

# **THE COMPARISON BETWEEN THE EFFECTIVENESS OF CALL AND THAT OF CLASSICAL LEARNING**

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## **Abstract**

This research aims at determining the feasibility of implementing the computer assisted language learning (CALL) to increase the learning results. It compares the results achieved through CALL and those through classical learning. The research focuses on the students' ability in comprehending texts written in English language. This is closely related to one of the language skill subjects, i.e. Reading. The sample of this research consists of the students of the D-III in English Language Study Program, Faculty of Letters, Airlangga University, who joined the Reading IV subject. The analysis is based on the pretest and posttest reading comprehension scores of the students taking the Reading Class. The students were divided into two groups; one group studied in an CALL environment, and the other group studied in a classical learning environment. The result of the analysis shows which method, e-learning or classical learning, is more effective in increasing the reading comprehension of the students. In addition, a T-test is used to determine whether the results of the two methods are significantly different or not.

**Keywords:** CALL, Classical Learning, Reading Comprehension

## **1. Introduction**

The Internet has become pervasive in our daily life. It connects approximately one million computer networks in over 200 countries on all continents, including Antarctica. The name Internet emerged after the expansion of the project of the U.S Department of Defense in 1993. The project began in 1969 to test the feasibility of a wide area computer network over which researchers, educators, military personnel, and government agencies could share data, exchange messages, and transfer files. Currently, there are over 500 million Internet users (Turban, Rainer, and Potter, 2005: 478).

A lot of organizations have proven that the Internet make the tasks more efficient and effective (Porter, 2001: 78). On the other hand, there are also organizations which experience a lot of problems after moving to on-line system. Therefore, the movement to an on-line system must be considered well. All stakeholders must be involved in the decision making process so that the system implemented is really suitable with the needs of the organization.

The Internet has also changed the teaching-learning process. It enables the courses to be delivered online to the computers of the students. The Internet has enhanced the CALL program which has been implemented in language teaching. By definition, CALL (computer-assisted language learning) is the search for and study of applications of the computer in language teaching and learning (Levy, 1997: 1). Nowadays, the applications can be shared and developed more easily using the Internet. It results in the creation of multimedia software which combines at least two media for input or output of data. These media include audio (sound), voice, animation, video, text, graphics, and images (Turban, Rainer, and Potter 2005: 430). These media has certainly made the teaching and learning process become more interactive. The topic of CALL is likely to be the vehicle by which many of the concepts and findings in other aspects of applied linguistics will be explored and developed in the twenty-first century (Chapelle, 2002: 505).

From the four language skills, i.e. speaking, listening, writing, and reading, the reading skill is the easiest to be implemented in the e-learning format. The questions related to the reading passage can be scored automatically using a simple program, especially if the questions are made in a multiple-choice question format. However, the effectiveness of an e-learning program has to be ensured beforehand, so that it does not detriment the expected quality standard. In this case, it is necessary to conduct a research which can determine whether the e-learning is more effective than classical learning in increasing the abilities of the Indonesia students in comprehending English texts.

## **2. Method**

The method used in this study is quantitative analytic. In this case, the researcher used the T-Test to compare the significance on the difference in the scores achieved by the students joining the e-learning program and those achieved by the students joining the classical learning program.

The sample of this research consists of the students of the D-III in English Language Study Program, Faculty of Letters, Airlangga University, who joined the Reading IV subject in the Academic Year 2005/2006. The number was 40 respondents.

The first step in collecting the data was by asking each participant to choose one of the learning techniques, CALL or classical. Then, the researchers gave a pre-test to all participants. After that, both groups were given different treatments. The first group followed the CALL program, whereas the second group followed the classical learning program. The learning processes were carried out for six weeks, and finished with a final test.

The results of the pre-test and final test of the respondents were analyzed using the arithmetic mean formula. In addition, the level of significance in the difference between the results of the CALL program and the classical learning program were calculated using the T-Test, with a significance level of 95%.

### **3. Results**

#### **3.1 Grouping the Students**

The students were free to choose the class they wanted to join, either CALL class or the classical class. The researcher allowed the students to choose the class they preferred so that they would not feel being forced to join the class. This grouping technique resulted unequal numbers of students in the two groups. There were more students who chose the classical learning, than those who chose the electronic learning. From 40 students who were the subjects of this research, 26 of them chose the CALL class and only 14 of them chose the electronic class.

After being divided into two groups, the subjects were given a reading comprehension pre-test. The results of this pre-test showed that students who chose the CALL class have higher scores than those who chose the classical class. The average score of the students choosing the CALL class is 74.00, whereas the average score of those who chose the classical class is 54.96. It may show that the students who have lower skills in reading comprehension prefer joining the classical class, while the students who have higher reading comprehension skills prefer joining the CALL class.

#### **3.2 Classical Class**

The teaching-learning process of the classical class was carried out for six weeks. The room used was Room 302 located on the third floor of the building of the Faculty of

Letters, Airlangga University. The materials given were based on the book entitled *Longman Preparation for the iBT (Internet Based-Test) TOEFL*. This book was chosen because the students were expected to obtain good scores in the Reading Section of the TOEFL after they completed this subject.

All students joining the classical class had to follow a lecture once a week on Tuesday, at 09.10-10.50. The class was carried out the same as other classical lectures, in which the students could interact with the lecturer and with other students during the teaching-learning process.

### **3. 3 CALL Class**

The same as the classical class, the CALL class was also carried out for six weeks. The lectures for this group were carried out at the same time as that of the classical class, but in a different room. The CALL class was carried out in the computer laboratory located on the second floor of the building of the Faculty of Letters, Airlangga University. All computers in this laboratory were equipped with adequate hardware and software (Pentium IV, CD-ROM Combo Drive, USB Port, FDD, Microsoft Office, etc). All of these computers were also connected to the Internet, so the students can surf and download related materials in real-time.

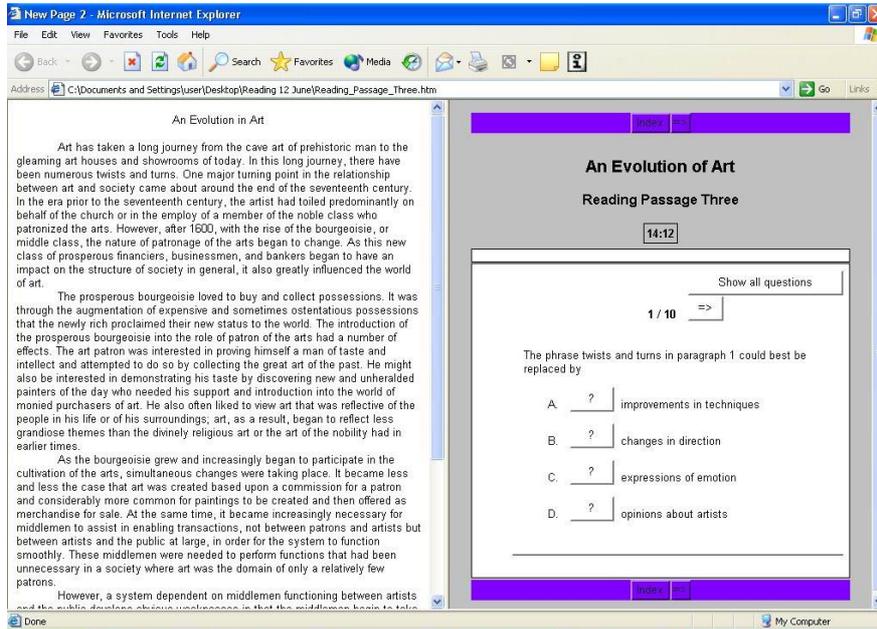
Basically, the materials given to the CALL group were the same as those given to the classical group. The difference was only in the delivery method. The materials for the CALL group were not available in the form of hard-copy, but in a soft-copy. The files were created using the Hot Potatoes<sup>1</sup> software and Microsoft FrontPage. The extension of the files is .html, hence they can be opened by using any Web browser, e.g. Internet Explorer, Netscape Navigator, or Mozilla.

After opening a file, the students can see the passage on the left side and the related questions on the right side. In addition, there is a counter on the top of the page. The students had to pay attention to the counter, because they had to finish answering all of the questions before the time was up. When the time was up, the view would close. One of the examples of the beginning view of the file is shown in Figure 3.1.

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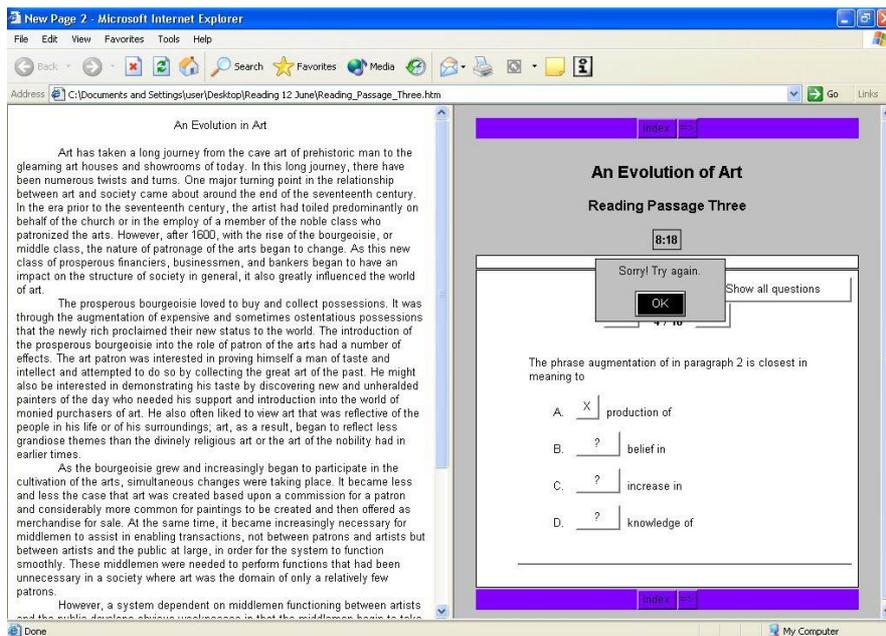
<sup>1</sup> For explanation on how to make the online reading comprehension materials, see my other article entitled *Creating Reading Comprehension Quizzes and Crosswords with Hot Potatoes Version 6.0*

Figure 3.1. The Beginning View of the File for the CALL Class



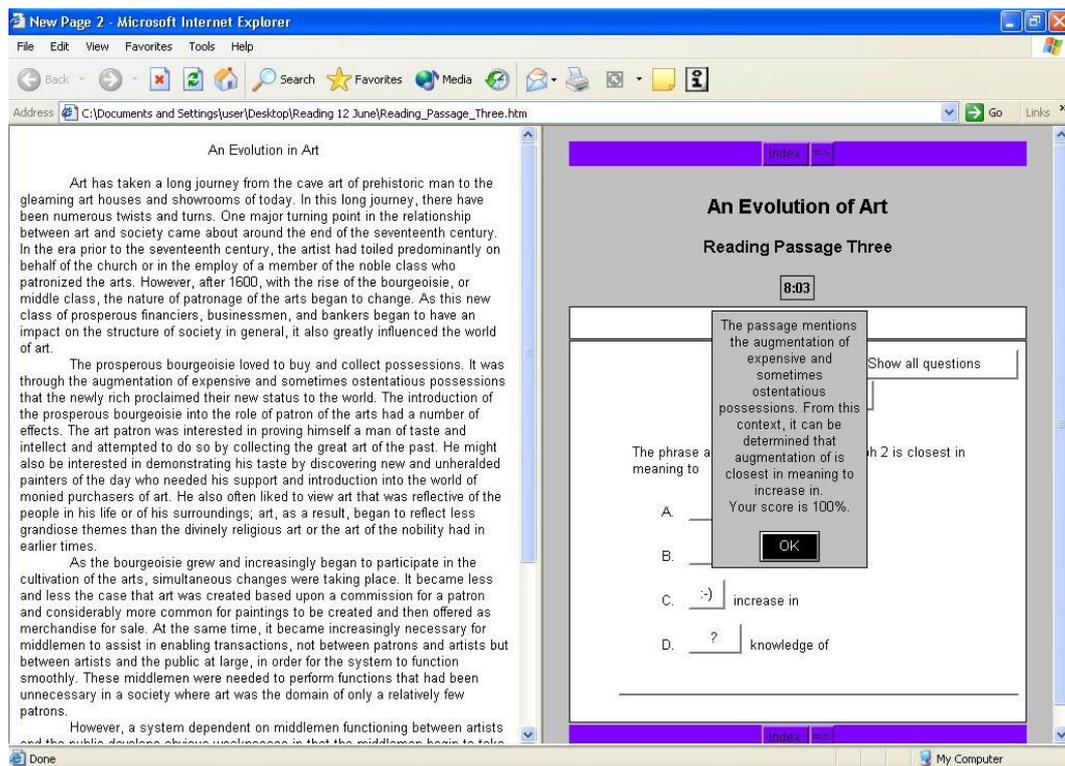
In Figure 3.1, we can see that the left side does not show the whole passage. The rest of the passage can be seen by scrolling the bar in the middle. On the right side, the students had to answer the question by clicking either option A, B, C, or D. If the student clicks on the wrong answer, a Pop-up Window written “Sorry! Try Again” will appear. The view is shown in Figure 3.2.

Figure 3.2. The View if the Answer is Incorrect



Upon seeing the Pop-up Window, the student will know that his answer is incorrect. After that, he had to click the OK button or simple press enter. Then, he should click another option. If the answer chosen is correct, a Pop-up Window which gives the explanatory will appear. The view is shown in Figure 3.3.

Figure 3.3. The View if the Answer is Correct



After having the correct answer, the student can click the OK button again in order to move to the next question. The student has to click the => button to see the next question.

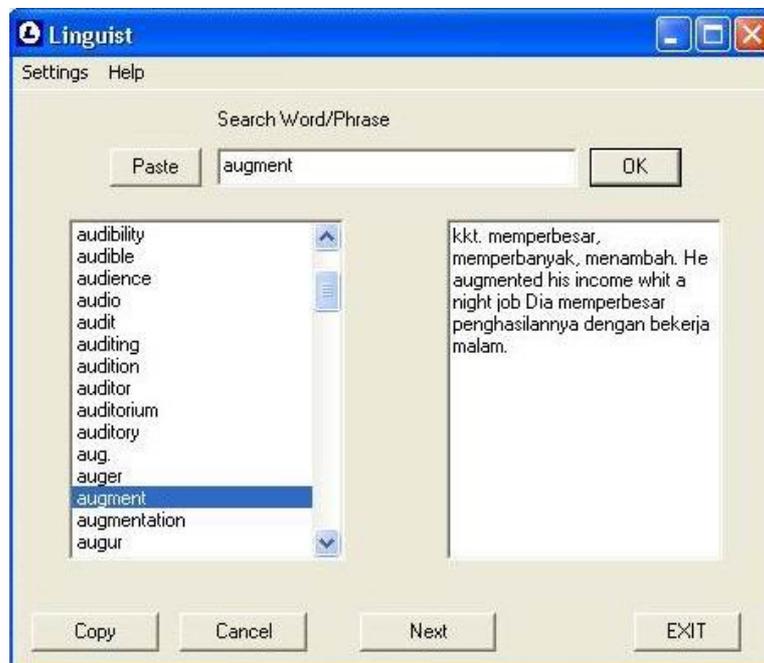
If there is a word that the student does not know the meaning, he can open a link to a monolingual dictionary or a bilingual dictionary which have been installed in the computer. The monolingual dictionary installed is the *New Oxford Dictionary of English* which uses the *iFinger* platform. After clicking the shortcut icon, the view as shown in Figure 3.4 will appear.

Figure 3.4 The View of the *New Oxford Dictionary of English*



On the other hand, the bilingual English-Indonesian dictionary which has been installed in the computer is Linguist Version 1.0. The view of this dictionary is shown in Figure 3.5.

Figure 3.5 The View of Linguist 1.0



The students joining the CALL class were still required to come once a week to the computer laboratory to study the reading comprehension materials and do the exercises. However, different from the classical group that had to join the lecture for 100 minutes per session, the students in the CALL group could arrange their study duration by themselves. The files available at the computers could be opened and run several times. They could also copy the files and opened them by the time they arrived home. The maximum time allocated in the computer laboratory was 100 minutes, but the students could use only 30 minutes or 60 minutes and continue the exercises at home at their convenient time.

### 3. 4 Quantitative Analysis

After being given different treatments – electronic learning and classical learning – the subjects were given a post test. The results of the post-test was compared with the results of the pre-test. In this case, the researcher divided the calculations into two parts, i.e. arithmetic mean and T-Test.

#### 3. 4. 1 Arithmetic Mean

The comparison between the results of the pre-test and those of the post-test for both groups is presented in Table 3.1.

Table 3.1 The Comparison Between the Pre-test and the Post-test

Classical Group			CALL Group		
Subject Number	Pre-test score	Post-test score	Subject Number	Pre-test score	Post-test score
1	66	85	27	86	90
2	77	85	28	90	90
3	64	80	29	79	85
4	60	80	30	69	85
5	77	80	31	78	85
6	60	75	32	81	80
7	75	75	33	83	75
8	27	70	34	72	75

9	40	70	35	70	75
10	30	65	36	81	75
11	62	65	37	44	75
12	49	65	38	59	70
13	34	60	39	69	65
14	60	60	40	75	65
15	45	60	<b>Mean</b>	<b>74,00</b>	<b>77,86</b>
16	50	60			
17	68	60			
18	44	60			
19	48	60			
20	80	55			
21	45	55			
22	49	55			
23	73	50			
24	44	50			
25	55	40			
26	47	35			
<b>Mean</b>	<b>54,96</b>	<b>63,65</b>			

Table 3.1 shows that both groups achieved higher average scores (arithmetic means) in the post-test than in the pre-test. The average scores of the students joining the classical class increase from 54.96 to 63.65. On the other hand, the average scores of the students joining the CALL class increase from 74.00 to 77.86. Therefore, both the classical learning and electronic learning have been successful in increasing the reading comprehension scores of the students.

### 3. 4. 2 T-Test

Although the arithmetic mean calculation shows that both the classical learning and electronic learning have been successful in increasing the scores of the students, there should be a further analysis to determine how significant the increase is. Therefore,

the researcher carried out a T-Test using SPSS (*Statistical Package for Social Sciences*) software. The results of the T-Test on the scores of the classical group are shown in Table 3.2.

Table 3.2. The Results of the T-Test of the Classical Group

Paired Differences				t	df	Sig. (2-tailed)	
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower	Upper			
8.69231	16.43111	3.22241	2.05564	15.32898	2.697	25	.012

Table 3.2 shows that there is a significant difference between the pre-test scores and the post-test scores. The increase at 8.69 is proven to be significant. Therefore, the classical learning process has been successful in increasing the reading comprehension of the students significantly.

Next, a T-Test was also carried out for the pre-test and post-test scores of the students following the electronic learning process. The T-Test was also calculated using SPSS software. The results are presented in Table 3.3.

Table 3.3. The Results of the T-Test of the CALL Group

Paired Differences				t	df	Sig. (2-tailed)	
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower	Upper			
3.85714	10.67605	2.85329	-2.30702	10.02131	1.352	13	.199

From the results shown in Table 3.3, it can be concluded that there is no significant difference between the results of the pre-test and those of the post-test. The increase at 3.86 is proven not significant. Therefore, the electronic learning process is viewed unable to increase the reading comprehension of the students significantly.

## **Discussion**

The quantitative analysis shows that both learning programs managed to increase the students' abilities in comprehending English texts. The average score of the students joining the classical learning program managed to increase from 54.96 to 63.65. On the other hand, the average score of the students following the CALL program increases from 74.00 to 77.86. However, the result of the t-test shows that the increase achieved by the classical learning group is significant. On the other hand, the increase achieved by the CALL group is actually not significant. Therefore, it can be concluded that the classical learning program is more effective in increasing the students' abilities in comprehending English language texts, than the CALL program.

The results confirm that the electronic learning process should not replace the classical learning process. The students still need to join the classical learning for the reading subject in order to achieve significant increase in their scores. The students still need direct interactions with the lecturer and with other students. Peer interactions over time and student-teacher interactions have a major role to play in a developing reader's motivations, attitudes, task successes, and reading experiences (Grabe, 2002: 54). The absence of interactions tends to impede the progress of language skills of the students.

In general, the students who register to the diploma program are fresh graduates from senior high school. Their average age is below 20 years-old. Therefore, the demand to study independently in the electronic learning environment is still difficult to be fulfilled. Guidance from the lecturers is still required to lead them in learning.

## **5. Conclusion**

The research concludes that the students of the D-III in English Language Study Program still need to follow the classical learning program for Reading Subject. The CALL program is proven not as effective as the classical learning program. The students of this study program still need direct explanation and interaction with the lecturer and other students in order to achieve good improvement in their reading comprehension skills.

If the CALL program has to be implemented, it has to be placed as an addition to the classical learning program. Consequently, the learning time of the students will be higher, hence their English language skills will increase faster. The CALL program should not replace the classical learning program completely.

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