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COMPUTER-BASED TOEFL (CBT) AS AN INNOVATION IN LEARNING TOEFL

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Abstract

The research attempted to design and create software for learning TOEFL. Specifically, it successfully embodied computer-based TOEFL (CBT). The device is a practice test of TOEFL provided for students of Bali State Polytechnic (BSP) particularly and public in general. The execution of research was successfully undertaken pursuant to grant funded by the institution. A set of TOEFL test implemented conventionally as the result of a former developmental result of research was chosen and redesigned to be software-based product. To see whether the test is applicable, a group of ten research participants from Civil Engineering department students were invited to try out the test. Upon their working out the test, they were assigned to fill in questionnaire to obtain necessary input to be used for test revision. Some revision on the test was then done consistent with the input given by research participants. The practice test of TOEFL is considered to be a ready-used practice test for students of BSP and public. However, a number of practice tests shall be developed to provide students who wish to intensively practice working out the test. Moreover, learning center (LC) for TOEFL, whose practice test for TOEFL has been being done conventionally or paper-based type, set in BSP is a compatible place to store and practice TOEFL exercise. It is suggested that there will be the next grant which can fund the further research on making various CBT hardware for TOEFL in BSP

Keywords*: self-directed learning, TOEFL, computer-based test (CBT) TOEFL, Bali State Polytechnic (BSP)*

1. INTRODUCTION

Self-directed learning is getting more and more attractive for learners of English as second of foreign language. The learning model which was done conventionally in an initiating research was proven to be effective for learner of TOEFL to improve their score (Widanta, et al. 2016). The suggestion upon the research revealed that it would be much better if it involves aids of technology, for instance computer-based learning. Computer-assisted instructor is superior to text book, lecturer, and traditional method. By doing so, learners can control the content, time, place or learning, enhancement of learning, reasoning and efficiency and cost saving. To embody the purpose, web-based learning, the further evolution of learning model, is considered to be suitable, as learners can search and create their knowledge bases (Chumley-Jones, et al. 2002). The idea underlines that learner creativity and feeling of meaningfulness upon executing learning is the top parameter to be given a consideration.

The activity promoting a self-motivation is very crucial. People learn better when the flow of experience is under their control. To reach the goal, learner shell be active and the learning shall be shelf-directed. Active and self-directed learning is an triggering activity (Gureckis and Markant, 2012). In line with this issue, learning is suggested to be that which can discover things or discovery learning, experimental and inquiring as it will be able to expose learner to be engaged in an active hypothesis testing, interact with learning materials and self-directed exploration. According to Loyens at al (2008) self-directed learning (SDL) is related to self-regulated learning (SRL). The latter is useful to various process such as goal setting, meta-cognition, self-assessment. It can predict academic

performance of students. SDL itself is the preparedness of students in to engage in learning activities defined by him or himself rather than by teacher. In other word, SDL shall be engaged with motivation, willingness, and ability to engage and to like the activity. Thus, SDL is said to have four dimensions, they are personal autonomy, self-management, independent pursuit, and learner control of instruction (Candy, 1991).

2. LITERATURE REVIEW

SDL and language strategy are proven to be significantly related to learners' learning achievement (Su, 2000). It is the major means to achieve the goal, which in line with Kwoles' (1975) view point, SDL was the key to the survival of individual and human race. As learners, achievement and effectiveness can be influenced by many factors, such as learning strategy, anxiety, motivation, and beliefs of learners (Su and Duo, 2010), instructors have to find out ways to keep the factors going on the tract and, if possible, always under control of learners. Lai (1999) competence SDL can be fostered by a learner training. To complete the purpose self-directed learning readiness scale (SDLRS) was developed. It a self-report questionnaire with Likert type item. SDLRS uses 8 factors, such as openness of learning opportunity, self-concept as an effective learners, initiative and independence in learning, informal acceptance of responsibility for one's own learning, love of learning, creativity, future orientation, ability to use basic study skill and problem solving skill.

To insert and to support SDL with technology, computer aids is a very crucial gadget in today's world. Computer makes an excellent teaching tool, especially in teaching language in many aspects, like vocabulary, grammar, composition, pronunciation, or other linguistic and pragmatic communication skill (Ravichandran, 2000). Thus computer assisted language learning (CALL) is an important model. Computer has a number advantages seen from some dimensions, such as interest and motivation, individualism, compatible learner, optimal use of learning time, and immediate feedback. Computer can provide repeated practice to meet important objective. As learning a foreign language can be boring, frustrating, painful for some people, CALL can provide learning in different and more interesting and attractive ways, presenting theory of language, games, animated graphics, and problem solving technique. Many students need additional time and individualized practice to meet learning objectives. In this case, computer can offer students self-instructed task that let them master prerequisite skill and course objectives at speed and level dictated by their own needs. Beside the program can be made available for students who master objective quickly, computer can give individual attention to learner and relies immediately to question or commands. Computer also can be used for adapting instruction to the style of individual student. In addition, students are able to use their academic learning time (ALT) more fruitfully, as it is the amount of time students spend attending to relevant academic task while performing those task with a high rate of success. Finally, computer can give immediate feedback, i.e. as class room feedback is often delayed and sometimes denied, CBT can give a direct feedback to learners that they feel convenient to and have time to figure out solution. Besides, it also can look for error and give specific feedback. Garret (2009) supported the idea by stating that there are four components that must today be factored into the relationship, such as pedagogy, theory, technology and infrastructure. Infrastructure is the context or environments that strongly affect the way the other three components work. The growth of consumer technology has encouraged a great deal of CALL development, especially in communication activities and in student-generated projects.

The ideas, theories, and concept proposed in advance sufficiently support the use and implementation of computer in the learning of English. However, in this research, computer has been utilized as a tool to support the learning of TOEFL as a standard English test implemented in Bali State Polytechnic.

3. RESEARCH METHOD

This is a one-semester research undertaken to provide a test tool. The tool was based on and originated from TOEFL test. Thus it is considered to be the object of the research. The current TOEFL provided by and implemented in Bali State Polytechnic (BSP) particularly Language Laboratory Unit (LLU) so far was applied to test taker conventionally. The idea to convert the test tool into software to

be CBT was rooted from the condition that BSP and LLU found it hard to supply the tool as there have to be a lot of paper or test booklets stored in the unit. In addition, students and administrators need to have an efficient and not time consuming test that they can save their time for other academic activities.

To develop the testing device, tests developed and frequently implemented conventionally prior to this research were chosen to be sample for a pilot project. Of the ten test modules developed in BSP and LLU (Widanta, et al., 2015; Widanta, et al., 2016), module 1 was chosen and developed to be CBT. The development involved expert in information technology area. A set of test device consisting of three sections was set. The sections were consistent with that TOEFL ITP provides, namely (1) Listening section; (2) Structure and Written Expression section; (3) Reading section. Thus, software of CBT was successfully realized. The test is also completed with a page of scoring table.

The software consists of some pages, which mainly covers some icons, such as login, master setting, maintenance TOEFL exam. To start doing the test practice, the test taker shall insert password. In addition one shall also insert code, name, username, and type of test practice. The code was given in accordance with study program in BSP. Reading, for example, consists of 50 questions. Beside the reading texts, the page also display the question associated with the reading text provided. The table can be used by each test taker to see what his/her score is. The table shows us how to convert the raw score to converted score.

Upon its development and completion, the practice test was piloted one time. The pilot study involved 10 (ten) students in of BSP. The pilot program took place almost two hours. Each student was assigned to sit and work out the practice test in front of computer. The test took place at the same time at one class room. To avoid their working together and cheating, students were gathered in a classroom and controlled by two lecturers. The test was ended with scoring activity. The member of pilot program was assigned to see and convert their raw score to be the converted score.

Subject of the research is students of BSP who were involved in the pilot project. The research participants are Civil Engineering students. The ten students were invited to be member of test tray out. Before the try out, they were given direction on what they would be assigned to do. They were informed about the try out program, its goal, duration of the whole test, how many sections the test comprises, duration of each section, they way how to start the test, how to fill in with self-identity, passwords, user name, as well as how to see the score and convert the row score to be the real TOEFL score. The participants were chosen as they are students of the department where the researchers are in charge. The condition eased the researchers to inform, invite and deal with them for the research purposes.

Research location was BSP, especially Civil Engineering department. As there were a number of stages done during the research, almost all the activities were done in the campus. The activities done at the campus were preparing the research, managing contact, selecting material for the test, inviting research participants, carrying out pilot program for the test, and making report of research. However, there were some activities of research carried outside the campus, such as making software of CBT, setting the program, as well as validating the program.

Field try out was in purpose to see whether the device worked properly or not. Thus field try out resulted in students' comment on the device developed. Upon the research participants finished to do practice test, they were requested to fill in the questionnaire. Questionnaire was consisting of question related the pilot program, students' comprehension about the device, design of the software, compatibility, writing style and other tangible dimension. The input given by participants was used to validate the test. Revision on the software was done after and pursuant to the input given.

Analysis was not an activity needed in this research. As the research was conducted only to design ready-used software for TOEFL practice test, the revision of the test pursuant to some input from participants was considered the final stage. In addition, there was no quantitative data which shall be analyzed with statistical tool.

4. DATA ANALYSIS AND DISCUSSION

The research successfully revealed a useful output that is CBT hardware. The hardware consists of TOEFL test which shall be done with an assistance of computer. For the small scope research, there

is only one set of TOEFL practice test designed. This was put in an effort as the time and fund allocated was limited. The further development can hopefully be designed to make more various numbers of TOEFL practice test sets with bigger research grant.

There are two parts the program consists of, study part and test part. In the study part, students will have opportunity to learn materials which will be tested. In this preparation session, there are a number of theories of grammar, strategies and tactics to work out listening, structure and written expression, as well as reading parts are provided. The study part can take place for unlimited time depending on students' preference and level of competence. The practice test is allocated for one hour fifty minutes as duration of the real TOEFL test. In the practice test, students shall start working out listening part, followed by structure and written expression part and reading part. Upon their answering questions, students can check their score achieved by converting their raw score of each section or part with their conversion. To do so, they just have to insert the raw score on the page provided and the converted score will come up.

As this is an SDL model of learning, student will reserve a right to do everything on their own. However, when it is considered necessary, consultation can always be executed with staff of lecturer in charge for the program. There is a chance given for those who want to have a consultation with the staff or lecturers. The consultation is hopefully done upon they have known their achieved score. Consultation can be done for an unlimited time depending on students' needs. Upon the consultation, students can redo the test to check whether the discussed problem meet with the exact answer in the software program.

TOEFL practice test seems to likely be done more frequently as students should have more chance to practice various tests prior to their real TOEFL test. Thus, a number of practice tests shall be provided to reach the goal. In order for the institution to do so, a learning center (LC) for CBT is the solution (Widanta, et al., 2015; Widanta, et al., 2016).

5. CONCLUSION

Referring to the research participants' opinion, the TOEFL practice test designed has been a valid device to implement. There were only some inputs of revision given after the field try out. The research participants consisting of ten people had given input for revision to the device in terms of design, some spelling of words or phrase in the content, students' comprehension about the device, compatibility, and writing style.

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