

Abstract:

Innovation and development in the sector of information and communication technologies have significantly impacted the field of education by offering new possibilities for learning and teaching, particularly in English Language Teaching. Dissatisfaction with the traditional teaching of writing and with e-learning has led to the emergence of a new instructional paradigm called blended learning. This paradigm has become very popular in many foreign countries, and more specifically in the Arab world. The purpose of this study is to investigate the effectiveness of blended learning in developing the composition skills of English as Foreign Language university students in an Algerian context. For this purpose, a quasi-experiment and an evaluation questionnaire are used as data collection tools. On the basis of the results obtained, some recommendations are provided.

Key-words: Composition Skills, Writing Skill, ICTs, Web 2.0, Blended Learning, Flipped Classroom

لقد أثر الابتكار والتطوير في قطاع تكنولوجيا الإعلام والاتصال بشكل كبير على مجال التعليم من خلال توفير إمكانيات جديدة للتعلم والتعليم، خاصة في تدريس اللغة الإنجليزية. أدت نقائص التدريس التقليدي للتعبير الكتابي و كذلك التعلم الإلكتروني إلى ظهور نموذج تعليمي جديد يسمى التعلم المدمج أو المختلط. أصبح هذا النموذج شائعًا جدًا في العديد من الدول الأجنبية، و التحقق من فعالية التعلم المدمج في تطوير المهارات الإنشائية في اللغة الإنجليزية للطلبة الجامعيين الجزائريين في سياق جزائري. ولهذا الغرض، تم إستخدام شبه تجربة واستبيان تقييمي كأدوات في جمع البيانات. على أساس النتائج التي تم الحصول عليها، تمَ اقتراح بعض التوصيات.

Linda DAKHMOUCHE

Faculty of Letters and Languages Department of Foreign Languages University of Mentouri Constantine

Introduction:

Developing appropriate composition skills is one of the hardest challenges for English as Foreign Language university students. The challenge lies in coping with the complexity of skill the writing that encompasses various sub-skills that are necessary for university learners, not only for academic achievement, but also for future careers in higher education and other sectors.

© Université des Frères Mentouri Constantine1, Algérie, 2018.

ملخص:

Melouk and Merbouh (2014) explained that "understanding that the use of the English language is spreading globally, Algerian leaders and educators are working to ensure that it is included as a foreign language at all levels of education regardless of the learners' disciplines" (p.149). They further emphasized that becoming skilled and confident writers "can open up opportunities to empower learners to take on new roles as citizens within the community. It provides a powerful means as self-expression as well as a support for further learning and research" (p.149). Developing university students' composition skills requires thoughtful and sound choices, not only in terms of content, but also in terms of learners' needs and capabilities, and, more importantly, in terms of a compatible teaching method that will ensure successful instruction that would enable to achieve academic and professional success. In the digital age, pedagogy of English as a Foreign Language writing has been transformed by information and communication technologies (ICTs) giving rise to important issues such pedagogy 2.0 (McLoughlin & Lee, 2008) and digital *natives* (Prensky, 2001). Therefore, it appears that there is an urgent need to reconsider current pedagogical practices of teaching English as a Foreign Language writing for Algerian university students in the view of modern computer-assisted language learning models such as blended learning not because of a question of 'fashion trend' but rather of a question of pragmatism. The aim of this paper is to address the following question: Is blended learning an effective approach to develop the writing skills of Algerian university students?

1. Educational Technology and Technology-based Instruction

The concept of educational technology is as old as teaching itself and can be traced back to several centuries ago. However, with the growth of information technology since the mid-1940's until the late 1970's (Molnar, 1997), educational practices started to change, though not on a large scale and not considerably. It is at the beginning of the 1980's that education started to significantly change with the introduction of the first personal computer or micro computer by IBM, a better and more modern version of the mainframe computer that was used in the 1960's and 1970's. The micro computers became very popular particularly in universities because of the numerous possibilities they offered for teaching and learning through a variety of software including simulations, tutorials, games, problem-solving, and word processing (O'Neil & Perez, 2003). The next step in the evolution of education occurred with the launching of the World Wide Web at the beginning of the 1990's and of the first learning management systems like WebCT in the mid-1990's (Bates, 2014). Yet, it is undoubtedly thanks to the emergence of Web 2.0 at the beginning of the 2000's that drastic changes occurred in education giving birth to a new type of pedagogy. For almost two decades, ICTs have reshaped the notions of learning and teaching, as a natural extension of a technology-driven society. As a matter

of fact, with the accelerating development of ICTs, particularly Web 2.0 and Web 2.0 tools such as wikis, forums, and blogs, virtual platforms or learning management systems; and advanced computer software, the roles of the learners and the teachers have been transformed, making the learners more active and more aware of their abilities and goals while shifting the teachers' role from 'controllers' to 'facilitators' (El-Mowafy, Kuhn, & Snow, 2013).

With the evolution of ICTs, two major concepts, the "digital natives" and "pedagogy 2.0", have come to be closely considered. The term "digital natives" has been popularized by Marc Prensky since it was first introduced in 2001. Digital natives, also called "Net Generation" and "Millenials", are individuals who were born and have grown up in a 'digitalized' environment where the use of computers, video games, Internet, smartphones and social media has become almost an innate trait of their daily lives (Babo, Rodrigues, Lopes, Oliveira, Queirós, & Pinto, 2012). As a consequence, the digital natives have evolved into a new generation of learners who are, to varying degrees, technology savvy and multitaskers, and who have developed new learning strategies and learning styles born from their "preference for receiving information guickly and the ability to process it guickly, ... non linear access to information, a heavy reliance on ICTS for information access and communication active involvement" (Forment, Guerrero, & Poch, 2010, p.183). In describing "the digital natives", Prensky (2001) also introduced the concept of "digital immigrants", individuals who learned to use ICTs in their adulthood, and who are the teachers in this context. Accordingly, several research findings suggest that teachers and educational institutions have to adopt a more modern approach to teaching to avoid the "digital divide" that can happen between the "digital natives", the learners, and the "digital immigrants", the teachers. As Regueria and Rodriguez (2015) argued, taking into account that the current educational context has been drastically changed by ICTs and since today's learners have a strong inclination towards ICTs use, "it makes no sense to use old teaching methods with new educational materials and resources" (p.195). Therefore, with these technological changes, a new type of pedagogy called Pedagogy 2.0 (Lee & McLoughlin, 2010) has emerged and which involves "a model of learning in which students are empowered to participate, communicate, and create knowledge, exercising a high level of agency and control over the entire learning process" (Lee & McLoughlin, 2010, p.390-391). To implement "pedagogy 2.0", modern computer-assisted language learning offers several possibilities that are embodied into three models; computer supported classroom teaching, hybrid teaching (also called blended learning), and completely online course or e-learning (Yang, 2010). Among these three models, blended learning has become widely adopted in various disciplines, particularly in language learning, and has received much interest in the ELT field.

2. Learning/Teaching English as a Second/Foreign Language Composition in Higher Education in the Digital Age

Becoming a proficient writer in an academic setting is a demanding task that can cause frustration and absence of motivation in the learners if they cannot succeed to produce academically acceptable written productions. Accordingly, because academic writing is characterized by certain established norms and principles, the learners have to cope with several factors amongst which are cognitive ones which mostly contribute into making writing a highly demanding task. These cognitive factors involve the student writers into complex processes which tax their *long-term memory*, that is knowledge of a variety of topics, audiences, and writing plans (Hayes & Flower, 1980), working memory, which is "the system or systems that are assumed to be necessary in order to keep things in mind while performing complex tasks such as reasoning, comprehension and learning" (Baddeley, 2010, p.136), low-order skills such as remembering, understanding, applying; high-order skills such as analyzing, evaluating, creating (Westbrook, 2014), and the activation of *executive functioning*, which is "the conscious, purposeful, and thoughtful activation, orchestration, monitoring, evaluation, and adaptation of strategic resources, knowledge, skills, and motivational states to achieve a desired goal" (Graham, Harris, & Olinghouse, 2007, p.217). In addition to that, when writing in an English as a Foreign Language context, Arab speaking students in particular have to cope with other difficulties caused by linguistic factors, such as the contrastive differences between Arabic and English (Al Khasawnah, 2010), rhetorical factors, such as the overuse of coordination, repetition and metaphorical style. which are typical features of Arabic, in English writing (Hamzaoui Elachachi, 2015), psychological/affective factors, such as motivation and writing anxiety (Brown, 2001; Hasan, 2001), and cultural factors, which involve the interference of the Arab culture while writing in English (Hamzaoui Elachachi, 2015).

Effective teaching of writing in higher education is very important and is critical to the academic success of English as a Second/Foreign Language students; this success is mostly dependent on the students' ability to produce elaborate and correct sentence structures, to produce genuine content and to appropriately organize it, to develop a good style, to properly use cohesive devices, mechanics, and, more importantly, to effectively use rhetorical conventions. Therefore, most of the university curricula about English as a Second/Foreign Language writing involve these elements, and to teach them, instructors adopt a genre-based approach, a product-oriented approach or a process-oriented approach while some other teachers tend to be eclectic combining process, product and genre approaches altogether (Clenton, n.d.). Yet, teaching academic writing particularly in an English as a Foreign Language context can be tedious and complex as many factors influence its success such as students' learning styles (Pashler, McDaniel, Rohrer, & Bjork, 2008),

students' foreign language proficiency (Al Khasawneh, 2010), learners' needs (Jdeitawi, Noh, & Abdul Ghani, 2012), course materials, and more importantly, the methodology followed to implement it. With the limitations of the traditional teaching of English as a Foreign Language writing, particularly in Algerian classrooms which tend to adopt a "one size fits all" approach that does not account for learners' differences and individual needs and with the disadvantages of e-learning such as high cost, low or absence of teacher-student interaction, plagiarism and authenticity of online materials, the difficulty of monitoring students' completion of online activities (Keshta & Harb, 2013), blended learning as a new instructional paradigm has emerged to cater for the needs, learning styles, and learning expectations of the "digital natives" and at the same time to keep the established educational norms "safe". It appears then that blended learning is the most appropriate way to teach English as a Foreign Language writing in higher education.

3. Blended Learning in an English as a Second/Foreign Language Context

Blended learning is an instructional model that basically combines faceto-face traditional teaching and online instruction. Other labels are used to refer to blended learning such as mixed learning, hybrid learning, and blended elearning (Sen, 2011). In the literature, blended learning is defined in various ways. For instance, it is regarded as "the thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (Garrison & Kanuka, 2004, p.96). In other definitions, blended learning is described with a focus on the modes of delivery or instructional modalities such as in Singh's (2003) who viewed blended learning as "[the combination of] multiple delivery media that are designed to complement each other and promote learning and application-learned behavior" (p.52). Some other researchers consider blended learning as the combination of instructional methods, that is "the combination of multiple approaches to pedagogy or teaching, e .g. self-paced, collaborative, tutor-supported learning or traditional classroom teaching" (Trapp, 2006, p.28). Some definitions are inclusive of the aspects abovementioned as Chen (2009) stated in the following definition: "Blended learning (BL) or hybrid learning describes a learning environment that either combines teaching methods, delivery methods, media formats or a mixture of all these. It also refers to the integrated learning activities such as a mixture of online and face-to-face learning" (p.300). However, in the context of this study, blended learning will be referred to as "student learning through traditional face-to-face teaching integrating with an online learning management system (LMS)" (Sen 2011, p.107).

Blended learning is based on three learning theories: the **cognitive learning theory**, the constructivist learning theory, and the socially situated learning theory (Aleksić & Ivanović, 2013). In the cognitivist theory, learning is viewed as "knowledge acquisition as proceeding from a declarative form to a

procedural, compiled form" (Mayes & Freitas, 2004, p.8). The constructivist theory stresses that "knowledge is not conveyed directly from the teacher to the learner, but it is constructed by learners. Within this epistemology, learning is an active process in which meaning comes from experience" (Albhnsawy & Aliweh, 2016, p.131). In the socially situated learning theory, learning is viewed as a process that occurs within a social context where the learner "will always be subjected to influences from the social and cultural setting in which the learning occurs (Mayes & Freitas, 2004, p.9). Based on the abovementioned theoretical framework, blended learning principles involve (1) the integration of e-learning and typical face-to-face learning at different levels in a complementary fashion (DeGregorio-Godeo, 2006), (2) the transfer of responsibility from the instructor to the learner, transforming the teacher into a facilitator and making the student more active through problem-solving tasks and inquiry learning to become autonomous, and (3) the integration of technology to offer enough resources to sustain an effective learning environment but not replacing the teacher's efforts (Geta & Olango, 2016).

Blending learning can occur at various levels: the activity level, course level, program level, and institutional level (Bonk & Graham as cited in Alajab & Hussain, 2015). To this end, several models were suggested, and the models mostly referred to in the literature come from Staker and Horn's (2012) taxonomy of blended learning models and which are *rotation*, *flex*, *self-blend* and *enriched-virtual* as illustrated in Figure 1:



Figure 1: Taxonomy of Blended Learning Models (Staker & Horn, 2012, p.2)

Only one model, the flipped classroom, will be discussed in this paper as it served as a framework for the present study. The flipped classroom, also called the

"inverted classroom", is one of the models of blended learning that has come to be widely used in many educational disciplines, more recently in English Language Teaching. In the literature, the flipped classroom is attributed to Bergmann and Sams, two chemistry teachers at Woodland Park High School in Colorado (United States) who initiated the flipped classroom project in 2007 by starting to record videos of chemistry lectures and posting them on YouTube to help those students who missed their classes. Originally, the flipped classroom referred to "direct instruction (lecture) ... delivered at home via videos that teachers either create or curate, and that which has traditionally been done as homework is done in class" (Bergmann & Sams 2014, p.24), but its meaning has evolved and it has come to be viewed as "a learning environment" in which the learners are offered "a variety of means to study basic knowledge content as part of the pre-class-meeting homework, so teachers can use class time more effectively for hands-on activities to practice, apply and demonstrate mastery of the content learned from the pre-class requirements" (Harris, Harris, Reed, & Zelihic, 2016, p.326), as a pedagogical approach (Kurtz, 2014), and as a teaching method (Hamdan, McKnight, McKnight, & Arfstrom, 2013). The flipped classroom is based on interactivity through video use, which enables the students to spend out-of-class time studying lecture content as "homework" and to devote in-class time for active learning (Danker, 2015). It also relies on "scaffolding" by which the students receive assistance from the teacher to perform a task or comprehend a concept while being in their zone of proximal development (Ragupathi, 2014). The flipped classroom has several advantages such enhancing the students' and teachers' contact and increasing studentstudent and student-teacher interaction, a better learning experience through personalized learning, and deep learning that activates higher-order thinking skills (Danker, 2015). It also provides the teachers with the opportunity to more efficiently use classroom time to "monitor the students' progress" and to identify areas of difficulty or "knowledge gaps" particularly in an online course (Soliman, 2014). Other advantages of the flipped classroom include increasing the learners' motivation and interest, encouraging self-efficacy and selfregulation, and decreasing language learning anxiety particularly in an English as a Foreign Language context (Chilingaryana & Zvereva, 2017). In relation to writing, the flipped classroom was reported in many studies to be effective on English as a Foreign Language students' writing. For instance, Horning (2007) stressed that the flipped classroom is the best model for large classes, particularly to teach writing, explaining that in a large class, students' motivation, engagement, and written productions can severely be impacted. Ahmed (2016) argued that the flipped classroom can overcome most of the writing problems of English as a Foreign Language learners by creating a learning environment which promotes student engagement, communication, decision-making opportunities, and independent learning. In other terms, the flipped classroom

provides individualized instruction for the learners by focusing on their needs and problems (Danker, 2015). Based on these findings, the flipped classroom was used as a model to implement blended learning in this study.

4. The Study

In their second year, university students are introduced to essay writing, particularly the expository type. This study aims at testing the effectiveness of blended learning in the context of English as a Foreign Language writing, and the composition skills that are targeted in this study are related to essay writing at the sentence level, paragraph level, and discourse level. At the sentence level, Second Year LMD students are required to show a good command of grammar such as subject-verb agreement, consistency of verb tense, and sentence structure; punctuation and spelling. At the paragraph level, the students have to produce an effective topic sentence for each developmental paragraph, to use the appropriate support, to achieve unity and coherence. At the discourse level, the learners are meant to develop an arguable thesis statement, to use an appropriate type of introduction according to the selected topic, to achieve overall unity and coherence, to appropriately use a mode of essay development depending on the selected topic, and to develop a good style through appropriate word choice.

4.1. The Research Methodology

The present study aims to answer the following questions:

1. Would a combination of traditional teaching and online learning improve the students' composition skills?

2. Would students become more receptive and active in a blended learning environment?

3. Can a blended learning course of writing solve the problems of time constraints, the difficulties related to the writing process and to feedback?

In the light of these research questions, we hypothesize that if English as a Foreign Language second year students at the Department of Letters and English, University "Frères Mentouri", Constantine 1, were trained through blended learning, their composition skills would significantly improve. This hypothesis is broken down into three hypotheses as follows:

1. Blended learning would improve the students' writing skills at the sentence level.

2. Blended learning would improve the students' writing skills at the paragraph level.

3. Blended learning would improve the students' writing skills at the discourse level.

To test the abovementioned hypotheses, a quasi-experiment using a nonequivalent control group pre-test post-test design is implemented in addition to an evaluation questionnaire. Both tests of the quasi-experiment are based on the same type of achievement test used for the end-term examinations of the Written Expression module at the Department of Letters and English, University

"Frères Mentouri", Constantine 1, and which consists in writing a five-paragraph essay on a topic specified by the teacher. Instruction required the design of a blended writing course which involved the use of an online writing course hosted by Moodle (Modular Object-Oriented Dynamic Learning Environment) on the university platform. The instructional phase of the quasi-experiment lasted six weeks, from the second term of the academic year 2016-2017.

The participants of this study are 32 Second Year LMD (Licence-Master-Doctorat) students at the Department of Letters and English who were equally divided into two groups: an experimental group who was instructed through blended learning (face-to-face and online learning) and a control group who was instructed through the traditional method (face-to-face only). A *t*-test was used as a measurement tool for both the pre-test and the post-test and all computations were undertaken with the Statistical Package for Social Science (Spss) software.

The evaluation questionnaire was given to the students of the experimental group (N=16) as a complementary tool and was designed to assess both the online course and the blended learning course on the basis of the students' perceptions about their experience with blended learning.

4.2. Results of the Quasi-Experiment

The productions of the experimental group students and the control group students in both the pre-test and post-test were scored in relation to the writing skills that were targeted in this study. Therefore, a grading system that involved three levels, namely the sentence level which regrouped grammar and mechanics (punctuation, spelling, and paragraphing); the paragraph level which included the topic sentence and support, unity, and coherence; and the discourse level which involved the type of introduction used and the thesis, the conclusion (restatement of the thesis, summary of the main points, and a final comment), overall unity and coherence, and style, was used. This grading system was adapted from a scoring system developed by Yang (as cited in Liu, 2013), and which regrouped the three levels but with some differences. To analyse the results obtained from the pre-test and the post-test, a *t*-test was used.

The first step in the analysis process involved the analysis of the pre-test results. The pre-test aimed at establishing the likeness of the experimental group and the control group in relation to their writing performance by comparing the means (μ) of the two groups before the treatment (blended learning). To determine the similarity or the difference of the means of the two groups, an independent samples two-tailed *t*-test was used since no prediction was made concerning the outcome. It has to be mentioned that choosing a one-tailed or two-tailed *t*-test is an important parameter to be taken into account, and is linked to the predictions a researcher makes at the beginning of the experiment. For instance, "in a one-tailed test one predicts … that one group will score more

highly than the other, whereas in a two-tailed test one makes no such prediction" (Cohen, Manion & Morrison, 2007, p.504).

Before undertaking the computation, the *Null Hypothesis* (H_0) and the *Alternative Hypothesis* (H_1) were specified as follows:

 $H_{0:}\mu_1 = \mu_2$, that is, there is statistically no significant difference between the mean of the experimental group and the control group in the pre-test.

 $H_{1:}\mu_{1\neq}\mu_{2}$, that is, there is statistically significant difference between the mean of the experimental group and the control group in the pre-test.

With α = 0.05 and a critical value (*T*= 2.042) to accept or reject the null hypothesis, the independent-samples two-tailed *t*-test was run in Spss, and the results were summarized in Table 1 and Table 2.

Group	Ν	Mean	Std. Deviation	Std. Error Mean
Experimental	16	9.8125	2.34432	0.58608
Control	16	9.8750	2.21736	0.55434

(Std : standard)

 Table 1: Descriptive Statistics of the Experimental and Control Groups in the Pre-test

t-test for Equality of Means								
t df Sig. (2- Mean Std. Error tailed) Difference Difference								
- 30 0.939 -0.06250 0.80671								

t: *t*-value

df: degree of freedom

Sig.: level of significance

Table 2: Results of the Independent Samples t-test for the Pre-test

In Table 1, descriptive statistics for the experimental and control groups are presented. Accordingly, $\mu_1 = 9.81(\text{SD}= 2.34)$ whereas $\mu_2 = 9.87$ (SD= 2.22); a quick observation indicates that μ_1 and μ_2 do not greatly vary. However, accepting or rejecting H_0 : $\mu_1 = \mu_2$ is only determined by the *t*-value. In Table 2, t=0.077 < T = 2.042, and $p = 0.93 > \alpha = 0.05$. On this basis, the *Null* Hypothesis (H₀) is accepted, and so there is statistically no significant difference between the scores of the experimental group and the control group in the pre-test in terms of writing performance.

At the end of the instructional phase of the quasi-experiment, both the experimental group and the control group took a post-test, which aimed to establish the effectiveness or the ineffectiveness of blended learning in developing the composition skills of the experimental group participants, and for this purpose, an independent-samples two-tailed *t*-test was used. Again, both the *Null* and *Alternative* Hypotheses for the post-test are defined as follows:

 $H_{0:\mu_1=\mu_2}$ that is, there is statistically no significant difference between the scores of the experimental group and the scores of the control group in the post-test.

 $H_{1:} \mu_{1 \neq} \mu_{2}$, that is, there is statistically significant difference between the scores of the experimental group and the scores of the control group in the post-test.

To accept or reject H_0 , an alpha level $\alpha = 0.05$ was selected, with a df = 30, and T = 2.042. After the computation of the post-test results in Spss, Table 03 and Table 04 were obtained as shown below.

Group	Ν	Mean	Std. Deviation	Std. Error Mean
Experimental	16	12.0625	1.94829	0.48707
Control	16	10.4375	2.25000	0.56250

Table 3: Descriptive Statistics of the Experimental and Control Groups in
the Post-test

t-test for Equality of Means						
t df Sig. (2- Mean Std. Error Difference tailed) Difference						
2.184	30	0.037	1.62500	0.74407		

Table 4: Results of the Independent Samples t-test in the Post-test

In the post-test, as it is shown in Table 3, the experimental group obtained μ_1 = 12.06 (SD= 1.94) whereas the control group obtained μ_2 = 10.43 (SD = 2.25). Table 4 shows that p = 0.037 and t = 2.184. Therefore, as $p(0.037) \le \alpha = 0.05$ and t(2.184) > T = 2.042, $H_0: \mu_1 = \mu_2$ is rejected and $H_1: \mu_1 \neq \mu_2$ is accepted. In other words, there is statistically significant difference between the scores of the experimental group and the scores of the control group in the post-test, which means that the experimental group participants outperformed the control group students due to blended learning.

To test the three levels of the main hypothesis, that is the sentence level, the paragraph level, and the discourse level, a comparison between the results of both the pre-test and the post-test for the experimental group was undertaken. This comparison was necessary to determine which level(s) best improved due

to blended learning. To this end, a paired-samples two-tailed *t*-test was used for each level, and for the three tests, the same parameters were selected: $\alpha = 0.05$, df = 15 (for this paired *t*-test, df was calculated as follows: (N - 1) = df, since N=16, therefore, df = 15), and the critical *t*-value (*T*) =2.131 (value obtained from the *t*-table). For the paired-samples two-tailed *t*-test, the *Null* and *Alternative* Hypotheses were formulated for each level.

For the sentence level, the *Null Hypothesis* was formulated as H_0 : $\mu_1 = \mu_2$, that is, there is statistically no significant difference between the pre-test and the post-test scores of the experimental group at the sentence level. On the other hand, the *Alternative Hypothesis* was stated as H_1 : $\mu_1 \neq \mu_2$, that is, *there* is statistically significant difference between the pre-test and the post-test scores of the experimental group at the sentence level. The results of the paired samples *t*-test are summarised in Table 5 and Table 6.

Mean	N	Std. Deviation	Std. Error Mean
2.9375	16 16	0.83417 0.88917	0.20854
	2.9375 3.3438	2.9375 16 3.3438 16	N Std. Deviation 2.9375 16 0.83417 3.3438 16 0.88917

 Table 5: Comparison of the Mean Scores for the Pre-test and the Post-test

 of the Experimental Group at the Sentence Level

Test		Paired Different	ences		_	
	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2- tailed)
Pre-test Post-test	- 0.40625	0.66380	0.16595	- 2.448	15	0.027

Table 6: Results of the Paired Samples t-test of the Experimental Group for the Sentence Level

Here, a negative *t*-value (-2,448) has no particular consequence on the significance of the difference between the pre-test and the post-test results since it is considered an absolute value |-2.448|. Table 5 and Table 6 respectively show that the pre-test's $\mu_1 = 2.93$ (SD = 0.83) while the post-test's $\mu_2 = 3.34$ (SD=0.88), t = -2.448 and p = 0.02. Since $p(0.027) \le \alpha = 0.05$ and t(|-2.448|) > T = 2.131, H_0 : $\mu_1 = \mu_2$ is rejected and H_1 : $\mu_1 \neq \mu_2$ is accepted. In other terms, there is statistically a significant difference between the pre-test and the post-test scores of the experimental group at the sentence level.

For the paragraph level, the *Null Hypothesis* was enounced as H_0 : $\mu_1 = \mu_2$, that is, there is statistically no significant difference between the pre-test and

the post-test scores of the experimental group at the paragraph level. The *Alternative Hypothesis* was stated as H_1 : $\mu_1 \neq \mu_2$, that is, there is statistically significant difference between the pre-test and the post-test scores of the experimental group at the paragraph level. The results of the paired samples *t*-test at the paragraph level are displayed in Table 7 and Table 8.

Test	Mean	Ν	Std. Deviation	Std. Error Mean
Pre-test	2.9375	16	1.18145	0.29536
Post-test	3.9375	16	0.92871	0.23218

Table 7: Comparison of the Mean Scores of the Pre-test and the Post-test
of the Experimental Group at the Paragraph Level

Test	Р	aired Differen	ices		t df	
	Mean	Std. Deviation	Std. Error Mean	t		Sig. (2- tailed)
Pre-test Post-test	-1.00000	1.00000	0.25000	- 4.000	15	0.001

Table 8: Results of the Paired Samples t-test of the Experimental Group for the Paragraph Level

From Table 7, we can see that the pre-test's $\mu_1 = 2.93$ (SD =1.18) whereas the post-test's $\mu_2 = 3.93$ (SD =0.92), which indicates an enhancement of the experimental group's scores in the post-test. In Table 6, with t = -4.000 and p = 0.001, and since $p(0.001) \le 0.05$ and t(|-4.000|) > T = 2.131, H_0 : $\mu_1 = \mu_2$ is rejected and H_1 : $\mu_1 \neq \mu_2$ is accepted. In other words, there is statistically significant difference between the pre-test and the post-test scores of the experimental group at the paragraph level.

The last comparison concerns the discourse level, and both the *Null Hypothesis* and *Alternative Hypothesis* were specified as follows: $H_0: \mu_1 = \mu_2$, that is, there is statistically no significant difference between the pretest and the post-test scores of the experimental group at the discourse level. $H_1: \mu_1 \neq \mu_2$, that is, there is statistically significant difference between the pretest and the post-test scores of the experimental group at the discourse level. After running the paired-samples *t*-test in Spss, Table 9 and Table 10 were obtained:

Test	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	3.8750	16	1.07238	0.26810
Post-test	4.7813	16	0.77392	0.19348

 Table 9: Comparison of the Mean Scores of the Pre-test and the Post-test of the Experimental Group at the Discourse Level

Test	P	aired Differen	ices		16	G: (2
	Mean	Std. Deviation	Std. Error Mean	t	aı	sig. (2- tailed)
Pre-test Post-test	-0.90625	0.68845	0.17211	- 5.265	15	0.000

Table 10: Results of the Paired Samples *t*-test of the Experimental Group for the Discourse Level

The results of the paired-samples *t*-test, as shown in Table 9, indicate that the pre-test's $\mu_1 = 3.87$ (SD = 1.07) while the post-test's $\mu_2 = 4.78$ (SD = 0.77). It can be inferred that the experimental group students progressed in the post-test, and this is confirmed by the results shown in Table 10 where t = -5.265 and p = 0.000. On account of $p(0.000) \le 0.05$ and t(|-5.265|) > T = 2.131, H_0 : $\mu_1 = \mu_2$ is rejected, which implies that there is statistically a significant difference between the pre-test and the post-test scores of the experimental group at the discourse level.

4.3. Results of the Evaluation Questionnaire

After completing the quasi-experiment, an evaluation questionnaire was designed to investigate the opinions of the students of the experimental group (N=16) about the blended writing course in which they participated. The questionnaire involved 35 questions about the online course on Moodle, a learning management system, and the blended learning writing course.

Concerning the online course on Moodle, all the students agreed about its effectiveness, describing it as friendly-user in terms of organization and content presentation. In addition to that, the students reported that they highly benefited from Web 2.0 tools such as chat, e-mail, online grammar and spelling checkers, and YouTube videos, and that evolving in a virtual learning environment positively affected their motivation and reduced their anxiety. However, the Web 2.0 tools that the students found the most difficult to use are

wikis and forums. The students also reported that Moodle greatly enhanced their interaction with the instructor thanks to the synchronous (chat) and asynchronous (e-mail) tools. Concerning the blended writing course, the majority of the students explained that the workload was rather reasonable and that the online work and classroom work were complementary. They also stated that blended learning helped them to have a better command of the stages of the writing process (planning, drafting, revising, and editing) and that, in addition to that, the students developed other skills after completing the blended writing course as shown in Figure 2.



Figure 2: New Developed Skills through Blended Learning

In the "computing skills" category, the students included the ability to use a learning management system and word processing to write outlines and drafts. In the "listening/speaking development" category, the students noticed an improvement in the use of more formal language, a decrease in anxiety while speaking and better listening abilities during classroom interaction. For the "critical thinking" category, the students reported that they became more concerned about what they wrote by having a "more critical eye", which in turn helped them to be "more logical in writing". For the "more developed writing skills" category, the students mentioned that, from a general perspective, their writing abilities significantly improved as they referred for example to the ability of writing appropriate types of introduction in relation to a specific topic. In the category "other", some students mentioned the skill of turn-taking during discussions and the development of some personal "tricks" for writing. All the students emphasized that they were highly satisfied with the blended writing course as they discovered that blended learning is an effective method that provides a better learning experience by reducing the workload in the classroom, some part of which was transferred on a virtual learning environment and by making learning more flexible since the students were able to adapt it to their

personal pace, which in turn reduced anxiety and increased motivation. In addition to that, blended learning was described as the best method for learning/teaching writing as it enhances the student-teacher interaction, caters for the students' needs and makes learning meaningful.

4.4. Overall Analysis of the Results of the Study

This quasi-experiment proved that blended learning (the combination of face-to-face and online learning) significantly improved the composition skills of the students of the experimental group in comparison to the students of the control group who were instructed through the traditional method (face-to-face learning only). This study adds to a list of other studies which investigated the positive impact of blended learning on English as a Second/Foreign Language students' writing such as Adas and Bakir (2013), Ghahari and Ameri-Golestan (2013), Keshta and Harb (2013), Liu (2013), Challob, Abu Bakar, and Latif, (2016). This study particularly focused on several writing skills, and the comparison of the pre-test and the post-test scores of the experimental group also proved that blended learning is an effective method to develop the composition skills of Second Year LMD university students at the sentence level (Papandreou 2016), the paragraph level (Adas & Bakir, 2013) and the discourse level (Sulisworo, Rahayu, & Akhsan, 2016). Though the three writing levels improved, it appears that the sentence level improved less than the other two levels. This could be related to the short duration of the experiment where the students had less time for editing than the other stages of the writing process.

The effectiveness of blended learning can be attributed to various reasons. First, virtual learning environments such as Moodle are very advantageous as they offer the instructor the possibility to create a dynamic learning environment governed by variety and flexibility (Lien, 2015). The various tools available on Moodle such as SCORM (Shareable Content Object Reference Model) packages for course content presentation, forum, chat, quiz, and resources (files and URL) enable the learners to adapt the learning process to their learning styles, learning preferences, and language proficiency level. This in turn increases the students' interest and motivation, and can lead in the long term for a better retention of the presented content. Second, blended learning enables the teachers to optimize the classroom time by partly transferring the workload of the classroom sessions online (for instance on Moodle). This way, the students were provided with more opportunities to practice their writing skill during face-to-face sessions and to interact with the peers and the instructor. Tackling new concepts about writing online through SCORM packages and reinforcing them through chat sessions (involving both the peers and the instructor) greatly enhanced the students' learning experience. In other terms, "integrating online and face-to-face learning with blending learning can optimize seat time and improve learning experience" (Yigit, Koyun, Yuksel, & Kankaya, 2014, p.807). Time optimization also enables the learners

to fully practice the writing process moving from prewriting and drafting to revising and editing. It is worth mentioning that the most difficult step in writing essays is prewriting, particularly in the classroom. At this stage, the student writers have to gather enough information about the topic they have to develop, and this raw material has to be refined to come up with an arguable thesis and appropriate arguments and examples for support. Yet, when the learners lack knowledge about a given topic and about the appropriate techniques to gather information about it, frustration and low motivation can occur. Blended learning intervenes in this case by giving the learners sufficient time to explore the writing process (Challob et al. 2016). Third, blended learning increases the rate of the provided feedback thanks to the combination of two delivery modes, face-toface and online, which provides the students with more opportunities to receive feedback from the instructor and from the peers than through face-to-face only. Vernadakis, Giannousi, Derri, and Michalopoulos (2012) argued that traditional teaching is a restricted environment which creates constraints for face-to-face instruction such as "the limited one-to-one teacher-student interaction, the delayed feedback that is given to the students and the limitations in visual aids and materials that the instructor can use in the class session" (Vernadakis et al. 2012, p.439). Last, blended learning is effective in improving English as a Second/Foreign Language students' writing as it decreases the students' writing anxiety. This method mitigates the effects of L2 writing anxiety, "a general avoidance of writing and of situations perceived by the individuals to potentially require some amount of writing accompanied by the potential for evaluation of that writing" (Hasan, 2001, p.4), and this is partly due to the use of learning management systems (like Moodle) for writing instruction which ensure more interaction with the L2 through traditional instruction (Bailey, Lee, Vorst, & Crosthwaite, 2017).

For complementary information about the present study, an evaluation questionnaire was administered to the students' of the experimental group to know about their experience with Moodle and with blended learning. The first part of the questionnaire focused on the participants' impressions about the online course. All the participants reported that the online writing course was very useful as it offered flexible learning thanks to the effective course organization, the online tasks, the variety of online resources, and the availability of the instructor through the synchronous and asynchronous tools (chat and email). However, the students mentioned that the wikis and the forums were difficult to use, and so they were more attracted by the online course's chat rooms. Concerning the participants' interaction with their peers and instructor online, the students explained that they felt confident during synchronous exchanges which can be explained by the expansion of social media like Facebook and Twitter which have gained much popularity amongst the digital natives. Including a chat room in the online course was considered by the

students as a novelty since they have never imagined using a chat program in an academic context, which made them discover new horizons about learning. They learned how to take part in an academic discussion, how to respond to the peers and the instructor using academic English, and how to collaborate with both the peers and the instructor to solve problems. On the whole, online interaction was characterised by confidence and ease of communication particularly with the instructor who, according to the students, played a central role in the online course. The second part of the questionnaire focused on the students' assessment of the blended writing course which was described by the students as effective in many aspects. First, the workload of the course was reasonable since the online sessions and the classroom sessions were complementary in the sense that doing what is supposed to be done in the classroom as "homework" online had the advantage to provide them with more time to practice writing. Second, having more time for classroom work increased the rate of participation of the students in various writing tasks particularly during brainstorming and provided the students with more opportunities to practice the stages of the writing process making them experience its recursiveness by applying various planning techniques such as outlining and clustering, and using revision and editing checklists. All this resulted in raising the students' awareness about their writing and developing their critical thinking skills. In turn, the students' writing productions increased partly thanks to the improvement of their planning skills particularly in writing the essay's thesis and outline. Third, because of the increase of classroom time, more contact with the instructor was possible as she could focus on every student to provide feedback and discuss problems related to the writing process, shifting her roles depending on the situation. At the end of the evaluation questionnaire, all the participants recommended blended learning for teaching writing for several reasons as illustrated in Figure 3.



Figure 3: Reasons for Recommending Blended Learning 4.5. Recommendations

On the basis of the results obtained from this study, some recommendations were made. First, blended learning is more an approach than a method since it incorporates theoretical principles of cognitivism, constructivism, and social situated learning, a variety of methods such as the flipped classroom, and techniques such as the use of learning management systems to create virtual learning environments. Therefore, implementation of this approach requires careful consideration of the abovementioned aspects. Second, the flipped classroom appears to be the most appropriate method for teaching composition to university students particularly in an EFL context since it offers several advantages that can cater for the limitations of traditional teaching. However, choosing the right blend is context-dependent in the sense that what works for a particular group of students might not work for another one. In other terms, the flipped classroom might not work with all students. Third, technology could never replace the teacher, and so keeping a good percentage of face-to-face interaction with the teacher is necessary and beneficial. Finally, appropriate training in ICTs for education would be favorable for teacher staff if they are to develop effective blended learning courses, for it is a task that requires technical expertise as well as good management skills.

Conclusion

The question about teaching composition no more concerns whether to adopt a process-oriented approach, a genre-based approach or any other approach; rather, it is a question of rethinking writing pedagogy in terms of who the 21st century students are and how we, the teachers, are supposed to instruct them. Denying the fact that ICTs, particularly Web 2.0, have invaded the educational field for almost two decades and that they are already firmly established in today's teaching practices would only mean denying our students the chance to experience the new possibilities that these technologies have to offer. It would also mean denying our students the right to access high-quality instruction that could make them achieve better success and develop better skills to access higher positions in the workplace. This study revealed that blended learning is an effective approach to develop the composition skills of English as a Foreign Language Algerian university students, and that its advantages outweigh its disadvantages. Yet, some caution should be observed if blended learning is to be adopted in higher education as a new paradigm to teach not only writing but probably other English Language Teaching subjects. Indeed, successful instruction is partly achieved thanks to wise teachers who adapt not adopt.

References

(1) - Adas, D., & Bakir, A. (2013). Writing difficulties and new solutions: Blended learning as an approach to improve writing abilities. *International Journal of Humanities and Social Science*, Vol. 3 (9), 254-266.

(2) - Ahmed, M. A. (2016). The effect of a flipping classroom on writing skill in English as a foreign language and students' attitude towards flipping. *US-China Foreign Language*, *Vol.14* (2), 98-114. doi:10.17265/1539-8080/2016.02.003

(3) - Al Khasawneh, F. M. (2010). Writing for academic purposes: Poblems faced by Arab posgraduate students of the College of Business, UMM. *ESP World*, *Vol.9* (Issue 2-28), 1-23. Retrieved from: *www.esp-world.info/Articles_28/WRITING.pdf*

(4) - Alajab, A. M., & Hussain, A. M. (2015). The impact of a blended learning course on Khartoum University students. *American International Journal of Social Science*, *Vol.4* (2), 132-158. Retrieved from: *www.aijssnet.com/journals/Vol_4_No_2_April_2015/13.pdf*

(5) - Albhnsawy, A. A., & Aliweh, A. M. (2016). Enhancing student teachers' teaching skills through a blended learning approach. *International Journal of Higher Education*, 5 (3), 131-136. doi:10.5430/ijhe.v5n3p131

(6) - Aleksić, V., & Ivanović, M. (2013). Blended learning in tertiary education: A case study. *Sun SITE Central Europe*, *1036*, 96-103.

(7) - Babo, R., Rodrigues, A. C., Lopes, C. T., de Oliveira, P. C., Queirós, R., & Pinto, M. (2012). Differences in Internet and LMS usage: A case study in higher

education. In R. Babo, & A. Azevedo (Eds.), *Higher Education Institutions and Learning Management Systems: Adoption and Standardization* (pp. 247-270). Hershey, PA: Information Science Reference.

(8) - Baddeley, A. (2010). Working memory. *Current Biology*, 20 (4), 136-140. doi:10.1016/j.cub.2009.12.014

(9) - Bailey, D. R., Lee, A. R., Vorst, T. C., & Crosthwaite, P. (2017). An Investigation of Differences and Changes in L2 Writing Anxiety between Blended and Conventional English Language Learning Context. *CALL-EJ*, *18* (1), 22-39. doi: 10.15702/mall.2018.21.1.11

(10) - Bates, T. (2014, December 10). *A short history of educational technology*. Retrieved November 2016, from www.tonybates.ca: https://www.tonybates.ca/2014/12/10/a-short-history-of-educational-technology/

(11) - Bergmann, J., & Sams, A. (2014). The flipped classroom. *CSE* , *17* (3), 24-27. Retrieved from:

https://www.acsi.org/Documents/Professional%20Development/CSE17.3%20-%20Bergmann%20-%20The%20Flipped%20Classroom.pdf

(12) - Brown, H. D. (2001). *Principles of Language Learning and Teaching*. White Plains, NY: Longman.

(13) - Challob, A. I., Abu Bakar, N., & Latif, H. (2016). Collaborative blended learning writing environment: Effects on EFL students' writing apprehension and writing performance. *English Language Teaching*, *9* (6), 229-241.

(14) - Chen, W. (2009). A study of using blended learning in teaching and learning modern educational technology. In F. L. Wang, J. Fong, L. Zhang, & V. S. Lee (Ed.), *Hybrid Learning and Education. ICHL 2009. Lecture Notes in Computer Science. vol* 5685, pp. 299-308. Berlin, Heidelberg: Springer.

(15) - Chilingaryana, K., & Zverevab, E. (2017). Methodology of flipped classroom as a learning technology in foreign language teaching. *Social and Behavioral Sciences*, 237, 1500 – 1504. doi: 10.1016/j.sbspro.2017.02.236

(16) - Clenton, J. (n.d.). *Academic Writing: towards an integrated approach?* Retrieved from http://www.sussex.ac.uk/languagedocument

(17) -Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education* (6th ed.). New York, NY, USA: Routledge.

(18) - Danker, B. (2015). Using flipped classroom approach to explore deep learning in large classrooms. *The IAFOR Journal of Education*, *III* (I), 171-186. Retrieved from: https://eric.ed.gov/?id=EJ1100618

(19) - DeGregorio-Godeo, E. (2006). Resource centres, ICTS and self-access. *Mélanges CRAPEL*, N°28, 123-133.

(20) - El-Mowafy, A., Kuhn, M., & Snow, T. (2013). A blended learning approach in higher education: A case study from surveying education. *In Design, develop, evaluate: The Core of the learning environment.Proceedings of the*

22nd Annual Teaching Learning Forum, 7-8 February 2013. Perth: Murdoch University.

(21) - Forment, M. A., Guerrero, M. J., & Poch, P. J. (2010). Towards mobile learning applications integration with learning management systems. In T. T. Goh (Ed.), *Multiplatform e-Learning systems and technologies: Mobile devices for ubiquitous ICT-based education* (pp. 182-194). Hershey, PA: Information Science Reference.

(22) - Garrison, A. D., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *Internet and Higher Education*, *7*, 95-105. Retrieved from: https://doi.org/10.1016/j.iheduc.2004.02.001

(23) - Geta, M., & Olango, M. (2016). The impact of blended learning in developing students' writing skills: Hawassa University in focus. *African Educational Research Journal*, *Vol.* 4 (2), 49-68. Retrived from: http://www.netjournals.org/z_AERJ_16_022.html

(24) - Ghahari, S., & Ameri-Golestan, A. (2013). The effect of blended learning vs. classroom learning techniques on Iranian EFL learners' writing. *International Journal of Foreign Language Teaching & Research*, *1* (3), 1-9.

(25) - Graham, S., Harris, K. R., & Olinghouse, N. (2007). Addressing executive function problems in writing. In L. Meltzer (Ed.), *Executive function in education: from theory to practice* (pp. 216-236). New York, NY: The Guilford Press.

(26) - Hamdan, N., McKnight, P., McKnight, K., & Arfstrom, K. (2013). *A review of flipped learning*. Retrieved January 2016, from https://flippedlearning.org/wp-content/uploads/2016/07/

(27) - Hamzaoui Elachachi, H. (2015). Exploring cultural barriers in EFL Arab learners' writing. *Social and Behavioral Sciences*, *199*, 129-136.

(28) - Harris, B. F., Harris, J., Reed, L., & Zehilic, M. (2016). Flipped classroom: Another tool for your pedagogy tool box. *Developments in Business Simulation and Experiential Learning*, 43, 325-333. Retrieved from: https://journals.tdl.org/absel/index.php/absel/article/download/3061/3010

(29) - Hasan, B. A. (2001). The relationship of writing apprehension and selfesteem to the writing quality and quantity of EFL university students. Mansoura University, College of Education, Pamietta, Egypt.

(30) - Hayes, J. R., & Flower, L. S. (1980). Identifying the organization of writing processes. In L. Gregg, & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 3-30). Hillsdale, NJ: Lawrence Erlbaum.

(31) - Horning, A. (2007). The definitive article on class size. *WPA: Writing Program Administration*, *31* (1-2), 11-34. Retrieved from: https://www.classsizematters.org/wp-content/uploads/2012/11/31n1-2horning.pdf

(32) - Jdeitawi, F. T., Noh, M. A., & Abdul Ghani, K. (2012). The relationship between self-esteem and learning reading and writing in sixth graders in the Hashemite Kingdom of Jordan. *International Journal of West Asian Studies*, 4 (2), 93-113. Retrieved from: http://ejournal.ukm.my/ijwas/article/view/14570 (22) Kashta A. S., & Hash, J. L. (2012). The effectiveness of a blanded learning

(33) - Keshta, A. S., & Harb, I. I. (2013). The effectiveness of a blended learning program on. *Education Journal*, *Vol.2* (6), 208-221.

(34) - Kurtz, G. (2014). The flipped classroom approach: The answer to future learning? *European Journal of Open, Distance and e-Learning*, *17*(2), 172-182. Retrieved from: https://doi.org/10.2478/eurodl-2014-0027

(35) - Lee, M. J., & McLoughlin, C. (2010). Applying Web 2.0 tools in hybrid learning designs. In F. L. Wang, J. Fong, & R. C. Kwan (Eds.), *Handbook of research on hybrid learning models: Advanced tools, technologies, and applications* (pp. 371-392). Hershey, PA: Information Science Reference.

(36) - Lien, C. T. (2015, August 13-15). Enhancing writing skills for second-year English majors through a Moodle-based blended writing course: An action research at Hue University of Foreign Languages. *Paper presented at the 6th International Conference on TESOL on Responding to Challenges of Teaching English for Communication*.

(37) - Liu, M. (March 2013). Blended learning in a university EFL writing course: Description and evaluation. *Journal of Language Teaching and Research*, *Vol. 4* (2), 301-309. doi:10.4304/jltr.4.2.301-309

(38) - Mayes, T., & Freitas, S. (2004). Review of e-learning theories, frameworks and models. *JISC e-learning models desk study* (1), 1-43. Retrieved from: https://curve.coventry.ac.uk/open/items/8ff033fc-e97d-4cb8-aed3-20he7015a6h0/1/Beview+of+a learning+theories add

29be7915e6b0/1/Review+of+e-learning+theories.pdf

(39) - McLoughlin, C., & Lee, M. J. (2008). The three P's of pedagogy for the networked society: Personalization, participation, and productivity. *International Journal of Teaching and Learning in Higher Education*, 20 (1), 10-27. Retrieved from: https://eric.ed.gov/?id=EJ895221

(40) - Melouk, M., & Merbouh, Z. (2014). EFL writing hindrances and challenges: The case of second year students of English at Djillali Liabes. *Journal of Educational and Social Research*, 4 (3), 149-156. Doi:10.5901/jesr.2014.v4n3p149

(41) - Molnar, A. (1997, January 06). Computers in education: A brief history. Retrieved May 2013, from thejournal.com: https://thejournal.com/articles/1997/06/01/computers-in-education-a-briefhistory.aspx

(42) - O'Neil, H. F., & Perez, R. S. (2003). Technology applications ineducation: A learning view. Mahwah, NJ: LAWRENCE ERLBAUM ASSOCIATES, PUBLISHERS.

(43) - Papandreou, M. Z. (2016). Supporting Academic Writing Skills through Blended Learning. *ITBE Link* . Retrieved from: https://www.itbe.org/v_newsletters/article_65971793.htm.

(44) - Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles: Concepts and evidence. *Psychological Science in the Public Interest*, 9 (3), 105-119.

(45) - Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*. Retrieved from: https://www.marcprensky.com/writing/Prensky%20-%20Digital%20Inmigrants%20-%20Part1.pdf.

(46) - Ragupathi, K. (2014). Virtually Vygotsky: Using technology to scaffold student learning: By Adrian Lee. *Technology in Pedagogy*, 20, 1-9. Retrieved from: http://www.cdtl.nus.edu.sg/technology-in-pedagogy/articles/Technology-in-Pedagogy-20.pdf.

(47) - Regueria, N. R., & Rodríguez, J. R. (2015). The digital textbook underanalysis: A case study. In Z. Sikorova, M. Horsley, T. B. Garcia, & J. R. Rodríguez (Ed.), *The Thirteenth international conference on research on textbooks and educational media* (pp. 186-198). Ostrava – Czech Republic: LARTEM.

(48) - Sen, T. K. (2011). Application of blended and traditional class teaching approach in higher education and the student learning experience. *International Journal of Innovation, Management and Technology*, *Vol.* 2 (2), 107-109.

(49) - Singh, H. (2003). Building effective blended learning programs. *Educational Technology*, *Vol.43* (6), 51-54. Retrieved from: http://asianvu.com/digital-library/elearning/blended-learning-by_Singh.pdf

(50) - Soliman, N. A. (2014). Using e-Learning to develop EFL students' language skills and activate their independent learning. *Creative Education*, *Vol.5*, 752-757. Retrieved from: http://www.scirp.org/journal/ce

Staker, H., & Horn, M. B. (2012). *Classifying K–12 Blended Learning*. Innosight Instite. Retrieved from: https://www.christenseninstitute.org/wp-content/uploads/2013/04/Classifying-K-12-blended-learning.pdf

(51) - Sulisworo, D., Rahayu, T., & Akhsan, R. N. (2016). The students' academic writing skill after implementing blended learning using Facebook. *Information Technologies and Learning Tools*, *56* (6), 176-191. Retrieved from: https://journal.iitta.gov.ua/index.php/itlt/article/view/1477

(52) - Trapp, S. (2006). Blended learning concepts – a short overview. In E. Tomadaki, & P. Scott (Ed.), *Innovative approaches for learning and knowledge sharing: Proceedings of the First European Conference on Technology Enhanced Learning, EC-TEL*, (pp. 28-35). Crete.

(53) - Vernadakis, N., Giannousi, M., Derri, V., & Michalopoulos, M. (2012). The impact of blended and traditional instruction in students' performance. *Technology*, 1, 439 – 443.

(54) - Westbroook, C. (2014, May 07). Using Bloom's Taxonomy to teach critical thinking in Unlock. Retrieved February 2018, from cambridge.org: http://www.cambridge.org/elt/blog/2014/05/07/using-blooms-taxonomy-teach-critical-thinking-unlock/

(55) - Yang, Y. (2010). Computer-assisted Foreign Language Teaching: Theory and practice. *Journal of Language Teaching and Research*, *1* (6), 909-912.

(56) - Yigit, T., Koyun, A., Yuksel, A. S., & Cankaya, I. A. (2014). Evaluation of blended learning approach in computer engineering education. *Social and Behavioral Sciences*, *141*, 807-812. Retrieved from: https://doi.org/10.1016/j.sbspro.2014.05.140