ESP VOCABULARY INSTRUCTION: A COMPARISON OF CBI VS. GTM FOR IRANIAN MANAGEMENT STUDENTS

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Abstract
Vocabulary learning is an essential part of the language learning process. This study aimed at investigating the effects of two different methods of English for Specific Purpose (ESP) instruction, namely, the Content-based Instruction (CBI) and traditional Grammar Translation Method (GTM) on Iranian ESP students’ technical vocabulary learning. To this end, two intact classes of specialized English for management students in Gowgan Azad University were randomly assigned into two groups (N= 29 participants in each), and their homogeneity was confirmed by Comprehensive English Language Test. Group A was instructed based on CBI, while group B was instructed according to GTM principles. The data were collected through a teacher made management vocabulary test which applied both as pre-test and post-test. Following a pre-test, the two groups received different instructions during 10 sessions, and then a post-test was given. The obtained data was analyzed using paired samples t-test to compare the effects of CBI and GTM on ESP vocabulary learning. The results indicated a significant propriety of CBI over GTM in improving vocabulary knowledge of the ESP students. Some justifications for this priority were discussed to be the ESP students’ more cognitive engagement and negotiation of meaning in a CBI based classroom.

Key words: Content-based Instruction (CBI), Grammar Translation Method (GTM), English for specific purpose (ESP), vocabulary instruction

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INTRODUCTION

Choosing the ideal and appropriate classroom method and techniques to improve English as a foreign language (EFL) in general, and vocabulary knowledge of EFL learners in particular, has always been a common concern to educationalists and language teachers. The history of language teaching and learning has experienced different developments through which various methods and approaches have emerged. Richards (2003) identified three important changes in language teaching: the traditional approaches, (GTM, up to late 1960s), a move toward classic communicative teaching (1970s to 1990s), and current communicative language teaching (CLT, 1990s to the present), which shifted language teachers’ focus from traditional teaching programs toward using innovative tasks such as group work activities. These trends led to a movement called ESP program in 1970s and 1980s. In addition, an influential innovation out of CLT is content-based Instruction (CBI) that integrates language learning with content development. It is the concurrent teaching of academic subject matter and language skills in a highly communicative way. In other words, CBI emphasizes learning about something rather than learning about language.

According to Yang (2016) CBI connects with the ESP movement, which aims to prepare learners for real world demands and satisfy their communicative needs and interests. The content and aims of teaching are determined by the requirement of the learner rather than general education criteria. It covers different subjects like accounting, computer science, tourism, and business management. The important point in ESP is that English is not taught as a subject separated from the students’ real world, but it is integrated into the specific context required for learners’ professional knowledge.

On the other hand, in ESP courses, vocabulary teaching programs are critical to improve learners’ understanding of the content and developing the knowledge of the jargon of the genre. ESP courses consist of a lot of specialized terminologies and abbreviations, therefore the teaching procedure should facilitate vocabulary learning of ESP learners. Providing elaborate and contextualized explanations to word meanings, using nonverbal cues such as facial expressions, illustrations, and other visuals can support vocabulary learning (Watts-Taffe & Truscott, 2000). ESP students, also, recognize the importance of vocabulary learning, and they constantly ask for remedies for their poor vocabulary knowledge, and strategies to master technical terminologies. But learning technical vocabularies is not always easy or enjoyable for ESP students, and they constantly complain about their difficulties in remembering new words. ESP students are usually adults who have already mastered some general English and are learning the specialized language to gain knowledge about some disciplines of their specific field (Hedayatipanah, et al., 2015).

Although ESP is an approach to language teaching, in which all decisions about the content and method are based on the learners’ purpose for learning, the recommended methods in nearly all Iranian textbooks designed for ESP, follows the traditional GTM method: breaking the words into smaller parts, namely prefixes, suffixes, and roots, analyze them and guess the meaning. There is no objection to this way of vocabulary presentation, but the way
this method is applied is usually complained by Iranian EFL students and teachers for being unattractive, boring, and not rewarding. In addition, CBI has received little attention in the Iranian ESP context, and needs to be considered in more depth, to assess and reveal its probable effectiveness.

**Review of the literature**

In the process of foreign language learning, and particularly ESP courses, many studies have been done to compare the effects of different methods on language learning, its different skills and components.

**GTM vs. CLT**

Grammar Translation Method (GTM) and Communicative Language Teaching (CLT) approach are two important and very distinctive methods, commonly used by language teachers. GTM is considered as a traditional method, while CLT is very famous nowadays. There are some factors that are very distinctive between GTM and CLT (Table 1).

<table>
<thead>
<tr>
<th>GTM</th>
<th>CLT</th>
</tr>
</thead>
<tbody>
<tr>
<td>It uses non authentic material.</td>
<td>It uses authentic material.</td>
</tr>
<tr>
<td>It emphasizes on reading and writing skills.</td>
<td>It emphasizes on all the 4 skills.</td>
</tr>
<tr>
<td>The vocabulary is memorized by translating it to the native language.</td>
<td>The teacher instructs the students to acquire the vocabulary through real world content.</td>
</tr>
<tr>
<td>The students are taught by using the mother tongue.</td>
<td>Native language is not allowed for all the communications, except for certain words.</td>
</tr>
<tr>
<td>The students are required to analyze the language rather than to use it.</td>
<td>The students are required to use the language rather than to analyze it.</td>
</tr>
<tr>
<td>It emphasizes on learning the grammar deductively before producing the sentence.</td>
<td>It emphasizes on the students’ willingness to communicate with the target language.</td>
</tr>
<tr>
<td>The teacher directly corrects the students’ errors.</td>
<td>The teacher permits the students’ errors and guides the students to revise their errors.</td>
</tr>
</tbody>
</table>

(Larsen-Freeman & Anderson, 2011, Richards & Rodgers, 2001)
According to Richards and Rodgers (2001) CLT is regarded as the most prominent approach of language teaching in the recent decades which has resulted in the existence of different methods and approaches. One of the most famous approaches arisen from CLT is content-based instruction (CBI), which has received much popularity since the early 1990s.

Content-Based Instruction

Content-based instruction (CBI) has been defined as “an instructional approach in which non-linguistic curricular content such as geography or science is taught to students through the medium of a language that they are concurrently learning as an additional language” (Lyster & Ballinger, 2011, p. 279).

Its underlying principle is that English should not be the end of a language program but the means through which learners can acquire knowledge in other specific fields. The most important advantage of CBI curriculum is that students learn the content knowledge that reflects their needs. Keeping learners motivated and interested, by means of challenging and informative activities, is a basic factor in CBI to support students’ achievements. EFL and ESL students gain critical thinking skills as well as other language skills through adopting a CBI curriculum. So, it uses the motivation factor for EFL students, provides a context for meaningful communication to occur, and promotes negotiation of meaning, which has been claimed to facilitate language acquisition in EFL and ESL teaching (Dalton-Puffer & Smit 2013, Tedick, & Wesley, 2015, Wesche & Skehan, 2002).

Moreover, the results of the Multicultural Improvement of Cognitive Abilities (MICA) project revealed that the students taught through CBI improved both in cognitive and academic aspects and in their language proficiency (Wang, 2013).

ESP and CB

CBI views the target language largely as the vehicle for learning subject matter rather than the immediate object of the study, and ESP courses, through the frequent use of authentic materials and attention to the real life purposes of the learners, often follow a content-based methodology, in which experiential language learning in context, and discovery of meaning are major components (Cammarata, 2016).

In a study, Nguyen (2011) incorporated the CBI approach in the ESP context. The findings revealed the students' interest and involvement in the course, and proved the effectiveness of CBI application in the ESP course. Many researches, also, have investigated the effect of CBI on disciplines like accounting (Malmir, et al., 2011) and technology (Gaynor, 2013), and stated that teaching through CBI improves learner’s critical thinking and leads to a fast and enjoyable language learning.
Other researches, following traditional GTM, recommended using translation method in ESP, claiming that all the learners, commonly, rely on their mother tongue in learning ESP, and the amount of the native language that the students need depends on their proficiency and linguistic levels. The autonomously generated translation activities raise learners’ awareness of language transfer and may facilitate foreign language development (Kavaliauskienė and Kaminskienė, 2007, Mahmoud, 2006).

ESP and vocabulary learning

Vocabularies allow the learners to extend their understanding of the world around them and to access to new worlds of knowledge. Vocabulary learning has always been a challenge for ESL and EFL teachers and students because vocabulary knowledge is considered as the most important factor in academic achievement for EFL and ESL learners (Alqahtani, 2015, Tozcui & Coady, 2004).

In a study on investigating strategies of vocabulary teaching in an ESL classroom, Mukoroli (2011) proposed that the ESL teachers could improve the vocabulary development of ESL learners by providing them with the main topics of the course, the specialized vocabulary, and sentence structures related to what they learn in class. In the same vein, Sarani and Farzaneh Sahebi (2012) investigated vocabulary teaching in ESP courses within the paradigm of task-based language teaching (TBLT), and suggested that TBLT was more effective in teaching technical vocabularies compared to the traditional methods.

Examining the material and instruction of ESP in Iranian University settings indicates that there is a significant tendency among learners towards class activities that emphasize both receptive and productive skills equally. It is revealed that vocabulary learning is not a writing activity, but new words must be used in a contextualized sentence. In addition, when students are actively involved in English, and when teachers are aware of their learners’ needs and preferences, effective language learning can be achieved (Rasekh & Simin, 2011).

In a comparative study, Shabani and Ghasemi (2014) investigated the effect of TBLT and CBI on reading comprehension of the Iranian ESP learners, and found that TBLT was more effective than CBI in teaching reading comprehension to Iranian ESP learners. In another research, the effect of CBI and GTM on Iranian students’ English language learning was examined by Amiri and Hosseini Fatemi (2014). They discovered that the CBI group outperformed the GTM one, and if CBI was applied carefully and well-planned, it could provide the students with comprehensible learning tasks and activities stimulating both problem solving and critical thinking, and resulted in more achievements in linguistic and content areas.

Hedayatipanah, et al. (2015) examined the vocabulary teaching in ESP classes of Iranian accounting students by TBLT, and the results showed positive effects of this model not only for teachers and students but also for book designers. In another research, Khalili, et al. (2015) investigated the impact of blended learning and multimedia software on Iranian ESP
students' vocabulary learning. The results showed that multimedia software had positive effect on students' vocabulary learning. In addition, the effect of using games in vocabulary learning of Iranian students of psychology was examined by Sabzalipour and Heidari Tabrizi (2015), and it revealed that game oriented approaches improved vocabulary learning.

However, few studies, if any, have been carried out to evaluate the effectiveness of CBI and GTM on EFL vocabulary learning in ESP domain. Thus, the present paper attempts to pursue the following question:

1. Is there any difference in the effects of CBI vs. GTM on Iranian ESP learners' management vocabulary development or not?
   The hypothesis is that CBI has a more powerful influence on Iranian EFL learners' management vocabulary development.

**Method**

**Participants**

A total of 58 students from two intact classes of ESP in Gowgan Azad University participated in this study (N = 29 in each class). They were all B.A. students of management, having passed the general English course at previous semester. Their homogeneity in terms of general English knowledge had been confirmed by a Comprehensive English Language Test (CELT) before the experiment, and they were randomly assigned into two groups (A and B), receiving two different kinds of instruction, namely CBI vs. GTM.

**Instruments**

To initiate the study, CELT was conducted to ensure the homogeneity of the two groups. A teacher-made vocabulary test (Appendix 1), focusing just on management technical vocabularies, and consisting of 20-item multiple-choice questions, was given to groups, both as a pre-test and post-test. The textbook employed in this study was entitled *English for the Students of Management (3)* by Moshfeghi, F., PhD, and published by SAMT publications, 16th edition in 2016. This book contained 20 lessons, 7 of which were taught in this study due to the time limitation, focusing mainly on reading comprehension and vocabulary learning. Each lesson consisted of a reading passage, following comprehension exercises (true-false and multiple choice questions) and word formation exercises.

**Procedures**

This study was carried on from October to December 2016, once a week for 12 sessions at Gowgan Azad University. First, at the beginning of the semester, two intact classes of specialized English took the CELT to ensure their homogeneity. The next session the pretest was administered by the researcher (who was actually the instructor, too). The participants were
given 30 minutes to respond to this teacher-made vocabulary test. The reliability of the test was measured with Cronbach’s alpha, which was 0.79 (0.7 ≤ α < 0.9), showing that the reliability for this test was acceptable. The obtained results from the pretest did not show any significant difference between the groups (p < 0.05), which again confirmed the homogeneity of the groups in terms of their technical vocabulary knowledge. Then the two groups were instructed the same content by means of two different methods:

Group A was taught based on CBI: classroom instructions and management were conducted in English, and semantic aspects were emphasized rather than grammatical points. Here, all the exercises and class activities were designed around the subject matter, and students were asked to guess the unknown meanings and do the exercises in pairs or small groups, in a communicative way. The researcher used pictures and technological aids, as much as possible, to improve the learning of the contextualized technical vocabularies.

In contrast, group B was taught by traditional GTM, in which the medium of instruction was the mother tongue (i.e., Persian). Here deductive explanation of some grammatical points and translating the texts into Persian were used to facilitate the comprehension of specialized passages and vocabularies. Then a vocabulary list consisting of new decontextualized technical vocabularies used in the text together with the Persian translation was presented to students, and they were asked to repeat and memorize them.

The treatment was given for 12 sessions. After this period, the vocabulary post-test was given to the two groups to compare their vocabulary learning.

Data analysis

In order to assess the efficiency of the GTM and CBI on technical EFL vocabulary learning of Iranian management students, the groups’ performances before and after treatment were compared by paired samples t-test. The results of pretest and post-test of two groups (A and B) were compared to determine which one had a significant difference (i.e. which one had significantly improved).

RESULTS

The descriptive statistics of the results (Table 2) shows that the mean scores of both groups have improved from pretest to post-test. In addition, the results show the mean scores of pretests for GTM and CBI are almost the same (4.48-4.03 ), but the mean scores of the post-test are different (11.55- 13.68).
Table 2. Descriptive statistics of retests and post-test of both groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBI</td>
<td>29</td>
<td>4.03</td>
<td>2.54</td>
</tr>
<tr>
<td>GTM</td>
<td>29</td>
<td>4.48</td>
<td>2.41</td>
</tr>
<tr>
<td>CBI</td>
<td>29</td>
<td>13.68</td>
<td>2.36</td>
</tr>
<tr>
<td>GTM</td>
<td>29</td>
<td>11.55</td>
<td>2.59</td>
</tr>
</tbody>
</table>

The results of paired samples t-test (Table 3) show that the mean scores of pretest and post-test in group A are significantly different (0.04 ≤ 0.05), whereas group B pretest and post-test mean scores are not significantly different (0.17 ≥ 0.05).

Table 3. Results of the paired samples t-test for the effects of the methods

<table>
<thead>
<tr>
<th>Pairs</th>
<th>Correlation</th>
<th>Sig.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A: CBI pretest &amp; CBI post-test</td>
<td>0.383</td>
<td>0.04</td>
<td>-19.05</td>
</tr>
<tr>
<td>Group B: GTM pretest &amp; GTM post-test</td>
<td>0.258</td>
<td>0.17</td>
<td>-12.44</td>
</tr>
</tbody>
</table>

DISCUSSION

CBI and GTM are two phenomenal methods in the history of English language teaching, with different theoretical and methodological backgrounds. So, it is expected that they lead to different outcomes in teaching English language skills and components. ESP is an area in English teaching in which English is not the end, but it is the medium of instruction of different specialized fields, such as management. Also, it is designed on the basis of learners’ communicative needs and functions. One of the most important and challenging areas for ESP students is vocabulary learning which requires a careful attention and consideration by teachers and educational administrators.

The present study attempted to investigate the effects of CBI and GTM in development of the Iranian ESP students’ technical vocabulary development. The results of the paired sample t-test supported the hypothesis, and indicated that there was a significant difference between the two groups taught with CBI and the GTM. In other words, the students taught through the CBI method outperformed in vocabulary development compared with their counterpart group which was taught via the GTM. So, the significant improvement regarding the vocabulary learning ability of the participants in the CBI group must have been associated with the type of instruction they had been received during 12 sessions.
The findings of this study is in line with Amiri and Hosseini Fatemi (2014), Chau Ngan (2011), Malmir, et al. (2011) who supported the effectiveness of CBI in ESP settings. Nevertheless, the results of this study disagrees with findings of Kavaliauskienë and Kaminskienë (2007), Mahmoud (2006), and Natsir and Sanjaya (2014), that indicated the effectiveness of traditional GTM method, claiming that for certain types of learner, grammatical syllabus provides a set of clear objectives, a sense of achievement, and the opportunity to relate grammatical structures to mother tongue equivalents. According to some other researchers, in EFL settings, with no native speaker models, and no exposure to English outside class, CBI may seen to be less effective. The majority of EFL students in CBI driven classrooms are often required to master content area in a language that is still in the process of being learned, while lacking the necessary prior knowledge and language skills to access specific content areas (Heo, 2006, Wesche & Skehan, 2002).

To justify the results of the current research, it can be claimed that the reason of the priority of CBI over GTM in technical vocabulary development might be due to the fact that the employed real life activities and discussions about management topics all in English, were found to be more meaningful, interesting, and motivating. Accordingly, the students were involved in the contextualized activities, like guessing the meaning of unknown words and using them in relevant examples, in a communicative context that provided negotiation of meaning and scaffolding. It is believed that when students are motivated and interested in the material they are learning, they make greater connections between topics, and can recall information better. This is the finding which corresponds to what Boivin and Razali (2013), Cammarata (2016), and Cumming and Lyster (2016) claimed. According to Jiangwen and Binbin (2011), in the process of vocabulary instruction for ESP courses, relating the word in reality and brainstorming activities are more useful than repetition and recycling the vocabularies. Moreover, group work, cooperative learning, student involvement, and providing comprehensible input are the things more needed and welcomed by the students, and the students can achieve better scores in all aspects of ESP, as Chau Ngan (2011) states.

Conclusion and implications

Teaching technical vocabularies in ESP classes is one of the most important and challenging issues for EFL teachers, syllabus designers, and also EFL learners. CBI and GTM are two different methods, with distinguishing principles that can be conducted in ESP classrooms for vocabulary development. CBI is more communicative, focusing more on content, and providing more comprehensible and contextualized input, whereas, GTM is teacher-centered, including a one-way transmission, focusing on structural syllabus, and translation. Regarding the lack of enough researches on the comparative effects of CBI vs. GTM on ESP students’ technical vocabulary development, and the critical importance of technical vocabulary development in ESP contexts, this study aimed to investigate CBI vs. GTM effects on Iranian ESP students’ management vocabularies. The results of the study showed that incorporating CBI in ESP context led to more promotions in management vocabulary development of Iranian ESP students.
Since it is the teachers' responsibility to follow the procedures suggested by researchers and make the process of learning and teaching as facilitating and useful as possible, ESP teachers by adopting CBI in classrooms can increase the students’ motivation to learn, and make the process of specialized vocabulary learning more communicative and influential and less boring and frustrating. CBI by focusing on ESP students' communicative needs and motivation factor, provides a meaningful context for negotiation of meaning and experiential learning of technical vocabularies. When students are actively involved in learning specialized content area in English, effective vocabulary development can be achieved.

The current study was limited in a number of aspects: first, the textbooks taught for both groups were the same for the purpose of homogeneity, so, the criterion of using authentic material in CBI group was not conducted. Second, there is not a standardized management vocabulary test, so a teacher made test was used as pretest and post-test, and third, the number of the participants was not adequate for the purpose of the trustworthiness of the findings.

For future research, examining the effect of CBI and GTM on improving reading comprehension skill in ESP students of management and other specialized fields, with large number of participants, is suggested.

References

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Appendix 1

In the name of God

Name: ………………………

I. Fill the blanks with appropriate words (10).

1. Providing guidelines for decision-making is the most important ……….of every company.
   a. policy       b. organization       c. officer       d. administration

2. A person who works in a profession, especially a doctor or a university teacher is called a (n)…………
   a. labor       b. manager       c. practitioner       d. administrator

3. The point at which someone stops working or the period in a person life when s/he has stopped working is called………
   a. renewal       b. retirement       c. remedial       d. recruitment

4. A high degree of ………..is required among the various units of the organization.
   a. generation       b. dissatisfaction       c. integration       d. condition

5. These methods will increase the company's ability to ……….income.
   a. generate       b. intrigue       c. refine       d. expose
6. Individuals who are of lesser rank of importance in an organization are a. Supervisors  
b. commanders  
c. subordinates  
d. coordinators

7. The money that a government or organization receives from people is called a. rent  
b. surplus  
c. salary  
d. revenue

8. If you make a prediction, you say what you think will happen in the future. 
a. decision  
b. deletion  
c. distribution  
d. prediction

9. Economics is part of the physical sciences. 
a. physical  
b. social  
c. technical  
d. pure

10. Most of companies have a procedural way of doing their most things. 
a. corporate  
b. procedural  
c. substantive  
d. bureaucratic

11. In many organizations, some of the employees are considering ways to increase the productivity of their companies. 
a. efficiency  
b. implementation  
c. authority  
d. emergency

12. The head of the government directs the public affairs of a country. 
a. rise  
b. govern  
c. increase  
d. get

13. It's often very difficult to change the manager's attitude. "Attitude" should mean a. member  
b. advice  
c. problem  
d. opinion

14. Public administration, like many human endeavors, is difficult to define. "Endeavors" should mean a. attempts  
b. individuals  
c. citizens  
d. scientists
15. Public administrators are doctors, personnel officers, and individuals engaged in a host of other occupations.

"Occupations" should mean ……………. 

a. jobs b. ranges c. interests d. behaviors

16. Public administration is the action part of government, the means by which the purposes of government are realized.

"Purposes" should mean ……………

a. fields b. parts c. goals d. values

17. Public administration is closely associated with numerous private groups and individuals. "Individuals" should mean …………

a. structures b. techniques c. efforts d. persons

18. Our manager allocated each of us our new task. "Task" should mean ……………

a. position b. accountability c. opinion d. responsibility

19. A businessman or businesswoman should know how to run a successful business.

"Run" should mean ……………

a. disturb b. manage c. produce d. confuse

20. The manager of the company advocated a policy of gradual reform not rapid one.

"Advocate" should mean ……………

a. support b. reject c. divide d. govern