

THE IMPLEMENTATION OF COMPUTER AIDED INSTRUCTION (CAI) METHOD TO IMPROVE THE SENIOR HIGH SCHOOL STUDENT INTEREST IN LEARNING ENGLISH GRAMMAR

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Abstract: The most challenging problem of students in learning English grammar is conventional based method during the school which is teacher as a dominant centered in classroom. And also most of the student said that learning English grammar is the difficult one. This research introduces Computer Aided Instruction (CAI) to answer the need of innovation of teaching learning process using instructional system that can attract interest and motivation in learning English grammar. CAI method offers a new model system which has purpose to help the students to learn by selfaccess, teachers tutorial becomes easier by drill and practice through computers, and to improve students interest in learning English grammar. Data Collecting method used are interview and questionnaire for the impact of CAI implementation. The road map of this research is outlined through several stages, they are the preparation stage, implementation phase, and impact analysis. The procedures used in this study are: 1) Need analysis; 2) Development of Learning Models by using CAI Method; 3) Model Application; 4) Analysis of student interest results; 5) Documentation and Reports. The method used in this research procedure are preliminary study and planning, implementing, reflecting (evaluating and data analyzing).

Keywords: *Learning Model, Computer Aided Instruction Method (CAI), English Grammar.*

1. Introduction

1.1 Background

Learning is a process carried out through human life. Learning can be interpreted as a process in which the changes of human behavior as a result of experience. Although the learning process goes along with the process of life, the process is not just created, but require conditions that are formed intentionally and continuously.

The teaching and learning process that is carried out formally in schools often use the old teaching method which is still conventionally refer to teacher-centered. The methods arise because of the assumption that the mind of a child is like a blank white paper and is ready to wait for the graffiti of his teacher. With this view, many teachers are still running the teaching and learning process that is oriented only to deliver the material. This will certainly influences student interest and learning outcomes.

The input data of high school students shows that they have various learning outcomes in which the participation of students in teaching and learning activities is also diverse. During the process of Teaching and Learning Activities there were only a few students who actively asked and answered questions from the teacher and most of the students still did not pay attention to the lesson, it was proven that many of them spoke with friends and even sleepy during teaching and learning process. This situation may cause students experience saturation with the conventional learning method.

A method by using Computer Aided Instruction (CAI) is one of the alternative methods that can be a problem solving. Computer Aided Instruction (CAI) is all teaching and learning activities that use computer as the media. According to Criswell Munir in Wilser Sianturi (2012) defining Computer Aided Instruction (CAI) is the use of computers in delivering teaching materials with student actively involvement and feedback. The model Contained of Computer Aided Instruction (CAI) is in the form of tutorials, drill and practice, simulation, game and problem solving.

This research is important to do because the English learning program of Computer Aided Instruction (CAI) method is very much needed. It is because English has a grammar system which is different from Indonesian. In addition, many students say that grammar or structure is very difficult for them to learn. Learning methods that are commonly used so far still make the students difficult to absorb the English grammar material and make them boring. The method with direct teaching gives the grammar formula for student is confusing for them, that becomes poorly comprehension by students. Then it also will reduce the student interest in learning English subjects. It will be easier to learn if it uses a tutorial or drill and practice approach by using computer media.

1.2 Objectives and Research Advantages

The objective of this research are as follows:

- a. To discuss subject matter especially English grammar in a learning application.
- b. To facilitate teachers in providing learning material for students through the application of Computer Aided Instruction (CAI).
- c. To improve student interest in learning language English grammar
- d. To improve students ability in learning English.

1.3 Research Priority

The purpose of this study is to produce a teaching and learning model in the form of application that provide improvisation of learning instruction of English grammar as problem solving, providing English learning application that can make easier for students to comprehend basic grammar, and get more experience in learning English grammar practically. This research measures the impact of the models that have been made on students interest in learning English through data collection interview and questionnaire.

2. Research Methods

The application of Computer Aided Instruction (CAI) of English grammar learning model in this study uses the following steps: first a discussion forum about how to make the learning model more attractive to students. Then collect the data of the previous study result when the students thought by using conventional method. These stages are reformulation or preliminary study and also planning stages in action research according to Kemmis and McTaggart (1988).

The second stage is the implementation of the developing model for high school students randomly, then the third stage is carried out by analyzing data for the impact of the model that has been implemented on *students interest* in learning English through interview and questionnaire data collecting method. Then analyze student learning outcomes in the CAI method that has been done. The result data of interview and questionnaire correlate with student learning outcomes. Then a model is carried out if the results of applying the method are less significant in the next implementation cycle.

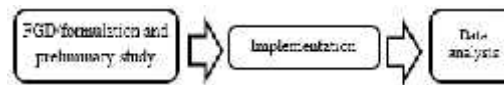


Figure 1. Research Procedure

Research Method (Action Research: Kemmis and Mc. Taggart, 1988)

Preliminary Study:

1. Identifying the problem and Finding the problem
2. Analyzing and determining the alternative teaching technique

The method used in this research started with preliminary study to get the data of students grammar learning result by conventional method implementation to identify the problem. The writer developed the CAI model to implement to the students as a planning stage. After the model was ready, it implemented to the students. The last stage was data analysis included with research instruments of interview and questionnaire with consideration on the results of analysis the influence of students learning interests on English grammar language learning by using CAI model. Data analysis was carried out which was then conducted by measuring the impact on improving students learning interest in English language grammar.

2.1 Research Framework

The application of the Computer Aided Instruction (CAI) method to improve the learning interest of high school students in English language lessons especially for grammar material is to create a learning model. With the activity methods used in the study include object observation , Interview, Questionnaire, and Problem Solving.

The research framework that will be applied in developing and implementing English grammar learning models for high school students was as follows:

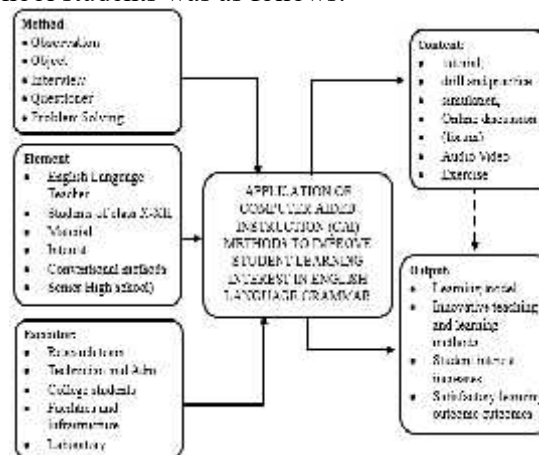


Figure 3. Research Framework

3. Result And Discussion

This chapter present the data and the discussion of implementation of the research. The data is presented in the form of findings and analysis of the implementing model result. The discussion explains how the implementation of the CAI model improves students learning interest.

3.1 The Improvement of Students Learning Interest

3.1.1 Findings meeting 1 Student Interest

According to the preliminary study of conventional teaching method result, students interest in learning process of meeting 1 can be showed at Table 3.1 as the following:

Table 3.1 Percentage of The Students learning interest in Meeting 1

Score	Description	Percentage	The check numbers of Students' Interest
4	All students are interest (very good)	91-100%	0
3	Most of students are interest (good)	76-90%	1
2	Half of the students are interest (fair)	51-75%	4
1	Only a few of students are interest (bad)	26-50%	4
0	None of students are interest (very bad)	0-25%	1
Acquired score			15
Total score			40
Percentage The amount of Students' Interest			37,5 %

Based on the table 3.1, after the result of analysis the amount of the students who were interest in the following formula ;

$$\text{Percentage} = \frac{\text{Acquired score}}{\text{Total score}} \times 100\%$$

were 37,5% which is categorized as bad of the students who interest in conventional method of English grammar teaching learning proses without CAI implementation

3.1.2 Reflection

Based on the result of teaching learning process analysis, the students interest of their grammar learning without CAI method in the first meeting could be inferred that the implementation of conventional method did not met the criteria of success which is 70 . It concerned with the model of learning language of grammar instruction with features on student response based on the interview without CAI model implementation. Many students said that they were not interest in learning English grammar. However, this is the first meeting that the students learn with teacher center as usual. Therefore the researcher continued to implement CAI model into the second meeting.

3.2 Findings of Meeting 2

3.2.1 Student Interest

According to the analysis result, students interest based on the CAI implementation by using audiovisual media in learning process of meeting 2 can be showed in the following table:

Table 3.2 Percentage of the Students Interest Meeting 2

Score	Description	Percentage	The amount of Students' Interest
4	All students are interested (very good)	91-100%	2
3	Most of students are interested (good)	76-90%	2
2	Half of the students are interested (fair)	51-75%	3
1	Only a few of students are interested (bad)	26-50%	5
0	None of students is interested (very bad)	0-25%	0
Acquired score			38
Total score			40
Percentage The amount of Students' involvement			97,5%

Based on the table 3.2, after the result of analysis the amount of the students who were interested of CAI model in the form audiovisual of linear multimedia are 97,5% and categorized fair. It means that more than half amount of the students have interested enough/fair in CAI model of teaching learning process.

3.2.2 Reflection

The result of teaching learning process analysis showed the students interest based on the implementation audiovisual of linear multimedia of their learning through computer in the second meeting achieved the criteria of success determined by the researcher. In the second meeting, the students interest were more than the first meeting. It reached more than half of them and categorized as good enough level. However the researcher continued to implement the CAI model to the third meeting to achieved the criteria of success of students interest in learning English grammar.

3.3 Findings in Meeting 3

3.3.1 Students Interest

According to the analysis result of game of flash program of interactive multimedia, students interest in learning process of meeting 3 can be showed at Table 3.3 as the following:

Table 3.3 Percentage of The Students interest in Meeting 3

Score	Description	Percentage	The amount of Students' Interest
4	All students are interested (very good)	91-100%	2
3	Most of students are interested (good)	76-90%	3
2	Half of the students are interested (fair)	51-75%	3
1	Only a few of students are interested (bad)	26-50%	2
0	None of students are interested (very bad)	0-25%	0
Acquired score			25
Total score			40
Percentage the amount of Students involvement			62,5%

Based on the Table 3.3, after the result of analysis the amount of the students who were interested were 62,5% and categorized fair. It means that most of the students have been interested in CAI teaching learning process.

3.3.2 Reflection

Based on the result of teaching learning process analysis, the students interest of their learning process in the third meeting could be inferred that the implementation by using game of flash program as interactive multimedia CAI model could make them more interest to learn English grammar. They showed good response result and motivated to learn English grammar by using CAI model.

3.4 Final Meeting 4

The fourth meeting was focused on the questionnaire analysis result of students interest of CAI model. The data analysis result of questionnaire in CAI model implementation was showed at table 3.4

The result of analysis of the students score of final meeting was as the following:

Table 3.4 The questionnaire data analysis result of students interest

Score	Amount of Student	Percentage
97	2	8%
95	2	8%
93	1	4%
94	1	4%
93	3	12%
92	5	20%
91	1	4%
90	1	4%
89	4	16%
87	1	4%
86	2	8%
82	1	4%
75	1	4%
Total	25	100%

$$M = \sum x/N$$

$$= 2.267/25 = 90,68$$

The achievement of students interest that is showed from the result of score analysis has mean score 90,68 which is indicate more than the passing grade score 70.

Reflection - Based on the result of analysis, the students interest of their learning English grammar could be inferred that the implementation of CAI model could improve the students interest in learning English grammar and met the criteria of success. Most of the students were said they need CAI to learn English. It also showed on the result of interview and questionnaire that beside they having fun in learning process, they feel comfortable to do the task based on the CAI instructional model . They recognize could be more in comprehending the English grammar because they could also discuss the topic material to solve the problem of English grammar difficulties. So they were motivated to learn by using CAI model and as a result they need CAI to learn English grammar. Broadly speaking, the final result was categorized very good respond of interest in learning English grammar and also met the criteria of success.

3.5 Findings

Based on the students learning process and the result of the final meeting, it was found that interview and questionnaire were showed the students interest in learning English grammar by using CAI model were improved.

It means that CAI model can improve the students interest in teaching and learning process . Most of the students gradually improved their interest more in the learning activities by computer. The activities were intended to attract them in learning the material. While in the main of learning activity, the students showed their feeling of interest were improved, enjoy in doing the task material because it amused them. They achieved the material because their comprehending more on English grammar. In conclusion the interest of students based on the data analysis result increased after implementation process CAI model. Students interest generally improved from one meeting to the next meeting. The CAI model has proved its succeed and was found that most of the students agree of the implementation of CAI model to improve their interest in learning English grammar.

4. Conclusion And Suggestions

This chapter presents the conclusion and suggestions in reference of research findings and discussion in the previous chapter.

4.1 Conclusion

Based on the findings, two conclusions are derived. First CAI can improve students interests achievement. Second the CAI model implementation is the appropriate method to be implemented for English grammar class that it can improve the students interest and motivation to be actively involve in teaching learning process.

In implementing CAI , it is recommended to pay attention to the principal of effectiveness of learning English grammar which is the computer become a tool of two ways communication between the teacher and the students to comprehend the text. The researcher gave research instruments for the students to express their opinions about the implementation of CAI method.

The students response on the CAI implementation indicates that this method can be used in the teaching learning English grammar. It showed from the result of students questionnaire that most of the students agree of the CAI implementation in their classroom.

5.2 Suggestions

To follow up the findings, some suggestions are propose to the English teacher, other researcher, and to the chairperson of Senior High School.

5.2.1 To the English Teacher

Since the research of the use of Cai, it can improve the interests learning of English grammar, it is suggested for the English teacher to implement this method as an alternative strategy in teaching grammar or other English skill.

5.2.2 To the Other Researchers

Other researchers are recommended to conduct research on implementing the CAI model to other subjects. The use of other program are also suggested to explore the model method. Another research

design can also be applied on the use of CAI model to improve the teaching and learning process and the students achievement as well.

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