

The Differential Effects of Three Different Approaches to the Teaching of English for Medical Purposes

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Received: 7 Feb, 2017; Accepted: 11 Apr, 2017

Abstract

Background & Aims: Recently, the role of English has shifted from the more general perspective of every day usage to a narrower situation and task specific perspective. Many experts in the field argue that Learners need English for a particular task or a field of study and successful courses are those that concentrate on one particular area in teaching English. Accordingly, the present study attempts to investigate the issue of whether the English teacher or the field specialist or their cooperative instruction is more effective.

Materials & Methods: Three groups of 130 medical students participated in this study. The first experimental group taught by cooperation of both an English teacher and a field specialist and also, two other experimental groups, one taught by a field specialist alone and the other taught by an English teacher. One test of reading comprehension was developed, which was used both for the pretest and the posttest; besides, a vocabulary test was designed, which was used both for pre and posttests. Mixed methods experimental research design was utilized for the present study.

Results: Both qualitative and quantitative analyses revealed that the class taught by the cooperative method held more positive attitudes toward learning English and they paid more attention to reading skill.

Conclusion: The findings of the study showed that among language skills, reading was considered the most important by the students, and cooperative teaching was so effective in students' achievements in both reading comprehension and vocabulary tests.

Keywords: Needs analysis, cooperative teaching, English, medical students, EMP

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Introduction

English for specific purposes (ESP) is known as using a learner-centered and content/context-based approach, which refers to the teaching and learning of English as a second or foreign language where the goal of the learners is to develop expertise in the English of a particular domain (1). The emergence of ESP was a

result of the developments in educational psychology, which meant that learners were seen to have different needs and interests, which would have an important influence on their motivation to learn and, therefore, on the effectiveness of their learning (2). English for Medical Purpose (EMP) distinguishes between studying the language of medicine for academic purposes (as

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designed for medical students) or studying it for occupational purposes (as designed for practicing doctors) and is by nature a genre- informed pedagogy based on needs assessment of specific groups of learners (3). Accordingly, medical terminology is a specific terminology used for the purpose of efficient communication in the health care field, also the language of medicine and health care is quite unique (4). There has been a controversy, among ESP specialists and teachers, over who qualifies to teach ESP courses: English teachers or the related field specialists? According to Sherkatolabbasi (5), English teachers do not possess the pertinent knowledge of the subject area; therefore, they cannot transfer or exchange opinions which contribute to the intended learning outcomes. Also, some scholars(6) (2) claim that teaching and designing ESP courses are English teachers' expertise and responsibility, because they are familiar with different methods of language teaching. Furthermore, many Iranian researchers have claimed that ESP courses should be taught by English teachers and not by field specialists (7) (8). For this reason, a field specialist teacher has to amply competent in both the related content area and General English in order to provide learners with a useful course.

There is also a third choice, which is collaborative teaching by both the field specialist and General English teacher simultaneously, which may ameliorate instruction. As Chang (9) claimed, co-teaching is an ideal way to deal with the shortage of qualified ESP instructors. Since, an English teacher cannot be expert in a particular subject area, an ESP class can be conducted via their collaborative teaching (10). Therefore, finding someone who is an experienced English teacher and possesses ample field specific knowledge is far from easy and since there are few studies about cooperative teaching in ESP, this study investigates the effects of cooperative teaching in EMP courses.

The present study investigated the effects of collaborative teaching in an undergraduate EMP class in Medical Science University, Urmia, Iran by paying attention to learners' progress in EMP course and their attitude toward language learning in the course. Therefore, there was an attempt to answer the following research questions:

RQ1: Does collaborative instruction improve the performance of medical students in reading comprehension and vocabulary tests?

RQ2: Do the medical students in the collaborative and non-collaborative groups differentially evaluate the instruction during the term?

Literature review

The emergence of ESP was a result of the developments in educational psychology, which meant that "learners were seen to have different needs and interests, which would have an important influence on their motivation to learn and therefore on the effectiveness of their learning" (11). Teaching ESP has always been characterized by a communicative approach in which learners are taught to accomplish tasks they are familiar with, from their professional environment in the foreign language (12). Generally, ESP refers to the teaching and learning of English as a second or foreign language where the aim of the learners is to use English in a particular domain (1). As this definition explicitly shows, needs lie at the heart of ESP. Language is learnt not as a tool for gaining a general knowledge but to prepare the condition deserving linguistic efficiency in these environments(13). ESP focuses on when, where and why learners need the language either in study or workplace contexts. ESP is a learner- centered approach in which ESP teachers with the help of students' test scores and educational information focus on the distance between learners' present and target competences. Orr (14) said that ESP "is an exciting movement in English language education that is opening up rich opportunities

for English teachers and researchers in new professional domains”.

There are also conflicting voices heard in the literature about ESP. McDonough (15) states that the majority of ESP learners are adults, “since it is only by that age that they have developed a specialism or job preference”. In contrast to the views of McDonough, Bracaj (16) argues that learning strategies are different among teachers and the method adults learn language varies from children, the group of advanced learners presents different attitude from beginners and teachers determine which aspects of ESP learning will be focused on to meet learners’ needs and expectations successfully. Dudley-Evans (17) also points out that ESP can be taught in schools, even at primary level.

It seems that ESP definition has generated argument and disagreement among scholars. One apparent area of disagreement among ESP scholars, as Flowerdew (18) observes, concerns “the nature and role of the so-called ‘common core’ (a supposed basic set of language items that can be used in all situations)”. This common core hypothesis was proposed by Bloor, as cited in (18), who suggest that “there is a fundamental group of grammatical and lexical items that learners should master before embarking on an ESP course”. Consideration of the value of some less specific content in the context of ESP has led scholars to distinguish between two types of ESP course designs: ‘narrow-angle’ and ‘wide-angle’ perspectives. The former refers to “courses for learners targeting a particular professional or academic field, whereas the latter or common core approach refers to courses covering a broader professional or academic field” (19).

Another area of disagreement among ESP scholars concerns classroom methodology. Hutchinson and Waters (2), assert that “ESP has paid scant attention to the question of how people learn, focusing instead on the question of what people learn”. This implies that the common approach to ESP has often been language-

centered and not learning-centered. It is suggested that ESP needs to be seen first as a learning process. According to Hutchinson and Waters (2), there is no difference between ESP and English for general purposes (EGP) in theory; but, there is a great deal of difference in their practice in classroom. In ESP teaching, the words and sentences and the subject matter which discussed are all relevant to a particular field or discipline. Teaching ESP is based on what has been acquired earlier in EGP. Its main aim is to meet the specific needs of learners. It means that there is no specific methodology for teaching ESP. According to Hutchinson and Waters (11), “ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning.”

There is a significant difference between an ESP teacher and an EGP teacher (2). ESP teachers should cope with students' needs analysis, syllabus design, material writing and should possess thorough knowledge of the specific course that they teach in the classroom. Dudley Evans and St John (20) use the term “practitioner” to an ESP teacher, they believe that there are many roles that an ESP practitioner can have: a teacher, course designer, researchers, material developer, collaborator and evaluator. Variety of methods for teaching EAP and EGP are thought to be the same by the large number of educators. Both EGP and ESP share a similar aim in developing students’ communicative competence (21). However, there is a problem about how to design and manage teaching of ESP courses according to the needs and skills of the students. In this case, there is a need for ESP teachers and English teachers to design courses cooperatively in a conceptual area that one has not mastered and developed the ability to analyze and describe specific texts (22).

Why collaborative teaching?

Nowadays, English is seen as the main international and intranational language of medical communication. By

noticing the importance of EAP programs in Iran and considering it as subcategories of ELT curriculum, the course designers should analyze and assess the needs of learners to improve the current EAP teaching situation (23). For establishing strict rules for designing related syllabus and curriculum, EAP classes are managed by subject teachers only and there is not any cooperation between English teachers and subject teachers (24). Many university students have a good knowledge and strength toward the professional areas of their fields, but they are poor in English. Learning and translating technical terms and texts into their own language negatively affects students' motivation and willingness in learning English for specific purposes. In order to overcome these shortcomings, teachers cannot follow a preplanned syllabus in their teaching. Therefore, adopting collaborative teaching is an aid to facilitate and promote ESP courses. As Delli-Carpini (25) stated collaboration among ELF teachers and field specialists in ESP teaching is a necessary element for improving student achievement. Collaborative teaching aims to maximize learning by reducing learner/teacher ratio to more effectively meet learner needs (26).

In the Iranian context, an English teacher with experience of a particular subject area can be hardly found and language skills such as listening, speaking, and writing are neglected in EMP classes where the focus of instruction is on reading comprehension (27). Therefore, it is better to teach ESP courses via collaborative teaching, integrating the two fields of knowledge to overcome ESP teaching dilemma. So this study was planned to shed light on the effects of a collaborative EMP teaching and investigate the students' attitudes toward such a methodology.

Methodology

a. Participants

Three groups of 130 (60 males and 70 females) medical students from Urmia Medical Science University in the

academic year of 2016, participated in the present study. Their age ranged from 18 to 29, with an average of 21. Fifty students were assigned to the first experimental group (the class taught by a field specialist) and forty students participated in the second experimental group (the class taught by an English teacher) and the third experimental group consisted of forty medical students who were taught by both field specialist and English teacher. All the students had passed the General English course, which is a prerequisite to EMP course. After administering a needs analysis questionnaire, students' needs and purposes for studying EMP course were recognized. There was no mortality in the study and anonymity considerations were observed by assuring the participants of confidentiality of their responses. In the present study, all the students voluntarily participated in three classes according to their educational schedule.

b. Instruments

The instruments utilized in the present study are as follows:

- a) Questionnaire survey of English needs
- b) pretest
- c) posttest
- d) interview

a) Questionnaire Survey of English Needs

The Questionnaire Survey of English Needs, used in the present study, was created based, in part, on the information gained from the interviews, and questionnaires used in the previous needs analyses conducted in medical contexts (28) (29) (30), and on the literature on ESP and EMP, with slight modifications for the purpose of the present study. Some items, considering the context of the study, were added, modified or removed based on the needs analyses and the interviews conducted before the administration of the study in order to suit the purpose of the study. The questionnaire was intended to find out the participants' beliefs or attitudes toward learning English. In this

study, the needs analysis questionnaire was administered to medical students in three separate classes at the medical faculty. The questionnaire was translated into Persian to ensure comprehension by the respondents. It was first created in English and then translated into Persian. The reliability of the English questionnaire is reported in the literature to be 0.89 and the reliability of the translated questionnaire was computed by Cronbach alpha to be 0.87 (Table 1).

The questionnaire comprised 71 questions with three subscales: the first subscale included 3 questions on the demographic information of the participants such as their gender, age, and field of study, the second subscale included 20 items which measure latent constructs, that is, characteristics of students such as attitudes, feelings, opinions, etc. Latent constructs are generally thought of as unobservable individual characteristics as to the importance of learning English for medical students in general and learning and using English specifically at the Medical Faculty. The items in this part of the questionnaire were scored on a likert scale ranging from strongly disagree (number 1) to strongly agree (number 5). The third part of the questionnaire included 48 items which measured the perceptions of the participants about EMP learning and using all four language skills: reading, writing, speaking and listening and the difficulties they face while using them. These questions were related to their learning purposes and learning needs. In this part, Likert scale questions and multiple-choice questions were used. The questionnaire was piloted at the Medical faculty of Urmia University with 10 students. The purpose of the pilot study was to make sure that the items were comprehensible to the participants and to remove any ambiguity in case. Having done the pilot study, the researchers computed the reliability of the questionnaire by Cronbach's Alpha, to be 0.87 (see Table 1).

Table 1. Reliability of needs analysis questionnaire

| Cronbach's Alpha | Number of questions |
|------------------|---------------------|
| 0.875 | 71 |

b) Pretest

Reading comprehension test

Technical vocabulary test

After recognizing types of their needs through questionnaire, two pre-tests at the beginning of the semester (one for technical vocabulary and one for reading comprehension) were given to the students, which were constructed from the selected teaching materials by the researchers. The pre-test of vocabulary comprised 20 multiple-choice questions, which were carefully chosen to represent common technical vocabularies that appear in most of the academic and medical texts. Then, the questions of tests were analyzed by Exam Analysis Software and the results were confirmed by the teachers (Tables 3 & 4). This software extracts test score, analyzes questions for statistical information; besides, degree of difficulty and discrimination of any questions and degree of tests' reliability were estimated.

For estimating coefficient of difficulty for analyzing multiple choice questions the formula below was used (see Tables 2 & 3)

$$P = \frac{\text{correct choices of upper group} + \text{correct choices of lower group}}{\text{number of upper group students} + \text{number of lower group students}} \times 100$$

The multiple-choice questions have four possible answers labeled A, B, C, D. Each multiple-choice question is worth 1 point and if answered correctly one point is given. Total time dedicated to answering these pre-tests was 60 minutes. Also, pre-test of reading section comprised of 4 reading passages, the text length of each passage was nearly 150 to 180 words. There were a total of 20 comprehension questions, which should be answered in about 45 minutes. The reading tests provided comprised of four multiple choice

questions labeled A, B, C, D. Each question correctly answered is given one point too.

Table 2. Results of Exam Analyzer Software for vocabulary tests

| | Simple | 4 |
|---|-----------------------------------|------|
| Numbers of questions with different difficulty degree | Average | 12 |
| | Difficult | 6 |
| | Very difficult | 0 |
| | Extra difficult | 0 |
| Numbers of questions with number of strong choices | Average coefficient of difficulty | 0/68 |
| | five choices | 1 |
| | four choices | 19 |
| | three choices | 0 |
| | Two choices | 0 |

Table 3. Results of Exam Analyzer Software for Reading Comprehension

| | | |
|--|-----------------------------------|------|
| | Simple | 4 |
| | Average | 8 |
| | Difficult | 3 |
| | Very difficult | 0 |
| | Extra difficult | 0 |
| | Average coefficient of difficulty | 0/62 |
| Numbers of questions with number of strong choices | five choices | 3 |
| | four choices | 0 |
| | three choices | 11 |
| | Two choices | 0 |

e) Post-test

The same two tests (vocabulary & reading) which were given as pre-tests, also were given as post-tests to the same students at the end of the term. The same procedure applied for the pre-tests was also used in conducting the post-tests.

d) Interview

The interviews which were held with both key stakeholders and some students in the medical faculty contain two open-ended questions. These questions were mostly similar to the questions in the second part of the questionnaire to better obtain information about

the situational needs and the students' attitudes toward the teaching and learning of English at the medical faculty, and its importance for the medical students. 15 students voluntarily, took part in the interview (five students participated from each class) and were asked to express their opinions about the importance of the four major language skills and their improvements in each class. 10 minutes was dedicated to every interview. All of them were conducted in English one-to-one with stakeholders, but the students were interviewed in Persian by researchers during two weeks. The students preferred to be interviewed with at the library study

room, while others preferred to be interviewed in their offices. Because of being fazed or nervous by the presence of a tape-recording, all ignored to be audio recorded. So the researchers only were allowed to take notes during interview.

c. Materials

Both English teacher and the field specialist taught one class collaboratively, they divided all 16 sessions between each other, it means that during one semester every teacher had 8 sessions and every session lasts two hours during a week. Because the students' field of study was medicine, Medical Terminology (Cohen & Depetris, 2014) was selected, which provides scientific essays and articles and focuses mainly on reading skill, presenting technical vocabulary in a variety of ways

such as topics, word formation, prefixes, suffixes and roots.

Results

4.1. The questionnaire (The First Qualitative Section)

The questionnaires were analyzed using the Statistical Package for Social Sciences (SPSS 19). Since there were three question types: Likert scale, multiple choice and ranking questions, different statistical techniques were utilized. First, descriptive statistics was obtained. Each answer was assigned point values with the number 1 being awarded 1 point; 2, two points; 3, three points, *etc.* Frequency counts were used to count the percentage favoring the statements the students had checked. Then, the question for ranking the priority order of the language skills was analyzed with descriptive statistics displaying mean and standard deviations.

Table 4. Descriptive statistics for priority ranking of the four English language skills by the students

| Skill | Group | Priority | Mean | SD. |
|-----------|---------|----------|------|-------|
| READING | ALL | 1 | 3.13 | .918 |
| | FS | 1 | 2.84 | 1.037 |
| | ENGLISH | 1 | 3.22 | .862 |
| | CO | 1 | 3.40 | .709 |
| SPEAKING | ALL | 2 | 2.62 | .934 |
| | FS | 3 | 2.32 | .844 |
| | ENGLISH | 3 | 2.48 | .933 |
| | CO | 2 | 3.15 | .834 |
| LISTENING | ALL | 4 | 1.74 | 1.145 |
| | FS | 4 | 2.22 | 1.314 |
| | ENGLISH | 4 | 1.68 | 1.118 |
| | CO | 4 | 1.20 | .564 |
| WRITING | ALL | 3 | 2.48 | .982 |
| | FS | 2 | 2.62 | 1.159 |
| | ENGLISH | 2 | 2.52 | .933 |
| | CO | 3 | 2.25 | .742 |

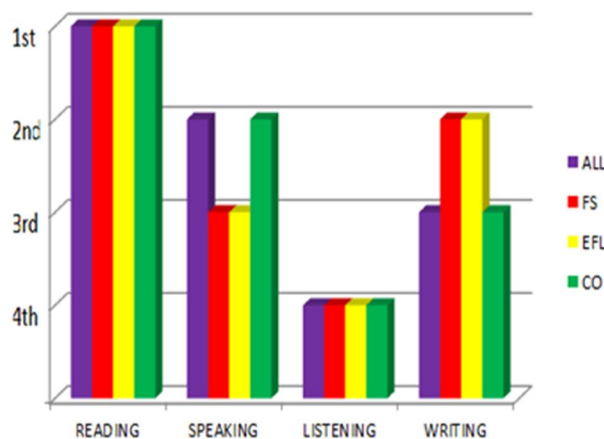


Figure 1. Priority ranking of English language skills by the students

Table 5. The students’ perceptions about the frequency of the need for reading skills

| Always | | Often | | Rarely | | Never | | Total | |
|--------|--------|-------|--------|--------|--------|-------|-----|-------|------|
| F | P | F | P | F | P | F | P | F | P |
| 37 | 28.5 % | 73 | 56.2 % | 20 | 15.4 % | 0 | 0 % | 130 | 100% |
| 37 | 28.5 % | 73 | 56.2 % | 20 | 15.4 % | 0 | 0 % | 130 | 100% |

As the results of Tables 4 and 5 and figure 1 show, all the three classes agreed upon the priority and necessity of reading skill in EMP classes among other skills. In general, all the students found reading skills important for academic studies.

4.2. The Interview (The Second Qualitative Section)

The interview data were analyzed qualitatively by going over the writings and searching answers that corresponded to certain questions from the questionnaires. The first main question of this study was:

"To what extent are the four main English language skills required in the EMP classes?"

And the second main question required the participants and stakeholders' evaluation of collaborative and non-collaborative instruction (question 2 of this study).

"Do the medical students in the collaborative and non-collaborative groups differentially evaluate the instruction during the term?"

The results demonstrated that all the interviewees, in varying degrees, agreed that reading was important. Most of the students explained, "reading is very important because, in their field of study, they need to read a lot of articles and books in order to be aware of the newest knowledge in medicine, they said cooperative teaching was so effective in improving this skill because English teacher was more familiar with reading teaching methods and also, a field specialist teacher is so knowledgeable in teaching specialist texts.

A student (named Ali) mentioned that: "reading is important because for knowing the meaning of medical terminology, we have to read the dictionaries and the teachers always ask us to read the textbooks written in English, so knowing how to comprehend these texts is important, they showed their satisfaction with cooperative teaching too."

These results show that teachers’ collaboration has a positive influence on learners’ motivation; that is, students are much more motivated toward English learning by the end of the academic semester.

Obviously, the EMP program was successful in encouraging students in the experimental group to realize the importance of learning English.

4.3. Pre and posttest of reading and vocabulary (The Quantitative Section)

The pre and post-tests of reading and vocabulary tests (they were corrected by the researchers) from three classes were analyzed by using One-Way ANOVA test.

Table 6. Normality of data distribution

| Test Statistics | Pre-test | Post-test | Pre-test | Post-test |
|-----------------------------|----------|-----------|----------|-----------|
| | reading. | reading. | vocab. | vocab. |
| Kolmogorov-smirnov Z | 0/732 | 0/791 | 1/322 | 1.048 |
| Asymp. Sig. | 0/657 | 0/558 | 0/061 | 0/224 |

As Table 6 shows, data distribution is normal. Accordingly, for analyzing the data, parametric tests were utilized (One-Way ANOVA test).

Table 7. Mean difference of pre-test of reading among three classes at the beginning of term

| | Sum of Squares | df | Mean Square | F | Sig. |
|-----------------------|----------------|-----|-------------|-------|------|
| Between Groups | 14.871 | 2 | 7.435 | 1.590 | .208 |
| Within Groups | 593.869 | 127 | 4.676 | | |
| Total | 608.740 | 129 | | | |

Table 8. Mean difference of pre-test of vocabulary among three classes at the beginning of term

| | Sum of Squares | Df | Mean Square | F | Sig. |
|-----------------------|----------------|-----|-------------|-------|------|
| Between Groups | 29.814 | 2 | 14.907 | 2.883 | .060 |
| Within Groups | 656.655 | 127 | 5.171 | | |
| Total | 686.469 | 129 | | | |

As tables 7 and 8 indicate, there is no significant difference among groups in terms of their initial

knowledge and their ability in reading comprehension and vocabulary at the beginning of term.

Table 9. Mean differences of pre and post-test of vocabulary

| Class | N | Mean of pre-test | Mean of post-test | Difference between means posttest= progress |
|------------|----|------------------|-------------------|--|
| FS | 50 | 10.52 | 15.26 | 4.74 |
| ELT | 40 | 10.70 | 16.00 | 5.30 |
| Co | 40 | 9.57 | 15.90 | 6.32 |

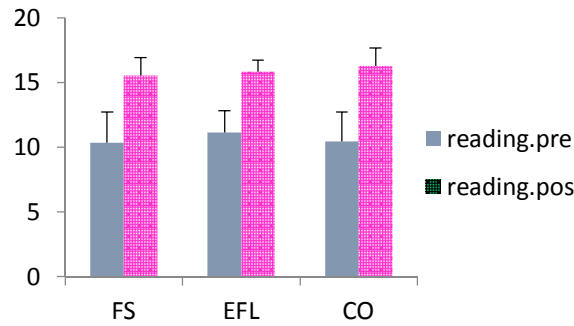


Figure2. Students' progress between pre and post-test of reading

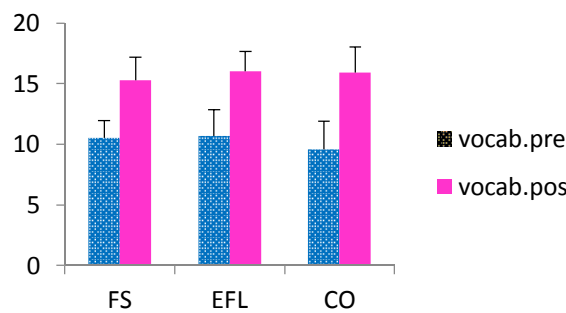


Figure 3. Students' progress between pre and post-test of vocabulary

Table 10. Progress between three classes in pre and post- test of vocabulary

| | Sum of Squares | Df | Mean Square | F | Sig. |
|-----------------------|----------------|-----|-------------|-------|------|
| Between Groups | 56.405 | 2 | 28.202 | 7.268 | .001 |
| Within Groups | 492.795 | 127 | 3.880 | | |
| Total | 549.200 | 129 | | | |

Table 11. Category of classes according to progress in vocabulary exam (Post-hoc test)

| Class | N | Category 1 | Category2 |
|-------------|----|------------|-----------|
| FS | 50 | 4.74 | |
| English | 40 | 5.30 | |
| CO | 40 | | 6.32 |
| Sig. | | 191 | 1.000 |

Regarding the post-test results, as it can be seen from tables 11 & 14, the difference between the three groups is statistically significant; therefore, it can be concluded that students of cooperative teaching class represented more progress in technical vocabulary learning than

other classes. The post-hoc test (Table 11) reveals that the CO group is significantly different from the two other groups while the difference between FS and English groups is not statistical.

Table 12. Mean differences of pre and post-test of reading

| Class | N | Mean of pretest | Mean of post-test | Difference between pre and posttest= progress |
|-------|----|-----------------|-------------------|---|
| FS | 50 | 10.37 | 15.56 | 5.19 |
| ELT | 40 | 11.12 | 15.82 | 4.69 |
| Co | 40 | 10.43 | 16.28 | 5.85 |

Table 13. Progress between three classes in pre and post- test of reading

| | Sum of Squares | Df | Mean Square | F | Sig. |
|-----------------------|----------------|-----|-------------|-------|------|
| Between Groups | 27.148 | 2 | 13.574 | 3.734 | .027 |
| Within Groups | 461.633 | 127 | 3.635 | | |
| Total | 488.780 | 129 | | | |

Table 14. Category of classes according to progress in reading exam (Post-hoc test)

| Class | N | Category 1 | Category2 |
|-------------|----|------------|-----------|
| ENGLISH | 40 | 4.69 | |
| FS | 50 | 5.19 | |
| CO | 40 | | 5.85 |
| Sig. | | .234 | 1.000 |

As can be seen in table 13, the difference between the three groups is statistically significant; therefore, it can be concluded that students of the cooperative class represented more progress in reading comprehension skill than other classes. The post-hoc test (Table 14) reveals that the CO group is significantly different from the two other groups while the difference between FS and ENGLISH groups is not statistical.

Discussion

As mentioned above, the present study was designed to evaluate the effectiveness of collaborative EMP teaching by the results of two kinds of pre and post-tests, an English Needs analysis questionnaire and interview. Regarding the questionnaire data, there is a common perception among the three groups with regard to the importance of reading skill among other language skills to the students' academic studies. This is consistent with the interview findings, which indicates that the majority

of respondents considered reading important in their academic studies and they believed that reading skill is a necessary need which should be met in EMP classes. This finding is parallel with those of the previous needs analyses in medical contexts (31) (32) (33).

The post-test scores of both reading comprehension and vocabulary indicate a statistically significant difference in English improvement among these three groups. It means, the students' mean score of cooperative teaching class was much higher than the mean score of other two classes. It seems that reading skill is better developed under the cooperation of both English and field specialist's leadership (Table 6 & Table 8). Reading is a complex syntactic analysis mixed with a semantic interpretation of the text, which requires professional knowledge to teach it(34). In other words, EMP cooperative teaching class is more motivating and effectively better than separate teaching in students' English progress. Therefore, advancement in the scores

of both vocabulary and reading comprehension shows convincing effectiveness of the collaborative EMP treatment.

In terms of the English language instructors' knowledge to teach medical English, the students of both classes which were taught by only one teacher, have negative feelings. They do not find the content knowledge of the English teacher adequate to teach English for medical purposes courses and also they believe that the field specialist teacher has lack of knowledge in teaching general English. Also, especially the teachers themselves, admitted that cooperative teaching of both teachers are beneficial in EMP. ESP teachers' familiarity with the students' discipline is regarded as important (20) (2) (35). As key stakeholders asserted, ESP content and technical vocabulary, discourses and processes of the teaching may be challenging for the instructors; therefore, analyzing discourses of the students' discipline, negotiating with faculty, and studying the strategies and language that students need is important.

According to Robinson (36), a very important quality of the ESP teacher, is his/her flexibility, that is, changing from being an English teacher to being an ESP teacher. As Hutchinson and Waters (2) express, the ESP teacher should have the same qualities of the general English teacher. He/she should have English language knowledge, thorough command of the course design, and expert knowledge of the related field, also, English teacher should have enough knowledge in the specific field they teach. As the results demonstrate, cooperation of an English teacher and a field specialist in the ESP class fills this gap, and students can benefit from their cooperation in both general English and specific field in the classroom.

It also can be inferred from the students' responses in the interview that most of the students related the importance of reading skill to an especial factor. It can be argued that in teaching EMP course, the cooperation

of both teachers may have influenced on meeting students' needs in EMP classes, because an English teacher is more familiar with the methods of teaching reading skill than a field specialist. Therefore, the gap in methods of teaching English skill will be filled.

In terms of facilities available in the medical faculty, both the students and the academicians are dissatisfied about the adequate availability of technological equipment to teach English effectively, and the students do not appreciate their usage by the instructors. But key stakeholders of the faculty disagrees with these points. According to their opinion, there are some technological equipment in the preparatory class and EMP class available for teachers, like internet which should be used to introduced medical sites to students. As some scholars mentioned, the internet is a very useful tool for researching different topics esp. medical ones, with a wealth of updated information (37, 38); (39).

As Hutchinson and Waters (2) point out, ESP teachers should have positive attitudes and willingness, as well as some basic knowledge of the discipline they teach, to achieve meaningful communication between teacher and learner. However, it is not a one-way movement but a negotiation process among English teachers, field specialists, and students. When considering the context of UMSU, there are some academicians who completed their doctorates in the UK or other English speaking countries. As they became very competent in using English for their academic studies and have also spent time in English language speaking countries, they are the ones who most realistically can guide the training process of the English language instructors for teaching EMP.

In terms of my own experience and observations with the Urmia medical faculty, a major issue may be the lack of motivation and willingness of the language teachers. This largely stems from the fact that in comparison with the field specialists, the English teachers are not equally supported, it means they are not allowed to teach EMP

because the different medical departments believe that English teachers lack adequate technical Knowledge. Therefore, when the English instructors are invited to meetings to discuss about students' educational matters and problems, their opinions are not asked and they are not given the opportunity to express them. Overall, these unequal situations may create unwillingness and demotivation of the teachers to teach at this faculty. Therefore, it is important that their self-esteem should be restored through involving them in the decision making processes, listening to their opinions, and from time to time listening to their problems. They should be trained and oriented through workshop activities, and conferences, inviting in experienced instructors in the field of English language teaching.

Conclusion

Most of Iranian children have access to English language education from their childhood. We hope that the expected objectives in achieving English ability in their general English and professional fields at the university level can be fulfilled soon. However, as to the experiment we conducted, English learning is demanding for this group of students. Thus, an initial purpose of the EMP course at the UMSU was to improve the medical students' language ability in general and to

improve the skills they need in order to communicate effectively in the target situation.

Among the English language skills, reading was considered the most important skill in the students' academic studies, ahead of writing, listening and speaking. This finding is in accordance with Terzic's (40) claim that understanding of the written words causes successful education which means that reading is a kind of cognitive process in which the interaction between reader and the information in the text takes place. The findings are also in line with Spasic et al. (41) that collaborative teaching in ESP contributes to the direct and practical use of language in the context of the study field and, furthermore, in contrast to Chien et al. (42) that collaborative teaching did not make any difference in learners' progress particularly regarding the level of vocabulary knowledge. However, in both of these studies learners had positive attitudes toward learning.

We hope that this study can be effective in improving EMP teaching methods and be useful for EMP teachers who can help university students with different English needs and purposes and causes progress in higher level of personal satisfaction and social contribution in a rapidly changing global society like Iran.

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