

The effect of ICT-based teaching method on medical students' ESP learning

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ABSTRACT

Background: In recent years, explosion of knowledge and internet access seriously challenged the traditional language of teaching and learning methodologies. Most teachers and experts recognize the need for a teaching method using Information & Communication Technology (ICT) facilities.

Purpose: To assess and compare the students' English for Specialized Purpose (E.S.P.) learning in two approaches of traditional text-based and internet-based articles.

Methods: This quasi-experimental study was conducted on 60 second-year students of medicine having ESP course. They were assigned into two groups based on their average scores: one group attended a class of which materials were chosen from the latest published medical articles in internet and the other attended a traditional text-based class. Care was taken to select texts of the same level of legibility. The language proficiency of the students was measured by English Language Battery Test (ELBA Test).

Results: The students achieved better results with internet-based medical English articles, compared to the traditional text-based method. The students were mostly satisfied with the former method (77.2%); 72.3% were willing to continue with that method, and some 75% of them achieved good scores in final exam.

Conclusion: Instruction based on ICT specialized articles is a more effective method for teaching ESP to the students of medicine linguistically and methodologically.

Key Words: ICT, ESP, MEDICAL STUDENTS, METHODOLOGY

Journal of Medical Education Winter 2004;4(2):81-83

Introduction

One of the most important techniques in teaching a foreign language is adopting a method in accordance with objectives, learners and contents (1,2). Researches point out that language learners learn more and at a faster rate when they are stimulated enough (3). By means of improved teaching techniques, especially applying network and internet applications, language teachers may have higher achievements in instructing English for Specialized Purposes (ESP) than was previously thought (4). In teaching ESP, teachers should know that the participants need English for educational purposes in order to pursue part or all of their studies (5). A course for someone who needs English in order to do one's job must take into account the environmental and social aspects, relationships, and the last but not the least, authenticity and up to date language (5,6).

The present study evaluates the effect of internet-chosen articles in ESP courses in medical

university compared to traditional method using ESP text.

Materials & Methods

A quasi-experimental study was conducted on 60 second-year students of medicine having ESP course. The students were divided into case (n=32) and control (n=28) groups according to their average grades. The data were collected with a pretest-posttest and a questionnaire for demographic information. A pretest was given to both groups two weeks prior to the beginning of the semester. In one group, the students were taught the traditional book, English for the Students of Medicine. In the other group, ESP was taught according to the articles chosen from internet. The subjects and texts studied in the two groups were of the same level of legibility and the students' proficiency was measured by English Language Battery Test (ELBA Test). To minimize contact between the two groups, posttest was

taken a few days after each course. The difference between the pretest and posttest scores was considered as the students' learning level and was categorized in three levels of poor, moderate and good. Test validity and reliability were determined by content validity evaluation and a pilot study, respectively. Analysis was done with SPSS software. The scores of the two groups were compared by T test.

Results

In each group the posttest scores were significantly higher than pretest scores. The majority of students achieved good learning level in the case group (75%) and moderate learning level in the control group (50%) (Table 1).

TABLE 1. Frequency of ESP learning level in case and control groups

Learning level	Case(%)	Control(%)	Total (%)
Good	24(75%)	8(28%)	32(53.3%)
Moderate	6(18.75%)	14(50%)	20(13.3%)
Poor	2(6.25%)	6(21.4%)	8(13.3%)
Total	32(35.3%)	28(46.6%)	60(100%)

In the case group, 77.2% considered ICT-based articles instruction as satisfactory and 72.3% preferred other courses to be presented in the same way. In addition, 81.1% of students found this method an effective one and 83.2% believed that ICT-based ESP class encourages them to continue studying ESP (Table 2).

TABLE 2. Percentage of students' attitude towards ICT- based ESP teaching in case group

	Yes	No	Not specified
Are you satisfied with ICT-based ESP teaching?	77.2	12.1	10.7
Are you willing to attend ICT-based teaching again?	72.3	10.1	17.6
Is ICT - based instruction effective?	81.1	9.2	9.7
Dose ICT-based instruction motivate you enough to continue ESP learning?	83.2	9.8	7

Discussion

The ESP texts in traditional method are less attractive than the specialized articles chosen from internet. The latter is continually updated, so that

the articles are always new, while the ESP books were written at least a decade ago. Students show more interest when they find the materials real, authentic and new (7). Science changes rapidly and the material chosen for the students should be up to date (8); once Crimean-Congo Hemorrhagic Fever, then Ebola, yesterday SARS, and today other conditions are the current subjects in medicine. The language taught in ESP classes must be up to date since students learn it for their near future occupations and responsibilities (9). Nowadays internet can meet this need. When students find the language and subjects instructed in class the same as those presented in TV or other media, they are encouraged to participate in class activities (11). Teachers who apply approaches using both informal and formal language are successful in reinforcing all four language skills: speaking, listening, reading and writing (10). Some researchers limit the use of articles from internet only to those written by experts and having scientific value. They believe that this matter is only of value when monitored by teachers (11).

It may be concluded that English medical articles chosen from internet and controlled by teachers can replace costly books containing last decades' articles and materials. Therefore, regarding the cost effectiveness, learner motivation and output of teaching ESP based on articles presented in internet, this method can facilitate ESP teaching and learning where inefficiency of ESP books is most pronounced.

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