The innovation of Teaching and Learning English Applied to Animal Sciences' Student with the Combination of Computer Media and Audio Visual

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I Gusti Agung Istri Aryani [a]
Ni Ketut Sri Rahayuni [b]

Abstract

Currently, knowledge era is not only concern on books but also technology use as the product to enhance the intellectual capability. This technology development can support the process of teaching and learn English in the classroom activities and language laboratory. Computer and audiovisual is the essential media to assist a lecturer, besides books or hand out distributed to the students which also supported the method of teaching according to their needs. In this research, we have observed and analyzed 94 students from the Faculty of Animal Science in two different classes, 46 students in class A and 48 students in class B, year 2014/2015 by using Contextual Teaching and Learning (CTL) system for about one semester. Basically, collaborative materials were given on the scope of Reading, Writing, Listening and Speaking related to animals and their habits by using videos displayed that combined with ONIC DL-300 plus program provided at the English laboratory, Faculty of Animal Science, Udayana University as the supporting element in teaching and learning English. The progress of learning English can be observed and analyzed from their result of the evaluation in the classroom and language laboratory. In this case, the result of achievement evaluated from their final scores of soft skill including assignments and participation, practicum, mid test and also final test. It showed that 100% students passed the final range scoring in class A and 96% students passed in class B.

Author correspondence:
I Gusti Agung Istri Aryani,
Faculty of Letters and Culture, English Department, Udayana University, Denpasar-Bali, Indonesia
Email address: istri_aryani@unud.ac.id / ig_aryani@yahoo.com

[a] Faculty of Letters and Culture, English Department, Udayana University, Denpasar-Bali, Indonesia
[b] Faculty of Letters and Culture, English Department, Udayana University, Denpasar-Bali, Indonesia

1. Introduction

Sitepu (2014) conveyed that the resources of learning are essential in giving information and knowledge to students since they can learn how to learn individually in the future without dependence on others in the future; learning for their entire life (life-long learn); to build up a learning society, and educated society. In his statement, highlighted that importance of teaching aids in giving relatively more concrete experiences, motivate, and enhance the memories of students in studying. The innovation of teaching and learning are essential to improve students' ability to learn English as a second language, particularly for Asian. Major problems in reading, writing, listening and speaking continually found in class activities even though these students have been studying the language since kindergarten. The class atmosphere will be influencing their way in studying English and building up motivation is required for them, if they have it in short term as in the university. Pardiyono (2010) mentioned that comfortable condition of classes and students can optimize their result of learning by creating an enjoyable, relax and unstressed situation. So, they can understand that they should cooperate in the process of learning and realize what should be prepared in learning the second language. Animal science's students have special problems regarding their background of knowledge and culture. These influence to the process in which lecturers have the position to consider the suitable solution of problems for those science students.

Recently, media such as computers, film, radio, television, etc. are supporting elements or teaching aids for the lecturers or teachers in order to give a concrete experience, motivate and increase their memorizing and understanding the knowledge through technologies. Swan (2003) explained that online environments support learning outcomes are generally equivalent to those resulting from traditional, face-to-face instruction. On the other hand, unique characteristics of the medium may afford and constrain particular kinds of learning suggest certain strategies and approaches that might enhance the learning effectiveness of online. These are connecting what is known, or think to be known, learning in asynchronous online environments. So, in this globalization era technologies accommodate the requirement of information. The varieties of resources study assist students and lecturers besides books or literature, field study in the society and surroundings. Moreover, ONIC DL-300 plus program is a program installed in the computer which could be effective in teaching and learning especially for English since it can control the student's ability and concentration to study by screen transfer from the main computer and students' computer being used. This media is used to transfer the messages and stimulate the process of learning to the students. Software and hardware as the combination media for learning are used as resources for studying besides environment, teacher or lecturer who also involved and support the education.

Contextual Teaching and Learning (CTL) is an active process of studying a language by developing students' skill of English, competence and their interest. The teacher transfers his or her knowledge to the students by using creative strategies to enhance their capability in learning the language as of applying the content of subject within experiences of students in order to give meaning to the lessons. According to Johnson (2014), the system of CTL is the process of education to assist students in combining academic subject within their daily context of activities i.e. the context of individual condition, social and culture. In this case, components of meaning are created based on their experiences. They could learn to express their ideas through thinking on what they have found in their surroundings which related to their subject of study. Animal science's students at Udayana University have been using this CTL for the system of learning and teaching English. It is useful for them to use this kind of system since they are short period students who study English, not similar to those who continually study the language as in English Department. They have difficulties in reading, writing, speaking using the language and listening to the language especially English since their concern is mainly related to animal sciences which mostly implementing Indonesia language in the method of teaching and learning for most subjects in this faculty. These problems can be solved out by the use of language laboratory after the session of meeting in class.

2. Research Methods

The method of research descriptively and qualitatively conducted, consists of:
a. Data was collected and sorted from the two classes (class A and B) in the Faculty of Animal Science, Udayana University.
b. Data were analyzed from major cases found in the classroom that can be explained in detail with an example of the scope of discussion and give further information related to the findings. Contextual Teaching and Learning (CTL) theory was used in the observation and analysis of data. The result mentioned with the total number in percentage was the final scoring found in the study but not given in detail numbers.

3. Results and Analysis

3.1 Computer Media as Controlling System

Three hours studying within two hours lesson in classes and addition of an hour practicum had forced the students to improve their skills in English. It is supported by the facilities of the multimedia laboratory with the system installed in the computer. Actually, this lab provided with 19 (nineteen) computers and 1 (one) main computer for the lecturer. The function of the main computer is design to be able to control student activities through the screen and insert additional materials required during the practicum.
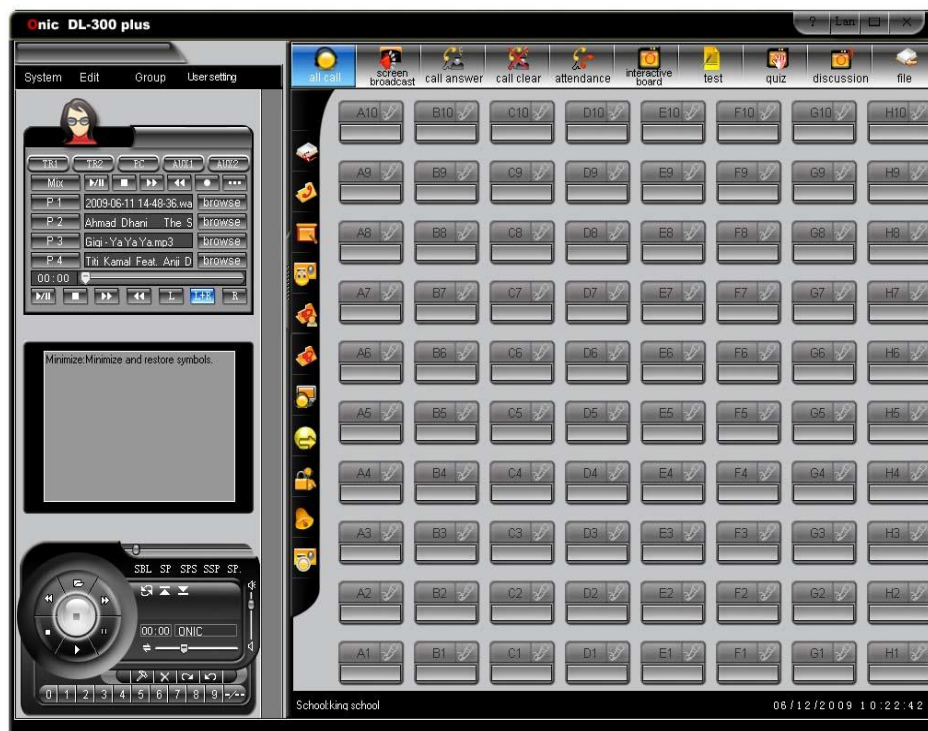

Fig.1. Main Computer Display
(Teacher's Manual ONIC DL-300)

At the above display, multi-function can be executed by the lecturer on the screen to make sure that unfocused students can still be captured by pressing the interactive board, even though observation around the practicum is possible to do. Transferring teacher's screen can also instruct by the lecturer to the whole students' screen in order to share together what videos or materials being prepared by clicking on the screen broadcast. In this case, the interaction between lecturer and students can still be organized since call answer program provided on the main computer for the lecturer and also students. In addition, quiz, test, and discussion for reading, listening and speaking within the recording voices can also be used by the teacher and assigned to the students during the practicum. Since there was a big number of students in year 2014/2015 and limited numbers of computers provided, so each class (A and B) grouped into 18 students to enter the lab in 2 days session. Mostly, lecturers taught in the lab for practicum approximately 3 hours on Tuesday and Thursday. It was found that those two classes were serious in each meeting to participate in the individual, pair works and discussion observed from their activities and attendance. In most of the time, students worked individually through self-learning and in some cases they worked in pairs or groups for the activities of recording and discussions. Regular meeting for the students can increase their knowledge and ability of English after 6 (six) months studying.

3.2 Combination Materials in Teaching and Learning

Warschauer (2010) conveyed that new technologies diffusion has contributed to the teaching and learning. These have the important role as aid of teaching of second language writing. AWE software programs also

include tools for teachers to comment on student drafts, some teachers use the tools to increase amount of instructor feedback to students besides Blogs, wikis, automated essay scoring, and open-source netbooks that can assist writing instruction. Thoughtful use of these tools can enhance effective instructional approaches emphasize writing for meaningful social purposes, mastery of relevant genres, and development of students' academic language proficiency. His papers mentioned that technologies have taken the right position for learning and teaching experiences, especially for writing. Even though his research was using different software, but it has similar benefits with ONIC DL-300 system used in the multimedia lab of Animal science Faculty as of:

    a) to clarify the messages transfer to the students
    b) time efficiency and manpower
    c) the interactive process of learning
    d) to improve the quality of skills
    e) to motivate students self-confidence
    f) to equalize experiences and heterogeneity perception of students

ONIC DL-300 system cooperates with the curriculum used in the university for the English subject of study. The system cooperates with the curriculum used in the university for the English subject of study but General English (Reading, Writing, Listening and Speaking) materials are collaborative materials in which texts and topics used in classes and practicum related within animals concern i.e. if lecturers are presenting the topic of *Animals' Product,* so material or text are related to the subject. The preliminary task was conducted by giving the students an assignment to find out the meanings of words as of calf, dairy, beef, ruminant, poultry, feather, eggs, etc. Then, texts for discussion were related to ruminants, non-ruminants, including poultry's product so students have to listen and concentrate on the discussion, mention related to their knowledge and list them with ONIC system.

On the above photo, we could explain that there is a combination of computer white with a wider screen to be viewed for the material and students screen for them to write the assignment as being instructed and even sent through e-mail with the internet connection. It can be found that 2 (two) classes able to transfer their knowledge by mentioning and listing the items as further discussed: Students were interested to use the system because this system fulfills their requirement of learning and studying English. The utilization of technology attracted their attention and realized them of the important to be confident, active to be a student as the key to succeed good marks.

Domesticated animals		Animals' Product and Benefit
Cattle	Meat	Food (meatball, steak, barbecue, beef soup, etc.)
	dairy milk	butter, cheese, yogurt, and ice cream
	Hides	leather for shoes, jacket, bags, sweater, carpet, drum, etc.
	Horns	Accessories (necklace, earrings, rings, bracelet, etc.)
	furnish materials	medicines, soap and glue, body scrub
Chicken, duck, goose	Meat	Food (meatball, nugget, sausage, steak, soup, etc.)
	Goose feathers	Accessories (hat, carpet, etc.)
	Eggs	meals, accessories, artistic vase, etc
	chicken feathers	shuttlecock, accessories
Sheep	Meat	Food (soup, barbecue, etc.)
	Wool	clothes, carpet
Goat	Meat	Food (soup, satay, etc.)
	Milk	yogurt, ice cream
Pig	Meat	food (meatball, soup, etc)

At the above table showed that students can realize, express their ideas in oral and written that they have listed. They explained and mentioned that the whole domesticated animals' meat used for human as food to eat, have benefits for human life and cattle seemed to have multi-use for its production of meat, milk, hides, horns, and furnish materials. However, hides or feathers or wools or furs produced clothes and carpet, except pigs. Generally, students understood the meaning of animals' product by imagining and observing the items sold out in the market or supermarket in their daily life activities. The combination of materials as of listening, speaking and paragraph writings can be assigned to the students for this topic of materials, but grammar mistakes and lexical choices were still found in part of the sentences but their eagerness of learning English had encouraged them to continually remember mistakes and submit the correction as in Rinaldy's *et al*. (2014) assignment:

The skin of cattle usually used for the manufacture of drums, drum, bag leather, shoe leather, and can also be used as materials for clothes. Bones and horns are usually used as decoration on the wall or as a regular display that is placed in the living room, which had previously been made in the form of engraving. Meanwhile, goats produce products similar to cows, namely milk with so many benefits to cure diseases, made scrubs, and masks.
Review:

The hides of cattle provide leather for drums, bags, shoes and also materials for clothes. In addition, bones and horns are used as decoration on the wall or placed in the living room. However, goat product is similar to dairy cattle provide milk with benefits such as: to prevent diseases, body scrubs, and mask.

It seemed students find difficulties in finding the suitable lexical choice for their sentences, especially for specific items such as *skin* should be replaced into *hides*, *cure* into *to prevent*, *made* into the *body*. Conjunction words for the second sentence *in addition* and repeated words and unfamiliar words should be repeated such as *usually*, *which had previously been made in the form of engraving*. However, students have the ideas to create English sentences and made correction afterward besides Indonesia language as their first language (mother tongue) influence could not be avoided in the process of transferring in writing and also speaking. In this case, the lecturer had to give an explanation that terminology of animal science should be noticed by the whole students by giving them specific dictionary for guidance. Drilling was the important part to be decided to remind their mistakes so understanding of contextual meaning necessary for the whole students.

3.1 Contextual Teaching and Learning (CTL) and Audio Visual

CTL approach intends to assist teachers or lecturers by relating their concept of materials within the real situation of students and motivate them to make a relationship between the knowledge they have in the daily life implementation of students as part of the society (Aqib, 2013). This concept has been conducted with the animal's science students and mainly important to direct their understanding of the scope of studying English since combination and collaboration of teaching is required. Related materials with the animal topic created to improve and encourage students' capability through discussion in classes and laboratory.

Audiovisual media short duration video and listened to native speakers talking intensively for about 14 (fourteen) times of meeting had made the students interested to study by introducing topics of material in an interactive and relaxing ways in understanding the language. However, the use of this kind of media is not for the

whole session of meeting in classes but considered for a particular subject as of Terminology of Domesticated Animals in which they were taught concerning on the name for baby animals. Previously, brainstorming was given by lecturer in order to ask in general several of animals they can find in their surroundings and name of baby animals. Then, students gave the answers but most of them did not realize the different words used for those used in animal science. Video of baby animals was presented twice because at the first sight students shock to hear the speed of language spoken by the native speaker. In contrast, after the second trial, it seemed they got familiar with the voice and understood the meaning by listening and reading small text captured, listed them one by one on the computer or papers, i.e. baby pig is called piglet, baby cattle or cow is called calf, baby goats are kids, etc. They learned how to pronounce the words and notice the meaning which was repeated by the speaker who can also act as an instructor for them.

Learning resources and systematic approach of CTL has the potential to be changed into cognitive, affective and psychometric experiences for the students and instructor to guide them in studying English. Students were given an assignment in the group to report all of their activities in classes and practicum in order to know their teamwork as a proof and additional point. The effectiveness of teaching and learning in case majority of students passed in the final scores and range. 94 (ninety-four) students of Animal Science were classified into 2 (two) classes, Class A and B. The evaluation scores, consists of 10% of assignment and disciplines, 30% of Mid Test, 20% Practicum and 40% Final Test since this is 3 (three) points credit scores. The overall evaluation for around 16 times of meeting including test and practicum showed that 100% students passed in class A and 96% students passed in class B. It meant that good result had been achieved from the majority number of students passed in this semester with the innovation made in teaching and learning English.

4. Conclusion

Facilities provided in an institution of education and innovation designed to stimulate the students' skills in improving themselves are the responsibility of teacher or instructor and also students obtain and understood with the knowledge for their future plan. CTL and media have been used to explore their experiences and connect them with the combination of four subjects of study in reading, writing, listening and speaking. These could increase the process of learning and teaching in classroom and laboratory.

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