

The Effect of Group Work and Portfolio in Writing Activities on Developing the Linguistic and Discourse Competences of the EFL Students at Al Al-Bayt University

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Abstract

This study aimed at investigating the effect of group work and portfolio on developing the linguistic and discourse competence of the EFL students at Al-al-Bayt university in Mafraq city in Jordan. The researcher, who is simultaneously an instructor in the department of English language and literature at Al al-Bayt university, conducted her study on the purposeful sample of the obligatory writing 2 course students who are all English major students from 2nd, 3rd, and fourth years. The participants of the study were distributed in the only two writing 2 sections in the first semester of the academic year 2013/2014. They were randomly distributed into two sections, each of 30 male and female EFL students. The experimental group was taught writing the essay through group work and using portfolio whereas the control group was taught writing the essay through the conventional way. At the beginning of the semester, both groups were pre-tested in writing an essay about a chosen topic, and similarly, at the end of the semester, they were post- tested by being asked to write an essay about the same topic of the pre-test. The researcher analyzed and counted the linguistic various errors in their writings in both tests of the two groups; she also quantitatively measured the frequencies of using discourse elements in both tests of both groups. She then calculated the means and standard deviations of both groups' frequencies in order to find any significant differences due to the treatments used. The findings of the study showed that both groups performed better in their discourse competences; on the other hand, both groups showed some progress in some areas of their linguistic competences. According to the interviews with the participants of the experimental group, all students appreciated using portfolio and assured that it improved their linguistic and discourse competences. However, most students valued group or peer work and their positive impact on their linguistic and discourse competences.

Keywords: Portfolio, Group Work, Linguistic Competence, Discourse Competence.

1. Introduction and Literature review

Writing has always been a heavy task and a burden over the shoulders of foreign language learners. This might be due to the fact that this skill can be described as the accumulative and final harvest of gaining and acquiring other skills such as reading, listening, and speaking. As a productive skill, writing can represent an obstacle in the process of L2 development since it requires that formal, content, and cultural schemata are obtained and presented appropriately, cohesively, coherently, as well as accurately.

There are different views on the stages that writers go through in producing a piece of writing, but a typical model identifies four stages: prewriting, composing/ drafting, revising, and editing (Tribble, 1996). Thus, writing is considered a systematic process in which successive steps should be applied; this includes writing in L2 as well as in L1 where writers employ various micro and macro skills.

Writing has been of great interest and has a significant role in second and foreign language education, but teaching L2 writing is different from other skills of language learning (Reid, 2002). Tabatabaei and Assefi (2012) state that the method of teaching English writing in language classes have been shifting from the traditional way of the end product to the process of creating writing. Through the writing process, students learn how to develop their writing, how to solve the problems and how to think critically. However, it is somehow difficult to evaluate this new method of teaching writing via traditional assessment techniques such as timed impromptu writing tests. Therefore, new ways of assessment have been developed to demonstrate what students learn and what they can do with their own knowledge. These new ways of assessment are called "authentic" or "alternative" measures. Among all the procedures of alternative assessment, portfolio has become a popular technique. Paulson & Paulson (1991) believe that portfolios show students' progress, achievement and self- reflection in one or more areas.

Tabatabaei and Assefi (2012) assert the fact that portfolio assessment is an ongoing process. It does not evaluate progress and performance of the learners through the impromptu paper and pencil test or enable instructions evaluating their students' performances within a very short and limited period of time.

According to Gosselin (1998), an ongoing assessment is a learning process that examines and documents the

learner's progress at certain intervals. The main goals of portfolio assessment are encouraging learners to become more autonomous, take control of their learning, make decisions, participate in the evaluation of their own work, and solve the problems they may face individually.

Tabatabaei and Assefi (2012) state that despite the popularity, using writing portfolios is not so common in EFL contexts. At the end of the term, students are commonly given numerical grades for their writing assignments which is a product – oriented approach and may not be an appropriate indicator for the student writing ability and teachers may not be able to make good judgments about their development as writers. Thus, applying portfolio as an alternative assessment technique instead of traditional impromptu writing test may help teachers to make better judgment about students' writing ability.

Kohonen (2000) discusses two basic types of portfolios in language learning. These are the process – oriented learning (working portfolios, and the product – oriented reporting (showcase) portfolios. The learning portfolio can include various kinds of process – related materials: action plans, learning logs, drafts of work, comments by the teacher and peers, students' reflections, submitted works, evaluation criteria and checklists to evaluate progress with regard to clearly defined learning objectives. The reporting portfolio, on the other hand, is used to document language learning outcomes for a variety of purposes: for giving marks in schools or institutions; for applying to a higher education institutions; or it can be compiled for the purpose of documentary language skills when applying for a job. Both types are relevant for the assessment of the discourse competence as both process and product are interesting for the teacher.

Escobar (2001) proposes a nine – step procedure to create and maintain a portfolio: choose a number of tasks related to the learning objectives; define the assessment criteria as clearly as possible; design a self – assessment grid; the learners perform the task and then, assess their outcome; the learners record the task outcome, including drafts if necessary. Oral performance can be audio – taped; at the end of a period (month, semester, course), the learners choose their best performances.

Empirical Studies on Group Work and Portfolio in EFL Teaching

Yang, Badger, and Yu (2006) examined whether peer feedback may provide a source for addressing this issue by examining two groups of students at a Chinese university writing essays on the same topic, one receiving feedback from the teacher and from the peers. Textual and questionnaire data from both groups, video-recordings, and interviews from 12 individual students revealed that students used teacher and peer feedback to improve their writing but that teacher feedback was more likely to be adopted and led to greater improvements in the writing. However peer feedback was associated with a greater degree of student autonomy, and even in cultures that are said to give a great authority to the teacher, there is a role of group feedback.

Ozturk and Cecen (2007) investigated the effects of portfolio keeping on the writing anxiety of students. Two instructors working collaboratively aimed to overcome the writing anxiety of their students. They had a class of fifteen prospective teachers of English who were in their preparatory year in a foundation university, in Istanbul, Turkey. Data were gathered by means of the Second Language Writing Anxiety Inventory (SLWAL), a background questionnaire, and two reflective sessions. Findings of the study revealed that portfolio keeping is beneficial in terms of overcoming writing anxiety. The results also indicated that the experience with portfolios may affect the participants' future teaching practices positively. The researcher also suggested that portfolio keeping deserves to be taken into consideration in the programme of Foreign Language Departments.

Hamdan (2007) investigated the effect of portfolio writing on the writing achievement and writing attitudes of tenth grade EFL students in Jordan. The portfolio that was used in the study indicated that students wrote several pieces and then discussed their best writing with their peers. The researchers used a writing attitude questionnaire and a writing achievement test to measure the effect of the portfolio writing. The results of the study suggested that using portfolio writing improved the writing achievement and writing attitudes of tenth – grade EFL students.

Therefore, the researcher recommended that EFL teachers and curricula planners should encourage students to keep writing portfolios. Another recommendation was that more authentic assessment of students' writing need to be encouraged in EFL classrooms.

Bahus (2008) investigated the impact of using portfolio, as a single assessment tool for an upper level language arts course at an English – medium university in Lebanon, on the learners' linguistic abilities. The researcher devised a special syllabus based on the teaching/learning of text discourses and other language tasks emphasizing skills to improve the English language of the learners. Learners worked on different language tasks, presented and assessed their work according to rubrics, self- reflected on their tasks, and assigned a letter grade to their work. Results indicated that though using only portfolios for assessment purposes was a rather difficult task, it was still more effective than traditional assessment.

Al – Nethami (2009) investigated the effect of a portfolio program on Tenth grade students' writing in Jordan. The study explored the effect of the writing, students' perception of writing, and students' writing strategies. Another aim of the study was to find out students' feelings and opinions regarding the use of writing portfolio in

learning writing. The sample was randomly selected from the male students in the International College in Amman in the first semester of the Academic year 2008/2009, and it was randomly distributed into two groups: experimental and control. The program included writing several drafts, peer and teacher reviews, self-reflection, and assessing students' writing. The researcher pre and post tested the participants in the experimental and control groups the results showed that students in both groups exhibited improvement in their post test; there were no significant differences between them attributed to the treatment which is the portfolio program. Portfolios had positive effects on the students' attitudes toward learning writing strategies; however, students found peer review useless.

1.1 Problem of the Study

The researcher, being an instructor of basic skills (reading, writing, listening, and speaking) and linguistics courses (grammar, applied linguistics, phonetics... etc). For EFL learners, noticed that the students face difficulties in writing. Most of them exhibit weakness in producing grammatical structures, morphological forms, appropriate cohesive devices, coherent flow of thoughts and logically organized ideas. This weakness may emerge from the notion that writing activities are tended to be skipped or ignored in some schools; which leads to less attention to this productive skill from the side of the learners, and may be from the side of the EFL teachers themselves. The researcher believes that Peer Work that is implemented in pair and group work can enhance and develop the learners' linguistic and discourse competencies which constituted parts of the comprehensive learner's communicative competence, a competence that foreign language learners endeavor to reach and desire to obtain. This kind of weakness might be overcome through peer collaboration in doing writing tasks and exploiting portfolios through which learners participate in content selection, evaluating themselves, and reflect on their own productions.

1.2 Questions of the Study

1. Are there significant differences between the students' scores in the experimental group and control group on the linguistic post- test due to the treatment (portfolio, group work and the conventional technique of teaching writing)?
2. Are there significant differences between the students' scores in the experimental and control groups on the discourse post – test due to the treatment (portfolio, group work and the conventional technique of teaching writing)?
3. What are the participants' points of view concerning the effectiveness of group work and portfolios in developing their linguistic and discourse competences?

1.3 Purpose of the Study

This study aims at investigating the effect of group work and portfolios in writing activities on improving the linguistic and discourse competences of the EFL students at Al Al-Bayt University in light of the Communicative Approach.

1.4 Significance of the Study

This study is hopefully assumed to positively contribute to providing teachers of EFL with the proposition that group work and portfolio, as possible indicators of learners' progress and self-reflection, are effective techniques that may relatively improve the EFL learners' linguistic and discourse competencies; especially in a context, as our own in Jordan, in which English as a foreign language is rarely practiced outside the borders of the classroom. Moreover, curricula might be modified in which peer work can be encouraged through designing more group work activities and tasks.

2. Methods and Procedures (Participants, Variables, and Treatment)

2.1 Participants

The participants of this study will be the EFL students at Al Al-Bayt University who take the obligatory Writing 2 course (60 students) in the first semester of the academic year 2013/2014. The sections of this course usually include students from the second, third, and fourth years. The majority of those students enrolled in public schools before attending university, so we can say that they have approximate levels of English proficiency. Most of them can be classified as intermediate in proficiency, very few are classified as advanced since the criteria for accepting them are not only related to their High School averages; low averages sometimes are accepted in the EFL specialization for different reasons. It is worth noting that the number of female students in such sections is usually the double of male students. Most of the participants in the study know each other and have personal and academic relations since they meet in other courses. Thus, the researcher expects that the classes overall atmosphere will be a friendly one. Moreover, most of the students in the Writing 2 sections are enrolled in other EFL courses that the researcher teaches in the same semester (First/2013-2014).

2.2 Variables

- a. Independent Variables: Group work, portfolio, conventional method of teaching writing.
- b. Dependent Variables: Linguistic and discourse competences.

2.3 Definition of Terms

Group Work: Group work in which learners work together as one team to accomplish a certain task or activity in writing. They discuss the given assignment and share ideas, then they contribute in offering each one's phrase, sentence, or ideas in order to be drafted, revised and edited by all group members, and finally proofread and presented in its final printed frame.

Portfolio: A purposeful collection of a student's work that exhibits the student's efforts, progress, and achievements in one or more areas of the curriculum. It includes: Student participation in selecting contents, criteria for selection, criteria for judging merits, and evidence of student's self – reflection.

Linguistic Competence: The learner's ability to produce accurate and acceptable morphological forms, and grammatical structures whether at the level of the phrase or the level of the sentence. The former is concerned with the students' usage of correct affixes (prefixes, suffixes) whether inflectional or derivational, the latter is concerned with word order, various types of agreement (person, gender, number, tense, and voice), articles, quantifiers, count vs. non-count nouns, and modification of noun. In this study, it is measured by the linguistic test which the researcher designed.

Discourse Competence: The learner's ability to use appropriate cohesive devices whether inter- or intra-sentential; and his/ her ability to convey propositions and ideas logically, coherently, and smoothly. Thus, such a competence implies broadening communication, both vertically and horizontally. In this study, it is measured by a special test and criteria designed by the researcher.

Communicative Competence: A comprehensive competence that enables the EFL learners to communicate using appropriate usage and use of English as a foreign language. It includes the following competencies: Linguistic, sociolinguistic, discourse, strategic, and cultural.

Conventional Technique of Teaching Writing: A technique in which learners write paragraphs or essays individually. They are assigned certain topics by the teacher, then their writings are corrected subjectively, i.e., there are no clear - cut criteria that teachers follow to precisely and objectively evaluate their students' abilities.

Storch's Scale: A scale that includes criteria for classifying writing errors in terms of language, coherence, cohesion, and punctuation. It is used in this study without any modification.

2.4 Procedures

Steps of carrying out the study

1. A letter of consent was obtained from the presidency of Al al-Bayt University to conduct the study in the first semester of the academic year 2013-2014.
2. Students who took Writing 2 in the Department of English Language and Literature (EFL Students) during the first semester of the academic year 2013/2014 were divided into two groups: Experimental and control. All students in both groups were pre-tested in paragraph writing in order to ensure equivalence between the two groups.
3. Students of the experimental group were divided into groups, each group included five students or six; this depended on the total number of the students in the section and their own preferences in selecting their peers (in some cases).
4. Assignments on various topics, among which students in the experimental group chose, were given to the students through the whole semester (First, 2013/2014).
5. Students in the experimental group were given the chance to work together, discuss, initiate, decide on ideas and structures, draft writings, and then edit and submit their works. Students in the control group were taught using the conventional technique in teaching writing in which no portfolios nor peer work was implemented.
6. Assignments were corrected and given back to the students to be revised and errors in language and discourse be noticed.
7. Storch's scale was used in the pre and post tests' correction in order to classify or categorize the types of mistakes in language and discourse.
8. At the end of the semester, students in both groups were post-tested in paragraph writing; quantitative procedures were used. These included frequencies or numbers of occurrences of each type of mistake in the pre and post tests' scores, percentages of each error type in comparison with other types, and means and standard deviations in both groups, i.e. descriptive statistics and t-test to calculate the two groups; means were utilized. Only mistakes in language and discourse were dealt with or analyzed.
9. Students in the experimental group were also interviewed individually to express their opinions and evaluations about the effect of the group work they were involved in on their linguistic and discourse competences. They also were asked to write frankly and anonymously few lines about their attitudes, feelings, and evaluation of the use of the portfolio and peer work techniques as possible assisting ways to develop their writing proficiency.

10. Students' responses, as qualitative data in the interviews and written opinions, generated categories that show the most common shared responses or reactions to the techniques of peer work and portfolio on their linguistic and discourse competences.
11. The researcher then discussed the results presenting numbers, examples, and justifications.
12. The researcher finally implied her own propositions and guidelines that are based on the research results; she also presented recommendations accordingly.

3. Results and their Discussion

The results of the study showed that, according to the T-Test, there was a statistically significant difference between the two groups' pre- and post-tests' scores in favor of the experimental group. There was also a statistically significant difference between the two groups' usage of discourse elements in the participants' performances in both tests in favor of the experimental group. However, both groups showed similar results in terms of linguistic competence; there was an increase in the number of linguistic errors in the post-test; nevertheless, there was some progress in some aspects of the linguistic competence indicated by the different percentages in both tests.

The results related to the third question showed that all the interviewees valued the use of the portfolio and they appreciated its role in improving their linguistic and discourse competences. However, not all of the interviewees who are the participants of the experimental group liked the group work for different reasons that will be mentioned and clarified later.

Table (1) shows the T-Test results in which the mean and the standard deviation in both tests for each group are presented. In addition, the significance of the estimated difference is also given in order to assert or underestimate the resulted difference.

Table 1: The results of the T-Test of the pre- and post-tests' scores of the experimental and control groups.

T-Test								
	Paired Differences					t	d.f	Sig.(2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Exp. Pre+Post	-2.10000	4.02021	.73399	-3.60117	-.59883	-2.861	29	*.008
Con. Pre+Post	-1.46667	4.84756	.88504	-3.27678	.34344	-1.657	29	.108

Table (1) shows the T-Test that represent the difference in the overall performances of the students in the experimental and control groups. It illustrates the means, standard deviations, and standard error means for each group in both tests separately. In the second part of the T-Test, the paired samples test is introduced in which the performances of the both tests for each group are unified in single means, standard deviations, standard error means, in addition to the most important part which presents the statistical significance of the difference. In the table above, the significant difference (0.008) is in favor of the experimental group since it is less than 0.05% whereas it is (0.108) in the control group. This means that the treatments represented in the group work and the portfolio had a positive effect on the overall performance of the participants in the experimental group.

3.1 Results related to the first question

Table (2) shows the results of the T-Test which are related to the significant difference between the experimental and the control groups in terms of developing the linguistic competence.

Table 2: The T-Test results that are related to the significant difference between the experimental and control groups in terms of developing the linguistic competence due to the treatments.

T-Test								
	Paired Differences					t	d.f	Sig.(2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Ex. Pre-Post	-	27.60992	7.65761	-33.53066	-.16165	-	12	*.048
Con. Pre-Post	16.84615	41.28792	11.45121	-57.71927	-7.81919	2.200	12	*.014
Ex. Pre-Post	-	32.76923	7.65761	-33.53066	-.16165	-	12	*.048
Con. Pre-Post	32.76923	41.28792	11.45121	-57.71927	-7.81919	2.862	12	*.014

Table (2) displays the results of the T-Test that show the significant difference between the performances of the two groups in the two tests in terms of the linguistic competence development. The table shows the means, standard deviations, standard error means, and the statistical significant difference which is considered the most

important part of the statistical analysis. The results of the T-Test analysis show that the number of mistakes increased significantly in both groups. Both significance indicators in the two groups are less than 0.05%, they are (0.048 and 0.014) respectively.

3.2 Results related to the second question

Table (3) illustrates the results of the T-Test which is related to the significant difference between the experimental and the control groups in terms of developing the discourse competence due to the treatment.

Table 3: The T-Test results related to difference in the development of the discourse competence in the experimental and control groups.

T-Test

	Paired Differences					t	d.f	Sig.(2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Ex.Pre+Post	-5.77778	4.32371	1.44124	-9.10127	-2.45428	-4.009	8	*.004
Con.Pre+Post	-3.77778	4.94413	1.64804	-7.57817	-.02262	-2.292	8	.051

It is clear from Table (3) that there is a statistically significant difference in the development of discourse competence between the experimental and control group due to the treatments in favor of the experimental one. The T-Test results show that the difference in the usage of discourse elements in the post-test significantly differs from that of the pre-test. This can be attributed to the use of the portfolios and the peer or group work in which the participants positively cooperated and mutually corrected each other's errors and usage of discourse cohesive devices and other elements such as logic, ideas connection, pronoun reference, repetition of key words, using parallel forms concision...etc.

3.3 Results related to the third question

To answer this question, the researcher interviewed all the participants in the experimental group at the end of the first semester of the academic year 2013/2014. This means after the end of applying the treatment which is represented in the use of the portfolio and the peer or group work; the researcher taped all the interviews using the cassette recorder. She asked the participants the interview questions that are mentioned in the third chapter. The questions are related to the effect of the peer or group work and the use of the portfolio on their linguistic and discourse competences. The researcher clarified the elements of the linguistic as well as the discourse competences to the students and then she asked them the interview questions successively. After finishing the interviews that were conducted over three different days due to the absence of few students and the lack of time for both the researcher and the participants, the researcher listened to the interview of each student and then she wrote down what he/she said. The answers were then analyzed and qualitatively classified into categories that were designed by the researcher according to the nature and the similarities of the students' responses, not according to predesigned or pre-existing ones. The responses were categorized in four groups, these are:

1. The effect of the group or peer work on developing the linguistic competence of the participants.
2. The effect of the portfolio on developing the linguistic competence of the participants.
3. The effect of the group or peer work on developing the discourse competence of the participants.
4. The effect of the portfolio on developing the discourse competence of the participants.

1. Most students appreciated the group work in developing some aspects of their linguistic and discourse competences.
2. Few students disliked the group and peer work for a number of reasons such as the different level of the students and the carelessness of few of them.
3. All the students in the experimental group valued and liked the use of portfolio in learning writing for various reasons.
4. The use of the portfolio was of a greater value and benefit over the implementation of the group work.
5. Self-reflection was a very useful and motivating factor in the improvement of the learners' linguistic and discourse competences.
6. Usage of tenses and correct sentence structures were of the most positively affected language aspects or elements by the treatments represented in the group work and the portfolio in writing activities.
7. Being aware and informed of the functions of the cohesive devices contributed in increasing the degree and

the frequency of using these devices by the participants.

8. Some participants mentioned other areas of improvement which are related to punctuation marks, spelling, self-confidence, and the overall construction of the essay such as the introduction, body and conclusion.

4. Conclusion and recommendations

In light of the findings of the current study, the researchers recommend the following:

1. Using portfolio in teaching writing for EFL learners so that they can recognize the points of strength and weakness through their own reflections on what they write.
2. Implementing the strategy of group work in teaching writing in EFL contexts since it encourages learners to offer suitable and mutual feedback that can be of great effect and value for most learners.
3. Conducting more researches or studies on the effect of portfolio and peer work in similar contexts of EFL or ESL.

References

- Al-Nethamy, Z (2009). Developing an ESL Writing Portfolio for Jordanian Tenth Grade Students Enrolled in the International General Certificate of Secondary Education and Measuring its Effect on their Writing Performance. Unpublished dissertation, Yarmouk University, Jordan.
- Bahus, R. (2008). The self-assessed portfolio: A case study assessment and evaluation in higher education. ERIC: Peer Reviewed Journal, 33 (4), 381-393.
- Escobar, C. (2001): " La evaluacion ". In Nussbaum, L. And Bernaus, M. (eds.)Didactica de las Lenguas Extranjeras en la Educacion Secundaria Obligatoria. Madrid: Sintesis.
- Gosselin, A. (1998). " Is ongoing assessment fully learner-centred?" *Adventures in assessment*, 11.
- Hamdan, N. (2007). The Effect of Using Portfolio Writing on the Writing Achievement and the Writing Attitudes of Tenth Grade EFL Jordanian Students. Unpublished MA Thesis, University of Jordan, Jordan.
- Kohonen, V. (2000). Exploring the Educational Possibilities of the " Dossier ": Some Suggestions for Developing of the Pedagogic Function of the European Language Portfolio. Stratburg: Council of Europe.
- Ozturk, H. & Cecen, S. (2007). The effect of portfolio keeping on writing anxiety of EFL students. *Journal of Language and Linguistic Studies*, 3, 2, 218-236.
- Paulson, F. L. & Paulson, P. R. & Meyer, C. A. (1991). What make a portfolio? *Educational Leadership*, 48, 1, 60-63.
- Reid, J. (2002). Writing. In R. Carter, & D. Nunan (EDs). The Cambridge guide to teaching English to speakers of other languages (4th ed., pp. 28-33). Cambridge: Cambridge University Press.
- Rollinson, P. (2005). Using peer feedback in the ESL writing class, *ETL Journal*, 59, 145-166.
- Tabatabaei, O. & Assefi, F. (2012). The effect of portfolio assessment technique on writing performance of EFL learners. *English Language Teaching*, 5, 5, 138-147.
- Tribble, C. (1996). Writing. Oxford: Oxford University Press.
- Yang, M.,; Badger, R.; Yu, Z. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing. *Journal of Second Language Writing*, 15,3.

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