking countries, such as in (Murday et al. 2008), (Scida and Saury 2006), (Stracke 2007), and (Ushida 2005) which refer to learners' positive attitudes towards the blended learning approach.

Effectiveness in improving L2 Writing

The third research question investigated the effect of blended learning approach on improving students' writing levels in writing a narrative text type. The data analysis compared the outcomes of each class and compared the outcomes of both classes. It indicated that the experimental group

that learned by a blended learning model did have a statistically significant improvement in their writings (Table 26). This result is similar to studies mentioned in: Yoon and Lee (2010) and Al-Jarf (2004) which indicated a significant improvement in students' L2 writing skills. However, when comparing the results of ppst-test of classes, it was found that there were no statistical differences which indicates that the results of both classes were similar. This conclusion is similar to the findings of studies such as: (Barr, Leahey, & Ranchoux, 2005; Chenoweth & Murday, 2003; Chenoweth, Ushida, & Murday, 2006; Echavez-Solano, 2003; Green & Youngs, 2001; Scida & Scaury, 2006) that compared results of blended language learning with traditional classroom learning and found no significant differences.

Table 25: Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	6.406	.014	-.212	58	.833	-.13333	.62796	-1.39033	1.12366
Post-Post Equal variances not assumed			-.212	53.061	.833	-.13333	.62796	-1.39282	1.12615

Limitations

Although the study attempted to cover all criteria of blended learning model design and procedure, it did not involve many classes and many year level. So, future studies should consider involving more classes of different years so the results of the study can be generalized over a wider category of students.

Also, the study aimed at describing a blended learning design and how it works. It did collect many quantitative and qualitative data for this purpose was conducted over two trimesters, nine weeks. So, future studies may focus on: engaging more teachers and students, investigating teachers' attitudes, student and teacher interviews, and doing a pilot study so as to identify infrastructure shortcomings.

Moreover, online access time spent by each student was not recorded, especially the homework time. Although this time recording would not change time assigned for each mode, it could contribute to assessing effect of access time and improvement in performance. So, future studies should consider this element so as to give blended learning models the ability to assess the effect of each mode.

Finally, the study included one experimental group that was chosen because of its higher motivation although a lower motivation class would provide useful feedback that contribute to improving the model design and its practicality. Therefore, further studies can include two or more experimental classes in order to compare their opinions and performances which gives studies more credibility and reliability.

Pedagogical Implication

This study gives a description of a blended language learning model following the framework found in (Neumeier's 2005). This description provided details about how blended models are constructed and how they work. It also describes pedagogy, learning materials, teacher's role, learner's role and time distribution. So, similar models can be assessed according to the same framework and procedure provided in this study. Also, interviews represents the weakest part of the data collected for the first research question and any further studies should include more interviews for teachers, students and administrators so as to provide details about institute vision and support, change in teachers' pedagogical behaviour over the time. Moreover, this dissertation is based upon following a model implemented by one teacher and therefore, future studies should include more teachers who teach different years so as to assess the institutional performance and generalize the findings.

The observations show that differentiated tasks and individualized feedback were of the biggest advantages of the blended model and this result is similar to what was mentioned by the participants in the studies of (Echavez-Solano 2003) and (Scida and Saury 2006). Moreover, it seemed, from students' comments and observations, that blended learning approach was a solution that worked out the issue of teaching and learning without textbooks.

Although the results of traditional and blended learning were similar and also many students complained about technical problems related to computers, software updates and online user accounts, the open-questionnaires show that the students' responses indicate satisfaction and ability to deal with the approach which is similar to the studies mentioned in: (Adair-Hauck et al., 2000; Barr et al., 2005; Chenoweth et al. 2006; Echavez-Solano, 2003).

To conclude, blended learning approach is an effective solution to engage young language in and after school time which maximizes learning hours and opportunities. It also gives more options and opportunities for individualized and autonomous learning.

CHAPTER 5: CONCLUSION

This dissertation adds to research on blended language learning and to second language acquisition. It describes a blended language learning model and its components, surveys adolescent second language learners' attitudes towards the approach and examines its effectiveness of on improving students' writing skills. The study uses a mixed method research design to collect both qualitative and quantitative data so as to describe, explore and assess a blended model according to the criteria mentioned by (Neumeier, 2005) and other researchers. The study gives description of how a blended language learning model is constructed and how it works. The blended model proved its effectiveness in creating a motivating language learning environment that gained learners' positive attitudes and made a statistically significant improvement in students' writing skills. Therefore, it has pedagogical implications for ESL teachers especially those who teach adolescent L2 learners aged 12-16.

References

Adair-Hauck, B., Willingham-McLain, L., & Youngs, B. E. (1999). Evaluating the integration of technology and second language learning. *CALICO Journal*, 17(2), 296-306.

Al-Jarf, R. (2004). The Effect of Web-based Learning on Struggling EFL College Writers. *Foreign Language Annals* 37(1): 49-57. Retrieved March 6th 2014 from:
http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ683959&ERICExtSearch_SearchType_0=no&accno=EJ683959

Banados, E (2006) A blended-learning pedagogical model for teaching and learning EFL successfully through an online interactive multimedia environment. *CALICO Journal* 23/3: p. 533–550.

Barr, D., Leakey, J., & Ranchoux, A. (2005). Told like it is! An evaluation of an integrated oral development project. *Language Learning and Technology*, 9(3), p. 55-78.

Beetham, H and Sharpe, R (2007) ‘An introduction to rethinking pedagogy for a digital age’, in Beetham, H and Sharpe, R (eds) *Rethinking Pedagogy for a Digital Age*. Abingdon, Oxon: Routledge, p. 1–10.

Brett, P (1996) Using multimedia: an investigation of learners’ attitudes. *Computer Assisted Language Learning* 9/2–3: 191–212.

Chenoweth, N. A., Ushida, E., & Murday, K. (2006). Student learning in hybrid French and Spanish courses: An overview of language online. *CALICO Journal*, 24(1), p. 115-145.

Tomlinson & Whittaker (2013) *Blended Learning in English Language Teaching: Course Design and Implementation*. Retrieved March 12th 2014 from:
http://englishagenda.britishcouncil.org/sites/ec/files/D057_Blended%20learning_FINAL_WEB%20ONLY_v2.pdf

de Gregorio-Godeo, E (2005) *Blended Learning as a Resource for Integrating Self-Access and Traditional Face-to-Face Tuition in EFL Tertiary Education*. Available online at
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.122.8123&rep=rep1&type=pdf>

Echavez-Solano, N. (2003). A comparison of student outcomes and attitudes in technology-enhanced vs. traditional second-semester Spanish language courses. Unpublished doctoral dissertation, The University of Minnesota.

Dewar, T and Whittington, D (2004) Calliope Learning: Blended Learning Research Report. Retrieved from: <http://www.calliopelearning.com/wp-content/uploads/2012/08/blended.pdf>

Driscoll, M. (2002). Blended learning: Let's get beyond the hype. *E-learning*, 3(3), p. 54-56.

Dudeney, G and Hockly, N (2007) *How to Teach English with Technology*. Harlow: Pearson Education Limited.

Dzuiban, CD, Hartman, JL and Moskal, PD (2004) Blended Learning. Retrieved from: <http://net.educause.edu/ir/library/pdf/erb0407.pdf>

Graham, C (2004) Blended Learning Systems: Definition, Current Trends, and Future Directions. Retrieved from https://www.academia.edu/563281/Blended_learning_systems_Definition_current_trends_and_future_directions

Green, A., & Youngs, B. E. (2001). Using the web in elementary French and German courses: Quantitative and qualitative study results. *CALICO Journal*, 19(1), 89-123.

Gruba, P and Hinkelman, J (2012) *Blended Technologies in Second Language Classrooms*. Basingstoke: Palgrave Macmillan.

Creswell, J. W. & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.

Harker, M and Koutsantoni, D (2005) Can it be as effective? Distance versus blended learning in a web-based EAP programme. *ReCALL* 17/2: 197–216.

Hijazi, S., Crowley, M., Smith, M. L., Shaffer, C. (2006). Maximizing learning by teaching blended courses. Retrieved March 4 2014 from: <http://faculty.ksu.edu.sa/mhabdelgawad/My%20documents/blnded%20learning.pdf>

Hockly, N. (2011) Five Things You Always Wanted to Know about Blended Learning (but were afraid to ask). *English Teaching Professional* 75:58.

Johnson, B. & Turner, L. A. (2003). Data collection strategies in mixed methods research. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioural research* (pp. 297-320). Thousand Oaks, CA: Sage.

Kay, H., & Dudley-Evans, T. (1998). Genre: What teachers think [Electronic version]. *ELT Journal*, 52 (4), p. (308-314)

Jones, C (1986) It's not so much the program, more what you do with it: the importance of methodology in CALL. *System* 14/2: 171–178.

Lamping, A (2004) Blended Language Learning. Available online at www.bbc.co.uk/languages/tutors/blended_learning/blended_learning_report.pdf

Leakey, J and Ranchoux, A (2006) BLINGUA. A blended language learning approach for CALL. *Computer Assisted Language Learning* 19/4: 357–372.

Lin, A (2003) An initial study on EFL Learners' attitudes towards multimedia application in language learning. *Teaching English with Technology* 3/2.

Retrieved from:

www.tewtjournal.org/VOL%203/ISSUE%202/01_ANINITIALSTUDY.pdf

Marsh, GE, McFadden, AC and Price, BJ (2003) Blended Instruction: Adapting Conventional Instruction for Large Classes. Retrieved from: <http://www.westga.edu/~distance/ojdla/winter64/marsh64.htm>

Neumeier, P. (2005). A closer look at blended learning: Parameters for designing a blended learning environment for language teaching and learning. *ReCALL* 17 (2), p. (163–178).

Lamping, A (2004) Blended Language Learning. Available online at www.bbc.co.uk/languages/tutors/blended_learning/blended_learning_report.pdf

Singh, H., & Reed, C. (2001). A white paper: Achieving success with blended learning. Retrieved March 4, 2014 from: <http://www.leerbeleving.nl/wbts/wbt2014/blended-ce.pdf>

Tapscott, D. (2004). The Net Generation and the School. Milken Family Foundation. Retrieved December 1st 2013 from: http://www.mff.org/edtech/article.taf?_function=detail&Content_uid1=109

Thorne, K. (2003). Blended learning: How to integrate online and traditional learning.

Kogan Page. London: UK. Available online at: http://www.uady.mx/~contadur/sec-cip/articulos/libros_online/ambientesvirt/KoganPage2003BlendedLearningHowtoIntegrateOnlineandTraditionalLearning2.pdf

Watson J. (2008). Promising practices in online learning. Blending learning: The convergence of online and face-to-face education. Retrieved 27th April 2014 from: http://rogersfoundation.org/system/resources/0000/0015/NACOL_promising_practices_in_blended_learning.pdf

Banados, E (2006) A blended-learning pedagogical model for teaching and learning EFL successfully through an online interactive multimedia environment. CALICO Journal 23/3: p. 533–550.

Kerres, M and de Witt, C (2003) A didactical framework for the design of blended learning arrangements. Journal of Educational Media 28/2–3: p. 101–113.

Gillespie, J and McKee, J (1999) Does it fit and does it make any difference? Integrating CALL into the Curriculum. Computer Assisted Language Learning 12/5: p. 441–455.

MacDonald, J (2006) Blended Learning and Online Tutoring. Aldershot, Hampshire: Gower.

Masie, E (2006) ‘The blended learning imperative’, in Bonk, C and Graham, C (eds) Handbook of blended learning: Global perspectives, local designs. San Francisco, CA: Pfeiffer Publishing, p. 22–26.

Nicolson, M, Murphy, L and Southgate, M (eds) (2011) *Language Teaching in Blended Contexts*. Edinburgh: Dunedin Academic Press.

Oliver, M and Trigwell, K (2005) Can 'blended learning' be redeemed? *E-Learning* 2/1: p. 17–26.

Onwuegbuzie, A. J., Leech, N. L. (2004). Enhancing the interpretation of –significant findings: The role of mixed methods research. *The Qualitative Report*, 9, 770-792.

Pennington, M. (2003). The impact of the computer in second language writing. In B. Kroll (Ed.), *exploring the dynamics of second language writing* (p. 287-310). Cambridge, UK; New York, NY: Cambridge University Press.

Scida, E. E., & Saury, E. R. (2006). Hybrid courses and their impact on student and classroom performance: A case study at the University of Virginia. *CALICO Journal*, 23(3), p. 517-531.

Sharma, P and Barrett, B (2007) *Blended Learning*. Oxford: Macmillan.

Sharma, P (2007) Try a blend that creates a new class of learning. *Guardian Weekly* (16 February 2007).

Shepard, J (2005) An e-recipe for success. *EL Gazette* 312, December: 5.

Sharpe, R, Benfield, G, Roberts, G and Francis, R (2006) *The Undergraduate Experience of Blended E-learning: a Review of UK Literature and Practice*. Available online at: http://www.heacademy.ac.uk/assets/was%20York%20-%20delete%20this%20soon/Documents/ourwork/research/literature_reviews/blended_elearning_full_review.pdf

Singh, H and Reed, C (2001) *A White Paper: Achieving Success with Blended Learning*. Available online at www.p2partners.co.uk

Solorzano, S. H., & Schmidt, P.L. J. (2009). *NorthStar 3, Listening and Speaking 3rd*

Edition. White Plains, New York: Pearson Longman.

Stracke, E (2007) A road to understanding: A qualitative study into why learners drop out of a blended language learning (BLL) environment. *ReCALL* 19/1: p. 57–78.

Tashakkori, A., & Creswell, J. W. (2007). Editorial: The New Era of Mixed Methods. *Journal of Mixed Methods Research*, 1(1), p. 3-7

Thorne, K. (2003). *Blended learning: How to integrate online and traditional learning*. Kogan Page. London: UK.

Tomlinson, B & C. Whittaker (eds) 2013. *Blended Learning in English Language Teaching: Course Design and Implementation*. British Council publication. Retrieved from: http://www.teachingenglish.org.uk/sites/teacheng/files/D057_Blended%20learning_FINAL_WEB%20ONLY_v2.pdf

Valiathan, P (2002) *Blended Learning Models*. Available online at <http://www.purnima-valiathan.com/readings/Blended-Learning-Models-2002-ASTD.pdf>

Westbrook, K (2008) ‘The beginning of the end for blended learning? *IATEFL CALL Review*, summer: p. 12:15

White, C. (2006). Distance learning of foreign languages. *Language Teaching*, 39, 247-266.

Yang, SC (2001) Integrating computer-mediated tools into the language curriculum. *Journal of Computer Assisted Learning* 17: 85–93.

Y., & Lee, C. H. (2010). The perspectives and effectiveness of blended learning in L2 writing of Korean university students. *Multimedia-Assisted Language Learning*, 13(2), 177-204.

Zapata, G. C. (2002). *Teaching assistants’ perceptions and use of instructional technology in L2 Spanish Classrooms*. Unpublished doctoral dissertation. The Pennsylvania State University.

http://en.wikipedia.org/wiki/Edmodo#cite_note-4

Jump up^ "Edmodo - traffic statistics". Alexa Internet, Inc. Retrieved 4 February 2014.

Appendices

Appendix 1: Questionnaire 1

Student name (Optional).....

Grade Nine Section (.....)

Date...../...../.....

This questionnaire is for students in grade nine to survey their opinions about the use of blended learning that combines the classroom face-to-face learning and the online lessons and uses www.edmodo.com to complement the classroom learning.

	Questionnaire 1 Questions	Strongly Disagree لا أوافق أبداً	Disagree لا أوافق	Not Sure لست متأكداً	Agree أوافق	Strongly Agree أوافق بشدة
1	I like learning in the class as well as online. أحب أن أتعلم في الصف و أيضاً على الانترنت					
2	Learning online and in class helps me learn English better. التعليم في الصف مع الانترنت يساعدني في تعلم الانجليزية بشكل أفضل					
3	I like the classroom activities and the online activities as well. أحب الأنشطة الصفية و كذلك الأنشطة التي أتعلّمها على الانترنت					
4	English language learning should include online activities and also classroom activities. تعلم اللغة الانجليزية لا بد أن يحتوي على أنشطة على الانترنت بالإضافة إلى					
5	I advise other learners to learn by the model that have classroom and online activities. أنصح الطلاب الآخرين بأن يتعلموا باستخدام الطريقة التي تستخدم دروس الصف و أيضاً الانترنت					
6	I like to learn English again in course that combines classroom and online activities. أحب أن أتعلم مرة أخرى باستخدام الأسلوب الذي يدمج الدروس الصفية مع دروس الانترنت					

Questionnaire 3: Students' attitudes towards the blended learning model

Comments

.....

Appendix 2: Questionnaire 1

Student name.....

Class.../.....

Date.../.../.....

This questionnaire is for students in grade nine to survey their opinions about the use of blended learning that combines the classroom face-to-face learning and the online lessons that complement the classroom learning.

Questionnaire 3: Students' attitudes towards the blended learning model

	Questionnaire 3 questions	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
		لا أوافق	لا أوافق	لست متأكداً	أوافق	أوافق
1	Online activities help improve my writing.					
2	Online activities help me write more.					
3	Online activities help me identify punctuation and spelling mistakes.					
4	Online activities help me get more feedbacks on my writings					

Comments

.....

.....

.....

.....

Appendix 3: Questionnaire 1 (Student Responses)

Student name (Optional)..

Grade Nine Section

Date...../...../.....

This questionnaire is for students in grade nine to survey their opinions about the use of blended learning that combines the classroom face-to-face learning and the online lessons and uses www.edmodo.com to complement the classroom learning.

Questionnaire : Students' attitudes towards the blended learning model

		Strongly Disagree لا أوافق أبداً	Disagree لا أوافق	Not Sure لست متأكداً	Agree أوافق	Strongly Agree أوافق بشدة
1	I like learning in the class as well as online. أحب أن أتعلم في الصف و أيضاً على الانترنت					✓
2	Learning online and in class helps me learn English better. التعليم في الصف مع الانترنت يساعدني في تعلم الانجليزية بشكل أفضل					✓
3	I like the classroom activities and the online activities as well. أحب الأنشطة الصفية و كذلك الأنشطة التي أتعملها على الانترنت					✓
4	English language learning should include online activities and also classroom activities. تعلم اللغة الانجليزية لا بد أن يحتوي على أنشطة على الانترنت بالإضافة إلى الأنشطة الصفية				✓	
5	I advise other learners to learn by the model that have classroom and online activities. أنصح الطلاب الآخرين بأن يتعلموا باستخدام الطريقة التي تستخدم دروس الصف و أيضاً الانترنت					✓
6	I like to learn English again in course that combines classroom and online activities. أحب أن أتعلم مرة أخرى باستخدام الأسلوب الذي يدمج الدروس الصفية مع دروس الانترنت					✓

Comments:

I like the teacher and the class. English lesson is very cool, nice and awesome. I like that the teacher gives direct feedback and teaches on internet too.

Appendix 4: Questionnaire 2 (Student Responses)

Student name: /

Class: /

Date: 19/3/2014

This questionnaire is for students in grade nine to survey their opinions about the use of blended learning that combines the classroom face-to-face learning and the online lessons that complement the classroom learning.

Questionnaire : Students' attitudes towards the blended learning model

		Strongly Disagree لا أوافق أبداً	Disagree لا أوافق	Not Sure لست متأكداً	Agree أوافق	Strongly Agree أوافق بشدة
1	Online activities help improve my writing.					✓
2	Online activities help me with write more.				✓	
3	Online activities help me identify punctuation and spelling mistakes.					✓
4	Online activities help me get more feedbacks on my writings					✓

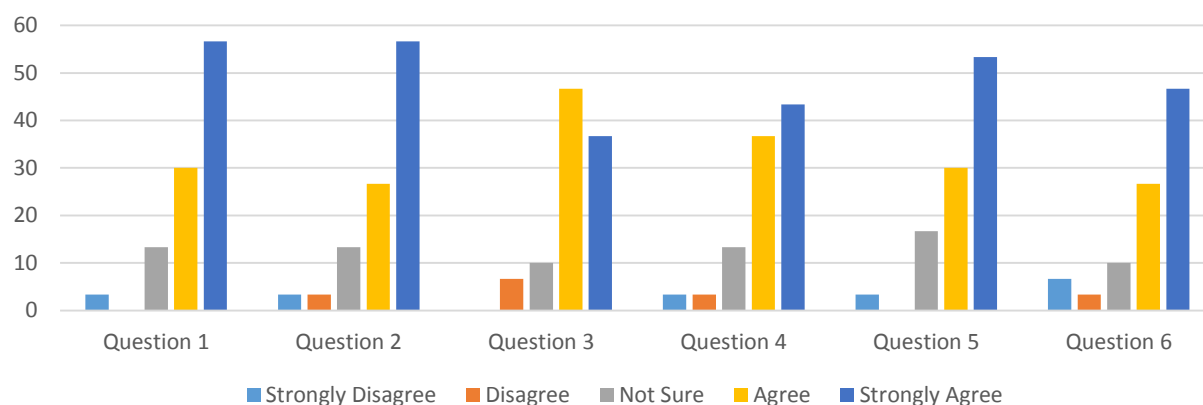
Comments

that the online is very useful and helpful and it's also feedback your information.

Appendix 5: Questionnaire 1 Data Analysis

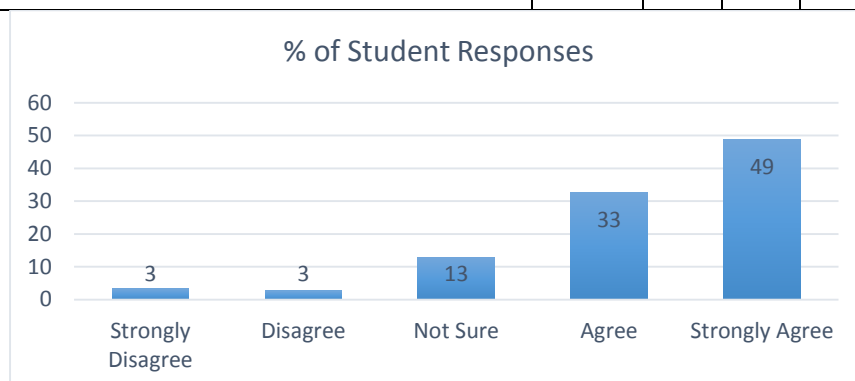
	Experimental Class								
	Questionnaire No. 1 Questions		Likert Scale 1:5						
		N	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mean	St Dev
1	I like learning in the class as well as online.	30	1	0	4	9	17	10.17	6.979
2	Learning online and in class helps me learn English better.	30	1	1	4	8	17	10.17	6.686
3	I like the classroom activities and the online activities as well.	30	0	2	3	14	11	10.00	6.124
4	English language learning should include online activities and also classroom activities.	30	1	1	4	11	13	10.00	5.657
5	I advise other learners to learn by the model that have classroom and online activities	30	1	0	5	9	16	10.17	6.535
6	I like to learn English again in course that combines classroom and online activities.	30	2	1	3	8	14	9.67	5.413

Questionnaire 1: % of Student Responses



				Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	I like learning in the class as well as online.	Question 1		3	0	13	30	57

2	Learning online and in class helps me learn English better.	Question 2	3	3	13	27	57
3	I like the classroom activities and the online activities as well.	Question 3	0	7	10	47	37
4	English language learning should include online activities and also classroom activities.	Question 4	3	3	13	37	43
5	I advise other learners to learn by the model that have classroom and online activities	Question 5	3	0	17	30	53
6	I like to learn English again in course that combines classroom and online activities.	Question 6	7	3	10	27	47
			Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
	Mean		3	3	13	33	49
	StDev		2	3	3	8	8



Reliability

Case Processing Summary

		N	%
Cases	Valid	5	100.0
	Excluded ^a	0	0.0
	Total	5	100.0

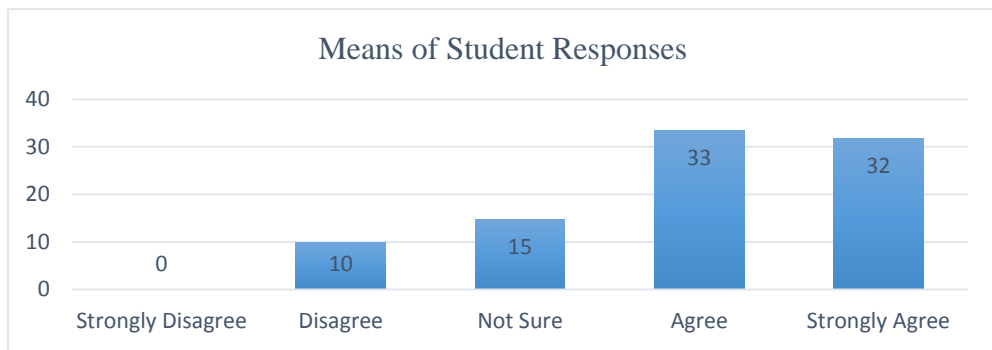
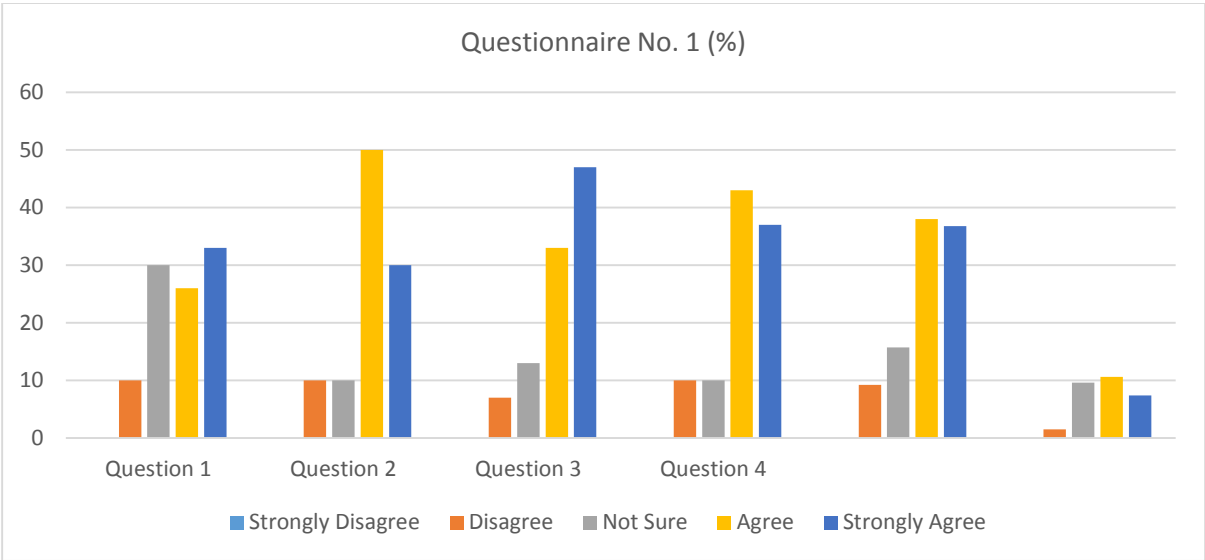
a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.986	6

Appendix 6: Questionnaire 2 Data Analysis

			Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	Online activities help improve my writing.	Question 1	0	10	30	26	33
2	Online activities help me write more.	Question 2	0	10	10	50	30
3	Online activities help me identify punctuation and spelling mistakes.	Question 3	0	7	13	33	47
4	Online activities help me get more feedbacks on my writings	Question 4	0	10	10	43	37
Mean			0	9	16	38	37
StDev			0	2	10	11	7
			Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Mean			0	10	15	33	32
StDev			0	3.37	7.851	13.9	13.3



Appendix 7: Control Class Pre-test

Student No. 15	1 st Marker	2 nd Marker
Presentation	4	3
Organization	3	2
Language Tools	2	2
Spelling	2	3
Total	11	10

#15

note boy (Ahmed, ^{Khalid} ~~the~~)

one day have a note boy in the ~~the~~ school and have a good boy the note boy go to the good boy and said for him come to make a problem with ~~me~~ its fun and the good boy said: really the note boy said: yes really and he go with the note boy and make problem with them and the princeble very hungry and said for all teacher bring the ~~the~~ tow boy Ahmed and Khalid.

The princeble said why Did you make that this is very bad you note boy he said:- the note boy:- I'am sorry princeble the princeble- he i'am note easy to said sorry I will call your father because all Days make problem and said to the good boy the problem its fun this is big problem and the princeble call his father and the princeble said for him your son make a problem in the school and the father he came to school but mood and Ahmed he see her father bad mood when he make a problem and he said with her self my father bad when me make problem 'no! I will a good boy to be My father happy.

Ahmed made a good boy and her study to go grade 9 and her father very happy, Ahmed good boy and study Don't make problem.

Student No. 24	1 st Marker	2 nd Marker
Presentation	4	3
Organization	3	2
Language Tools	2	3
Spelling	2	3
Total	11	11

The best trip

once upon time there were Two best friends there name Khalid and Hamed, Khalid a strong boy and brave he not a afraid from any thing, Hamed is a afraid from every thing even the cat.

one day they tell there perents to go to the desert there perents said "OK" Khalid and hamed became excited to go to the desert alone, Khalid's father and Khalid and Hamed arrived to the desert, they get off from the car and Khalid's father ~~was~~ want to home, Then ~~g~~ set in a high place in the desert, they ~~didn't~~ have a light, after few ~~was~~ seconds, Khalid saw a snake he was brave and he didn't ran away but Hamed were a afraid and ran away he want to tell Khalid's father, Khalid still fighting with the snake, the snake ate Khalid's leg, Khalid's leg get a more blood he didn't quick he complete fighting, after that Hamed came back to Khalid he saw Khalid from the pine that got, Hamed saw a knife he gave it Khalid, Khalid put the knives in the snake and the snake died, After this, Khalid's father arrived to the desert he saw down body have blood he took him to the hospital Khalid still crying.

finally, Khalid took the best medisen and became better than before and he tell his

Appendix 8: Control Class post-test

Student No. 25	1 st Mark	2 nd Mark
Presentation	3	3
Organization	3	2
Language Tools	2	2
Spelling	2	1
Total	10	10

Once upon a time there were two boys named is khaled and his friend Ali. They went to the desert by the car to camped. When they ~~went~~ to the desert Ali was bored he wanted to sleeping.

After that ali and khalid, khalid gett off and he heard a strange sound ^{When} he heard the sound he was afraid and scary.

After that khalid he was scary and afraid and he saw a foxes around him and he want to pick the guns to killed the foxes he didn't went to the camp.

Suddenly, ali get off and he saw khalid, khalid said to ali pick the guns to killed the foxes and khalid was afraid from the foxes, and he think the foxes ate him.

After that ali pick the guns and he killed the foxes and khalid was angry from ali because he were sleeping and khalid said do not sleep ali said ok and he didn't sleep.

After that khalid said for ali we will went to our homes because the desert scary and it's so dangerous.

After that, They went to our homes and Khalid
Said We ~~we~~ well ~~didn't~~ went to the desert
second times.

And Khalid And Ali were safe ty from any things
~~and~~ the desert is dangerous for us.

And its so dangerous for us and it was
an adventure trip

Appendix 9: Experimental Class Pre-test

Student No. 1	1 st Marker	2 nd Marker
Presentation	4	4
Organisation	5	5
Language tools	3	3
Spelling	4	4
Total	16	16

A trip to the desert

One summer day, Ahmed was playing football with his friends Ali and Omar like everyday. But they become bored because they play football everyday. So they started to think about something ^{new} ~~to do~~ to do in the summer. After some minutes they decided to go to the desert for camping.

In the ~~next~~ next day, Ahmed ~~and~~ with his friends went to the shop to buy anything they need for the trip like tent, food and other ^{things} ~~things~~. In the following day they was ready so they went to the desert, they played and spent a good time. But then the night comes and every thing ^{becomes} ~~is~~ dark, so they stoped playing, Ali and Omar went to make some food, but Ahmed was tired so he goes to take some rest. Suddenly Ahmed heard a voice of camel comes from faraway, so he decided to go and see the camel. When ^{he} ~~he~~ went faraway from the tent he didnt find anything, so he wants to come back, ~~but~~ but he forgot the way he comes from, and every thing was dark, so he lost in a big desert at the night. After some minutes ~~then~~ Ali and Omar went to see Ahmed, but they didnt find him, ~~so~~ they started shouting but Ahmed didnt ~~hear~~ hear anything, But Omar was smart so he decided to make a big fire then maybe Ahmed can see them.

Appendix 10: Experimental Class Post-test

Student No. 1	1 st Marker	2 nd Marker
Presentation	4	4
Organization	3	3
Language Tools	3	4
Spelling	4	4
Total	14	15

(lost in an island)

On Monday 10th September 2021

One morning a group of students decided to do their research at country beach. When they arrived to the beach everyone of them checked that if they forgot something then didn't see they went to the water and started searching about their topic here problems had began.

When they were in the water looking for of animals to take pictures of them. In that time the weather began to change, turning from sunny, beautiful and relaxful to a dark, cold and scary. It started raining and the wind was too strong, then had to return to the beach but they couldn't because of the view. They couldn't see anything it was too dark then all of them lost their consciences.

In the other day, they woke up and found themselves and an island in the middle of a sea they were shocked. the group tried find the boat that they went with but then only found wreckage of it. then were disappointed and afraid and starving. They tried to pick up some food but they found nothing. Actually they found some animals like snakes, lizards, birds etc. they hunted birds and eat it uncomfortably with hardness.

Finally after took two weeks a big ship was moving towards the island, they took them and saved them.

Appendix 11: Narrative Writing Rubric

WRITING FOR PURPOSE

		Total Marks	/16
4	3	2	1
Presents ideas			
Uses the appropriate text type to present significant ideas that address the prompt clearly clear elaboration of ideas with effect description/effect/consequence/significance	Uses the appropriate text type to present ideas that address the prompt elaboration of ideas with some effect	Text type structure may not be appropriate but some attempt at organizing ideas limited elaboration of ideas	A simple text that includes some related ideas which may or not relate to the prompt
Organises ideas			
Uses paragraphing structures appropriately	Uses some paragraphing structures formatting	Begins to uses some paragraphing	Uses simple sentences where
*formatting paragraphs/ one idea or set of ideas per paragraph/ a range of sentence structures simple, compound, complex range of punctuation	paragraphs/ one idea or set of ideas per paragraph with some variety of sentence structure simple/ compound/ complex applying appropriate punctuation mostly at sentence level commas full stops, capital letters	structures formatting paragraphs/ one idea or set of ideas per paragraph without using a range of sentence structures simple/ compound/ complex where punctuation may not be appropriate	paragraphing and punctuation may not be evident
Uses language tools			
Uses some rich, precise words and/or phrases and text type language features	demonstrating control of tense most of the time		Spelling

Uses appropriate text type
language features and word
choices demonstrating control of
tense some of the time

Experiments with new,
different word
choices, and or uses
some text type
language features
which may not always
be appropriate and
control of tense may
not be evident

Uses some key words
that are generally
linked to the central
idea

**Spells all common and simple
words correctly**
**Spells difficult / complex words
with increasing accuracy**

Spells all common words
correctly
Spells most simple words
correctly
Attempts to spell more
difficult words using
recognizable letter patterns

Spells most
common words
correctly
Spells many
simple words
correctly

Spells some common
words correctly
Uses initial letters and
some known letter
patterns

*** Please note.** Formatting paragraphs **does not** mean an indentation. It means the way the ideas are structured within the paragraphs.

Appendix 12: Previous Year +Pre + Post Test Scores

Experimental Class Tests												
Writing a Narrative Text												
		Pre Test Scores						Post Test Scores				
Student No.	Previous Year Score	Presents ideas	Organises ideas	Uses language tools	Spelling	Test Score		Presents ideas	Organises ideas	Uses language tools	Spelling	Test Score
1	13	4	3	3	4	14		4	3	4	4	15
2	11	3	2	2	3	10		3	3	2	4	12
3	10	2	2	2	2	8		4	3	3	4	14
4	11	2	2	2	2	8		2	2	2	2	8
5	15	3	2	2	3	10		4	3	3	4	14
6	15	3	2	2	3	10		3	2	2	3	10
7	13	3	2	2	3	10		3	3	2	2	10
8	13	3	3	3	3	12		3	3	3	4	13
9	13	3	3	3	4	13		4	4	3	4	15
10	12	2	2	2	2	8		2	2	2	2	8
11	10	2	2	2	1	7		2	2	2	2	8
12	9	2	2	2	2	8		3	2	2	3	10
13	16	4	4	3	4	15		4	4	4	4	16
14	11	3	2	2	2	9		2	2	2	2	8
15	13	3	3	2	3	11		4	3	4	4	15
16	8	2	1	2	2	7		2	2	2	2	8
17	12	3	2	2	2	9		3	2	2	2	9
18	9	2	2	2	2	8		3	2	2	3	10
19	11	3	2	2	3	10		2	2	2	3	9
20	12	2	2	2	2	8		3	3	3	3	12
21	11	2	1	2	2	7		2	1	2	2	7
22	13	3	2	2	3	3		2	2	2	3	9
23	8	2	1	2	2	7		2	2	2	4	10
24	13	4	3	3	3	13		4	3	4	4	15
25	16	4	3	4	4	3		4	4	4	4	16

26	12	3	2	2	3	10		3	2	2	3	10
27	12	4	3	2	3	12		3	2	2	3	10
28	10	3	2	2	4	11		4	2	3	4	13
29	11	3	3	2	3	11		4	2	3	4	13
30	9	4	2	2	2	10		4	2	2	3	11
Mean	11.8	2.9	2.2	2.2	2.7	9.4		3.1	2.5	2.6	3.2	11.3
StDev	2.1	0.7	0.7	0.5	0.8	2.7		0.8	0.7	0.8	0.8	2.8
	Pre test							Post Test				
		Presents ideas	Organises ideas	Uses language tools	Spelling	Test Score		Presents ideas	Organises ideas	Uses language tools	Spelling	Test Score
N=						30						30
Mean	Expm	2.9	2.2	2.2	2.7	9.4		3.1	2.5	2.6	3.2	11.3
	Contrl	2.8	2.1	2.4	2.7	9.87		3.2	2.3	2.6	3.3	11.4
StDev	Expm	0.7	0.7	0.5	0.8	2.75		0.8	0.7	0.8	0.8	2.78
	Contrl	0.7	0.55	0.6	0.7	2.42		0.6	0.6	0.68	0.65	2.03

Control Class Tests												
Writing a Narrative Text												
		Pre Test Scores						Post Test Scores				
Student No.	Previous Year Score	Presents ideas	Organises ideas	Uses language tools	Spelling	Test Score		Presents ideas	Organises ideas	Uses language tools	Spelling	Test Score
1	11	4	2	2	2	10		3	2	2	3	10
2	10	2	1	2	2	7		3	2	2	3	10
3	12	4	2	2	3	11		4	3	3	4	14
4	12	3	3	3	4	13		3	3	3	4	13
5	10	2	2	2	2	8		3	2	3	3	11
6	9	3	2	2	2	9		3	2	2	3	10

7	11	2	2	2	2	8		3	2	2	2	9
8	14	4	2	4	3	13		4	3	4	4	15
9	13	3	2	2	3	10		4	3	3	3	13
10	9	3	2	3	3	11		3	2	3	4	12
11	13	3	2	2	2	9		3	2	3	4	12
12	12	2	2	2	2	8		2	2	2	3	9
13	16	4	4	4	4	16		4	4	4	4	16
14	9	2	2	3	4	11		4	3	3	4	14
15	12	3	2	2	3	10		3	2	2	3	10
16	12	2	2	2	3	9		4	3	3	4	14
17	15	4	3	3	4	14		4	2	4	4	14
18	9	2	1	2	2	7		2	1	2	2	7
19	12	3	3	3	3	12		3	3	2	3	11
20	11	2	2	2	2	8		3	2	2	3	10
21	13	3	2	2	2	9		3	2	2	3	10
22	11	2	2	2	2	3		3	2	3	2	10
23	13	3	2	3	3	11		4	2	2	3	11
24	12	2	2	2	3	9		3	3	2	3	11
25	11	3	2	2	2	9		3	2	2	3	10
26	13	3	2	2	2	9		3	2	2	3	10
27	9	3	2	2	3	10		4	2	2	4	12
28	10	3	2	3	3	11		3	2	3	4	12
29	11	3	2	3	3	11		3	2	3	4	12
30	9	3	2	2	3	10		3	2	2	3	10
Mean	11.5	2.8	2.1	2.4	2.7	9.9		3.2	2.3	2.6	3.3	11.4
StDev	1.8	0.7	0.5	0.6	0.7	2.4		0.6	0.6	0.7	0.7	2.0

T- Test (2-tailed) comparing pre and post test scores			
Expm Class preVs. post	T-Test		Cntrl Class preVs. Post
Cmpnts Mean	0.2448		0.292626777
Cmpnts StDev	0.1377		0.685155001
Totl Scores	0.0113		0.010035704

Appendix 13: Observations

Observation No. 1 Class Nine/5 Date 23/1/2013 Location: Com Lab

Teacher observed: Mazin Observer: Adel H.

Interaction Types observed in this class:

Face-to-face Mode	Yes/No	Online Mode	Yes/No
Student-teacher	Y	Student-student (pair)	N
Student to student (pair)	Y	Student-student (group)	N
Student to student (group)	N	Student-teacher	Y
		Student to website	Y

Notes

Face-to-face:

Teacher directed questions about the story elements and students volunteered to answer. The student-student interaction was present but at the pair-work level as students due to the computer lab seating map and that's why the group work was absent.

Students kept asking questions about how to regain their passwords and how to open the account as the school server seemed not supporting that website, www.edmodo.com

Online:

The students just responded to the guidelines the teacher set for them as they were required to respond to watching a story and do an online activity:

<http://www.learner.org/interactives/story/cinderella.html>, about the "story elements". They were engaged in that online activity as it used interesting visuals and clear voice.

Conclusion:

Students had issues with resetting passwords and opening the internet explorers. The interaction was teacher-student and student-website.

Appendix 14: Questionnaire 1 Reliability

Scale: Likert 1-5

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.812	.800	6

Item Statistics

	Mean	Std. Deviation	N
I like learning in the class as well as online.	4.23	1.040	30
Learning online and in class helps me learn English better.	4.20	1.031	30
I like the classroom activities and the online activities as well.	4.13	.860	30
English language learning should include online activities and also classroom activities.	4.17	1.020	30

I advise other learners to learn by the model that have classroom and online activities	4.20	.961	30
I like to learn English again in course that combines classroom and online activities.	4.07	1.172	30

Inter-Item Correlation Matrix

	I like learning in the class as well as online.	Learning online and in class helps me learn English better.	I like the classroom activities and the online activities as well.	English language learning should include online activities and also classroom activities.
I like learning in the class as well as online.	1.000	.727	.118	.385
Learning online and in class helps me learn English better.	.727	1.000	-.031	.656
I like the classroom activities and the online activities as well.	.118	-.031	1.000	.052
English language learning should include online activities and also classroom activities.	.385	.656	.052	1.000
I advise other learners to learn by the model that have classroom and online activities	.469	.515	.133	.492
I like to learn English again in course that combines classroom and online activities.	.524	.731	.196	.654

Inter-Item Correlation Matrix

	I advise other learners to learn by the model that have classroom and online activities	I like to learn English again in course that combines classroom and online activities.
I like learning in the class as well as online.	.469	.524
Learning online and in class helps me learn English better.	.515	.731
I like the classroom activities and the online activities as well.	.133	.196
English language learning should include online activities and also classroom activities.	.492	.654
I advise other learners to learn by the model that have classroom and online activities	1.000	.385
I like to learn English again in course that combines classroom and online activities.	.385	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
I like learning in the class as well as online.	20.77	13.357	.632	.582
Learning online and in class helps me learn English better.	20.80	12.510	.778	.773
I like the classroom activities and the online activities as well.	20.87	17.637	.120	.167
English language learning should include online activities and also classroom activities.	20.83	13.385	.645	.553

I advise other learners to learn by the model that have classroom and online activities	20.80	14.303	.552	.357
I like to learn English again in course that combines classroom and online activities.	20.93	11.995	.723	.632

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
I like learning in the class as well as online.	.769
Learning online and in class helps me learn English better.	.734
I like the classroom activities and the online activities as well.	.861
English language learning should include online activities and also classroom activities.	.766
I advise other learners to learn by the model that have classroom and online activities	.787
I like to learn English again in course that combines classroom and online activities.	.745

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.00	19.241	4.386	6

Appendix 15: Questionnaire 2 Reliability

Reliability Scale: Questionnaire 2

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.844	.851	4

Item Statistics

	Mean	Std. Deviation	N
Online activities help improve my writing.	3.90	1.062	30
Online activities help me write more.	4.00	.910	30
Online activities help me identify punctuation and spelling mistakes	4.23	.935	30
Online activities help me get more feedbacks on my writings	4.30	.794	30

Inter-Item Correlation Matrix	Online activities help improve my writing.	Online activities help me write more.	Online activities help me identify punctuation and spelling mistakes	Online activities help me get more feedbacks on my writings
Online activities help improve my writing.	1.000	.643	.406	.609
Online activities help me write more.	.643	1.000	.608	.716
Online activities help me identify punctuation and spelling mistakes	.406	.608	1.000	.552
Online activities help me get more feedbacks on my writings	.609	.716	.552	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
Online activities help improve my writing.	12.53	5.223	.634	.459
Online activities help me write more.	12.43	5.289	.791	.632
Online activities help me identify punctuation and spelling mistakes	12.20	5.890	.586	.398
Online activities help me get more feedbacks on my writings	12.13	5.913	.746	.571

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Online activities help improve my writing.	.830
Online activities help me write more.	.753
Online activities help me identify punctuation and spelling mistakes	.841
Online activities help me get more feedbacks on my writings	.782

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.43	9.426	3.070	4

Appendix 16 T-tests Reliability

Scale: Liker Scale Student Attitudes

Case Processing Summary

		N	%
Cases	Valid	5	100.0
	Excluded ^a	0	.0
	Total	5	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.949	4

Validate Data

Warnings

Some or all requested output is not displayed because all cases, variables, or data values passed the requested checks.

T-TEST PAIRS=Expm.Pre WITH Cntrl.Pre (PAIRED)/CRITERIA=CI(.9500) /MISSING=ANALYSIS.

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Expm.Pre	9.4000	30	2.74929	.50195
	Cntrl.Pre	9.8667	30	2.41737	.44135

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Expm.Pre & Cntrl.Pre	30	.486	.007

Paired Samples Test

	Paired Differences			
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
				Lower
Pair 1 Expm.Pre - Cntrl.Pre	-.46667	2.63574	.48122	-1.45087

Paired Samples Test

	Paired Differences	t	df	Sig. (2-tailed)
	95% Confidence Interval of the Difference			
	Upper			
Pair 1 Expm.Pre - Cntrl.Pre	.51753	-.970	29	.340

One way

Expm.Pre

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	120.343	9	13.371	2.705	.031
Within Groups	98.857	20	4.943		
Total	219.200	29			

T-TEST GROUPS=Calss(1 2) /MISSING=ANALYSIS /VARIABLES=Expm.Pre /CRITERIA=CI(.95).

T-Test

Group Statistics

	Calss	N	Mean	Std. Deviation	Std. Error Mean
Expm.Pre	Expm	30	9.4000	2.74929	.50195
	Cntrl	30	9.8667	2.41737	.44135

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
Expm.Pre	Equal variances assumed	.703	.405	-.698	58
	Equal variances not assumed			-.698	57.066

Independent Samples Test

		t-test for Equality of Means		
		Sig. (2-tailed)	Mean Difference	Std. Error Difference
Expm.Pre	Equal variances assumed	.488	-.46667	.66839
	Equal variances not assumed	.488	-.46667	.66839

Independent Samples Test

		t-test for Equality of Means
		95% Confidence Interval of the Difference

		Lower	Upper
Expm.Pre	Equal variances assumed	-1.80459	.87126
	Equal variances not assumed	-1.80506	.87173

T-TEST GROUPS=Calss(1 2) /MISSING=ANALYSIS /VARIABLES=PstPost /CRITERIA=CI(.95).

T-Test

Group Statistics

Calss		N	Mean	Std. Deviation	Std. Error Mean
PstPost	Expm	30	11.2667	2.77841	.50727
	Cntrl	30	11.4000	2.02740	.37015

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
PstPost	Equal variances assumed	6.406	.014	-.212	58
	Equal variances not assumed			-.212	53.061

Independent Samples Test

		t-test for Equality of Means		
		Sig. (2-tailed)	Mean Difference	Std. Error Difference
PstPost	Equal variances assumed	.833	-.13333	.62796
	Equal variances not assumed	.833	-.13333	.62796

Independent Samples Test

		t-test for Equality of Means	
		95% Confidence Interval of the Difference	
		Lower	Upper
PstPost	Equal variances assumed	-1.39033	1.12366
	Equal variances not assumed	-1.39282	1.12615

T-TEST PAIRS=ExpmPrePost WITH ExpmAttempts (PAIRED) /CRITERIA=CI(.9500) /MISSING=ANALYSIS.

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ExpmPrePost	10.3333	60	2.89750	.37407
	ExpmAttempts	1.5000	60	.50422	.06509

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	ExpmPrePost & ExpmAttempts	60	.325	.011

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	ExpmPrePost - ExpmAttempts	8.83333	2.77499	.35825	8.11648

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	ExpmprePost - ExpmpAttempts	9.55019	24.657	59	.000

T-TEST PAIRS=Expmpre WITH ExpmpPost (PAIRED) /CRITERIA=CI(.9500) /MISSING=ANALYSIS.

T-Test

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	Expmpre	9.4000	30	2.74929	.50195
	Expmpost	11.2667	30	2.77841	.50727

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Expmpre & Expmpost	30	.473	.008

Paired Samples Test

		Paired Differences			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference
					Lower
Pair 1	Expmpre - ExpmpPost	-1.86667	2.83735	.51803	-2.92615

Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	Expmpre - Expmpost	-.80718	-3.603	29	.001