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| **RESEARCH ARTICLE**

The Impact of Blended Learning on Moroccan Common Core Students' Mastery of Verb Tenses: A Quasi-Experimental Design

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| **ABSTRACT**

This study examines the impact of blended learning on Moroccan Common Core students' mastery of verb tenses, specifically simple present and present continuous. A quasi-experimental mixed-methods study was conducted with 69 students divided into an experimental group (blended learning via WhatsApp) and a control group (traditional instruction). Pre- and post-tests measured grammar proficiency, and thematic analysis of focus group interviews captured students' perceptions. The experimental group showed significant improvement (M = 3.03, p < 0.001), highlighting blended learning's effectiveness in grammar instruction. Qualitative results indicated increased engagement, motivation, and autonomy, but challenges such as unequal internet access emerged. This study contributes empirical evidence supporting blended learning as a practical EFL pedagogical strategy, particularly in under-resourced contexts. It offers recommendations for policymakers and educators to enhance its effectiveness through teacher training and infrastructure improvements.

1. Introduction

Today, English has become the international language of communication all over the world. Being an international lingua franca, English has been used in different fields including "international trade, diplomacy, mass entertainment, international telecommunications and scientific publications as well as publishing newspapers and other books." (Rao, P. S. 2019: 66). Therefore, English has been an essential subject in the field of education in many countries including Morocco. In this regard, many reforms took place in Morocco in the past years regarding the teaching methodology and designing syllabi (El Karfa, 2019).

The first reform that took place within the Moroccan education system was the National Charter for Education and Training in 1999 whose main objective was to promote learners' centeredness. (Nakkam, 2022: 22). In other words, the reform was an endeavor to make the learner more active and autonomous as opposed to the passive role in the traditional teacher-centered approach. However, later on, it was found that the main objective of this reform was not fulfilled. Hence, a second reform took place which was the Strategic Vision of Reform 2015-2030.

In addition to advocating students' centeredness and learners' active learning, the Strategic Vision emphasized developing students' problem solving and critical thinking skills. Moreover, the strategic vision highlights the importance of integrating Information and Communication Technology in education. Similarly, the official pedagogical guidelines in Moroccan secondary

schools state that developing effective communication competencies such as listening to others, understanding and responding to them are among their main objectives.

In addition to teaching the four skills, another crucial language component is grammar. According to these guidelines, "grammar is crucial to the teaching and learning of ESL/ EFL. Learners are often convinced that learning grammar is of value to them, and therefore expect it to be an essential component of their textbooks and language courses" (2007:34). However, Moroccan students still struggle with grammar learning as Hajji and Kim (2019: 330) claimed, "Moroccan students still have grammatical problems which make them unable to communicate effectively in English language; although they learn English for their third year in junior school." Among the factors behind this struggle in grammar, according to Hajji and Kim, is the way lessons are presented which result in students feeling bored. (p.330). Also, the same two researchers maintain that having a lack of speaking practice is another hindering barrier resulting in students not being able to produce the target language accurately.

Therefore, this study investigates the use of blended learning as an innovative pedagogy that might offer students with more opportunities to interact with their teacher, peers as well as experiment more with the language structure. In particular, the present study investigates the impact of blended learning on Moroccan high school students' performance in grammar. Also, it attempts to identify students' perceived benefits and impacts of blended learning. In order to accomplish this objective, this study tries to answer two main research questions:

1. To what extent does blended learning affect students' grammatical competence?
2. What are students' perceived impacts of blended learning?

2. Literature Review
2.1 Definition of blended learning
The concept 'blended learning' was first developed in the field of business and particularly in corporate training. (Sharma and Barett, 2007). After that, it was employed in higher education and language teaching and learning in particular. When it comes to define the term blended learning, it is essential to define the parts that constitute the term which are online learning and face-to-face learning. Online learning represents a type of education in which the content of courses is delivered through the Internet. (Watson and Kalmon, 2005). According to these researchers, the courses can be synchronous or asynchronous in the sense that the instructors and students might make a discussion of the main course live or the students might do certain assignments and then discuss with their instructors on a chosen virtual platform.

The term blended learning has been defined differently by different researchers. In a general basis, blended learning stands for any educational setting that tends to blend both face-to-face teaching and online instruction. (Graham, 2013). Other researchers, Dziuban et al. (2016) defined blended learning as a "fluid process that integrates media-facilitated technology with face-to-face classroom activities, in which a portion of the face-to-face learning is replaced by online activities." As it can be noticed from this definition, Dziuban et al. (2016) did not specify the extent to which each model should be executed. Instead, they mentioned that a certain portion goes to online learning. This entails that the majority of time is dedicated to the traditional face-to-face instruction whereas online instruction is given little part.

Therefore, researchers came up with some variations of blended learning according to the extent to which they rely on online learning. These variations, according to Staker (2011) are six: face-to-face driver, rotation, flex, online lab, self-blended, and online driver. The researcher classified them in this specific order according to how much they use online learning. In this regard, face-to-face driver is the least dependent on online learning and online driver is the one that has a great portion of online learning.

2.2 Blended Learning in EFL classrooms
This section is devoted to reviewing the research studies that were conducted on the issue of blended learning in relation to EFL classrooms.

2.2.1. Advantages of Blended Learning
Studies emphasize the multifaceted benefits of blended learning in EFL settings. For instance, Zhang and Zou (2020: 47) highlighted that BL fosters multiliteracies by encouraging students to engage with diverse semiotic resources such as videos, texts, and online forums. This approach enhances critical thinking, cultural awareness, and communicative competence. Similarly, Wu (2024) found that Chinese university students reported significant improvements in language skills, learner autonomy, and engagement through a precision-teaching-based blended learning model. (p.15).

Moreover, blended learning provides students with flexible learning opportunities, enabling them to manage their pace and revisit instructional materials as needed. Studies like Tao et al. (2024) have shown that such flexibility results in improved proficiency in foundational language skills, including listening, reading, and writing. (p.12).

2.2.2. Challenges in Implementation
Despite its benefits, BL presents certain challenges. Mohamed (2022) noted that students often struggle with the lack of non-verbal cues and the "warmth" of face-to-face interactions during online sessions. (p. 101). Additionally, technical difficulties and the lack of digital literacy among some learners can hinder the effectiveness of blended learning. Similarly, Rahim (2019) identified disparities in access to technological resources as a barrier to equitable participation in BL environments. (p. 1168).

2.2.3 Impact on Language Proficiency
The impact of BL on EFL learners' proficiency has been widely studied. For example, research by Zhang and Zou (2020) revealed that BL significantly improves learners' ability to integrate linguistic, visual, and multimodal inputs, thereby fostering advanced language comprehension and production. Tao et al. (2024) corroborated these findings, demonstrating that learners in BL settings outperformed those in traditional classrooms in grammar and vocabulary acquisition.

2.2.4. Implications for EFL Pedagogy
The reviewed literature underscores the necessity of strategic course design to maximize the benefits of blended learning. Incorporating frameworks like the Community of Inquiry (CoI), which emphasizes cognitive, social, and teaching presences, has proven effective in enhancing interaction and engagement. Furthermore, educators are encouraged to balance online and offline components to suit learners' diverse needs and skill levels.

2.3 Blended Learning and Grammar Instruction
Blended learning has emerged as a promising approach to teaching grammar, integrating traditional classroom methods with online tools to enhance student engagement and mastery of grammatical concepts. This approach leverages the strengths of both synchronous and asynchronous learning modalities, making it particularly effective in contexts where flexibility and individualized support are critical.

2.3.1. Effective Models for Grammar Teaching
Safwan et al. (2023) demonstrated the success of the ICARE model in teaching Basic English Grammar to first-semester students in an Indonesian university. This structured model integrates five stages: Introduction, Connection, Application, Reflection, and Extension. By blending in-class activities with digital tools like Moodle, the study showed significant improvements in students' grammar proficiency. Students moved from an average mid-test score of 67.36% to a final test score of 75.49%, highlighting the model's effectiveness. (p.855).

Similarly, Elhamuye (2024: 30) reviewed the impact of blended learning approaches on ESL/EFL education, emphasizing the importance of balancing in-person and online components. Tools such as gamified tasks and mobile apps provided interactive and adaptive grammar exercises, helping learners improve accuracy and usage.

2.3.2. Challenges in Blended Grammar Instruction
Despite these successes, blended learning in grammar instruction faces several challenges. According to Mulenga and Shilongo (2025), issues such as technological accessibility, digital literacy, and the need for teacher training often hinder effective implementation. Additionally, students accustomed to traditional teaching methods may initially struggle with the autonomy required in blended environments. (pp.9-10).

The reviewed studies suggest that the success of blended grammar instruction depends on thoughtful course design, robust technological infrastructure, and continuous support for both students and teachers. Incorporating both synchronous (live discussions and feedback) and asynchronous (self-paced grammar drills) components ensures comprehensive learning experiences. Moreover, integrating gamified activities and adaptive learning technologies has proven to enhance engagement and retention.

Within the Moroccan context, one of the few studies that investigated the impact the flipped classroom, as a type of blended learning, on Moroccan high school students' grammatical competence is that of Nakkam (2022). Through this study, Nakkam tried to determine the effect of the flipped classroom as an innovative pedagogy on students' grammatical competence using a

mixed-methods approach. In this respect, he had a control group that was taught using computer-assisted activities, and an experimental group that was instructed using FC methodology.

Data were collected from the results of the post-test as well as interviews with some students from the experimental group to have their perceptions towards the flipped classroom experience. The results showed a difference in students' scores in favor of the experimental group. However, "the independent T-test indicated that the post-test scores were not statistically significant." (Nakkam, 2022:30).

2.4 The significance of the study

The existing literature indicates a scarcity of research on blended learning in Moroccan secondary education. (Nakkam, 2022: 23). The majority of research studies are done in higher education, which makes this study significant to implement. Also, the previous study done on the impact of the flipped classroom on students' grammatical competence was not given enough time while implementing it as Nakkam (2022) said, "the duration of treatment, for the flipping pedagogy was used just once. More time is needed to get a reliable evaluation of this pedagogy." (30). Therefore, this study addresses this issue by allocating enough time for implementing blended learning to reach reliable results.

3. Methodology

This study used a mixed-methods approach during the research process due to the several advantages it has. According to Johnson and Onwuegbuzie (2004), the mixed-methods approach is a "research in which the investigator collects and analyzes data, integrates the finding and draws inferences, using both quantitative and qualitative approaches or methods in a single style or program of inquiry." One of the advantages of adopting a mixed-methods approach is the "holistic understanding of the topic understudy." (Nakkam, 2022: 25). Collecting data quantitatively and qualitatively allows researchers to have in depth understanding of the topic being investigated. Another advantage is that it enables researchers to answer some questions which cannot be answered quantitatively or qualitatively. (Creswell & Clark, 2018).

3.1 Research Design

This study used a pre-posttest quasi-experimental design to investigate the impact of blended learning instruction on common core students' achievement in simple present and present continuous verb tenses. These tests were followed-up with focus group semi-structured interviews to gain more in depth data about the issue being conducted.

3.2 Participants

69 Common Core students were involved in this study (27 males and 42 females) who study at Imam El Ghazali High School in Sidi Bennour, a small growing city between El Jadida and Marakesh. The first group consisted of 35 students (12 males and 23 females) whereas the second group consisted of 34 students (15 males and 19 females). These two groups follow a scientific stream where they study the scientific subjects (Physics, Math...etc.) in French, and they are assumed to have a pre-intermediate level of English. It is also worth noting that the coefficient of English in Moroccan secondary education is lower compared to scientific subjects like Mathematics and Physics. However, "a proportion of learners excel in English because it is the language they encounter in their daily use of technological gadgets while playing video games or using social networking sites." (Nakkam, 2022: 26). Table 1 below displays the participants' information:

Table 1: Profile of Research Participants

Total Participants	69 students
Gender	27 males
	42 females
Groups	Experimental: 35 (12 males, 23 females)
	Control: 34 (15 males, 19 females)
Educational Background	Common Core scientific stream
English proficiency	Pre-intermediate

3.3 The procedure

This study adopted a blended learning mode of instruction for the experimental group while the control group was taught using traditional face-to-face instruction. Students in the experimental group were taught simple present and present continuous in the classroom using an OHE (Observation Hypothesize Experiment) teaching framework following the Official Guidelines for the teaching of grammar in secondary education. (p.33). Students in the experimental group were presented with the target

language within a dialogue or text, and they had to work out the rules from the examples found in the observed dialogue or text.

After that, students in the experimental group were given some practice exercises where they have to make hypotheses about the target language without the intervention of the teacher researcher. Right after making hypotheses, at this stage, students are aware of how the target language works, and thus they were asked to produce examples using the target language (simple present and present continuous). Right after the session ends, the teacher sends the experimental group extra materials about simple present and present continuous including videos of natives explaining the two tenses, extra practices as well as quizzes via a WhatsApp group.

The WhatsApp group was used due to the fact that not all students have access to the internet, yet a great proportion of them have access to platforms like WhatsApp. The choice of this social media platform was due to its accessibility to students as "of the beginning of 2024, WhatsApp was the most popular mobile messenger app worldwide." (Statista, 2024). This ensures most, if not all, students in the experimental group would have access to the online materials .Also, Tang & Hew (2017) claim that WhatsApp makes it easy to form groups for private communication. (As cited in Gazaymeh, 2017: 2).The WhatsApp group was not only used to share materials with students in the experimental group but also to interact with them and answer any possible questions they might have.

On the other hand, the control group was instructed via face-to-face mode of teaching similar to the way the experimental group was taught in the classroom following the OHE teaching framework. Students in the control group had different types of practices including controlled, contrastive as well as free exercises along with the teacher's feedback. It is also worth mentioning that the control group, just like the experimental group, did the practices individually, in pairs as well as in groups, which means that the control group students interacted with their peers in the classroom just as the experimental group did in the face-to-face mode of instruction. Therefore, the only difference between the two groups is the extra online part which the experimental group experienced over the control group.

Both groups had the same amount of face-to-face instruction in the sense that the intervention took place within a week. During this time, the two groups had three sessions (1 hour per session). The first face-to-face session for both groups was devoted to exposing students to the simple present rules and uses along with variant exercises. During the second session, students were introduced to present continuous following the same pattern done in the first session. Finally, the last session was devoted to contrastive exercises where students had to fill in the gaps with verbs in simple present or present continuous as well as producing sentences in which they implemented both tenses. The only difference was the implementation of WhatsApp for the experimental group. The study made sure the content of the face-to-face lessons were consistent across both groups.

3.4 Data Collection Methods
To assess the impact of the blended learning on students' performance in the two verb tenses, this study used both quantitative and qualitative methods.

3.4.1 Quantitative Data
Before the intervention, both groups were administered a pre-test in order to assess their knowledge of simple present and present continuous tenses since both groups were introduced to these two forms in their previous middle school year. The pre-test consisted of 20 multiple-choice questions since "the grading system in Morocco is based on a 20-point scale." (Nakkam, 2022, p. 27). Each question was graded 1 point. The questions in the pre-test took into consideration the Official Guidelines for the Teaching of English in Moroccan Secondary Education. When it comes to evaluation, there are certain recommendations that need to be taken into consideration when evaluating students. According to the official guidelines (2007: 69), these considerations include:

1. Relate language testing to language testing and language use.
2. Design tests so as to encourage and enable test-takers to perform at their highest level.
3. Build considerations of fairness into test design.
4. Humanize the testing process; seek ways to involve test-takers more directly into the testing process; treat test-takers as responsible individuals; provide them with as complete information about the entire testing procedure as possible.
5. Demand accountability for language use; hold yourself, as well as any others who use you test, accountable for the way your test is used.
6. Recognize that the decisions based on test scored are fraught with dilemmas, and there are no universal answers to these.

3.4.1.1 Parallel Forms Reliability in Test Design

This study used parallel reliability to ensure consistency and equivalence between the pre-test and the post-test which were used to measure students' grammatical competence in terms of grammar tenses. In other words, parallel reliability test was employed to assess the extent to which the two versions of the test tend to measure the same constructs, resulting to comparable results not influenced by differences in the test format or content.

To do this, a pilot study was conducted with all the 69 students chosen in this research. Both the pre-test and the post-test contained 20 multiple-choice questions, carefully designed taking into consideration the Official Guidelines for the Teaching of English in Moroccan Secondary Education. Each item in both tests was evaluated for equivalence in difficulty and construct measurement, ensuring alignment with the research objectives.

A Pearson correlation analysis was implemented using the scores from 69 students to evaluate the parallel reliability of the pre-test and the post-test given that "*Data obtained from a sample smaller than 30 may give an inaccurate estimate of the degree of relationship.*" (Fraenkel & Wallen, 2009, p.338) . The results of this Pearson's test are displayed in Table 2 below:

Table 2: Parallel Reliability between Pre-Test and Post-Test

		Pre-Test Scores	Post-Test Scores
Pre-Test Scores	Pearson Correlation	1	.702**
	Sig. (2-tailed)		.000
	N	69	69
Post-Test Scores	Pearson Correlation	.702**	1
	Sig. (2-tailed)	.000	
	N	69	69

The results showed a strong positive correlation of r = 0.702 (p < 0.001), indicating a significant relationship between the two test forms given that a correlation coefficient of **r = 0.7 or higher** is considered acceptable. (Fraenkel & Wallen, 2009, p.208). This means that the pre-test and post-test are consistent and reliable in measuring the same construct, which is students' grammatical competence (simple present and present continuous). This statistical significance of (p < 0.001) further supports the validity of the test forms, as the observed correlation is unlikely to have occurred by chance. These results confirm that the pre-test and post-test are robust tools for evaluating changes in students' mastery of verb tenses over the one-week course of study.

3.4.2   Qualitative Data

The study used a semi-structured focus group interview with some randomly selected students from the experimental group to have their perceptions of the blended learning mode of instruction as well as the main challenges they encountered during this intervention. The questions were based on Graham (2006) study.

3.4.3   Validity and Reliability

To ensure consistency of the questions, the researcher administered the pre-test as a pilot study to 30 students. The responses received from the students were entered to Cronbach's Alpha to test the extent to which the questions were consistent and whether they were meant to test the same construct. According to Bujang et al. (2018: 85), "Cronbach's alpha is a measure of the internal consistency or reliability between several items, measurements or ratings." This means that this tool measures how reliable the responses of the pre-test were. To ensure a high level of internal consistency, "testing the hypothesis with CAo larger than zero, such as Cao = 0.5 is recommended." (Ibid). Therefore, this study assumed the Cronbach's alpha coefficient to be 0.5 in the null hypothesis and thus aimed at achieving 0.7 coefficient as stated by Nunnaly (1978) "given that the reliability coefficient considered "acceptable" in social science research is .70"(As cited in Benzehaf et al, 2023: 125). Table 3 below shows Cronbach's Alpha analysis of the pre-test:

Table 3: Cronbach's Alpha of the Pre-test

	Number of Items	Alpha Value
Grammatical Competence (simple present and present continuous)	20	.738

The result of the reliability analysis above shows that the internal consistency of the pre-test questions is 0.73, which is acceptable in research. (Ibid). To ensure internal validity of the content of the pre-test, the questions were reviewed by two

teacher researchers working in the same directorate. After the treatment, both groups were given a post-test to be able to measure the extent to which blended learning instruction contributed to the development of the students' mastery of the two verb tenses.

4. Data Analysis

Data collected through the pre-test and post-test were entered to SPSS to get descriptive and inferential statistics. The descriptive statistics in the form of means and standard deviations provided an overall view of students' performance in simple present and present continuous tenses.

The pre-test scores were compared and analyzed across the experimental group and the control group to determine their equivalence before implementing blended learning. Also, to determine the extent to which blended learning affect students' grammatical competence, an independent samples t-test was used to compare the mean scores of both the experimental group and the control group. This test enabled us to measure any significant differences in the post-test scores of both groups.

Qualitative data obtained through the semi-structured focus groups were analyzed using thematic analysis. It is "a method for identifying, analyzing, and interpreting patterns of meaning ('themes') within qualitative data."(Clarke & Braun, 2017, p.297). Following this method, certain themes and patterns were identified from the participants' testimonials in a flexible way. In this respect, thematic analysis is known for its flexibility of identifying and reporting common themes shared between all participants. (Ibid)

5. Results

5.1 Pre-Test Scores

The pre-test scores of the experimental group and the control group were analyzed and compared before the blended learning intervention to see the participants' overall grammatical competence. Table 4 below presents the pre-test descriptive statistics.

Table 4: Pre-Test Performance: Experimental vs. Control Groups

Group (1= Experimental, 2= Control)		N	Mean	Std. Deviation	Std. Error Mean
Pre-Test Scores	Experimental	35	6.9143	2.89392	.48916
	Control	34	7.4706	3.07714	.52773

An independent samples t-test was used to check if both groups were equivalent in terms of their grammatical competence in simple present and present continuous before the intervention, and Table 5 below displays the results of the t-test.

Table 5: T-Test Results for Group Equivalence in Pre-Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Pre-Test Scores	Equal variances assumed	.069	.793	-.774	67	.442	-.55630	.71892	-1.99127	.87866
	Equal variances not assumed			-.773	66.454	.442	-.55630	.71957	-1.99278	.88017

The results of the t-test revealed that there were no significant differences between the two groups in the pre-test scores, t(67) = -0.774, p = 0.442 with the experimental group (M= 6.91, SD= 2.89) scoring slightly lower than the control group (M= 7.47, SD= 3.07). Therefore, the two groups were equivalent in terms of their grammatical competence (simple present and present continuous) before the intervention.

5.2 Post-Test Scores

The post-test scores were uploaded to SPSS and the results are displayed in Table 6 below:

Table 6: Post-Test Performance: Experimental vs. Control Groups

Group (1= Experimental, 2= Control)		N	Minimum	Maximum	Mean	Std. Deviation
Experimental	Post-Test Scores	35	3.00	15.00	9.9429	2.85887
	Group (1= Experimental, 2= Control)	35	1.00	1.00	1.0000	.00000
	Valid N (listwise)	35				
Control	Post-Test Scores	34	1.00	15.00	8.1176	3.17914
	Group (1= Experimental, 2= Control)	34	2.00	2.00	2.0000	.00000
	Valid N (listwise)	34				

Table 6 shows that the experimental group scored an average of **1.83 points higher** than the control group on the post-test. To check if the scores were significantly different across the two groups in the post-test, an independent samples t-test was implemented, and the results are shown in Table 7 below:

Table 7: T-Test Results for Post-Test Scores between Experimental and Control Groups

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Post-Test Scores	Equal variances assumed	.462	.499	2.509	67	.015	1.82521	.72741	.37329	3.27713
	Equal variances not assumed			2.505	65.800	.015	1.82521	.72855	.37054	3.27988

The experimental group scored significantly higher than the control group, t(67)=2.509,p=0.015, with a mean difference of 1.83 points. These results indicate blended learning had a significant positive impact on students' grammatical competence.

5.3 Pre-Test Vs. Post-Test

To check the participants' performance across the experimental and the control groups moving from the pre-test to the post-test, a Paired Samples T-Test was used using SPSS. The results of the experimental group are shown in Table 8 below:

Table 8: Paired Samples T-Test for the Experimental Group

		Paired Differences								Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df		
					Lower	Upper				
Pair 1	Pre-Test Scores - Post-Test Scores	-3.02857	2.44331	.41299	-3.86788	-2.18927	-7.333	34		.000

The results of the Paired T-Test show that there was a substantial improvement of the experimental group from the pre-test (M=6.91, SD= 2.89) to the post test (M= 9.94, SD = 2.86), t(34)=)=−7.33,p<0.001. The mean difference was -3.03 (SD = 2.44), leading to a large effect size of (d= 1.23) following Cohen's d formula (d= Mean difference/standard deviation of the difference), and thus indicating a significant improvement of the experimental groups' grammatical competence

The Paired T-Test was also used for the control group to check the extent to which traditional instruction had an impact on the participants' grammatical performance, and the results are displayed in Table 9 below:

Table 9: Paired Samples T-Test for the Control Group

| | Paired Differences | | | | | | | |
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
				Lower	Upper			
Pair 1 Pre-Test Scores - Post-Test Scores	-.64706	1.55471	.26663	-1.18952	-.10460	-2.427	33	.021

The results of the paired t-test showed a significant improvement on the part of the control group from the pre-test (M = 7.47, SD = 3.07) to the post-test (M = 8.11, SD = 3.17), t(33)=−2.43, p=0.021. The main difference was -0.65 (SD = 1.55), with a small effect size of (d= 0.41), suggesting a limited improvement in the control's group grammatical competence attributed to the traditional face-to-face instruction.

5.4 Focus Group Interviews

In an attempt to complement the quantitative findings, qualitative data were collected through semi-structured interviews with some participants from the experimental group to obtain their perceived benefits of the blended learning intervention. Following Braun and Clarke's framework, data were analyzed using thematic analysis, and the participants' testimonials revealed five main themes: active engagement, perceived improvement in grammar, motivation and autonomy, blended learning as a complementary mode to traditional teaching, and accessibility and digital challenges.

5.4.1 Active Engagement

Through the interview, the participants emphasized the role of the blended learning mode of instruction in enhancing their interaction and engagement while being exposed to the grammar components. Using WhatsApp discussions allowed the participants to interact not only with their peers, but also with their teacher providing more opportunities for meaningful practice as stated by one participant, "Using WhatsApp allowed me to interact with more of my classmates which I haven't talked to in the classroom."

5.4.2 Perceived Improvement in Grammar

Some participants reported a great understanding of simple present and present continuous due to the combination of face-to-face and online instruction as a participant said, "watching videos shared on WhatsApp helped grasp the teacher's explanation we had in the class, and doing more exercises made understand the difference between simple present and present continuous."

5.4.3 Motivation and Autonomy

The flexible aspect of the blended learning mode allowed the participants to learn at their own pace, and thus feel more motivated to learn and engage with the content they are presented to. In this regard, a participant stated, "I liked the idea of studying grammar at home whenever I wanted and take my time to understand the lesson and repeat the video until I got the points there." Another student said, "I feel motivated to learn because I am more responsible now and I have to read the materials to understand...otherwise, I will fail."

5.4.4 Blended Learning as a Complement to Traditional Teaching

Some of the participants considered the combination of face-to-face and online learning to be complementary in the sense that students are presented with the basics in the classroom such as the rules and uses while the online part allowed them to do more practices, leading to a great extent of understanding. In this respect, a student mentioned, "I really feel that the materials I read on WhatsApp and the videos I watched there helped me understand the lesson more and the rules and uses even better by doing the exercises and looking at the solutions."

5.4.5 Accessibility and Digital Challenges

While the majority of the participants perceived blended learning to have positive impacts on their learning, some of them pointed out some challenges they faced with the online part of the blended mode of instruction. These challenges revolved mainly around technical issues related to poor internet connection while trying to use WhatsApp in online learning while others reported their inability to balance between housework and online learning. A student stated, "I don't live in Sidi Bennour, so I faced serious problems using WhatsApp. I had to go to a coffee shop far away from home to use their Wi-Fi service." Another

female participant claimed, *"I have to help my mother doing the housework, so I found it difficult to find time to read all the materials we received from our teacher."*

All in all, thematic analysis revealed that the participants in the experimental group perceived blended learning to be an effective complement to traditional teaching improving students' engagement, fostered students' understanding of grammar, raised their motivation and sense of responsibility. However, the participants highlighted the need for infrastructural and instructional support to maximize the effectiveness of blended learning.

6. Discussion

This study was an attempt to investigate the impact of blended learning on Moroccan Common Core students' mastery of simple present and present continuous tenses, alongside identifying their perceptions of the blended learning intervention.

6.1 The Impact of Blended Learning on Grammatical Competence

The findings showed that the experimental groups significantly outperformed the control groups in the post-test. The mean of this improvement in the experimental group (M= 3.03, p<0.001) and its large effect size (Cohen's d = 1.23) clearly demonstrate the effectiveness of the blended learning intervention in enhancing students' grammatical competence. This result is further illustrated in Figure 1 below, which highlights the higher median score and narrower variability in the experimental group compared to the control group.

Figure 1: Post-Test Score Distribution of Experimental and Control Groups
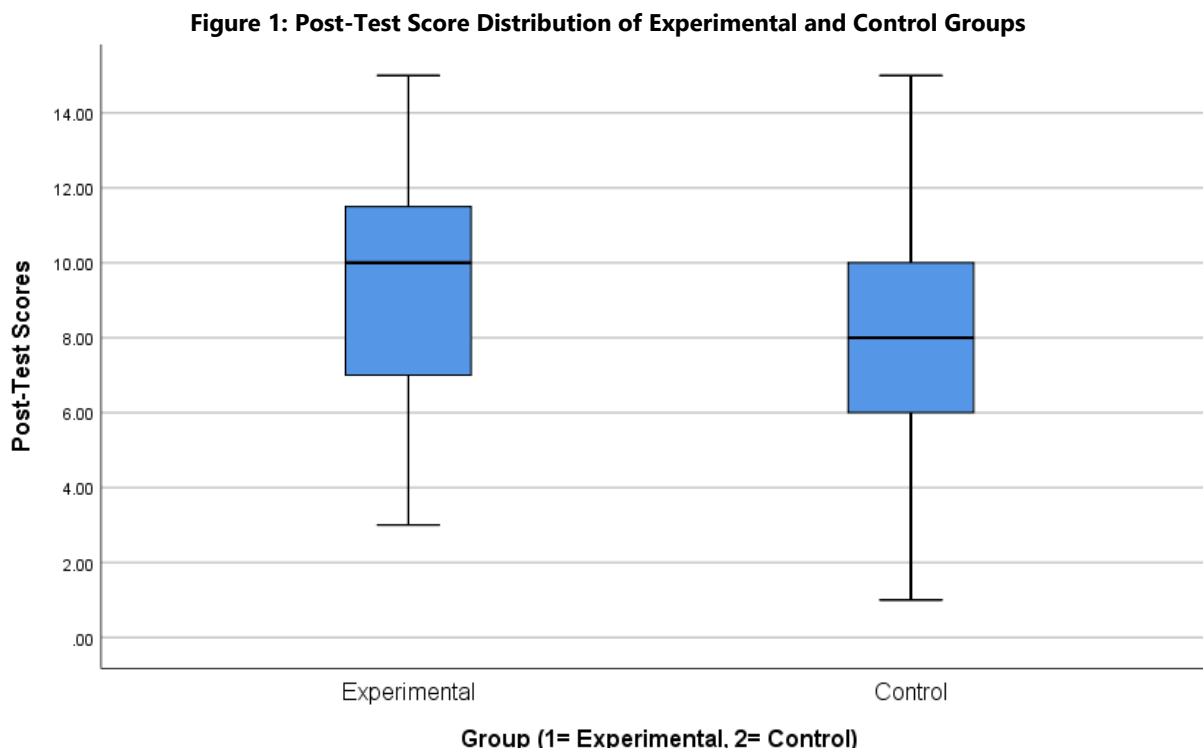
The boxplot illustrates that students in the experimental group not only performed an overall higher score but also showed a consistent performance, as shown by the narrower interquartile range. This consistency in students' performance underscores the structured nature of blended learning, which combines both face-to-face with online practices that act as reinforcements to provide students with the required opportunities for practice. Conversely, the control group exhibited wider variability and lower median scores, leading to limited consistence in students' grammatical performance.

These results are consistent with studies in the literature addressing blended learning and its impact on grammar competence. One of these studies is Adas and Bakir (2013) where the two researchers found that blended learning improved not only students' grammatical competence but also their writing mechanics. Students *"improved significantly their writings using a topic sentence, improved their spelling and grammar, used the punctuation marks and capitalization better than in the pre-test, and developed better coherent paragraphs."* (p.263).

Similarly, Ellis (2006) found out that form-focused instruction, which is a feature of blended learning, enhances students' grammatical accuracy by means of allowing them to practice the target language repeatedly in meaningful contexts. (p.102). However, not all studies in the literature have reported positive effect of blended learning on students' performance. For example, Nakkam (2022) pointed out that while Flipped Classroom developed students' interaction and engagement, its impact on grammar limited. This limitation "is probably attributed to the duration of treatment, for the flipping pedagogy was used just once. More time is needed to get a reliable evaluation of this pedagogy." (Nakkam, 2022, p. 30). This discrepancy suggests that sustained implementation of blended learning, as in this study, may be critical for blended learning to achieve noticeable results in students' grammar mastery.

The control group's modest performance moving from the pre-test to the post-test (M = 0.65; p = 0.021) aligns with some studies in the literature such as Harrity (2012) which found out that "traditional grammar instruction focused on memorization and isolate drills is not effective at helping students learn grammar and improve their writing skills." (p. 25).

6.2 Students' Perceptions of Blended Learning
The qualitative findings collected through focus groups provide further insights into students' experiences with the blended learning intervention, highlighting both its benefits and challenges.

6.2.1 Enhanced Engagement
Students in the experimental group expressed that blended learning made grammar lessons more interactive and engaging, with tools like WhatsApp, videos, and quizzes fostering active participation. This aligns with the findings of Sun and Rueda (2012) who maintained that "the use of online activities and tools such as multimedia and discussion boards may be important ways to increase student engagement in an online learning environment" (p.202).

6.2.2 Perceived Improvement in Grammar
Students in the experimental group reported a significant improvement in their grammar understanding of verb tenses due to the integration of in-class instruction and online learning. In this respect, Geta and Olango (2016) found out that "blended learning instruction showed that the students improved their organization, grammar and structure, content, vocabulary, and spelling.." (p. 59).

6.2.3 Motivation and Autonomy
The flexible nature of blended learning motivated students to take responsibility of their own learning by means of going through the shared materials at their own pace as claimed by Geta and Olango (2016) who said, "BL stimulated students to move towards independent practice of English writing instead of depending on direct instruction." (p.59). Similarly, Islam et al (2018) found out that blended learning positively affected students' motivation in that "there is a significant increase of students' motivation and achievement as a result of the blended learning model." (p.1). Therefore, education stakeholders should consider supporting the integration of blended learning by means of "rendering adequate knowledge, skills and training to the teachers." (Osman & Hamzah, 2020, p. 1489).

6.2.4 Accessibility and Digital Challenges
Despite the several benefits mentioned in the previous sections, blended learning was yet criticized by some of the experimental group students due to several reasons. The main mentioned obstacle to blended learning was related to digital infrastructure. Students, particularly in rural areas, reported challenging issues related to the poor internet connectivity, resulting in lack of access to the materials shared through WhatsApp like videos, quizzes and reading materials. This aligns with Kintu et al. (2017) who pointed out to the idea that while trying to implement blended learning in the teaching practices, universities should consider "installation of learning management systems along with strong internet to enable effective learning through technology especially in the developing world." (p. 18)

7. Conclusion
The findings of this study demonstrated that the implementation of blended learning significantly enhances Moroccan Common Core students' mastery of verb tenses, particularly simple present and present continuous tenses. The use of both in-class and online components provided learners with ample opportunities to engage with the material, practice autonomously, and receive tailored feedback.

The experimental group's statistically significant improvement compared to the control group underscores the effectiveness of blended learning as a pedagogical strategy in EFL classrooms. Furthermore, qualitative data revealed students' positive

perceptions of the blended approach, highlighting its ability to foster motivation, engagement, and autonomy. However, challenges related to digital access and infrastructure, particularly in rural areas, need to be addressed to maximize its potential.

8. Implications for Teaching Practices

This study offers several practical implications for educators and policymakers:

1. **Teacher Training**: Instructors should receive specialized training on designing and implementing blended learning activities, focusing on integrating synchronous and asynchronous components effectively.
2. **Infrastructure Development**: Investments in technological infrastructure, such as stable internet connectivity and access to digital tools, are essential to ensure equitable learning opportunities.
3. **Curriculum Design**: Blended learning can be incorporated into existing EFL curricula by balancing online resources with face-to-face activities, ensuring comprehensive skill development.

9. Limitations of the Study

While this study provided valuable insights, several limitations must be acknowledged:

1. **Sample Size**: The study was conducted with a relatively small sample of 69 students, which may limit the generalizability of the findings.
2. **Duration of Intervention**: The one-week intervention period may not fully capture the long-term effects of blended learning on grammatical competence.
3. **Focus on Verb Tenses**: The study focused only on simple present and present continuous tenses, limiting its applicability to other grammatical structures.

10. Recommendations for Future Research

Future studies should explore the following avenues:

1. **Longitudinal Studies**: Conduct extended interventions to assess the long-term impacts of blended learning on grammatical competence.
2. **Diverse Grammar Structures**: Investigate the effectiveness of blended learning in teaching a broader range of grammatical topics.
3. **Cross-Regional Comparisons**: Examine the impact of blended learning in different educational and socio-economic contexts to identify regional variations in its effectiveness.

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Ethics Approval Statement: This study was conducted in accordance with the principles outlined in the **Belmont Report** and the **Declaration of Helsinki**. The research involved minimal risk to participants and was limited to standard educational practices within the classroom. As such, **"Imam El Ghazali High School"** determined that formal ethics approval was **not required**. However, informed consent from parents and student assent were obtained before participation, ensuring voluntary engagement and confidentiality of all data.

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