

Towards a Computer-Based Model to Enhance Vietnamese EFL Learners' Autonomy in Learning Oral Skills

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Abstract

This study aims to investigate whether it is possible for Vietnamese learners of English to enhance their autonomy in practicing speaking skills with the use of a computer-based model. The study seeks to make the learners aware of their learning role in speaking tasks through the analysis of data from the pretests and the posttests on the computer. The study focused on a survey of an experimental group and a control group of intermediate level students of English at a university in Vietnam. The experimental group received the treatment in which the students were familiarized with computer-based speaking tests. The results of the study showed that the students in the experimental group performed significantly differently in speaking tests from the ones in the control group. The effective implementation of the model could be considered as a foundation to assess students' oral performance to help them to be more responsible for their learning.

Keywords: autonomy, computer-based model, experimental group, control group, pretests, posttests

Introduction

For the promotion of autonomy in language learning through teaching approaches and course design, many approaches have been used to develop students' autonomy such as independent study, self-directed learning, student-initiated learning and project-orientation. These approaches refer to particular practices or to specific contexts and should be combined to target the goals of independence, interdependence, self-directedness, and responsibility for students' learning (Boud, 1988:7-8). So far, there have been many developments related to student's autonomy (Gonzalez, 2009:373-382), but more research needs to be conducted conceptually and empirically, and more attempts should be made to involve students deeply in learning regarding what and how they study. The objective of this study was to investigate if a computer-based model for improving speaking ability would be applicable for Vietnamese learners of English in Vietnam. The students were supposed to acquire over 50 percent of the speaking test score in order to pass the test. This topic was identified as being of importance to teachers in providing them with some empirical experience that may be necessary for teachers in preparing students for the speaking tests.

Literature Review

The literature review in this study looks at some investigations of teaching oral skills, and the relationship between the theoretical issues of second language acquisition (SLA) and the learner's autonomy through the use of computer technology. The explanation of the SLA theory, which analyzes the spoken discourse and other aspects of language development (Richards, Platt & Platt, 1999), partly deals with the language performance of speakers of non-inflectional languages such as Vietnamese when they learn foreign languages using computers as the means of the technological support. In this study, the linguistic concepts of Halliday (1985), Martin (1992) and Eggins (1993) are in relevance to the use of computer-assisted language learning (CALL), such as language conventions (i.e. topic addressing, organization, coherence and language use) that are mentioned with a reference to the benchmark scale of the English Language System (ETS) as the foundation for a computerized-based model for developing Vietnamese EFL learners' autonomy. The philosophy of CALL puts a strong emphasis on student-centered lessons that allow the learners to learn on their own using structured or unstructured interactive lessons. Computer and its attached language learning programs can give L2 learners more independence from classrooms and allow language learners to have the option to work on their learning material at any time of the day.

It can be said that multimedia are resources that make the most effective use of computer technology by providing simulations, multiple representations, and informative and immediate feedback to learner's actions at the interface (Gilakjani, Ismail, & Ahmadi, 2011). In view of teaching and learning a language on the computer, the natural language processing on computers is still going through some critical issues, one of which is the appropriate and objective assessment of students' language performance. Pilliner states that subjective tests are different from objective tests with regard to scoring procedure (as cited in Bachman, 1997a). Speaking tests that involve the use of rating scales should be subjectively scored since there is no feasible way to objectify the scoring procedure. Such tests as TOEFL iBT tests (Educational Testing Service, 2005a) consist of both objective and subjective factors. If the score on a given test is interpreted as an indicator of students' language ability, that score must be reliable and valid (Bachman, 1997b).

Another factor that counts when students take a speaking test is how the test is administered. An investigation by Garcia, Magal, & Bakieva (2010) indicates that students take the oral task of the computer-based university entrance examination that consists of speaking freely for two minutes as a response to an audiovisual prompt. Students not only respond adequately to the question but also state that they are more motivated to speak in front of a computer than in a human-to-human interaction. Therefore, learners should be provided with skills to help them become more aware of language leaning strategies in acquiring a good command of a language.

The development of computer technology has facilitated language learner autonomy because learners are exposed to a huge amount of materials for self-learning (Godwin-Jones, 2011 as cited in Hayta & Yaprak, 2013). Much research has been carried out to identify how language learners can be in charge of their own study and what teachers can do to help them become more autonomous. According to Holec (1979, as cited in Ceylan, 2015), an autonomous learner must be able to determine the objectives, define the contents and progressions, choose to use methods and techniques, monitor the procedure of language acquisition, and evaluate what has been acquired. Self-esteem and motivation are also needed to attain autonomous learning (Joshi, 2011 as cited in Hayta & Yaprak, 2013). Some characteristics that can be found in those who learn autonomously are recognizing and maintaining interest in the topic taught in the class, establishing learning goals in cooperation with their teachers, choosing learning strategies appropriate for learning objectives, regulating learners' ability regarding the use of learning strategies and revising when necessary (Dickinson, 1993).

This study develops the idea to raise Vietnamese EFL students' autonomy through a computer-based model to improve their speaking ability in preparation for the tests of English as a foreign language.

Research Questions

From the perspective of the SLA and the CALL issues, this study addresses the following research questions:

1. How efficiently do Vietnamese EFL students use computer technology to develop speaking ability in their autonomous learning?
2. What is the possibility of raising Vietnamese EFL students' autonomy through a computer-based model to improve their speaking ability?

Method

This study investigated a relationship between the tests scored in accordance with ETS rubrics (Educational Testing Service, 2005b) and the application of CALL in the English courses, and suggested a model to raise Vietnamese EFL students' autonomy in improving their speaking ability to prepare for actual tests of English as a foreign language. The investigation involved test-takers and their tests, which were analog simulation tests in relation to the actual tests. The pretest was the prerequisite test for the pre-immediate level students to take before they went up to the intermediate level. The posttest was the language achievement test to help both language instructors and learners to evaluate the effectiveness of the course.

Participants

The study was conducted from February to July 2017. The participants belong to an experimental group (21 students) and a control group (19 students) of English at a university in Vietnam, who had finished studying intermediate intensive English courses and took the speaking tests (including 6 tasks: 2 independent and 4 integrated speaking questions) as part of the Internet-based test of English as a foreign language, which satisfied the requirements of the testing philosophy. The participants took the posttests at end of the course during the investigation.

Data collection and procedures

All participants took the computer-based exams. The participants performed 6 tasks in the allotted time of 6 minutes. The responses were recorded and scored by language instructors with a reference to the four-point rating rubrics in accordance with the one designed by ETS. To prevent raters' bias based on the mode of responses, raters independently scored answer items for each student. As part of an overall strategy to summarize results on all items in terms of meeting the passing-failing requirement of the author's university, the ratings were converted to scaled score: 0-30 (Educational Testing Service, 2005c). To ensure the objectivity of the survey, the two raters' converted scores were then compared. Where discrepancies occurred and the discrepancies were not significant, the raters reevaluated responses and reached consensus on a score.

A two-group design was used in this study. The major data in this study included the scored speaking responses. All the test results dealt with are within the jurisdiction of the university. Therefore, consent was obtained from the university authorities. To ensure the confidentiality, candidates' names were removed prior to the data entry; the raters' names were not revealed; and the permission of the school authorities was acquired. Therefore, the test scores were affected by such factors as communicative language ability, test method facets, and personal attributes (Bachman, 1997). The scored speaking responses were classified according to the points earned after being marked against the language conventions in the ETS rubrics. After the collected data were analyzed, a model was suggested.

In this design, the comparisons between the two types of speaking responses received the *p* value that emphasized the probability of facts. All participants taking the speaking tests were measured at fifteen weeks (three hours per week) after the intake. The experimental design ensures the internal validity. The *p* value would show the statistical significance for the tests and the test-takers. In this study, the scores earned by the test-takers were assessed through a two-sample *t* test.

Reliability

The author analyzed the participants' scored speaking tasks and compared the scores. Interrater reliability was estimated when two raters scored test-takers' language performance and a correlation coefficient was calculated between the two raters (Brown, 1995).

Results

The results are discussed in terms of the components of the scored speaking tasks to see if the participants' awareness of autonomy and the test results were related. The speaking task results were divided into levels corresponding to the ETS criteria. Potential difficulties were that the test results might get involved with subjective factors due to the unavoidable element of human intervention, so the survey results might create variables. Before taking the tests, the students had to finish the English course of intermediate level for fifteen weeks in which they were taught the language conventions and practiced speaking on the computer. The speaking tests were integrated and independent speaking items regarding how students naturally acquired and used the language in the classroom or in the real world. Each item provided the information and elicited the linguistic interaction that was necessary for students to complete the subsequent item.

The first research question was related to the effect of Vietnamese EFL learners' using computer technology for autonomous learning of oral skills. The speaking rubrics (similar to those designed by Educational Testing Service) were used in assessing learners' speaking ability in terms of test scores earned for responses. The experimental group got the raw test scores in the pretest responses ranging from 1 to 3. For posttest responses, the experimental group got the raw test scores ranging from 3 to 4. The statistics of the converted scores are displayed in Table 1 below.

Table 1 *Converted test scores in pretest and posttest speaking responses for the experimental group*

Test-taker	Pretest responses	Posttest responses
1	10	13
2	11	15
3	13	17
4	14	18
5	15	17
6	17	19
7	17	17
8	14	18
9	10	15
10	15	17
11	14	18
12	10	13
13	19	24
14	10	14
15	9	13
16	15	17
17	19	22
18	13	18
19	18	23
20	17	17
21	15	19

The control group got the test scores in the pretest responses ranging from 1 to 3. For posttest responses, the control group got the test scores ranging from 2 to 3. The statistics of the converted scores are displayed in Table 2 below.

Table 2 *Converted test scores in pretest and posttest speaking responses for the control group*

Test-taker	Pretest responses	Posttest responses
1	13	13
2	11	13
3	13	15
4	10	15
5	15	17
6	17	15
7	15	17
8	14	17
9	10	15
10	15	17
11	13	15
12	10	13
13	17	22
14	10	17
15	10	15
16	15	17
17	18	17
18	13	13
19	19	19

All the respondents gave responses to the questions on various topics in the tests, and all the questions were answered in the same format. The results of the two-sample t test in Table 3 below suggest that probability values

have statistical significance with *p* value (0.04851). In other words, the *p* values can calculate the possibilities of the scores being the foundation for future implementation.

Table 3 The statistical significance

Group	Observations	Means	<i>p</i> value
Experimental	21	17.33	0.04851
Control	19	15.89	

The second research question was answered based on the survey of the tests performed by the test takers to show how students' language competence in speaking was acquired in terms of the percentage of respondents acquiring test criteria. For the experimental group 15 respondents were found to meet the criteria of the test (acquiring over 50% of the score in order to pass the tests) accounting for 71.4%. Similarly, for the control group, 9 respondents were found to meet the criteria of the test (also acquiring over 50% of the score in order to pass the tests) accounting for 47.4%. The statistics of the survey are clearly presented in Table 3 below.

Table 4 Percentage of respondents of both groups acquiring test criteria

Number of experimental group students	Percentage of experimental group respondents	Percentage of control group respondents	Number of control group students
15	71.4%	47.4%	9

From the comparisons in Table 3 and Table 4, it is clear that the findings indicate that the amount of exposure to a foreign language with the guidance and the technological support integrated into the school curriculum has a positive effect on students' performance. Though respondents in the two groups gave different responses to the questions on various topics at different testing times, the statistics remain significant.

Discussion

Through the investigation of how effectively Vietnamese EFL learners acquired L2 through the rating of their speaking ability in autonomous learning, this study examined whether the percentage of the test-takers could meet the necessary requirements on which a model to help to raise learners' autonomy would be built for them to get to higher levels of language proficiency. The statistical findings indicate that there is no significant difference and that there is the statistical significance for the speaking tasks with the *p* values for the posttests $p < 0.05$ (0.048536131) taken by the experiment group and the control group. One possible explanation is that the better results came from the tests that were taken by the students who had been given clear and systematic instructions of using computers for learning languages and linguistic knowledge in advance of how to take the tests, and the students had spent an adequate amount of time familiarizing themselves with their work on the computer. The competence and experience of the students in specific assignments may have contributed to their outcomes.

Working toward a model takes an important step in the direction of defining the relationship between the technological application and the language conventions mentioned in the rubrics and students' awareness of their self-teaching to build the model. The proposed model to enhance Vietnamese EFL students' English performance (Table 5) is adapted from Nesbitt (2013) and Benson (2013) in the combination the rubrics similar to those of the ETS (2005b).

Table 5 The model for the enhancement of Vietnamese EFL learners' autonomy (Adapted from Nesbitt, 2013; Benson, 2013; & ETS, 2005b)

KNOWLEDGE BASE	KNOWLEDGE TRANSFORMATION	KNOWLEDGETESTING -(speaking) RUBRICS
- Informational and structural learning - Curriculum-based learning - Classroom-based learning - Resource-based learning - Teacher-based learning	- Contextual learning (listening& reading) - Learner-based learning (examination practice tests) - Technology-based learning (practicing speaking on computer)	- Delivery (expression of speech: pronunciation & intonation); - Language use (grammar & vocabulary); - Topic development (ideas & coherence)

The proposed model is a balanced division between English acquisition through testing and the contextual application of learned English. It sets out the full learning process from beginner to high level. The full learning package (knowledge base and knowledge transformation) can be adapted and used with different curriculum contents ranging from elementary to advanced levels in learning situations in which formal classroom instruction and supervised or unsupervised self-access are integrated. With the help of teachers as facilitators, learners will be able to choose their own pathway that takes into consideration their prior knowledge and current needs. Students will find themselves merging into situational contexts.

The learning framework (Nesbitt, 2013) for student self-access includes guidance (learning advice and contact with teachers and peers), feedback personal record of achievement and teacher feedback, review (self-testing and examination practice tests), engagement (public links to English learning blogs), and presentation (doing the posttests).

Conclusion

The study contributes to the building of a model that better the process of language learning in which students develop autonomy as it may have an impact on the course outcomes. The study also provides necessary feedback to work out the appropriate methods to improve students' weaknesses. The investigation of this study ascertains individuals' beliefs that they are competent to use computers in their decision to take speaking tests on the computer. Computer self-efficacy is found to exert a significant influence on individuals' expectations of the outcomes of using computers, students' emotional reactions to computers as well as to their actual computer use (Compeau & Higgins, 1995). The existence of such a reliable and valid model helps to encourage autonomy and has implications for teaching and learning languages.

This article presents how to raise Vietnamese EFL students' autonomy using a computer-based model to help to prepare students to take speaking tests in the actual tests of English a foreign language. With the deployment of language conventions mentioned in the ETS rubrics in assessing language learners' performance, their basic interpersonal communicative skills can be improved to the level of context-reduced language of academics with the help of technological advances. Moreover, the process from knowledge base through knowledge testing will maintain the linguistic competence in which language learners can acquire the knowledge of language use and the ability to use this language to manipulate its meaning system in all modes of communication, even by indirect means such as computer. Since the model may help to satisfy the evaluation of students' language ability and make student aware of their autonomous learning, the results of the study can lead to developing high-stakes selection for students to go on to take university courses on effective presentation. Accordingly, a model for assessing oral skills on the computer may be conducted as a first step to lead to automatic scoring.

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