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The Contribution of Workplace Teaching to a Better Understanding of ESP Terminology

Abdolreza Pazhakh Rahmatollah Soltani

## **Abstract**

This paper presents an experiment concerning the contribution of workplace teaching to the better understanding of ESP terminologies. Accordingly, 40 learners majoring in electronic and power engineering were selected based on a language proficiency test. Randomly, they were divided into two experimental and control groups. While the instructional material was the same for both groups, experimental group was taught at the workplace while control group was taught in an academic environment. At the end of the experiment, the findings were compared through t-test. Results after the analysis of the data indicated that who were taught at the workplace gained more ESP vocabulary than those who were taught in academic environment.

Keywords: ESP, Workplace

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It is clear that, in learning a second or foreign language, vocabulary plays the

most crucial role. A good mastery of vocabulary is essential for both ESL and

EFL learners, especially for those who learn for specific purposes. According to

Nation and Coxhead (2001), it is wise to direct vocabulary learning to more

specialized areas when learners have mastered the 2000-3000 of general

usefulness in English. In order to have easy access to specialized uses of

vocabulary, learners need to learn and be taught about vocabulary and its use.

Language learning should not be limited to only textbook and classroom

activities. It is believed that language acquisition would be most effectively

facilitated if it could be embedded with the learners' field of study or work. In

the context of ESP, students need to practice at using the vocabulary of their

chosen field of study and this can be best happen at the workplace.

**Teaching ESP at the Workplace** 

Teaching ESP at the workplace can be a good way which results in ESP

terminologies promotion. In the workplace learners are exposed to the real use

of technical words and in this way they can produce a picture of words in their

mind. In academic environment students just memorize ESP vocabularies and

they don't know how to use them in vocational environment. So, teaching ESP

words at the workplace can solve this problem and pave the way for learners to

learn words better and easier and how to use them.

The recognition that learning occurs within the workplace and that it is

necessary for the development of working knowledge and skills is not new.

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However, in recent years an interest among employers, researchers and policy

makers in what comprises learning and how it can be facilitated within

workplaces has increased, and there are now many areas of research in which

learning at and through work is a central concern.

Reeve & Gallacher (1999) argue that workplace learning is seen as a flexible

form of learning which enables employees to engage in the regular processes of

up-dating and continuing professional development which have been

increasingly emphasized. Moreover, in so far as the learning is work-based it is

also seen as facilitating forms of learning.

Boud and Garrick (1999) state that workplace has become a site of learning

associated with two quite different purposes ... The first is the development of

the enterprise through contributing to production; the second is the development

of individuals through contributing to knowledge and skills.

Therefore, it can be said that teaching ESP at the workplace can pave the way

for learners to master specialized vocabulary related to their field of study much

better and easier. The reason is that they learn them in a situation in which they

must be used in the future occupational opportunities.

**Review of Literature** 

English for Specific Purposes (ESP) is a branch of applied linguistics that

focuses on relating the teaching and learning process to learners' needs.

Widdowson (1981), a linguist and an early pioneer of the approach, describes

the general concept of ESP by stating that "if a group of learners' need for a

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language can be accurately specified, then this specification can be used to

determine the content of a language program that will meet these needs."

According to Hutchinson and Waters (1992), "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." Research findings during the past decade have

generally supported the notion that work-based learning activities can invigorate

the learning process and act as a positive force for students in both academic

and career and technical education programs.

Copa and Wolff (2002) found that learning needs to: (a) be progressive in

achieving external standards, (b) engage learners in relevant and challenging

experiences, (c) be learner-centered, (d) use real-life experiences and be project-

oriented, (e) integrate academic and career and technical education, (f) use and

closely coordinate non-school and school learning settings, (g) use multiple and

continuous forms of assessment to improve learning, and (h) create and nurture

learning communities.

Real world tasks as defined by Nunan (1989) are those which "require learners

to approximate, in class, the sorts of behaviors required of them in the world

beyond the classroom".

One of the main goals for an applied English program at a four-year college is

to prepare students with appropriate English proficiency so as to help them

become competent communicators in their future workplace. Work-based

learning is not a new trend in education. In fact, what we term vocational and

technical education was the premise of John Dewey's assertions during the late

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19th and early 20th century. Dewey firmly believed that life and learning should

be uniquely integrated (Dewey, 1916). He also believed that the best way to do

this is to integrate the working world with education curriculum.

Work-based university learning has been defined by Margham (1997) as: That

learning which ... utilizes opportunities, resources and experience in the

workplace. It will, in general, have outcomes relevant to the nature and purpose

of the workplace. A workplace needs analysis describes the entire context in

which English is used. The ESP approach uses the needs analysis framework as

the main tool to define learners' needs in a specific field because the awareness

is more recognizable in a specific target situation representing a "real-life-

situation". In an academic setting, the main concern of learners is the

acquisition of knowledge related to their present field of study or future

workplace.

Swail's (2000) recent study of data from the College Board's student

descriptive questionnaire found that a higher percentage of students with work-

based learning experiences in high school had a B or better Grade Point

Average (GPA) in high school compared to all SAT test takers, even though

they were more likely to be from less-advantaged backgrounds.

Kampits and Swail (2001) found that 80 percent of college students surveyed in

their study indicated they learn better through projects and real-world

applications than through classroom and textbook instruction only, and that 83

percent planned to participate in work-based learning experiences during

college.

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Chin et al (2000) found that students, through work-based learning activities,

acquire "knowledge and skills in particular occupations; providing career

exploration and planning; learning all aspects of an industry; improving

personal and social competence related to work in general; and enhancing

students' academic achievement and motivation through contextual learning."

The Main Question of This Study

Accordingly, the main question of this study can be stated as follow:

Q: Does the implementation of workplace teaching lead to better understanding

of ESP terminologies?

From this question the following null hypothesis was found:

H: Workplace teaching would not significantly improve ESP terminologies.

**Research Methodology** 

A. Participants

In this study, the addressed community were 40 undergraduate male students

enrolled in the ESP course as a part of their major in the electronic and power

engineering Department at Mahshahr Islamic Azad University. They have been

chosen among from 98 students through administrating of a standardized

language proficiency test (Intermediate TOEFL Test Practices by Folse, 1997).

B. Instrumentation

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Three types of instruments were used in the currents study: The first instrument

was a standard proficiency test which aimed at controlling the proficiency level

of the subjects. The second material that all participants used was a course book

entitled English for the student of power, electronics, control and

communications (Haghani, M., 2005). Thirdly; a post-test was administered to

both groups so as to examine their knowledge of ESP vocabulary after the

treatment in workplace.

C. Procedure

At first, two groups of students were selected from the electronic and power

engineering department of Islamic Azad University, Mahshahr branch, Iran.

This was carried out through the administration of standardized language

proficiency test. It was accounted as a pre-test. Then, 40 learners were identified

as the participants. They were randomly assigned into experimental and control

groups. Each class consisted of 20 learners.

On the first day of the experiment, the instructor talked about the importance of

ESP vocabulary knowledge and its role which plays in their field of study. Both

classes were taught by the same instructor using the same teaching material

entitled English for the student of power, electronics, control and

communications (Haghani, M., 2005) with the same teaching schedule of

instruction, except that in the experimental group, the students was taught ESP

course in electrical power workshop at Mahshahr electrical power distribution

company, while the latter, control group, was taught at the university, Mahshahr

branch. Classes were conducted two hours a week and the study took long for

thirteen weeks.

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At the end of the experiment a post-test on ESP terminologies was administered

to both of the groups. It was aimed at measuring the technical vocabulary

knowledge of the participants to see if the treatment had made any difference in

the ESP vocabulary promotion of the two groups. The results obtained through

post-test were analyzed and interpreted through t-test.

Data Analysis

With the use of the ESP vocabulary knowledge test scores from all the

participants, the mean was first computed for the two groups. The preliminary

descriptive statistics for means was examined to see if they differed from one

another. Furthermore, in order to find out if the difference among the means

will be large enough to be statistically significant, t-test was performed to see

whether the difference of ESP vocabulary posttest sores between the

experimental and control groups existed.

Results and Discussion

The preliminary descriptive statistics for the ESP vocabulary knowledge test

appears in Table 1.

Table 1 Descriptive statistics of posttest for the experimental and control groups

Groups	Test	N	Mean	SD	SEM
Experimental	posttest	20	19.85	3.08	0.69

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Control	posttest	20	17	2.60	0.58	

As displayed in Table 1, experimental group's performance in the posttest was better than those in control group. It was also revealed that after the instructional treatment the mean of the posttest scores for experimental group was 19.85 while for control group it was 17. In the case of SD, for experimental group it was 3.08, whereas that of the control group was 2.60. So, the findings suggest that teaching ESP vocabulary in workplace involved more beneficial effects than teaching ESP vocabulary at the academic environment.

## Comparative Effectiveness between Experimental and Control Groups after the Treatment

Table 2 Results of t-test between Experimental and Control groups' scores

Group	Test	N	Mean	Mean	SD	t-value	df	р
				Difference				
Experimental	posttest	20	19.85	2.85	3.08	3.162	38	.0031
Control	posttest	20	17		2.60			

<sup>\*</sup>Significant at .05

In order to compare the effectiveness of the instruction in workplace on ESP vocabulary leaning , t-test demonstrated in Table 2 indicated that the mean difference between the experimental and control groups' scores measured at the time of posttest was significant ( $t=3.162,\ p<0.0001$ ). The mean difference between the experimental group and control group was 2.85. This indicates that the experimental group who were under the treatment at the workplace gained more ESP vocabulary than the control group that were under the instruction at the academic environment. Therefore, it can be claimed that this difference is

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12 : 2 February 2012 Abdolreza Pazhakh Rahmatollah Soltani due to the kind of instructional environment where the experimental group was

taught there and this gives further evidence for rejecting the null hypothesis.

CONCLUSION

This study aimed at investigating the effectiveness of teaching ESP at the

workplace on ESP terminologies. To this end, the following question was under

consideration:

Does the implementation of workplace teaching lead to better understanding of

ESP terminologies?

To perform this research, subjects were selected on the basis of standardized

language proficiency test. Then, they were randomly put in one control group

and one experimental group and were assigned to one of the two following

instructional conditions:

Experimental group was instructed at the workplace, while Control group was

taught in the academic environment. For data analysis, t-test was used. The

calculated t-test proved that ESP vocabularies can be leant better at the

workplace. The experimental group was exposed to ESP words at the real

situation, workplace, gained considerable amount of vocabularies than control

group. So, the computation and analysis of the T-test provided us with the

judgment to reject the null hypothesis of this study which stated that teaching

ESP at the workplace would not significantly promote learners' ESP vocabulary

knowledge.

Results of this study indicated that teaching ESP courses at the workplace might

become a useful way for students to improve and facilitate their learning of ESP

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words. Based on the findings, one concludes that teaching ESP at the workplace has much influence on the learning of ESP terminologies. The reason is that in the workplace they are exposed to technical words in a real situation. Therefore, they have an image of each word in their mind and learn how to utilize words in sectors in which they must be used.

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Abdolreza Pazhakh
Department of English, Dezful Branch
Islamic Azad University
Dezful
Iran
a\_r\_pazhakkh@yahoo.com

Rahmatollah Soltani
Department of English, Mahshahr Branch
Islamic Azad University
Mahshahr
Iran

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12 : 2 February 2012 Abdolreza Pazhakh Rahmatollah Soltani Rahmatollahsoltani63@gmail.com