

# **Integrating Elluminate Webconferences in EFL Grammar Instruction**

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## **Abstract**

*Two groups of college students majoring in translation participated in the study. They were enrolled in an English grammar course. The control group received face-to-face in-class grammar practice; whereas the experimental group received synchronous online practice using Elluminate Live, a web-conferencing software associated with Blackboard LMS. Results of the posttest showed significant differences between the experimental and control groups in grammar mastery, in favor of the Elluminate grammar practice sessions. Students who participated in those sessions developed positive attitudes towards web-conferencing and grammar practice as well.*

**Keywords:** *Elluminate, Elluminate Live, Blackboard LMS, web-conferencing, web-conferencing software, online instruction, grammar instruction, EFL students.*

## **1. Introduction**

A variety of technologies have been integrated in the teaching and learning of grammar in foreign and second language learning environments, such as: Explicit, implicit, and exploratory grammar teaching approaches that use word processing packages, electronic dictionaries and grammars, the World Wide Web, concordances, electronic mail, computer games/simulations, and authoring aids were combined to overcome the "grammar deficit" seen in many British undergraduate students learning German (Hall, 1998). Collaborative projects between L1 and L2 students to produce a web magazine containing articles written collaboratively (Matas and Birch, 1999; Matas and Birch, 2000); an online course with Nicenet LMS (Al-Jarf, 2005); iWRITE, an Internet Writing Resource for intermediate nonnative speakers of English containing a collection of learner texts (Hegelheimer and Fisher, 2006); a web-based concordancing program that helps students appropriately choose reporting verbs based on lexical, syntactic, and rhetorical criteria (Bloch, 2009); a Moodle-based virtual learning environment with wikis for collaboration and blogs for reflective learning (Stickler and Hampel, 2010); an interactive whiteboard (Schmid and Whyte, 2012); a website with strategies for learning specific grammar forms and strategies consistent with the students' style preferences (Cohen, Pinilla-Herrera, Thompson and Witzig, 2011); an online discussion forum to aid and support the learning of French grammar by beginners and false beginners (Bissoonauth-Bedford and Stace, 2012); web-conferencing in a distance learning module (Kear, Chetwynd, Williams and Donelan, 2012) and others.

A review of the language teaching and learning literature has shown numerous studies that investigated the impact of technology on the acquisition of grammatical structures in some foreign languages such as Arabic, Spanish, and French. For example, at Al-Balqa University in Jordan, Arrabtah and Nusour (2012) found a statistically significant difference between the experimental and control groups in favor of the experimental group that used CD-ROM, computers, and the Internet in learning Arabic language grammar. In another study, a computer-assisted language learning (CALL) software containing user-behavior tracking technologies, promoted the abilities of Spanish learners in generating indirect speech (Collentine, 2000). In a third study, learners of Spanish generally benefited from use of a website with strategies for learning and applying Spanish grammar, suggesting its potential for

supporting learners in remembering and correctly using various grammatical forms that were previously problematic for them. The website consisted of strategies for learning specific grammar forms and strategies consistent with the students' style preferences and which could be applied to various grammatical forms. The websites focused on strategizing learning and using Spanish grammar rather than providing a compendium of Spanish grammar rules (Cohen, Pinilla-Herrera, Thompson and Witzig, 2011). In learning French grammar, undergraduate students with beginner and false beginner levels participated in an online discussion forum that was created to help them learn and to encourage them to take an active role in French language learning through interaction with peers. Results revealed examples of peer exchanges that occurred outside class hours. Those included reflection and independent language learning awareness (Bissoonauth-Bedford and Stace, 2012).

Likewise, numerous studies in the literature investigated the impact of technology on the acquisition of grammar by EFL/ESL students and revealed some factors that affect its effectiveness. For example, in a study by Felix (2001), the majority of students preferred to use the web as a supplement to face-to-face instruction and found it useful. Very few significant findings relating to strategy strength were revealed. Significant differences for age and gender were found relating to clarity of objectives, delivery mode, degree of comfort, amount of time spent, and use of graphics. Freshman and sophomore students in Taiwan showed significantly positive attitudes toward educational technology use in EFL instruction (Chen, 2004). Al-Jarf (2005) found that the integration of an online course in grammar instruction proved to be effective in enhancing freshman students' acquisition of English grammatical structures. WEBGRAM, a system that provides supplementary web-based grammar revision material, had a positive effect on elementary-level English language students' attitudes, as it uses audio-visual aids to enrich the contextual presentation of grammar. The students enjoyed using the revision material, as they could revise the target grammatical structures using interactive exercises such as drag-and-drop combo-box, and gap-filling exercises (Baturay, Daloglu and Yildirim, 2010).

Moreover, AbuSeileek (2009) found that the computer-based learning method was functional for teaching complex grammatical structures, such as complex and compound-complex sentences and that those complex structures need to be taught through the deductive approach. Neither the inductive, nor the deductive technique was found to be more practical in teaching simple and compound sentences. Similarly, use of a multimedia instructional grammar program in English as a Second Language, in which grammar was taught in the context of USA history and geography proved to be beneficial for students with low prior knowledge of passive voice, intermediate general vocabulary level, and adequate knowledge of basic geography and history (Koehler, Thompson and Phye, 2011).

On the contrary, students in Jarvis and Szymczyk's study (2010), who spent some time working in a language resource center with web- and paper-based materials, generally preferred working with paper-based materials. Most of the websites used in the study included a small amount of grammar. Very few websites met educational principles (Beaudoin, 2004).

Furthermore, results of several studies highlighted factors that affect the effective integration of technology in grammar teaching and learning such as the need for structure and adaptability to different learning styles and the distinction between exploratory and pre-established modes, and the scaffolding of concepts (Beaudoin, 2004). Hegelheimer and Fisher's (2006) findings highlighted the need for explicit grammar instruction, the use of

learner texts and online interactivity. Tutors, who used web-conferencing in Kear, Chetwynd, Williams and Donelan's (2012) study, experienced challenges in creating social presence and in managing cognitive load when dealing with multiple tasks online. There were also technical obstacles to improvisation in response to students' emerging needs. A need for prior preparation, real-time improvisation, training, practice and sample teaching resources was revealed by the surveys as well.

Although, thousands of students and instructors around the world are using technology in teaching L1 and L2 language skills, the effect of using web-conferencing software such as Eluminate, AnyMeeting and WebEx in teaching grammar to learners of Arabic, Spanish, German, French and/or English as a foreign language, was not investigated by prior research. As in many developing countries, use of web-conferencing software in EFL instruction in some higher education institutions in Saudi Arabia is not widely used yet, due to lack of internet connectivity in some college classrooms, lack of trained instructors in web-conferencing, lack of administrative support and acceptance by the students.

Since 2007, every instructor at King Saud University (KSU) has an account with Blackboard LMS for every course he/she is teaching. Students enrolled in each course are automatically registered in a corresponding Blackboard course. Instructors and students have access to the following Blackboard tools: *Announcements, Blogs, Contacts, Course Calendar, Course Gallery, Discussion Board, Elluminate Live! Glossary, Journals, Link Checker, Messages, Mobile Compatible Test List, SMS Tool, Safe Assign, Self and Peer Assessment, Send Email, Tasks, Tests, Surveys and Pools, Wikis, and others.*

The author has been integrating a variety of technologies and different features of Blackboard in English language courses (reading, writing, vocabulary, grammar, vocabulary building and dictionary skills) since the year 2000. In the present study, EFL college students at the College of Languages and Translation (COLT) used Elluminate Live, a web-conferencing software, from home to provide students with opportunities to practice English grammar online with supplementary grammar revision material. It aimed to investigate the effectiveness of integrating Elluminate grammar practice sessions on students' mastery of English grammar. It tried to answer the following questions: (1) Is there a significant difference in grammar mastery between EFL college students who participated in the Elluminate grammar practice sessions and those who practiced grammar face-to-face in the classroom as measured by the post-test? (2) Does the frequency of participating in the Elluminate grammar practice sessions correlate with the students' mastery of English grammar? (3) Do Elluminate grammar practice sessions have any positive effects on students' attitudes towards learning and practicing English grammar through web-conferences? In addition, the study aimed to describe the steps followed in preparing for and conducting synchronous web-conferences between EFL students and instructors using Elluminate Live; the technical requirements of synchronous web-conferences using Elluminate; technical difficulties of synchronous web-conferences using Elluminate. It also aimed to give recommendations for conducting effective synchronous language learning web-conferences using Elluminate.

To answer the above questions, two groups of EFL college students at COLT participated in the study: One practiced English grammar face-to-face in the classroom using supplementary grammar revision material; and the other practiced English grammar online from home through Elluminate, using the same supplementary grammar revision material. The impact of

synchronous web-conferencing and face-to-face practice in the classroom on EFL college students' mastery of English grammar was based on quantitative analyses of the pre- and post-test scores. The effect of participating in the Elluminate grammar practice sessions on EFL college students' attitudes was based on qualitative analyses of students' responses to a post-treatment questionnaire.

## 2. Subjects

Two sections of female sophomore students (43 students) enrolled in their third grammar course participated in the study. All of the students were majoring in translation at COLT, KSU, Riyadh, Saudi Arabia. They were concurrently taking listening (3 hours per week), speaking (3 hours), reading (3 hours) and writing (3 hours) courses in English as a Foreign Language. Prior to this, the students completed 2 semesters (40 hours) of English language courses (Listening 1 and 2, speaking 1 and 2, reading 1 and 2, writing 1 and 2, vocabulary 1 and 2, grammar 1 and 2 and dictionary skills). The subjects were all Saudi and were all native speakers of Arabic. Their median age was 19 years, and the range was 19-21 years.

The two sections were randomly assigned to an experimental and a control group. The control group participated the face-to-face grammar practice sessions in the classroom, whereas the experimental group participated in the Elluminate grammar practice sessions from home. Students in the experimental group had no prior experience with Elluminate, nor any other web-conferencing software. Both groups were exposed to the same in-class instruction using the same grammar textbook, i.e. presentation of new grammatical structure and used the same supplementary grammar revision material prepared by the instructor for extra practice in class and online.

At the beginning of the semester, the experimental and control groups were pretested. They took the same grammar pre-test. Results of the T-test presented in Table 1 showed no significant differences between the experimental and control groups in their knowledge of English grammatical structures (relative clauses and complex sentences) to be covered in the course before grammar practice began (T-test =1.32; df = 41; p>.09) and as revealed by the pre-test means and standard deviations presented in Table 2. Students in both groups exhibited similar weakness in distinguishing phrases and clauses; identifying types of sentences; combining sentences with conjunctions; distinguishing noun, adjective and adverb clauses; using noun clauses with anticipatory it; using anticipatory “it” with adjective clauses; reduction of noun and adjective clauses; changing direct speech to reported speech; noun clauses with embedded wh-questions; punctuation in quoted speech; identifying relative pronouns; replacing subject and object of a verb/ preposition, possessive, nouns/expressions referring time, place; clauses with when and where; restrictive and nonrestrictive clauses; combining sentences with relative pronouns; superlatives and adjective clauses; clauses and expressions of quantity; subject-verb agreement in clauses; adverb clauses of cause, result, time, concession, contrast, purpose, comparison; tenses in adverb clauses of time; placement and punctuation of adverb clauses and phrases.

**Table 1**  
**Independent Samples Test (comparison of pre-test and post-test mean scores)**

	T-test	Df	Sig. level	Mean Difference	Std. Error Difference
Pretest	1.32	41	.09	2%	.22

**Table 2**  
**Distribution of Pre-test Scores of Experimental and Control Groups in Percentages**

	N	Mean	Median	Standard Deviation	Standard Error	Range
Experimental group	21	27%	28%	4.82	1.90	11-43%
Control group	22	29%	27%	5.78	1.68	9-41%

### 3. In-class Practice

Students in the experimental and control groups studied the same grammar textbook: *Werner, P. and Nelson, J. (2007), Mosaic2: Grammar (Silver Edition). McGraw-Hill*. They were exposed to the same in-class instruction, i.e. presentation of new grammatical structures and covered the following grammatical structures: *Distinguishing phrases and clauses; identifying types of sentences; combining sentences with conjunctions; distinguishing noun, adjective and adverb clauses; noun clauses with anticipatory it; anticipatory “it” with adjective clauses; reduction of noun clauses; reduction of adjective clauses (with verbs in the active voice, passive voice, perfect tenses, participial phrases, appositives); changing direct speech to reported speech; noun clauses with embedded wh-questions; punctuation in quoted speech; relative pronouns (who, whom, that, whose, when, where) replacing subject and object of a verb/ preposition, possessive, nouns/expressions referring time, place; clauses with when and where; restrictive and nonrestrictive clauses; combining sentences with relative pronouns; superlatives and adjective clauses; clauses and expressions of quantity; subject-verb agreement in clauses; adverb clauses of cause, result, time, concession, contrast, purpose, comparison; tenses in adverb clauses of time; placement and punctuation of adverb clauses and phrases*. The grammar3 course was taught for 12 weeks.

As for assessment, students in both groups were given two in-term tests. Tests were graded, returned to the students with comments on strengths and weaknesses. Words of encouragement were given. The slightest improvement was noted and commended. Answers were discussed in class.

### 4. Treatment

In addition to in-class presentation of new grammatical structures, grammar practice sessions were held with both groups. For the control group, practice sessions were held in class, whereas those for the experimental group were held online from home using Elluminate. Practice sessions were held once a week for each group using the same supplementary grammar revision material that the author prepared in the form of a booklet. Students in both groups did all of the exercises in the supplementary grammar revision material. Each face-to-face practice sessions in the classroom was 50 minutes long. No time limit was imposed on the web-conferencing sessions which lasted between 90-120 minutes.

As for the experimental group, practice sessions were held online from home using Elluminate Live, a web-conferencing software, associated with Blackboard LMS. Elluminate has virtual rooms or vSpaces where virtual classes and meetings can be held. Elluminate Live

communication tools that include integrated Voice over IP and teleconferencing, public and private chat, quizzing and polling, emoticons, and a webcam tool. The software also includes a whiteboard for uploading presentations to be viewed by class or meeting attendees, application sharing and file transfer. It has a recording feature that allows the instructor or moderator to record the class or web-conferences for students or users to watch later, as well as a graphing tool, breakout rooms for group work, and a timer (See Appendix 1).

Before the Elluminate web-conferencing sessions started, the students were introduced to Elluminate and the technical requirements of synchronous web-conferences using Elluminate, i.e., downloading Java, and having a pair of headsets. The Elluminate components were described, icons and what they mean were explained, especially how to turn the mic on and off to talk and to allow others to talk. Instructions on how to access Elluminate were also posted in the "Announcement" page of Blackboard. A message was sent to the students with instructions on logging into Elluminate as well. Each student had to try her headsets, download Java from [www.java.com](http://www.java.com), go to [lms.ksu.edu.sa](http://lms.ksu.edu.sa), enter her username and password, go to grammar3 class, click tools, click Elluminate, click class name, click launch session, save java on the desktop, run java, then the Elluminate main page will open.

Each training session was pre-scheduled, and students were informed of the each session's date and time and the part of the supplementary revision material to be covered. The instructor went online before the start of each session to make sure everything was O.K. During each session, she turned her webcam on to enable the students to see her. The students did not use their webcams and they just communicated through chat and audio tools. Each session started with greetings and informal chat. Then an assigned revision material was covered. The students took turns to answer questions and give answers to items in each exercise. They were given a chance to think, correct themselves or correct each other. Queries and comments were posted in the chat box. The White board was used for clarifying problematic items and structures.

While working on the supplementary revision material, whether face-to-face or online, the author monitored students' work and provided individual help. Feedback was provided on the presence and location of errors. The students had to check the rules and examples in the textbook by themselves, correct themselves and correct each other's mistakes.

Throughout the Elluminate grammar practice sessions, the author served as a facilitator. She provided technical support on using the different components of Elluminate, and responded to individual students' needs, comments, and requests. The author sent public and private messages to encourage the students to participate in the web-conferences. Students in the control group were allowed to ask questions in the author's office hours.

## **5. Procedures**

Before instruction, the experimental and control groups were pre-tested. They took the same grammar pretest that consisted of questions covering the grammatical topics to be studied in the Grammar 3 course. At the end of the semester, both groups took the same post-test that covered all of the grammatical structures studied throughout the semester: The test tasks were as follows: (i) *Answer the questions using a noun clause;* (ii) *Change adjective clauses in the sentences below to appositives and show all possibilities for placement of the appositive;* (iii) *Change the adjective clauses in the sentences below to participial phrases;* (iv) *Change the*

*infinitive phrase in each sentence to a noun clause; (v) Change the noun clause in each sentence to an infinitive phrase; (vi) Combine each pair of sentences into a complex sentence with an adjective or adverb clause. Give all possible combinations and add commas where necessary; (vii) Complete the following sentences with a noun clause, adjective clause or adverb clause; (viii) Complete this humorous story with embedded yes/no and wh- questions based on the direct questions below. Put the verbs into simple past or the past perfect tenses; (ix) Create sentences from the following cues using superlative adjectives and adjective clauses with a perfect tense; (x) Imagine that you are a reporter for a political journal. Your task is to report on a meeting that the governor of a small state has just had with some of the state's citizens. Change each quotation to reported speech using noun clauses; (xi) Read the passage, underline 5 mistakes in the use of adjective clauses and correct them on top; (xii) Reduce the clauses in the following sentences to phrases; (xiii) Rephrase each pair of sentences in 3 different ways, using the connecting words indicated; (xiv) Underline 5 adjective clauses in the letter, then punctuate them where necessary. Most of the questions required production.*

The pre- and post-tests of both groups were blindly graded by the author. The students wrote their ID numbers instead of their names. An answer key was used. Questions were graded one at a time for all the students. Marks were deducted for spelling mistakes.

At the end of the course, all of the students answered an open-ended questionnaire, which consisted of the following questions: (1) What did you like about the Elluminate grammar practice sessions? What did you not like? (2) Did your English grammar improve as a result of participating in the Elluminate grammar practice sessions? In what ways? (3) Did it make any difference in learning English grammar? (4) If you did not join the Elluminate practice sessions, Why? (5) What problems or difficulties did you face in using Elluminate? How were those problems solved? (6) Would you register again in a similar web-conferencing practice session in the future? Why?

## **6. Test Validity and Reliability**

The post-tests are believed to have content validity as they aimed at assessing the students' mastery of English grammar. The tasks required in the post-test were comparable to those covered in the textbook and practiced in class and online. In addition, the test instructions were phrased clearly, and the examinee's task was defined.

Concurrent validity of the post-test was determined by establishing the relationship between the students' scores on the post-test and their course grade. The validity coefficient was .74. Concurrent validity was also determined by establishing the relationship between the students' scores on the post-test and their scores on the second in-term test. The validity coefficient was .71 for the grammar test.

Since the author was the instructor of the experimental and control groups and the scorer of the pre-test and post-test essays, estimates of inter-rater reliability were necessary. A 30% random sample of the pre- and post-test papers was selected and double-scored. A colleague who holds a Ph.D. degree scored the pre- and post-test samples. The scoring procedures were explained to her, and she followed the same scoring procedures and used the same answer key that the author utilized. The marks given by the rater were correlated with the author's. Inter-rater correlation was .98 for the post-test.



Furthermore, examinee reliability was calculated using the Kuder-Richardson formula 21'. The examinee reliability coefficient for the posttest was .79.

## 6. Data Analysis

The pre- and post-test raw scores were converted into percentages. The mean median, standard deviation, standard error and range were computed for the pre- and post-test scores of the experimental and control groups. To find out whether there was a significant difference in grammar mastery between the experimental and control groups prior to the Elluminate grammar practice sessions, an independent sample T-test was run using the pre-test scores. To find out whether each group had made any progress as a result of face-to-face in-class or Elluminate practices sessions, a within group paired T-test was computed for each group using the pre- and post-test mean scores of each group. To find out whether there was a significant difference in grammar mastery between the experimental and control groups at the end of the semester, i.e., Elluminate and face-to-face grammar practice sessions, an independent sample T-test was run using the post-test scores. To find out whether there is a relationship between the students' post-test scores and frequency of participating in the Elluminate grammar practice sessions, each student's post-test score was correlated with the number of Elluminate sessions she attended.

## 8. Results

### 8.1 Effect of Elluminate and Face-to-face Practice Sessions on Grammar Mastery

Table 3 shows that the typical EFL student in the experimental group scored higher on the post-test than the typical student in the control group (medians = 80% and 74% respectively) with similar variations among students in the experimental and control groups (SD = 13.18 and 11.42 respectively).

Results of the paired T-test revealed a significant difference between the pre- and post-test mean scores of the experimental group at the .01 level, suggesting that mastery of English grammar in the experimental group significantly improved as a result of using the synchronous Elluminate grammar practice sessions ( $T = 9.15$ ;  $df = 20$ ). Similarly, a significant difference between the pre- and post-test mean scores of the control group was found at the .01 level, suggesting that mastery of English grammar in the control group significantly improved as a result of grammar practice sessions in the classroom ( $T = 7.31$ ;  $df = 21$ ). However, these results do not show which group made higher gains as a results of the type of practice it received. Therefore, an independent sample T-test was run using the post-test scores of both groups. Results of the comparisons of the posttest mean scores of the experimental and control groups revealed significant differences between both groups at the .01 level in favor of the experimental group ( $T\text{-test} = 14.36$ ,  $df = 41$ ) . This means that the experimental group made higher gains in grammar mastery than the control group as a result of participating in the Elluminate grammar practice sessions.

**Table 3**  
**Distribution of Post-test Scores of the Experimental and Control Groups in Percentages**

	N	Mean	Median	Standard Deviation	Standard Error	Range
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Experimental group	21	81.70%	80%	13.18	1.13	30-96%
Control group	22	75.60%	74%	11.42	1.27	31-95%

## 8.2 Correlation between Post-test Scores and Frequency Usage

Table 4 shows the total number of Elluminate practice sessions attended by all the students in the experimental group with the total number of hours of practice, mean, median, minimum and maximum number of practice sessions attended. The study found a significant positive correlation between the post-test scores of the experimental group and the number of Elluminate grammar practice sessions attended. The correlation coefficient was .42 and it was significant at the .01 level. This suggests that a student's achievement in the grammar course correlated with the number of Elluminate grammar practice sessions that a student participated in. This means that more frequent and less frequent participation in the Elluminate grammar practice sessions was found to correlate with high and low achievement levels as measured by the post-test. It can be concluded that participating in the Elluminate grammar practice sessions did contribute to the students' overall performance level on the grammar test.

**Table 4**  
**Distribution of Elluminate Practice Sessions Attended by the Experimental Group**

	Session Mean	Session Median	Session Range	Session Total	Total Hours
Experimental Group	8	9	0-12	189	279

## 8.3 Effect of the Elluminate Practice Sessions on Attitudes

Analysis of experimental students' comments and responses to the post-treatment questionnaires revealed positive attitudes towards the Elluminate grammar practice sessions. 89% of the students found the Elluminate grammar practice sessions useful and fun, and considered synchronous web-conferencing a new way of practicing and revising English grammar. They indicated that the Elluminate grammar practice sessions helped them concentrate and understand better than face-to-face practice in the classroom. They were more relaxed in the web-conferencing practice sessions, as they were held in the convenience of their home and they had ample time to think over their answers. They indicated that the Elluminate practice sessions were student-centered and self-paced. They added that when in the classroom, they are rushed due to time constraints, and having to rush to go to other classes or exams. Their ability to concentrate in the classroom is less due to distractors from other classmates, mobile phones, and noise from neighboring classrooms, and students walking in the hallways. The Elluminate practice sessions created a warm-climate between the students and instructor. They provided more practice and gave instant feedback. The practice sessions helped clarify difficult points and helped the students review for their in-term exams. They could use the recordings of the Elluminate grammar practice sessions any time and as many times as they needed.

Some of the negative aspects of the synchronous Elluminate grammar practice sessions in the present study are that 11% of the students did not participate in any Elluminate practice sessions. Another 35% missed some of the practice sessions. Inadequate participation in the

Elluminate grammar practice sessions was due technical problems that prevented them from accessing Eluminate. There was a red mark on some students' mic, so they could not hear the instructor. Some logged in late. Some students reversed their username and password and could not log in. Sometimes, when a student could not log in, I did not know why and I had to call her to clarify the problem. But sometimes I could not solve it. Live technical support was not available in the evening, when the Elluminate grammar practice sessions were held, to help solve the students' login problems. At other times, I had to click the mic icon in front of a student's name to enable her or enable another student to talk.

As an instructor, authentication took a long time. I did not know which student was answering, as I could only see students' ID numbers on the screen, not their real names. At first, this made it difficult for me to identify who I was talking to. Later I had to ask students to give their names before answering. Students only interacted with the instructor but not with classmates as they could only see their ID numbers on their screen, and it was difficult for them to identify each other. They corrected each other upon request from the instructor.

Finally, since the students had hard copies of the revision material, the exercise we were working on could not be displayed on the screen. Some, especially late-comers, could not follow and I had to write the page and item numbers in the chat box or on the white board.

## **7. Discussion and Conclusion**

Significant differences were found between the experimental and control groups in the mastery of English grammar as measured by the post-test, suggesting that mastery of English grammar in the experimental group improved as a result of participating in the synchronous Elluminate grammar practice sessions. This means that use of the synchronous Elluminate grammar practice sessions proved to be a powerful tool for improving students' mastery of English grammar. Findings of the present study also indicated that students who participated in more Elluminate grammar practice sessions made higher gains than those who participated in fewer sessions. These findings are consistent with findings of prior studies using other forms of technology in grammar instruction such as Collentine (2000), Felix (2001), Chen (2004), Al-Jarf (2005), AbuSeileek (2009), Baturay, Daloglu and Yildirim (2010), Koehler, Thompson and Phye (2011), Kear, Chetwynd, Williams and Donelan (2012), Arrabtah and Nusour (2012), Cohen, Pinilla-Herrera, Thompson and Witzig (2011), Bissoonauth-Bedford and Stace (2012) and others. As in Hegelheimer and Fisher's (2006) study, the present study provided explicit grammar instruction and online interactivity.

In addition, the author experienced challenges in using the Elluminate web-conferences similar to those reported by teachers' new to web-conferencing in Kear, Chetwynd, Williams and Donelan's (2012) study. Those included creating social presence and in managing cognitive load when dealing with multiple tasks online such as solving login problems, monitoring the chat box, figuring out student's names from ID numbers, managing the whiteboard. The author also experienced technical problems in improvisation in response to students' emerging problems, such as not hearing the instructor, having a red mark on the mic, pushing the mic on and off. The author needed to make technical checks, session preparations, and contacts with the technical support staff to solve the problems encountered before and after the sessions. She needed to solve emerging problems every time the students joined the Elluminate session.

Unlike Frigaard's study (2002) in which the students preferred to learn vocabulary and grammar in the classroom rather than in the computer lab, and contrary to Jarvis and Szymczyk's study (2010) in which the students generally preferred working with paper-based materials, students in the present study showed interest in learning grammar online using synchronous web-conferences.

Moreover, the present study revealed positive effects of participation in the Elluminate grammar practice sessions on students' attitudes towards the grammar course. This finding is also consistent with findings of other studies. For instance, WEBGRAM had a positive effect on elementary-level English language students' attitudes (Baturay, Daloglu and Yildirim, 2010). In Al-Jarf's (2005) study, students who received grammar instruction using an online course with Nicenet LMS developed positive attitudes towards learning English grammar, towards online instruction and towards the skill they acquired in using online course tools. Lin (2004) found that international students' attitudes towards ESL were positively related to their attitudes toward technology. Their attitude towards ESL was also positively related to their perceived computer competency improvement. Moreover, Felix (2001) reported that on the whole, students were positively inclined to working with the web and found it useful and preferred to use it as a supplement to face-to-face instruction. The Elluminate grammar practice sessions in the present study provided additional grammar practice, a student-centered, self-paced, improved attention and non-threatening learning environment. The students enjoyed using the Elluminate grammar practice sessions and felt they helped them focus on the grammar practice tasks.

For future Elluminate web-conferencing session to be more effective and to facilitate students' participation, the present study recommends that students receive hands-on practice with direct face-to-face guidance from the instructor to help them master the login procedures and become familiar with the different icons and functions in the Elluminate homepage. The students need to practice logging in prior to the scheduled session to solve any problem they might encounter. Live online support staff need to be available in the evening, when the Elluminate practice sessions were held from home, to help solve emerging login problems. The study also recommends that the Elluminate web-conferencing sessions be officially scheduled in the college program. It would be more practical and timesaving to use a soft copy, rather than a hard copy of the revision material, to be able to display the pages and exercises under study on the whiteboard and to help students view them. Problems encountered by instructors and students should be reported to the Deanship of eLearning at KSU to help solve those problem. Students need to be registered in Blackboard by name or name and student ID, not student ID only, to help identify who is talking and responding by the instructor and online classmates. Thus, a social climate between the students and instructor and among the students themselves is created. Finally, Elluminate web-conferencing sessions should be supported by an online discussion board, a wiki or a blog for follow-up discussions on the topics under study.

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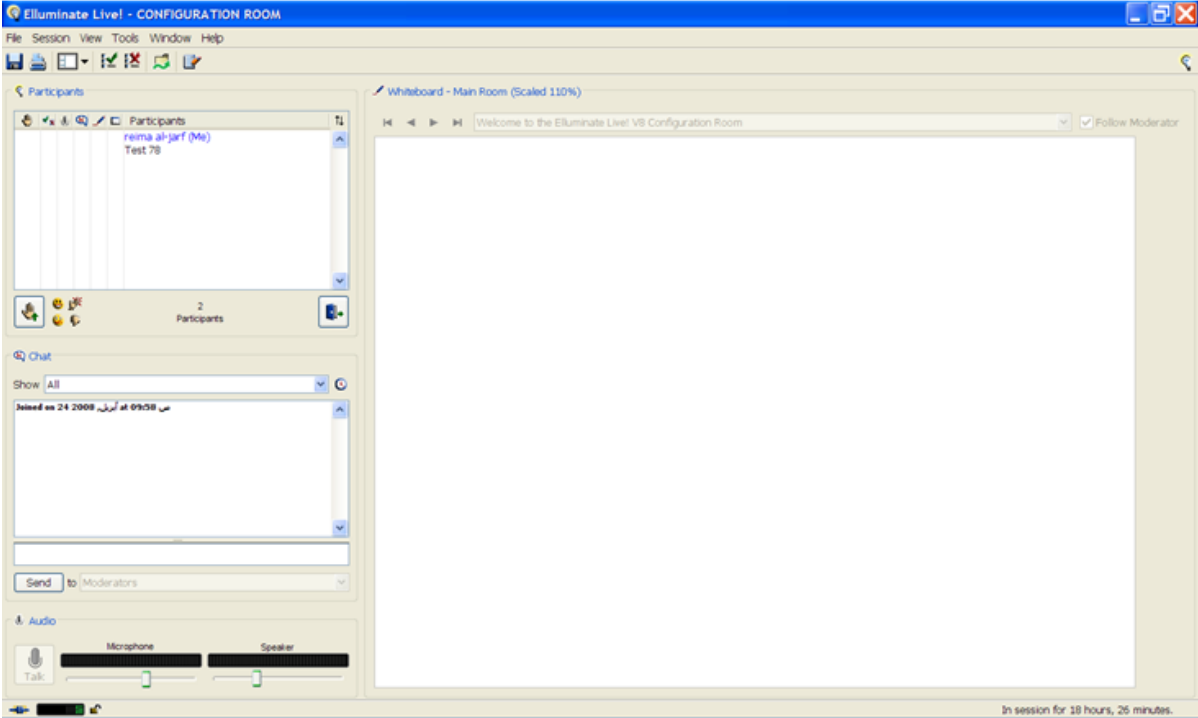
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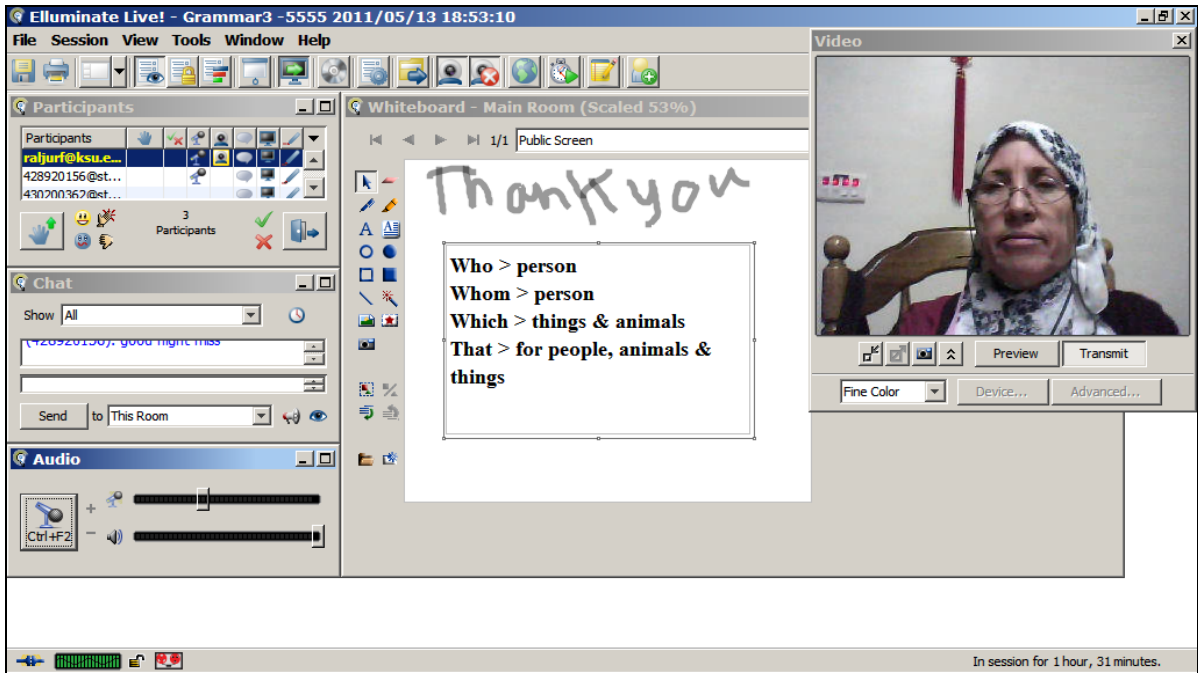
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**Appendix**



**Figure 1: The Elluminate Homepage**



**Figure 2: An Example of an Elluminate Practice Session**

Joined on January 14, 2011 at 7:04 PM  
430201473@student.ksu.edu.sa (430201473): Hello Ms  
Moderator: Good evening  
430201473@student.ksu.edu.sa (430201473): good evening  
Moderator: How was ur weekend?  
430201473@student.ksu.edu.sa (430201473): good and u  
Moderator: cold  
430201473@student.ksu.edu.sa (430201473): yes  
430201473@student.ksu.edu.sa (430201473): 236  
430201473@student.ksu.edu.sa (430201473): and 239  
430201473@student.ksu.edu.sa (430201473): ok  
430201473@student.ksu.edu.sa (430201473): ok, thanks for the information  
430201473@student.ksu.edu.sa (430201473): yes  
430201462@student.ksu.edu.sa (430201462): thank you so much  
430201467@student.ksu.edu.sa (430201467): 238  
430201454@student.ksu.edu.sa (430201454): 238  
430201448@student.ksu.edu.sa (430201448): 238  
430201473@student.ksu.edu.sa (430201473): no  
Moderator: p. 241  
430201473@student.ksu.edu.sa (430201473): yes

**Figure 3: An Example of Student-Students and Student-Instructor Chat (Interaction)**