



The Impact of Vocabulary Enrichment through the Integration of Reading and Writing Tasks on Advanced EFL Learners' Motivation in ESP Courses

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(Received: 2021/ 7/28; Accepted:2021/11/13)

Online publication: 2021/11/26

Abstract

Motivation in English for Specific Purposes (ESP) courses is an issue of utmost importance. Expanding specialized vocabulary is one of the objectives defined by ESP stakeholders. Therefore, the aim of this study was to investigate the role of vocabulary enrichment through close integration of reading and writing tasks in promoting advanced English for Occupational Purposes (EOP) learners' motivation and attitudes. To this end, fifteen civil engineers were selected through convenience sampling. Following an eight-session course centered around technical vocabulary using reading and writing tasks, questionnaires were used as pretest and posttest based on Attitudinal/Motivation Test Battery (ATMTB), to measure nine types of motivation. Nine paired samples *t*-tests were conducted to determine whether there was a mean difference in the questionnaire results across time from pretest to posttest. The results demonstrated significant increase in all types of motivation following the integration of reading and writing tasks, excluding intrinsic motivation considering self-confidence. It was shown that there is a close relation between ESP learners' motivation and the amount of vocabulary they learn. The results proposed certain practical strategies in order for ESP/EOP material developers and teachers to fulfill the objectives and aims of these needs-based courses.

Keywords: English for specific purposes, English for occupational purposes, learners' motivation, specialized vocabulary

Introduction

Recently, the growing demand for ESP courses in the domain of English teaching has underscored the need for designing effective relevant courses. The development of ESP and the consequent demand for English specific to professions in the sphere of commerce and technology in the post-war brave new world where technical and economic activities were strongly stimulated and conducted on an international scale due to the nascent industrial adjoining of countries at the time, English for occupational purposes (EOP) came into existence (Hutchinson & Waters, 1987). As ESP courses are set out to teach the language and communication skills that specific groups of learners need or will need in the future to effectively and optimally function in their disciplines of study, profession, or workplaces, the stage of needs analysis is integral to ESP curriculum development design process and is becoming increasingly sophisticated (Basturkmen, 2010). Thus, ESP courses are expected to meet the learners' narrowly tailored needs which are closely related to the satisfaction they derive following the enrollment of the course and the eventual return they anticipate for their learning effort. English for Specific Purposes (ESP) courses are particularly designed based on learners' needs and therefore 'Needs Analysis' is an essential core to these courses (Hutchinson & Waters, 1987). Alemi and Pazoki (2019) view the concept of needs analysis as a vital step to designing relevant and useful courses in ESP.

Motivation is a key factor in designing and running ESP courses, which appears to be an under-explored domain in ESP. Saheb (2014) believes that understanding adult learners' motivation to learn English is a key factor in order to develop a more responsive educational program. Motivation as a variable in L2 development is no longer considered as a stable individual factor rather it is believed to be a dynamic construct (De Bot, Dörnyei, & Waninge, 2014). Learners who enroll ESP courses, in advanced levels in particular, seem to enjoy strong in-class motivation at the beginning of the course. However, this motivation is subject to fluctuation over the course of the lessons which may negatively affect the goals of language learning (Ali, 2014). The courses according to Ali (2014) seem to start with high motivation in learners but as they proceed, this motivation wears off which is evidenced by the low level of participation in class activities. Finding

ways to keep the motivation powerful and original throughout ESP courses could help teachers, learners, administrators, course book creators, and curriculum and syllabus designers improve the quality of the lessons in such courses and these courses, as Basturkmen (2010) mentions, cater to students' interests and needs, they are more likely to engender high levels of motivation.

Rozmatovna (2020) views motivation as a fundamental secret to success in the science of acquiring a language and sees the importance of motivation in the fact that it offers a fundamental aspiration to commence the learning process and insistency to advance the language skills. Schug and Cor (2017) believe that ESP courses tend to motivate more because they address the learners' needs and interests. They also believe that Complex Dynamic System Theory (CDST) is one of suitable devices to investigate motivation. Elachachi and Graia (2014) refer to motivation as an important affective factor which could explain and rate failure and success and in their study on motivation in ESP classes offered to biomedical engineering students, they affirm the cardinal importance of motivation in ESP classrooms by reporting that the students show low motivation due to a number of reasons namely low English language proficiency level, inappropriate course content and teaching methods and materials, unpleasant classroom atmosphere, inadequate teacher-student relationship, and insufficient time allocated to the course.

On the other hand, vocabulary knowledge in language learning is seen as a reliable gauge to measure any learner's skills and command of communicating in that language. Coxhead (2013) explains that research into vocabulary and English for specific purposes (ESP) has primarily been driven by the question "what vocabulary do ESP learners need?" As regards the type of tasks, vocabulary development exercises according to Williams (1985), deliberately and preferably systematically expand the target word stock in the learner's mind aiming at enabling the learner to use the words through writing or speech. Sarani and Sahebi (2012) following a between-groups study concluded that the application of task-based vocabulary learning in ESP students had a major impact on their performance. Schoonen (2018) states that many studies are chiefly concerned with the

efficiency and authenticity of teaching reading and writing and that proficiency in both of them are correlated at different stages of development. He concluded that linguistics and metacognitive knowledge and fluency variables are in correlation with reading and writing ability and further mentions that we use all the linguistic resources which we have in reading and writing. Considering the topic of the reading and writing tasks to be taught Martirosyan, Saxon and T.Vick (2016) state that applying the same topic across the instruction of the two tasks can meaningfully engage the students and they will then read a passage, annotate the text, answer comprehension questions, and based on the text, write an essay based on the ideas in the text. Esmaeili (2002) views the integration of reading and writing from a directional perspective, and his findings support the idea that reading and writing have structural components in common which can be applied from one modality to another. This perspective supports a reading-to-writing model, simply put, reading prior to writing enhances writing.

Learners of English majoring in specific fields, engineering in case of this study, often face difficulties when they are asked to write research articles in English. And this problem leads to frustration. This frustration is caused by the lack of guidance and sufficient or even minimal training which is seriously neglected. Khodi (2016) in a study on Iran ESP curriculum development reports that the common ground among studies on ESP needs analysis point to the fact that participants of these classes are not satisfied with the program and they claim that it does not meet their needs while these specific English courses are supposed to bring about vast improvements in the learners' capabilities in communicating in English within the community of their disciplines. Consequently, this study is aimed at finding ways to maximize overall effectiveness of ESP courses by means of boosting learner motivation through enhancing the content with specialized vocabulary and vocabulary enrichment through the integration of reading and writing tasks.

Regarding the issue of motivation in ESP courses several studies have been conducted. Mauludin (2021) examined students' perception of utilizing motivating teaching strategies in Indonesian ESP classes. The findings show that teaching strategies and practices which provided them with a comfortable and enjoyable learning environment are most preferred by the

learners. Mostafavi et al. (2021) used a researcher-made questionnaire to evaluate the efficacy of ESP pedagogy in the Iranian academic context focusing on ESP courses for engineering students. They concluded that educational facilities, content authenticity, satisfaction of needs and objectives, and learner autonomy are the factors that decrease the efficacy of ESP courses and reduce motivation in learners.

As more researchers found interest in ways to maintain and promote learner motivation in ESP, Alemi and Pazoki (2020) accentuated the essential role of needs analysis in the relevancy and usefulness of ESP courses through investigating both teachers' and learners' perceptions and the motivating factors in the teaching and learning technical English with principal focus on Iranian engineering students and concluded that modifications are crucially needed in terms of pedagogical implications in ESP.

Joseba and Ardeo (2016) investigated learners' attitude towards learning English and the levels of motivation pointing to the fact that students' high level of self-perceived confidence is in correlation with their command of English. Saheb (2014) delved into the levels and types of motivation in students of EGP in Sweden. The results demonstrate that attitudinal motivation varies based on age range and the number of languages spoken that conformed to previous research studies that underlined the importance of further examination of attitudinal and extrinsic and intrinsic motivation in second language acquisition.

More recently, Rezaei et al. (2021) examined the effectiveness of flipped classroom technique in improving learning ESP vocabulary and reported that finding ways such as flipped classroom and its prospected implications to enhance learners' vocabulary could lead to better communication in the ESP world, hence higher learner motivation.

A review of the existing literature indicates that motivation has been studied in various research scopes cognate with English Language Teaching and has been a topic of interest among researchers. This important affective variable seems to have gained attention in the realm of ESP/EOP, however, the key role of reading and writing as the dominant skills in ESP courses in maintaining learners' motivation is underexplored. Thus, the goal of this

paper is to extend the current knowledge of ways to promote ESP learners' motivation by investigating the effectiveness of a lexical approach to teaching reading and writing. Through broadening ESP learner's specific vocabulary, their motivation could be maintained and promoted by integrating reading and writing tasks using texts containing adequate amounts of specialized vocabulary. This study could also help address this research gap which the author observed in the literature on motivation in ESP courses and could guide the process of material development and lesson planning in ESP courses.

The present study particularly addressed the following research question:
RQ. Does the integration of reading and writing tasks and the consequent enrichment of specialized vocabulary have any significant effect on the learners' motivation?

Method

Participants

The participants in this study were 15 (2 females and 13 males) Iranian EFL learners aged 24-45, 13 of whom hold the Master's degree and 2 of whom are PhD graduates in civil engineering. On account of the scarcity of construction companies willing to provide ESP classes for their staff and the condition imposed by COVID-19 crisis and the fact that the participants' company in this project had furloughed or suspended many of the employees, the sample size in this research was small. They all work for a reputable construction company with strictly selective recruitment procedures. They have had general English classes with the same teacher for five years on a weekly basis. Due to the nature of ESP courses and the current COVID-19 pandemic, the population was selected through convenience sampling.

Instruments

Questionnaire.

The questionnaire which was used in this study was adapted from Gardner's Attitudinal/Motivation Test Battery (ATMTB) and is based on a socio-educational model of which predictive, content, construct, convergent, and discriminant validity have been investigated for and used in several studies and proven to be a suitable device to measure motivation in the context of language learning worldwide (Ali, 2014; Dörnyei, 1994; Gardner & Gilksman, 1994; Ghazvini & Khajehpour, 2011).

The adaptation was conducted under the supervision of a panel of experts. Four language experts (members of the faculty of English) approved of the adaptation. Two content experts (Ph.D holders in civil engineering) who work in the company but did not participate in the classes validated the adapted questionnaire. Taherdoost (2016) defines content validity as the degree to which items in an instrument reflect the content universe to which the instrument will be generalized and believes that it involves the evaluation of a new survey instrument for the purpose of ensuring the inclusion of all the items that are essential and eliminating undesirable items which are irrelevant to a particular construct domain. He further stresses the importance of the judgmental approach to confirm content validity through the revision of literature and the evaluation by expert judges or panels. In the first part of the questionnaire, personal information is provided by the participants. As they showed disinclination to be identified by their names, numbers were given to each participant instead. There are 27 questions in the questionnaire divided into groups of three and participants were asked to tick the box of their response which are designed on a five-point Likert scale. In the first part of the questionnaire (category group 1), the participants provided personal information anonymously. Each of these groups is coded depending on the factor they are meant to analyze (Table 1):

Table 1

Motivation groups

Group 2	Instrumental motivation (occupational factor)
Group 3	Integrative motivation (occupational factor)
Group 4	Extrinsic Motivation - instrumental orientation (attitudinal factor)
Group 5	Intrinsic Motivation - self- confidence- (attitudinal factor)
Group 6	External encouragement (impact of occupational factor on attitudinal factor)
Group 7	Intrinsic motivation –integrative orientation (attitudinal factor)
Group 8	Extrinsic Motivation (Teacher and colleagues)
Group 9	Recapitulation of Instrumental/integrative motivation
Group 10	Self- assessment of the use of English for specific purposes outside the class, motivation and the ESP class.

Tasks and Materials

The content of the lessons was chosen from reliable sources (magazines and journals on civil engineering and architecture) of which validity was checked with a PhD holder in civil engineering with a position in the research and development department of the company. Most of material was

also taken from “Cambridge English for Engineering” (Ibboston, 2008), which is a text book aiming at developing communicative competence in specialist English in ten standalone units about technical subjects including civil, mechanical, and electrical engineering. Texts with adequate amounts of new vocabulary were picked aiming at checking learners’ comprehension of the text using gap filling, true/false, and summarizing exercises such as summarizing the text in a short paragraph which was done both verbally and written prior to the writing task at the end of the session. The newly learnt vocabulary was dealt with through the vocabulary exercises, usage and pronunciation of the new words were practiced and then the learners were given the task of making sentences using the new vocabulary. They were given a similar topic to write an essay of about 250 words. The main structure of the text and instructions given for writing followed a pattern similar to that of an IELTS task 2 writing (scientific essay writing) which due to the shortage of time was allowed to be completed outside the classroom within 40 minutes.

In case of the present study for which the ATMTB which was used by Saheb (2014), was adapted from the context of General English to English for Specific (occupational) Purposes, expert judgment was rendered following an in-depth literature review. Considering the time of the questionnaire being administered, two verbs had to be used differently in the pretest and the posttest in terms of the tense.

Procedure

The courses were run in a leading construction company in Tehran, Iran. The company’s coherent recruitment policies implemented by the Human Resources department aim at hiring the best-qualified civil, electronic, mechanical engineers, and architects. As a part of perks, the company offers English classes on-site and in the headquarters. The same teacher has been working with the company for the past five years moving between projects and with the team involved with the housing section of the company to different parts of the city. This particular group of learners have been taking general English classes with the teacher throughout the years. The textbook series employed for the classes was American English Files. The courses were designed based on a two-time-a-week program. As a part of each class throughout the years, a specialized text on architecture, civil engineering, or project management was presented in the classes. This section of the lesson plans was recommended by the human resources department from the beginning of the courses. An online ESP course was designed for the students in response to the human resources’ demand as the students reached the advanced level. Virtual twice-a-week classes were confirmed

and 15 students were placed into the class. The Oxford Online Placement Test (OOPT) was administered to them to verify the accuracy of the placement through measuring their proficiency using American English File's progressive tests which come with the teacher's material and to ensure the homogeneity of the group. The course took 8 sessions within a month. The lesson plans were made by the teacher prior to each class. The content was chosen from reliable sources of which validity was checked with a Ph.D holder in civil engineering with a position in the research and development department of the company. Majority of the lessons were also taken from "Cambridge English for Engineering". In the first class of the week the lesson mainly started with a topic on current issues in the world of engineering, a topic of general interest and relevant to the ongoing projects in the company. Students participated in group and pair work to come up with technical solutions. The corresponding vocabulary was determined by the teacher and was presented at this stage. The students were then given a text on the same topic and following reading, they did comprehension exercises. As the last task in the lesson, they were asked to make sentences using the new words. The second class of the week, within 2 days, the lesson started with the reviewing of the words from the previous lesson and the pre-teaching of the new specialized vocabulary coherent with the theme of the text in the previous lesson. Another text was given to the learners with some comprehension questions. Subsequently, the learners were given a similar topic to write an essay of about 250 words. The main structure of the texts were generically analyzed and instructions for writing following a pattern similar to that of an IELTS task 2 writing were included in the second class of the week. The students then handed in their essays the following week and were returned the papers with feedback on their writing. Each week one theme of engineering with one writing conforming to the theme was covered. The participants were invited to complete the questionnaire and it was sent to the learners on the first session before the class started and time was given to the participants to complete and return it. Following the treatment, a day after the eighth session when the essays written by students were handed in, the same questionnaire was sent to the participants through email, completed and returned the next day.

Design

This is quantitative research and due to the impossibility of randomization, quasi-experimental in design. The independent variable is 'vocabulary enrichment through the integration of reading and writing' and the dependent variable is set to be 'the learner motivation.'

Data Analysis

The questionnaire contains nine groups of three questions each of which is aimed at measuring attitudinal motivation of the certain type as shown in Table 3.1 through the five-point psychometric scale provided in multiple choice questions with the options and values specified as, strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). The participants were given numbers, 1 to 15 and the data for each question group 2 to 10 was recorded in a total 18 Excel spreadsheets, nine containing the responses in the pre-test and nine with the responses in the post-test. The data were given to SPSS and nine paired sample *t*-tests were carried out.

Results

Descriptive statistics

In order to investigate the changes in attitudinal motivation of students in different levels of motivation, nine paired samples *t*-tests were conducted. It should be mentioned that each level of the scale was considered as a latent composite, so the means of students' responses to questions of these levels of the scale were calculated and entered into analysis. To ensure the reliability of the questionnaires Cronbach Alpha was used. The Cronbach Alpha of this scale in pretests was .83 and in the posttests .74 which are considered acceptable values.

Conducting a paired samples *t*-test revealed that, regarding instrumental motivation (i.e., occupational factor), there was a significant difference between students' attitude across time from the pretest to the posttest (Table 2 & Table 3).

Table 2
Descriptive Statistics of Students' Responses in Instrumental Motivation

		Mean	Std. D	Std. Mean	Error
Instrumental Factor	Motivation; Occupational	Pretest	3.62	0.72	0.19
		Posttest	4.49	0.58	0.15

Table 3
Paired Samples t-test in Instrumental Motivation Level

Paired Differences					t	df	Sig.
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
.87	.33	.08	-1.05	-.68	10.22	14.00	.00

As can be seen in Table 3, the results of another paired sample *t*-test illustrated that students in the posttest had a higher mean of responses and there was a just about one point advance (gain) from the pretest to the posttest, $t(14) = 10.22, p = .00$.

Regarding integrative motivation (i.e., occupational factor), another paired samples *t*-test showed that there was a significant difference between students' attitude across time from the pretest to the posttest (Table 4 & Table 5).

Table 4
Descriptive Statistics of Students' Responses in Integrative Motivation

				Mean	Std. D	Std. Error Mean
Instrumental Factor	Motivation;	Occupational	Pretest	3.50	0.45	0.12
			Posttest	4.29	0.37	0.10

Table 5
Paired Samples t-test in Integrative Motivation Level

Paired Differences					T	df	Sig.
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
.79	.41	.11	-1.02	-.55	7.25	14.00	.00

As can be seen in Table 5, paired sample *t*-test demonstrated that students in the posttest had a higher mean of responses and there was an approximately one point progress (gain) from the pretest to the posttest, $t(14) = 7.25, p = .00$.

As regards extrinsic motivation (i.e., instrumental orientation as an attitudinal factor), it was revealed that there was a significant difference

between students' attitude across time from the pretest to the posttest (see Tables 6 & 7).

Table 6
Descriptive Statistics of Students' Responses in Extrinsic Motivation with Instrumental Orientation level

		Mean	Std. D	Std. Error Mean
Instrumental Motivation; Occupational Factor	Pretest	3.36	0.56	0.14
	Posttest	4.36	0.48	0.12

Table 7
Paired Samples t-test in Extrinsic Motivation with Instrumental Orientation Level

Paired Differences				t	df	Sig.	
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
1.00	.45	.12	-1.25	-.75	-8.53	14	.000

As can be seen in Table 7, paired sample *t*-test illustrated that students in the posttest had a higher mean of responses and there was a one-point advance from the pretest to the posttest, $t(14) = -8.53, p = .00$.

Pertaining to intrinsic motivation (i.e., self-confidence as an attitudinal factor), it was found that there was no significant difference between students' attitude across time from the pretest to the posttest (see Table 8 & Table 9).

Table 8
Descriptive Statistics of Students' Responses in Intrinsic Motivation (Self-confidence) Level

		Mean	Std. D	Std. Error Mean
Instrumental Motivation; Occupational Factor	Pretest	3.09	0.54	0.14
	Posttest	3.38	0.53	0.14

Table 9
Paired Samples t-test in Intrinsic Motivation (Self-confidence) Level

Paired Differences				t	df	Sig.	
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
.29	.64	.17	-.64	.07	-1.75	14	.10

As can be seen in Table 9, paired sample *t*-test illustrated that despite the fact that students in the posttest had a higher mean of responses and there was a modicum advance (.29 point) from the pretest to the posttest, this amount was not statistically significant, $t(14) = -1.75, p = .10$.

Regarding external encouragement (impact of occupational factor), it was revealed that there was a significant difference between students' attitude across time from the pretest to the posttest (see Table 10 & Table 11).

Table 10

Descriptive Statistics of Students' Responses in External Encouragement Level

		Mean	Std. D	Std. Error Mean
Instrumental Motivation; Occupational Factor	Pretest	2.73	0.67	0.17
	Posttest	3.44	0.61	0.16

Table 11

Paired Samples t-test in External Encouragement Level

Paired Differences				t	df	Sig.	
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
.71	.65	.17	-1.07	-.35	4.22	14	.01

As can be seen in Table 11, paired sample *t*-test signposted that students in the posttest had a higher mean of responses and there was an approximately one point gain from the pretest to the posttest, $t(14) = 4.22, p = .01$.

Relating to intrinsic motivation (i.e., integrative orientation), it was found that there was a significant difference between students' attitude across time from the pretest to the posttest (see Table 12 & Table 13).

Table 12

Descriptive Statistics of Students' Responses in Intrinsic Motivation with Integrative Orientation level

		Mean	Std. D	Std. Error Mean
Instrumental Motivation; Occupational Factor	Pretest	2.42	0.87	0.22
	Posttest	4.04	0.33	0.09

Table 13
Paired Samples t-test in Intrinsic Motivation with Integrative Orientation Level

Paired Differences				t	df	Sig.	
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
1.62	.82	.21	-2.08	-1.17	7.62	14	.000

As it was shown in Table 13, paired sample *t*-test demonstrated that students in the posttest had a higher mean of responses and there was 1.6 point advance (gain) from the pretest to the posttest (the highest improvement in comparison with other parts), $t(14) = 7.62, p = .00$

Vis-à-vis extrinsic motivation; (relating to teacher and peer students), it was uncovered that there was a significant difference between students' attitude across time from the pretest to the posttest (see Table 14 & Table 15).

Table 14
Descriptive Statistics of Students' Responses in Extrinsic Motivation Relating to Teacher and Colleagues

		Mean	Std. D	Std. Error Mean
Instrumental Motivation; Occupational Factor	Pretest	3.51	0.42	0.11
	Posttest	4.51	0.43	0.11

Table 15
Paired Samples t-test in Extrinsic Motivation Relating to Teacher and Colleagues

Paired Differences				t	df	Sig.	
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
1.00	.50	.13	-1.28	-.72	7.69	14	.00

As can be seen in Table 15, paired sample *t*-test illustrated that students in the posttest had a higher mean of responses and there was a one point advance (gain) from the pretest to the posttest, $t(14) = 7.69, p = .00$.

Pertaining to recapitulation of instrumental/integrative motivation, it was found that there was a significant difference between students' attitude across time from the pretest to the posttest (see Table 16 & Table 17).

Table 16

Descriptive Statistics of Students' Responses in Recapitulation of Instrumental/Integrative Motivation Level

		Mean	Std. D	Std. Error Mean
Instrumental Motivation; Occupational Factor	Pretest	3.15	0.68	0.17
	Posttest	4.22	0.41	0.11

Table 17

Paired Samples t-test in Recapitulation of Instrumental/Integrative Motivation Level

Paired Differences				t	df	Sig.	
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
1.07	0.42	0.11	1.30	0.84	9.84	14.00	0.00

As it was shown in Table 17, paired sample *t*-test confirmed that students in the posttest had a higher mean of responses and there was one point progress (gain) from the pretest to the posttest, $t(14) = 9.84, p = .00$.

Ultimately, with regard to self-assessment of the use of English outside the class, motivation and the English class, it was revealed that there was a significant difference between students' attitude across time from the pretest to the posttest (see Table 18 & Table 19).

Table 18

Descriptive Statistics of Students' Responses in Self-assessment

		Mean	Std. D	Std. Error Mean
Instrumental Motivation; Occupational Factor	Pretest	2.75	0.58	0.15
	Posttest	3.82	0.27	0.07

Table 19

Paired Samples t-test in Self-assessment

Paired Differences				t	df	Sig.	
Mean Difference (gain)	Std. Deviation	Std. Error Mean	95% Confidence Interval				
			Lower	Upper			
1.07	0.71	0.18	1.46	0.67	5.77	14.00	0.00

As it was shown in Table 19, paired sample *t*-test confirmed that students in the posttest had a higher mean of responses and there was one point progress (gain) from the pretest to the posttest, $t(14) = 5.77$, $p = .00$, which resembled roughly the findings pertaining to recapitulation of instrumental/integrative motivation part.

As observed in the descriptive statistics and tables above, significant differences exist in some motivation categories. Hence the research question driving this study could now be reviewed and addressed.

Research question: Does the integration of reading and writing and the consequent enrichment of specialized vocabulary have any effect on the learners' motivation?

As the experimental data show, all types of motivation, integrative/instrumental and intrinsic/extrinsic through attitudinal and occupational approaches varied subsequent to eight sessions of task-based instruction with the aim of increasing students' vocabulary knowledge through coherent, apprehensible, and relevant vocabulary specific to the occupation for which the course was designed. All nine subgroups of motivation but one -intrinsic motivation- demonstrate increased levels. Considering the occupational factor, the students' instrumental motivation along with integrative motivation improved following the lessons with a wealth of new specialized vocabulary. The participants are reported to be more motivated extrinsically with the consideration of instrumental orientation as an attitudinal factor. External encouragement with the impact of occupational factor also enjoys an increase following the lexically rich lesson the EOP learners received. Intrinsic motivation with integrative orientation sees a substantial gain. Extrinsic motivation generated by teacher and peers in EOP classes has increased along with the students' self-assessment of the use of English outside the class. With the progress shown in the recapitulation of instrumental and integrative motivation, it is safe to say that there is a close relation between ESP learners' motivation and the amount of vocabulary they learn.

The treatment the participants underwent in this study was based on task-based language learning and teaching. The integration between the two major skills, reading and writing, was carefully led by the teacher. The texts and the writing topics were chosen on the basis of coherence of the tasks. The topics were selected in keeping with content experts' opinion considering the richness of a decent amount of specific vocabulary for each topic. This integration, as the results confirm, has exerted remarkable effect on learner's motivation. Almost all motivation level means except for the intrinsic motivation, have increased in the posttest. During the classes, the

learners attended lessons loaded with new specialized vocabulary. The mastery of English vocabulary is essential in ESP classes. The enlargement of vocabulary range and the opportunities provided with systematic observation are the fundamental components of ESP and serve as strengthening tools of motivation. The participants in this study are found to be more instrumentally motivated.

By looking at the results we can conclude that ESP learners specifically in EOP classes are motivated if they get tangible return for their learning effort as they are professionals who have to work within constraints, with respect to time. Therefore, they strengthen their integrative motivation when they enhance their ability to read specialized texts which, in turn, raises their confidence to communicate with the scholars or other community members in their major through writing using specialized terminology which they are then familiar with and can pronounce and use more decisively. This is where instrumental motivation increases as learners can seek better job opportunities, expect promotions, or consider furthering their education in English-speaking countries. By the same token, these learners become more extrinsically motivated to learn occupation-specific words because they could expect potential extrinsic (external) rewards. The results of this study do not show any significance difference in intrinsic motivation level.

Discussion

According to the data collected for this paper, the results are indicative of significant differences in EOP students' motivation and motivation subtypes according to dominant models for motivation in the field. The results of the questionnaire analysis showed that EOP learners demonstrate enhanced motivation following vocabulary-rich lessons including the reading and writing of specialized texts relevant to their occupation and within their professional immediate and delayed needs. All motivation subscales but one (intrinsic motivation with self-confidence as an attitudinal factor) have been strengthened consequent to the treatment. Considering instrumental motivation from an occupational standpoint, the participants showed higher motivation levels (Table 2). This increase with the gain score of .87 acknowledges the fact that utilitarian gains such as promotions, higher salary, and better job opportunities which are some components of instrumental motivation, are of marked influence in the setting of EOP classes. Taking into account the nature of EOP classes where occupational

achievements seem to be the driving force in the development and participation of the courses, it can be said that learning technical vocabulary in a context precisely relevant to the students' profession taking place in their workplace causes their instrumental motivation to increase. This finding seems to match those of Joseba and Ardeo (2016) which point to the fact that students, in general, are more likely to exert effort on a language course if they anticipate an eventual payoff in their future professional lives.

With regard to integrative motivation (occupational factor), the learners' motivation was reported to have increased by a gain score of .79 as shown in table 4. This meaningful increase in integrative motivation is an attestation to the existence of components of integrative motivation proposed by Dörnyei (1990) namely interest in and desire to learn foreign languages, attitudes toward the foreign language, attitudes toward the learning situation, attitudes toward the target language community, and desire to interact with the community of the foreign language.

Extrinsic motivation (instrumentally oriented) also significantly increased across time from pretest to posttest with the gain of 1.00 as shown in table 6. The ability to communicate more effectively with peers and colleagues, superior or inferior, is likely to promote motivation both extrinsically and instrumentally in case of EOP courses. Brown's (2014) definition of extrinsic motivation as a construct which is fueled by reward from outside or beyond self seems to be in consistency with this finding. Ali (2014) assessed students' attitudes toward ESP classes using Gardner's model and the results of his study do not completely match those of the current study in the particular area of the language skills.

In respect of intrinsic motivation in relation to self-confidence as an attitudinal factor, no significant difference was reported (Table 8). According to Dörnyei's L2 motivational self-system the three essential components of motivation, the ideal L2 self, the ought-to L2 self, and the L2 learning experiences could be separately addressed. This insignificant difference in intrinsic motivation with self-confidence as an attitudinal factor could partly be due to the fact that the participants as EOP learners were not able to hold a clear internal vision of what ideal selves they were seeking as EOP users. Ushioda (2008) describes the optimal kind of motivation from within as intrinsic motivation. The participants in this study

were so much concerned about practical gains and outcomes of the ESP classes that lost sight of what it means to be internally or intrinsically motivated and failed to recognize and raise their self-confidence thanks to the competitiveness of their work environment. The results drawn from the current study contradict what Altalib (2019) concluded. A program that meets the students' needs (knowing a wide range of specialized vocabulary) will be more motivating, more effective, and thus more successful (Altalib, 2019). Success of the EOP program in the case of this study pertains to motivation. Needs analysis as a vital asset for ESP developers and practitioners should be carried out with great constant care so that learners are able to maintain and enhance their motivation.

Taking external encouragement into account, the learners showed a higher mean of motivation with a gain score of .71. This result is consistent with Rozmatovna's (2020) statement, students allege positive attitude towards language development and concentrate on knowledge mastering when they are highly encouraged.

Regarding intrinsic motivation with an integrative orientation, it was observed that the participants showed a higher level of motivation by a mean difference of 1.62 which was the highest gain score among the results reported in this study. This finding is in line with Dörnyei (1990) as he defines integrative motivation as the reflection of a high level of drive on the part of the individual to acquire the language of a values second-language community. This result does not fit Carriera's (2005) definition of endogenous actions in terms of integrative motivation which is an end in itself and that if a person has endogenous attribution learns English without special reasons and enjoys it. ESP is heavily reliant on specific purposes delineated through meticulous needs analysis and thus integrative motivation within intrinsic motivation is the initial and original impetus in learning EOP. Joseba and Ardeo (2016) concluded that ESP students' motivation could be lessened when students have negative attitudes or prejudices toward the target language and/or the people who speak the language which verifies the result of the present study.

As regards extrinsic motivation, as the data suggest (Table 14), a significant increase (gain 1.00) could be attributed to the role of the teacher

and colleagues who participated in the classes. This finding is in line with what Dörnyei (2001) maintains regarding the substantial impact of the teacher's behavior in language classes. He proposes some components of teacher behavior, enthusiasm, commitment to and expectations for the students' learning, and relationship with the students. This result is also in agreement with what Dörnyei and Ushioda (2011) reported as the emergent patterns across the studies on motivation in L2 learning. They identify teacher efficacy and teacher commitment as central motivational constructs in understanding the influence of context on teacher motivation. The mature professional participants in this study with high levels of education created an incredibly supportive learning environment which in turn facilitated collaborative learning of specialized vocabulary as the learners participated in collaborative learning when they wrote the texts using the new vocabulary during the treatment causing them to report a higher level of extrinsic motivation in the posttest.

The recapitulation of integrative and instrumental motivation in the penultimate question group of the questionnaire was in compliance of the previous results, as shown in table 16, indicates an increase with a gain score of 1.07 which is of major significance yielding support to the analysis of the other motivational subscales in the current study.

The students' attitude toward EOP courses in terms of self-assessment of the use of English outside the class, motivation, and the English class increased substantially marking another significant difference in students' motivation in the posttest. This finding corroborates Lavrysh's (2016) assertion that in order for an ESP course to be motivating, self-assessment must be promoted.

This study was conducted in an attempt to investigate the impact of an EOP course with particular focus on specialized words predetermined through needs analysis based on which texts were selected to be integrated in the form of reading and writing on learners' motivation. This study provided important observations about the effect of technical vocabulary enrichment through the integration of specialized reading and writing tasks in ESP/ EOP classes. It is safe to say that all types of motivation that were classified through instrumental/integrative and extrinsic/intrinsic standpoints with the exception of intrinsic motivation considering self-confidence as the

attitudinal factor, significantly increased as a result of a lexical approach to material development and teaching. The findings revealed that EOP learners could stay motivated or demonstrate higher motivation if they are presented with technical words in the courses and practice comprehending and using them in texts specific to their occupational peculiarities.

Data obtained from the current study explored a crucial issue in ESP course development, that is, motivation. The results contribute to the existing literature of ESP research and further enhance experts' understanding of L2 motivation. Syllabus designers could benefit from the findings of this research by seriously considering the particular needs of EOP learners to know the meaning and usage of specialized vocabulary in their major.

This study focused on engineers in the domain of construction, further research in the context of other occupations such as medicine, education, or business could help us realize the tremendous importance of L2 motivation in ESP. The focus of such studies could be switched from learners to teachers as they are to play a more pivotal role in ESP classes. The integration of the two skills in this study, reading and writing, could be promoted to other skills. Further research could be performed using listening and speaking or, utilizing other teaching methods and other media, with the aim of enriching specific vocabulary in ESP/EAP/EOP courses.

Declaration of interest: none

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Biodata

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