# The Impact of Portfolio and Technology Enhanced Teaching in Writing skills in ESP Classess: A Comparison of Methods

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# **Abstract**

It is aimed to investigate the effect of portfolios and technology enhanced teaching on developing writing skills and their success among 56 Turkish undergraduate learners in ESP classes. This study was carried out on two quasi-experimental groups- each of which consists of 26 students. The learners were freshmen at the department of Sea and Marine Management Program at Gerze Vocational School of Higher Education, Sinop University. Before the treatment, a pre-test was administered to all groups in order to investigate the writing success and sub-skills of focus, elaboration, organization, conventions and vocabulary of learners of ESP. Throughout the study one group was taught through portfolio assessment technique and the other group was taught through the technology-based method. Related statistical process were applied and the results obtained from the post-test demonstrated that there was a statistically significant difference between the two experimental groups in terms of the type of treatment, which signifies that portfolios had a statistically significant effect on promoting writing performance and its sub-skills in ESP classes.

#### 1.Introduction

In teaching and learning a new language there are always some challenges that one must overcome and in english teaching and learning situations learners frequently encounter problems in acquiring skills especially writing skill. Evnas et al.(2010) and many other researchers mentioned and investigate the reasons behind the barriers of effective learning [1] and it can be said that the common point is the weakness of the methodologies used in teaching.

One of the latest effects on the subject was technology usage and portfolios. Technology in language classes is not a new subject and it has always been progressing since the new technologies [2]. Portfolios are beneficial in terms of defining and having an open graphic of the development of the students. Portfolios have also been another focus point of the researchers and the findings generally show that it has a significant effect on writing skills [3]. Technology enhanced learning and portfolios are the two different technics investigated in this concept of this study. The current research aimed to investigate the impact of portfolios and technology enhanced learning environments on writing skills and sub-skills of focus, elaboration, organization, conventions and vocabulary of ESP learners.

Among the studies related to the technology enhanced learning, there is one study conducted by Hemmati and Soltanpour (2012) aimed to compare the effects of reflective learning portfolio (RLP) and dialogue journal writing (DJW) on the İranian EFL learners grammatical accuracy in writing as well as their overall writing performance. The study revealed that the gains in the RLP group's grammatical accuracy and overall writing performance were significantly better than that of the DJW [4].

Another study was conducted by Shyamlee and Phil (2012) and they investigated the use of technology in English Language Teaching and Learning. The study was mainly based on the analysis of the usage the technics in English. It can be said that there are varied technics in the usage of technology such as; Internet, Electronic Dictionary, Email, Blogs, DVD's, Web blogs etc. The usage of the technology and the integration into the lesson have been interpreted as a necessary in the essay [5]. As for the portfolio technic in English language writing skills there are studies carried both in national and international area. In the light of these studies, in the current study it was tried to find answers for the following questions;

- Is there any significant difference between technology enhanced teaching (TET) and portfolio teaching (PT) methods in improving ESP students `overall writing ability?
- Is there any significant difference between technology enhanced teaching (TET) and portfolio teaching (PT) methods in terms of focus, elaboration, vocabulary, organization and convention?

### 2. Methodology

This study was intended to investigate the impact of technology enhanced learning and portfolios on students writing skills and sub-skills of writing (focus, convention, vocabulary, etc.). Participants were

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52 ESP learners out of 120 students in Sinop University. The students have been taking English lessons since the first grade so they are at intermediate level. However a proficiency exam was applied and the students were dividen into two groups for 26 in each of them. The age of the groups ranged from 18 to 25. The students were applied a writing task based on the Maritime Test Center Examples and it was used as both pre-test and post-test. The overall writing performance and subskills were measured by a modified version of the writing scoring rubric developed by Wang & Liao (2000) [6]. Focus is related to be in frame of the topic; content means appropriate usage of the details related to the topic; organization indicates the coherence in the text; convention means grammar and spelling; vocabulary means using suitable words in the text. The scoring was made by three proficient instructor and the researchers themselves. Cronbach alpha was calculated as .781. The experiment was carried out for four weeks, two-hours in a week. Both of the groups were informed on the design of the lesson and the target points in the process. The students were asked to write on the same topics and the instructor gave feed back to the groups after assessing their essays both during the lesson and after the lesson. Finally they were asked to rewrite their essays and three separate instructor evaluate the papers. At the end of the process post-test was applied to the both groups and the data collected and graded in the same pattern as in the pre-test.

### 3. Data Analysis

In this study it was intended to research whether there is any statistical difference between technology enhanced and portfolio technics on ESP students`overall writing ability.

# 3.1. Results concerning the overall writing performance

The aim of the first question was to answer the research question; "Is there any significant difference between technology enhanced and portfolio technic on ESP students` overall writing?" Independent samples t-test was applied and the results of the related test was given on Table 1.

Table 1. Independent samples t-test analysis for pre-test scores of groups

	N	M	SD	t	df	р	
Technology	26	25.33	8.748	.212	40	903	
Enhanced group Portfolio group	26	25.03	9.081	212	40	.803	

Table 1. show that there is not any significant difference between the two groups. It can be seen that the overall writing performances of the two groups in terms of pre-test scores are non-significant (t(40)=.212, p=.803).

The main research question of the study was to define the comparison of both technics. With this aim independent t-test was conducted for the data of the both groups and the related results were given in Table 2.

Table 2. Comparison of post-test scores, technology enhanced group and portfolio group

·	N	М	SD	T	Df	P	
Technology enhanced group	26	37.25	18.321	-4.845	50	.000	
Portfolio group	26	48.00	11.242				

Table 2 shows that there is statistically significant difference between the post test scores of the technology enhanced group (M=37.25, SD=18.321) and portfolio group (M=48.00, SD=11.242). It is clear that the technics both have an effect with respect to the analysis (t(50)=-4.845, p<.5).

# 3.2. Results concerning the performance of the groups in sub-skills of writing

The second research question of the study was: "Is there any significant difference between technology enhanced technic and portfolio technic in terms of focus, elaboration, vocabulary, organization and convention?"

Table 3. Results concerning the performance of the groups in sub-skills of writing

		Levene's Equality of	Test for f Variances	t-test for Equality of Means			
		F	Sig.	t	Df	Sig. (2- tailed)	
Focus	Equal variances assumed	14,852	,001	-4,575	40	,000	
	Equal variances not assumed			-4,575	36,884	,000	
Elaboration	Equal variances assumed	4,623	,085	-2,860	40	,010	
	Equal variances not assumed			-2,860	54,745	,008	
Organization	Equal variances assumed	,450	,544	-2,793	40	,007	
	Equal variances not assumed			-2,793	36,554	,007	
Conventions	Equal variances assumed	3,625	,252	-,556	40	,380	
	Equal variances not assumed			-,556	47,417	,381	
Vocabulary	Equal variances assumed	3,696	,036	-4,121	40	,000	
	Equal variances not assumed			-4,121	42,723	,000	

Tabl

e 3 shows that there is a statistically difference between the technology enhanced group and portfolio group. It can be seen from the table that in terms of sub-skills of focus (t(40;)0-4,575, p<.05); elaboration (t(40)=-2,860, p<.05); organization (t(40)=-2,793, p<.05) and vocabulary (t(40)=-4,121, p<.05). for the other sub-skill which is convention, it is not the same situation. There is not any significant result in convention (t(40)0-.556, p>.05).

#### 5. Discussion and Conclusion

In this study it was aimed to research and compare the differences between portfolio and technology enhanced teaching methods. There were two main research questions in the study and these are to define and compare the impact of TET and PT technics in developing writing ability. With this aim it was used a quasi-experimental model and the groups were randomly divided into two experimental groups. Each of them was told the technics and the design of the lesson and the data was gathered via the assinged writing texts. The pre-tests show that there was no significant difference between the groups after all. After the application process the same two samples of the essays were conducted and the data analyzed in SPSS program. The results show that there is a statistically significant difference between the groups in terms of general writing skills and sub-skills of writing. The results show that both of the groups have improved in their overall writing ability but for the sub-skills in the convention sub-heading there isn't any significant relation between the groups unlike the other four ones. The findings are in consisted with the study conducted by Hemmati & Soltanpour (2012) [4]. They have investigated the portfolios and journal in writing ability. The findings show that portfolios have a significant effect on writing ability. In this study it can also be seen that the PT has developed



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their writings more than the TET group. It is also similar with the research conducted by Khodashenas et al (2013) [7]. They also carried their study in an control-experiment groups and they found that portfolios can have contrubution in developing the writing ability. As a result of the study it can be said that both technics used in the study have an impact in developing the writing ability but when the data was examined it can be seen that portfolio technics have been more effective in developing both overall writing ability and sub-skills of writing. The limitations of the study can be said that more participants will be better to generalize the population and as the students are ESP students the writing ability have been effected by both ESP and General English knowledge. The other independent factors such as age, gender can also been investigated for further studies.

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