

APPLYING AUTHENTIC MATERIALS TO SUPPLEMENT THE COURSEBOOK IN THE ESP PROGRAM FOR INFORMATION TECHNOLOGY STUDENTS AT THE GENETIC CENTRE-HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

Nguyen Khuong

Hanoi Metropolitan University

***Abstract:** English, as a global language of science and technology, has gained widespread use throughout the world and it has been recognized as an international language – a means of international communication. A huge increase in the demand for a more practical use of English has been witnessed in recent decades, paving the way to enhance the role of English for Specific Purposes (ESP): business, information technology, tourism, management, banking, finance. Therefore, teaching and learning English, especially, ESP is a necessity, yet ESP is very challenging to instructors. At the Genetic Centre of Hanoi University of Science and Technology, ESP is important for students especially second-year students who have to learn all their subjects in English. Reading is one of the four skills. For non-major English students at the Genetic Centre, reading has been given the first priority and has been paid more attention as the students have to read English materials related to their own specialist subjects. However, the reading materials are still a problem; non-authentic materials appear to focus on the features of the target language rather than to expose learners to the reality of language use. In searching for a solution, I have been aware that authentic texts bring learners close to the target language culture, making learning enjoyable and therefore more motivating. Through the authentic materials provided, learners can explore a range of topics and situations in the target language, with the accompanying linguistic elements may be available to them in their course books. This research aims to research an effective way to exploit reading materials, which can be achieved by using authentic materials as supplementary tools for the course book of the ESP program for Information Technology students at the Genetic Centre-Hanoi University of Science and Technology.*

***Keywords:** Information technology, authentic materials, ESP (English for Specific Purpose), reading skill.*

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Contact author: Nguyen Khuong; Email: nkhuong@daihocthudo.edu.vn

1. INTRODUCTION

The Genetic Centre is a joint training program between Hanoi University of Science and Technology and Genetic Computer School Singapore. The Centre was founded in 1996. HUST-

Genetic Singapore Joint Training Program offers Information Technology courses in English Language. This five-year program provides human resource for Information Technology labor market in Vietnam. Graduates from this program will be well-prepared information technology specialists and have good proficiency in English language that will help them to further their education and professional skills. The special feature of the Centre is that all subjects are taught in English and of course the textbooks are in English only. Therefore students must be able to read their specialist documents by English. English subject is not taught from third-academic year so ESP program for the second-year students is very important.

As English plays a very important role in this program, much attention is paid to the English language teaching and learning process. English language Program has been designed and updated regularly. Main parts of this program cover English for Specific Purposes (ESP) that focuses on students' language proficiency so that they will be able to study other subjects offered in English at the Genetic Centre. This program is designed for the second-year students at the Genetic Centre. The main textbook of the program is *Information Technology* by Eric H. Glendinning and John McEwan - Oxford University Press-2002. Authentic materials are most welcome to use in this program.

This study aims to research an effective way to exploit reading materials, which can be achieved by using authentic materials as supplementary tools for the coursebook of the ESP program for second-year Information Technology students at the Genetic Centre-Hanoi University of Science and Technology.

2. RESEARCH QUESTION

Is there a significant difference between the reading proficiency scores of the control group (students who do the course with the textbook only) and those of the experimental group (students who do the course with the textbook and supplementary authentic materials)?

3. READING MATERIALS

3.1. Non-authentic materials

The non- authentic materials employed in this experiment are the reading texts taken from the textbook, units taken from *Information Technology* by Eric H. Glendinning and John McEwan-Oxford University press-2002 will be chosen for the study. Basically, each unit has a reading text accompanied by the same kinds of exercises and it organized as follows:

The pre- reading stage starts with some words as clues for students to predict the content of the text, or some pre- reading questions to generate interest and give students a reason for exploring the topic.

In the while- reading stage, the exercises are designed to give students chances to practice new words in the context of the reading or to identify word types and to recognize reference words. The part of this stage is a series of comprehension questions which ask for specific information from the reading to help students review the main points of the reading. Some of the questions require students to make inferences based on the information presented in the reading.

Since all of the texts in the textbook do not have post-reading activities, in all the text chosen for this experiment, post-reading activities are designed to remedy the weakness of the textbook.

3.2. Authentic materials

The authentic materials are the reading texts collected from different sources; Information Technology journals, PC World and the internet by the researcher with the help of IT specialists at the Genetic Centre of Hanoi University of Science and Technology.

Here are some criteria for selecting the authentic materials:

- The topics must be among the range of topics students have learnt in the course-book to assure that they do not have to cope with both specialist knowledge comprehension and language acquisition at the same time.

- The linguistic level of the authentic materials must be a little challenging, but achievable so that the students have to make effort in order to complete the tasks. The appropriate linguistic level is assured by the researcher and his colleagues when choosing the authentic materials based on their teaching experience and their awareness of the students' level of English.

- The text types of the authentic materials need to be the genres that the students will have to deal with in their future employment.

- The tasks accompanying these materials to be authentic, that is, to be the activities the students will have to do in their future work.

All the chosen reading materials based on the students' language proficiency and the information technology specialists' recommendation ON A weekly BASIS IS provided for students as "at home" reading.

Comprehensive reading exercises are also included in each reading text that help students to get information, contact, predict new IT terms then remember them after the lesson. After students reading thoroughly and writing summary of these readings, post-reading activities are organized to get them involve as well as for teacher to check how well they read at home.

3.3. Applying authentic materials in extensive reading program

As Nuttall suggested (1982) "the best way to improve your knowledge of a foreign language is to go and live among its speakers. The next best way is to read extensively in it". And in fact, authentic materials have traditionally been defined as that written for native speakers, that is, ordinary everyday materials not provided specially for language teaching purpose. Therefore, authentic materials are a useful, appealing resource for people who read extensively to explore and expose themselves to the target language.

As the benefit mentioned, reading extensively with authentic materials is the desirable choice for the second year IT students who study English in non-authentic environment. The primary reason for the choice determined is that the current prescribed textbook does not meet the students' interest and needs. The second is that the class contact time is limited and the last, the pedagogical reason is that in a tension-free environment, reading extensively is the most effective way of improvement vocabulary to achieve fluency in reading. Furthermore, involving the students in the program of extensive reading can be a highly productive step towards the autonomous learning.

3.4. Students and teacher's role

In such an authentic material program, the students undeniably play the crucial role who actively take part in the reading as well as all the activities that proceed under the teacher's instructions.

In while- reading activities, the students play roles of readers that are to make sense of the text. And in post- reading activities, they need to reflect what they have learnt from the text, showing their own opinion related to the topic of the text. This role requires them to adopt a range of secondary role: to act as performers, problem solvers, information organizers. Especially, in the communicative classroom activities students are required to be interactors. Generally, the students must be active, creative, and adaptive. They should be interactors and negotiators, listeners and performers who are capable of giving as well as taking, contributing and receiving as well.

Last but not least, the students are regarded as feedback providers. Their feedback significantly contributes to the success of the program which includes: selecting materials, designing tasks, organizing activities etc.

4. METHODOLOGY

4.1. Subjects of the study

The research will be undertaken with fifty second-year students of class D12-C75 (major subject: computing) at the Genetic Centre of Hanoi University of Science and Technology. The sample includes two groups of second-year Vietnamese students who are trained to be computer programmers. All of them are between 18 and 20 years of age.

Before taking part in this study, they did two general English courses called E1 and E2 in the first year. In the second year, they study ESP for 75 periods for each term.

In the second term of the first year, the students learnt basic ESP (2 periods per week). However, the texts are easy in linguistic level and background knowledge. It means that they were provided with the basic information technology terms. Therefore, it is believed that the second-year students are capable of reading authentic materials on ESP.

Moreover, those information technology English courses are often provided before the students study their specialist subject so most of them appear curious and are eager to explore their specialist knowledge in English. The new and interesting explorations do enhance their motivation in learning English. In sum, these students are representative of the second-year students who are studying English as foreign language at the Genetic Centre.

4.2. Research method

Rationale for using experimental method

As the Research Question mentioned above, the researcher's main objectives in carrying out this field-study are:

- To introduce authentic materials as a tool to supplement the course-book to the second year students at the Genetic Centre of Hanoi University of Science and Technology.
- To examine the effect of the authentic materials on the students' language acquisition.

- To elicit students' opinions of the authentic material use and to lay grounds for the further research.

This study is an attempt to investigate the cause- and - effect relationship between supplementary authentic materials and the students' reading proficiency, it can therefore, be best assisted by an experimental research method. This choice can be justified by the fact that this method offers the luxury that others can not. According to Nunan (1991), "Reading for factual information" experiments are often carried out to explore the strength of the relationship between variables. Salkind pointed out that causal relationships between variables may be established with this type of research.

5. DESCRIPTION OF TARGET GROUPS

Two groups of students will be chosen as a control group and an experimental one to minimize the limitations; the differences of knowledge background and the levels of English. They are described as follows:

- *The control group* studies information technology English course with the textbook only.
- *The experimental group* studies the course with the textbook and authentic materials as a supplement.

The differences in score between the pre-test and post-test will be taken into consideration when comparing the reading proficiency in the two groups. Apart from the quasi-experimental design that acts as the major method, class journals and unofficial interviews with students, IT specialists will be made use to collect their opinions on the valuation of the current textbook as well as their feedback on the used authentic materials.

The two groups selected have similarities such as they are both students trained to be computer programmers (I choose the class D12-C75- C means Computing) and they are in groups whose English scores of the first year are not very different. This will be discussed later in this research.

6. DESCRIPTION OF DATA COLLECTION INSTRUMENTS

In order to collect information on the students' reading ability, motivation and attitude towards the treatment given through the experiment, a pre-test, a post-test and an attitude questionnaire will be used.

6.1. Pre-test and post-test

The pre-test and post-test used in this study are in fact two versions of the same test whose items taken from test samples for information technology English provided by www.nonstopenglish.com and Cambridge University. The use of the same test before and after the experiment is to measure exactly the difference that will be caused by that treatment. The tests will be delivered to both groups and then collected and marked by the researcher. The time allowance for each test is 60 minutes.

The purpose of these tests as mentioned before is to measure the students' reading proficiency of the two groups (a control group and experimental group) before and after the experiment. The test is designed to test such specific reading skills as:

- Identifying facts, view points and opinions.

- Guessing vocabulary from the context.
- Classifying.

As regards to the content, the test (either the pre-test or post-test) is designed with three reading parts of different branches in information technology area; the Internet, IT terms, IT companies. These reading passages are followed by a number of questions respectively making up the totality of 40 questions in the test.

6.2. The attitude questionnaire

A post- program questionnaire will be used to collect data of the students' evaluation and suggestion for the program which are focused on three categories: their attitudes towards the program, their preference of the post-reading activities and their recommendations for the future program. The questionnaire is chosen because it is one of the most popular data collection instruments with such advantages as; it can be used with large number of subjects and it is easy to prepare. Furthermore, the information collected is not very difficult to tabulate and analyze (Brown, 1995).

The sixteen questionnaire set includes both close and open- ended questions. Especially, the positive as well as the negative ones are provided in order to gather valid data.

7. RESULTS AND DISCUSSION OF THE DATA

7.1. Introduction

The analysis of the data collected is presented in this chapter. These data are of two types, that is, the numerical and non-numerical data. The former consists of the scores of the pretest and posttest gained by both experimental and control groups. The latter is the experimental group's individual feedbacks to the program given in form of a questionnaire.

After having been collected, the data underwent different analysis procedures depending on their different types in order to provide the answers to different research questions raised in the beginning.

Table 1. *Result of the pre-test and post-test*

Case	Experimental Group N = 25			Control group N = 25		
	Pre-test	Post-test	Gain	Pre-test	Post-test	Gain
1	8	9	1	6	6	0
2	7	9	2	8	6	-2
3	6	8	2	7	7	0
4	6	8	2	8	8	0
5	5	6	1	5	5	0
6	6	8	2	7	7	0
7	6	7	1	5	5	0
8	6	7	1	8	8	0
9	6	7	1	8	8	0
10	5	6	1	7	7	0
11	4	5	1	6	6	0

12	6	8	2	6	6	0
13	6	7	1	7	7	0
14	6	7	1	6	6	0
15	6	8	2	8	8	0
16	7	8	1	7	7	0
17	7	8	1	8	8	0
18	7	8	1	6	6	0
19	7	9	2	4	5	1
20	7	9	2	5	5	0
21	8	8	0	7	7	0
22	4	5	1	6	6	0
23	6	7	1	7	7	0
24	5	7	2	8	8	0
25	6	8	2	6	6	0

Table 2. Descriptive statistics for the pre-test and post-test scores of the experimental and control group

Descriptive statistics	Experimental group (N* = 25)		Control group (N = 25)	
	Pretest	Posttest	Pretest	Posttest
Mean	6.12	7.48	6.64	6.60
Mode	6	8	6	6
Median	6	8	7	7
Low	4	5	4	5
High	8	9	8	8
Range	4	4	4	3
SD	1.01	1.12	1.15	1.04

*N = Number of cases

7.2. Comparison of experimental and control groups' reading proficiency after the program

7.2.1. Comparison of reading proficiency in the pre-test and post-test within groups

Results from the table have shown the higher means, modes and medians of the experimental group in the post-test comparing to the pre-test. Generally, the experimental group made certain improvements after the experiment while the control group made no improvement. Although the mean gain of pre-test made by the control group was larger as compared to that made by the experimental group (6.64 compared to 6.12), there was a significant difference on the mean scores between the two groups (7.48 gained by the experimental group compared to 6.60 gained by the other group). It means that the experimental group outperformed the control group in their post-test.

These figures revealed that the experimental group made great improvements meanwhile the control group got lower mean gain 15 weeks of experiment (6.64 compared to 6.60). The values of standard deviation (SD) for the control group are higher than the equivalents for the

experimental group, indicating the higher level of homogeneity of scores for the experimental group. Nevertheless, the experimental group became less homogeneous after the experiment program while the control group became more homogeneous after the treatment. Since both groups were equal in size, this violation would not cause much influence on the results of the study.

7.2.2. Comparison of reading proficiency between groups

Table 3. Mean gains of the experimental and control group

	N	M	SD	T	df	t _{crit}
Experimental group	25	1.36	0.57	3.2	48	1.679*
Control group	25	-0.04	0.46			

* $p < 0.05$

It can be found from the table that the mean gain of the experimental group was much higher than that of the control group (1.36 compared to -0.04). However, the gains made by the control group seemed to be more homogeneous than those of experimental group as its standard deviation shown in the table to be smaller (0.46 compared to 0.57). The difference between the mean gains made by the two groups proved to be significant due to the fact that the t - value was much larger than t_{crit} (t = 3.2, t_{crit} = 1.679, df = 48, p < 0.05).

In sum, it can be inferred from those findings that at the end of the experiment, it was found that only the experimental group showed certain progress in their language acquisition due to the gains in the tests.

7.2.3. Subjects' opinions of the program

This section that reports the subjects' evaluative and suggestive opinions of the program was presented in three parts; subjects' attitudes toward the program, their preference of the post - reading activities and their suggestions for the future program.

7.2.4. Subjects' opinions of the program

The questionnaire table was delivered to the students of the experimental group (25 students). The students completed the questionnaires after 3 days. The results of the survey shown in the Table 3.

Table 4. Experimental subjects' attitudes toward the program

N=25

Items	Yes	No Idea	No
1. The ESP didn't give me more pleasure in learning English.	2 8%	3 12%	20 80%
2. I wish I had been encouraged to read extensively with authentic materials before.	17 68%	5 20%	3 12%
3. If I had been given a choice I wouldn't have participated in this program.	0 0%	0 0%	25 100%
4. The ESP helped to improve my reading skills.	23 92%	1 4%	1 4%

5. If this program does not continue in the following school year, I will keep on exploiting authentic materials for extensive reading.	20 80%	1 4%	4 16%
6. I feel more interested in and more enjoyable with the texts written by native information technology specialists.	24 96%	0 0%	1 4%
7. The reading texts didn't help to expand my grammar and vocabulary.	23 92%	1 4%	1 4%
8. The reading texts provided me with new language items (grammar and vocabulary) and consolidating language chances.	19 76%	2 8%	4 16%
9. My knowledge background has been broadened thank to authentic materials.	24 96%	0 0%	1 4%
10. Post- reading activities help me to understand thoroughly what I've read and create a text of my own.	17 68%	3 12%	5 20%
11. Post- reading activities didn't help me more confident in speaking English.	6 24%	3 12%	16 64%
12. Post- reading activities are attractive due to their authenticity.	21 84%	3 12%	1 4%
13. Post- reading activities didn't make reading lesson more enjoyable.	1 4%	1 4%	23 92%

According to the result shown in the table, the majority of the subjects indicated that extensive reading with authentic materials stimulated their motivation and autonomy in their language study. Most of them also expressed their enjoyment of having participated in the program as well as their continued pursuance of exploiting authentic materials for extensive reading in the future.

As can be seen in Table 3, for the first and the third items, most of the students (80% and 100%) believed that the ESP gave them more pleasure in learning English and they enjoyed participating in this program. 23 students (92%) thought that the ESP helped to improve their reading skills.

Interestingly, 80% of the students would keep on exploiting authentic materials for extensive reading if this program didn't continue in the following year. Only one student wouldn't keep on the program. Therefore, it is believed that the texts written by native information technology specialists gave the students more enjoyable and more motivative in learning English in general and in the ESP in particular.

As for subjects' evaluation of the program in relation with their language competence, a satisfactory result gained that up to 76% of them confirmed that the program helped to enrich their vocabulary and grammar, reinforce their previously learned grammatical structures and improve their reading skills.

Apart from reading, writing and speaking were reported to be positively affected by the program. 68% of the subjects indicated that they made remarkable progresses in writing thank to vocabulary, grammatical structures and writing styles gained from the materials as well as repeated practicing in post- reading activities and 64% asserted that post-reading activities helped them to gain more confidence in speaking English. In addition to those, specialist knowledge improvement was encouraging finding with 96% participants' agreement.

7.2.5. Subjects' preference of the post-reading activities

As mentioned before, there were six activities following extensive reading in the program that took place in class except for summarizing and writing that were done at home. These activities involved different language skills in order to meet the students' expectation and motivate them. However, it is a fact that class contact time is often strained for the teacher to conduct all the activities that are expected to be positively effective to the students' learning attitudes and proficiency. This, as a result, requires a careful consideration and selection of activities that are of students' needs. The second section of the questionnaire was designed in this concern, that is, to find out which activities were interesting and motivating to the subjects. The result is presented in Table 5 below.

Table 5. Experimental subjects' preference of the post- reading activities

N=25

Activities	Like (3 marks)	No idea (1mark)	Dislike (0 mark)
1. Summarizing	23	1	1
2. Closing exercise	5	2	18
3. Completing report	20	1	4
4. Writing	23	1	1
5. Role playing	20	1	4
6. Presenting	5	2	18

As can be seen in the table 5, the activities the subjects appeared to like most were summarizing and writing which were done individually and silently at home, in the tension-free environment (23 students wanted to do these activities at home). Taking the middle point on the scale of preference were role playing and completing report. Close exercise and followed by presenting were ranked at the bottom of the Table. 70% of the students admitted that they felt uncomfortable giving presentation because of their shyness, their level of oral expression and their unfamiliarity with making presentation.

In conclusion, the subjects of this study appeared to be more interested in taking part in the activities which offered them opportunities to create texts with their own words.

8. DISCUSSION

The research question raised was whether a significant difference between the reading proficiency scores gained by the experimental group who did IT English course with the textbook and supplementary authentic materials those gained by the control group who did the course with the textbook only. The early comparison of the scores of the pre-test and post-test gained by two groups showed that the control group seemed a little higher than the experimental group in reading proficiency as their mean *score* of the pretest was higher than the experimental group in (6.64 compared to 6.12).

However, their performances in the post-test indicated a reversed situation, that is, the experimental group outperformed the control group with a higher mean score (7.48 compared to 6.60). At first glance, therefore, it seemed that the simple answer to this question is “Yes”.

Based on the interpretation of questionnaire responses which revealed that the majority of the subjects found their background knowledge, their vocabulary, grammar and reading skills improved thanks to extensive reading with authentic materials. They all agree that extensive reading with authentic materials give them more confidence and enjoyment to their English learning and they would like to continue such authentic material exploitation for extensive reading in the future.

In conclusion, this chapter has presented the results of the study based on both numeral and non- numeral data gathered during the program. These include the results of comparing the reading performance in the pretest and posttest between the experimental and control groups, and the responses given by the experimental group to the statements and questions raised in the post-program questionnaire.

On the whole, the experimental group’s reading out-performance was confirmed with higher mean score and the subjects’ attitude can be recognized in their responses to the questionnaire.

9. SIGNIFICATION OF THE STUDY

It has long been believed that material development plays an essential role in English teaching. Therefore, it is hoped that the authentic materials to be used will help to facilitate and motivate students better in ESP classes and the results of this experiment will support the suggestion of using authentic materials and give a guidance to select and exploit authentic materials in order to improve ESP teaching materials.

I think the results of the study will show some implications for the ESP teaching and learning, which necessitates the supplementation of authentic materials for extensive reading as a remedial approach to teaching and learning reading in Vietnam where English is considered as a foreign language. It is the researcher’s firm convince that any positive changes will have to involve ESP teachers and policy makers’ efforts to put them in practice in order to improve the quality of English language instruction in Vietnam in general and the students’ reading performance in particular.

Mistakes and shortcomings are inevitable in this study. I would like to receive constructive comments and remarks so that the research work could be further improved.

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ỨNG DỤNG TÀI LIỆU BỔ TRỢ XÁC THỰC ĐỂ BỔ SUNG SÁCH HỌC TRONG CHƯƠNG TRÌNH TIẾNG ANH CHUYÊN NGÀNH DÀNH CHO SINH VIÊN NGÀNH CÔNG NGHỆ THÔNG TIN TẠI TRUNG TÂM GENETIC-TRƯỜNG ĐẠI HỌC BÁCH KHOA HÀ NỘI

Tóm tắt: Tiếng Anh, là ngôn ngữ toàn cầu của khoa học và công nghệ, đã được sử dụng rộng rãi trên toàn thế giới và nó đã được công nhận là ngôn ngữ quốc tế - một phương tiện giao tiếp quốc tế. Nhu cầu sử dụng tiếng Anh thực tế hơn đã được chứng kiến trong những thập kỷ gần đây, mở đường cho việc nâng cao vai trò của tiếng Anh chuyên ngành (ESP): kinh doanh, công nghệ thông tin, du lịch, quản lý, ngân hàng, tài chính. Vì vậy, việc dạy và học tiếng Anh, đặc biệt là tiếng Anh chuyên ngành là một điều cần thiết, nhưng tiếng Anh chuyên ngành là một thách thức rất lớn đối với giảng viên. Tại Trung tâm Genetic-Đại học Bách Khoa Hà Nội, tiếng Anh chuyên ngành rất quan trọng đối với sinh viên, đặc biệt là sinh viên năm thứ hai, những người phải học tất cả các môn học bằng tiếng Anh. Đọc là một trong bốn kỹ năng. Đối với sinh viên không chuyên tiếng Anh tại Trung tâm Genetic, kỹ năng đọc được ưu tiên hàng đầu và được chú trọng hơn vì sinh viên phải đọc các tài liệu tiếng Anh liên quan đến các môn chuyên ngành của mình. Tuy nhiên, các tài liệu đọc vẫn còn là một vấn đề; các tài liệu không xác thực dường như tập trung vào các tính năng của ngôn ngữ mục tiêu hơn là để người học tiếp xúc với thực tế sử dụng ngôn ngữ. Trong quá trình tìm kiếm giải pháp, tôi nhận thức được rằng các văn bản xác thực đưa người học đến gần với văn hóa ngôn ngữ mục tiêu, làm cho việc học trở nên thú vị và do đó có động lực hơn. Thông qua các tài liệu xác thực được cung cấp, người học có thể khám phá một loạt các chủ đề và tình huống bằng ngôn ngữ mục tiêu, với các yếu tố ngôn ngữ đi kèm có thể có sẵn trong sách học của họ. Đề tài này nhằm mục đích nghiên cứu một phương pháp hiệu quả để khai thác tài liệu đọc, có thể đạt được bằng cách sử dụng tài liệu bổ trợ xác thực làm công cụ bổ sung cho sách môn học của chương trình tiếng Anh chuyên ngành dành cho sinh viên ngành Công nghệ thông tin tại Trung tâm Genetic - Trường Đại học Bách Khoa Hà Nội.

Từ khóa: Công nghệ thông tin, tài liệu bổ trợ, tiếng Anh chuyên ngành, kỹ năng đọc