

THE IMPACT OF PORTFOLIO ASSESSMENT ON READING COMPREHENSION OF IRANIAN INTROVERT VS. EXTROVERT EFL LEARNERS

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Abstract

The current study investigated the effect of portfolio assessment on reading comprehension of introvert vs. extrovert Iranian EFL learners. To this end, Nelson Denny reading test was administered to 150 Iranian EFL learners studying at Maghreb Zamin language institute in the city of Uremia as the homogeneity test and the pretest. Ninety five EFL learners with their scores 1 standard deviation above and below the mean score were selected for the study. In addition, Eysenck personality questionnaire (EPI) was administered to the participants to distinguish them based on their learning styles, i.e., introversion and extroversion. The participants were divided into 4 main groups (two experimental groups and two control groups). Two experimental groups (one introvert and one extrovert) went through portfolio assessment and two control groups (one introvert and one extrovert) went through traditional assessment. The study proved that portfolio assessment can have more positive effect on reading comprehension of both introvert and extrovert Iranian EFL learners, however, this difference between the groups is not meaningful. The findings of the study could be useful by test makers, language teachers and material developers.

Keywords: Extrovert Learner, Introvert Learner, Portfolio Assessment, Traditional Assessment

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1.1 Background of the Study

Reading has traditionally been regarded as a fundamental language skill in the EFL context (Robb & Sausser, 1989). Iran may serve as a good example in this regard. The language classes in the high school, for example, are usually reading-based. The material used in high school is not communicative as it is not accompanied with audio files or conversations models. Rather, every lesson is based on the reading text presented at the beginning of the unit. On the other hand, reading plays a defined role in academic success of language learners. Many EFL learners have to take language proficiency test at the end of their courses. These tests are usually accompanied with a section on the reading skill. Finally, Myriad studies conducted with regard to the reading skill can signify the role of the reading skill.

Focusing on teaching and learning processes is not the only procedure to enhance EFL learners' reading comprehension. Assessment in another way to raise EFL learners' reading comprehension. A possible example of assessment which can enhance EFL learners' reading comprehension is portfolio assessment. The effect of portfolio assessment on other language skills such as the writing skill has already been investigated and proved (Tabatabaie & Assef, 2012), yet research dealing with portfolio assessment and the reading skill is scant. Therefore, portfolio assessment was selected as a tool to enhance Iranian EFL learners reading skill in this study. According to Kadagand Kotrashetti (2013) portfolio assessment provides an opportunity for EFL/ESL learners to increase their awareness of their skill by monitoring their own reading progress. As a result, it can prepare more responsible language learners. It can also provide EFL learners with knowledge on their weaknesses and strengths.

On the other hand, research on learning styles has proved that considering language learners' learning styles can bring about considerable differences in the outcome of language classes (Wang, Wang & Huang, 2008). Of interest to many language researchers has been cognitive learning styles (Folse, 2004). Two of the often investigated cognitive learning styles are introversion and extroversion. Thus, this study dealt with these two learning styles in particular. Considering the above mentioned issues, the effect of portfolio assessment on reading comprehension of introvert and extrovert Iranian EFL learners was sought.

1.2 Statement of the Problem

Currently, it seems that the teaching and learning processes in Iran do not make proper use of assessment. Although the overall assessment trend is shifting from summative to formative (William, 2000), most assessment in the EFL context of Iran is still summative as the tests in language classes are in most cases taken once or twice a semester in order to be used as a pass/fail criteria. In addition, portfolio assessment is not a usual assessment approach in Iran. Most language teachers do not keep a record of learners' progress in order to be used for formative purposes.

Moreover, among other studies that have dealt with the effect of portfolio assessment on reading skill of Iranian EFL learners, (e.g., Hosseini and Ghabanchi 2014; RostamiCharvade, Jahanbakhsh&Khodabandelou, 2012), none has considered language learners learning styles.

Another problem in the EFL context of Iran is the excessive focus on traditional assessment. Traditional assessment focuses on mastering discrete, isolated bits of information. These bits of information basically represent lower-level thinking skills (Herman, Aschbacher, & Winters, 1992). As a result an alternative way to assessment, with regard to the reading ought to be selected.

1.3 Research Questions

The answer to the following research questions was sought in the study:

Q1: Does portfolio assessment have any impact on Iranian EFL learners' reading comprehension?

Q2: Does portfolio assessment have any impact on extrovert Iranian EFL learners' reading comprehension?

Q3: Does portfolio assessment have any impact on introvert Iranian EFL learners' reading comprehension?

Q4: Does portfolio assessment have more impact on extrovert learners' reading comprehension than introvert ones?

1.4 Purpose of the Study

The main purpose of the study is to find out whether or not portfolio assessment has any effect on reading comprehension of Iranian EFL learners. To pursue this purpose, portfolio assessment in this study is being referred to in contrast to summative assessment. The other purpose of the study was to understand how effective portfolio assessment on reading comprehension of introvert and extrovert Iranian EFL learners is. This particular purpose is based on hypotheses 2, 3, 4 which deal with the effect of the portfolio assessment on reading comprehension on the learners. This could help EFL test-makers understand whether or not the same type of assessment ought to be utilized with EFL learners who have different learning styles. This study was also an attempt to replicate the studies carried out by Hosseini and Ghabanchi (2014) to understand how accurate the results of their study was.

1.5 Significance of the Study

The effect of learner-centered approaches to assessment; such as portfolio assessment, can encourage language practitioners to prepare more responsible and autonomous language learners. In addition, this study takes a step further with regard to the effect of portfolio assessment by considering the learning style of the language learners. As mentioned earlier, no prior study has dealt with this issue yet. The innovation of the study is considering language learners' learning styles as a moderator variable. Unfortunately, language learner identity is ignored in most cases (Shirely, 2015). Learning style of the learners is part of their identity as it belongs to each and every individual.

The literature review in this research report can provide EFL learners with a comprehensive report on dynamic assessment on the reading skill which can help them develop their assessment knowledge. This this study is not only beneficial to language learners, but also enhances language teachers' knowledge.

Review of the Related Literature

2.1 Theoretical Background

Language teaching has been subject to paradigm shift for the last few decades. These shifts in paradigm are usually influenced by particular schools of thought in psychology or linguistics.

(Larsen-Freeman & Anderson, 2013). Behaviorist approach to language teaching, influenced by behavioristic psychology, was widespread in 1950s. However, it came to an end by more linguistic-based approaches to language teaching and by being criticized by scholars such as Corder (1967).

The shift in the field has not been confined to language teaching; language testing has also undergone a considerable change. As stated by Gipps (1994), there has been a change in view from testing culture to assessment culture. This change in view is compatible with more learner-centered approaches to language teaching; test emphasizes the standardization of the test, assessment emphasizes on the learners (Brown, 2004). This innovation was often viewed as an alternative to what is often referred to as "traditional assessment". As example of alternative assessment was portfolio assessment (PA) which is based on learners' activities and strategies (Lynch, 2001).

There exists a number of definitions for portfolio assessment in the literature. Yang (2003), defined portfolio assessment as process which consists of collecting students' documents and reflecting on them. Brown and Hudson (1998) content that portfolio assessment is creating a link between assessment, learning and teaching. Other scholars such as Grace (1992) believed that portfolio assessment lets us know more about the learners. It helps us understand how each individual learner thinks, analyses and interacts with the teacher and other peers linguistically. Therefore, PA is incorporated into teaching strategies (Porter & Cleland, 1995) which improves standards not measure them. Aksal, Ghazi and isman (2008) acknowledged that portfolio is not merely a product-based assessment, rather it is a product-process based assessment. As it involves self-diagnosis, self-improvement, and themeta-cognitive processes of thinking (O'Malley & Pierce, 1996; Yang, 2003).

2.1.1 Portfolio Assessment Models

Two of the most effective portfolio assessment models used in the field, as stated by Gottlieb (1995), are Cradle model, and Moya and O'Mally's model. The Cradle model consist of the following steps: a) Collection, b) Reflection, c) assessing, d) documenting, e) linkages and,f) evaluating. Moya and O'Mally (1994) model, on the other hand, hassignificant features like

comprehensiveness, systematicity, informativeness, tailored and authenticity. The main difference between the two models is that the Cradle model is learner-centered, while the Moya and O'Mally model requires teacher's guidance.

In order to assess the reading comprehension of the language learners through portfolio assessment, Alderson (2000) suggests two techniques. The first technique is summary and the second one is information transfer. Indeed, the language learners create a summary of the paragraphs and transfer the information into a table or a graph. This record will be kept as a portfolio. "RAP" is another very common strategy to use portfolio assessment in reading. The strategy was proposed by Bos and Voughn (2002). It is a paraphrasing strategy for teaching reading comprehension. The learners ask the meaning of the paragraphs in collaborative groups and write them in their own words. The semantic and syntactic components of the sentences written by the language learners is the base for the evaluation of their understanding. (McCarthy, Guss, & McNamara, 2009). The main difference between the model proposed by Alderson (2000) and Bos and Voughn (2002) model is that the former is a summary and more objective, whereas the latter is paraphrasing and more subjective.

2.2 Empirical Background

The literature on portfolio assessment reveals that it is an effective strategy to enhance the language ability of learners. Altinay et al. (2008) confirmed that portfolio assessment is a constructivist strategy which is used to increase the learners' transferable skills. In their view, the learners use the skills such as reflection, critical thinking and assessment in the real life situation. A study conducted by Nowruzi and Nafisi (2010), examined the effect of portfolio assessment in the EFL context of Iran. Not only did they content that portfolio assessment is an effective strategy to enhance EFL learners' language ability, but also they found out that it is a suitable tool to strengthen language learners' psychological and cognitive ability.

Method

3.1 Participants

To fulfill the objectives of this study, the participants of study included 95 intermediate female students. Learners of English were selected randomly out of 150 language learners at Maghreb

Zamin English language institution in Uremia, Iran by administering Nelson Danny Reading Test as the homogeneity test and the pretest and by considering ± 1 standard deviation of scores on the test. The participants were chosen with different cultures, various social classes and were aged between 17 and 22 years old. All the participants were bilingual Turkish or Kurdish speakers who spoke Persian as their second language. Table 1 reveals descriptive data of the participants.

Table 1

Descriptive data of the participants

Groups	N	Age	Gender
Experimental introvert	24	17-22	Female
Experimental extrovert	23	18-21	Female
Control extrovert	25	17-21	Female
Control introvert	23	18-22	Female

3.2 Instruments

3.2.1 Nelson Denny Reading Test including 38 test items was utilized to assess knowledge of the participants and to see if they are homogeneous based on their English reading proficiency level. The test was also used as the test of homogeneity. The validity and reliability of the Nelson test have been estimated several times before by other researchers and it is considered as highly valid and reliable test of English proficiency (Shahivand&Pazhakh, 2012, p. 18).

3.2.2 Eysenck Personality Inventory (EPI) is designed to investigate introversion and extroversion among individuals. Eysenck firstly pictured personality as extroversion/introversion and neuroticism/stability. There are 57 Yes/No items in the test. Those who fill out the EPI receive three different kinds of scores: the E score which is related to how much extrovert a person is, the N score measuring the neuroticism, and the Lie score which tries to measure how socially desirable a person has wanted to prove to be. The E score is computed out of 24 because it consists of 24 items, the N score is out of 24, and the Lie score is out of 9.

3.2.3 A Researcher-Made Posttest In order to test the participants' reading comprehension ability at the end of the study, a researcher-made posttest was designed by the researcher. The test included 3 reading tests containing 1503 words. The reading texts were followed by 30 reading comprehension questions. The duration of the test was 40 minutes. Item analysis was run to probe ratios of item discrimination (ID) and item facility (IF) and to make sure the test could further be used in the study.

3.3 Procedures

Following administering the reading section of Nelson Denny reading test as the homogeneity test and the pretest, along with the Eysenck personality inventory (EPI), the participants formed 4 different groups of learners: experimental introvert, experimental extrovert, control introvert, control extrovert. The treatment in this study lasted for 10 sessions over the period of 22 days. Every session was 1 hour. The details of the treatment is as follows:

In case of this study all participants in the experimental groups were given a table at the beginning of each session. They were asked to read the reading texts given to them and write a summary of each paragraph in each slot in the table. The summary should have consisted of maximum 4 words. The summaries were given to other peers in the classroom to be assessed. In this way, the participants could familiarize themselves with other participants' ideas about the paragraphs. Finally, the teacher would evaluate the summaries and provide the participants with the feedback. It should also be mentioned that the reading texts were selected from the book "developing reading skills" by Grellet (1981).

In the control groups, the participants were not asked to write a four-word summary for each paragraph based on their understanding. Instead, they were asked to read the given text, and answer the question at the end of the text. Thus the traditional summative assessment was implemented in their class without keeping record of their progress.

All participants took a posttest after the treatment as explained in Section 3.2.

Data Analysis

4.1 Pre-Study

Along with Nelson Denny reading test, the researcher-made posttest and its piloted version were administered to the participants. As shown in Table 2, the ratios of skewness and kurtosis over their respective standard errors were within the acceptable range of ± 1.96 (Stevens, 2009) for all tests, thus; it can be assumed that all tests enjoyed normal distribution.

Table 2

Normal Distribution of All Tests

Test of Normality, All Tests

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Pilot Test	30	.234	.521	.151	.736
Nelson Reading Proficiency Test	150	-.431	.178	.432	.421
EXP 1	24	.081	.512	-.219	.812
Nelson Reading Proficiency Test	23	.324	.512	-.589	.812
EXP 3	25	.052	.512	.813	.812
CONT 4	23	.061	.512	-.99	.812
EXP 1	24	.398	.512	-.412	.812
Reading Post Test	23	.325	.512	.311	.812
EXP 3	25	.265	.512	.232	.812
CONT 4	23	.335	.512	.434	.812

4.1.1 Homogeneity Test

The reliability of scores on the homogeneity test was checked using Cronbach α . The test result on Table 3, ($\alpha = 0.811$, $p = 0.05$) proved that the test reliability was acceptable ($r > 0.7$).

Table 3

Reliability of the Homogeneity and Pretest Scores

Cronbach's Alpha	N of Items
.811	30
$p = .05$	

Nelson Denny reading proficiency test was administered to 150 language learners to homogenize them based on their reading proficiency level. Considering 1 standard deviation above and below the mean score on reading proficiency section of the test and the results of the Eysenck Personality Inventory (EPI), ninety five (N = 95) participants were selected and distributed into four different groups.

4.2 The Research Questions

Research Question 1

Does portfolio assessment have any impact on Iranian EFL learners' reading comprehension?

In order to find the answer to research question 1, independent samples test was run to compare the score of the participants in the experimental groups and the control groups regardless of their learning style. Based on the results displayed in Table 4, it can be claimed that the experimental group (M = 19.11, SD = 2.81) had a considerable higher mean than the control group (M = 16.41, SD = 2.75).

Table 4

Descriptive Statistics

VAR00002	N	Mean	Std. Deviation
General experim	47	19.11	2.81729
		.41094	
control	48	16.415	2.75910
		.57531	

The results of the independent t-test ($t(49) = 0.12$, $p = .991$, $r = .712$ representing a large effect size) (Table 5) indicate that the difference between the mean scores of the control group and experimental group is meaningful. Thus, the first null hypothesis was **rejected**.

Table 5

Independent Samples Test

Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper	
Equal variances assumed		.036	.850	.002	49	.012	2.695	.71216
Equal variances not assumed		1.41276	1.42941					
		.002	44.621	.991	2.695	.70701	-1.41599	1.43264

It should be noted that the assumption of homogeneity of variances was met (Levene's $F = 0.36$, $p = .850$). That is why the first row of Table 5, i.e., "Equal variances assumed" was reported.

To check the research hypotheses 2, 3 and 4, the results of reading posttest were analyzed using a two-way ANOVA test. Descriptive statistics also was done which is shown in Table 6. According to Table 2, distribution of the scores for four groups was normal and by applying Levene's test, the homogeneity of variances of four groups was checked and the amount of significance in Table 10 ($Sig = 0.758$), which is greater than 0.05, shows that the variances of four groups were equal. So, all the assumptions for applying the two-way ANOVA test were met.

Table 10

Descriptive Statistics, Reading Post Test

	N	Mean	Std. Deviation	Variance
Group1 (Experimental/Intr 25 overt)		19.35	3.083	9.590
Group2 (Experimental/Ext 25 rovert)		18.87	2.975	7.857

Group3				
(Control	/25	16.48	2.786	6.677
Introvert)				
Group4				
(Control	/25	16.35	2.584	7.760
Extrovert)				

Table 11

Homogeneity of Variances, Reading Post Test

F	df1	df2	Sig.
.394	3	96	.758

Table 12 shows the results of applying two-way ANOVA to the scores of reading posttest as the dependent variable. 2×2 full-factorial ANOVA examined the effects of treatment (top-down processing and no treatment) and style (introvert and extrovert) on reading scores. The main effect of treatment was statistical ($F_{1, 96} = 14.085$, $p < .0005$, partial eta-squared = .128), but the effect of style ($F_{1, 96} = 2.212$, $p = .140$, partial eta-squared = .023) and the interaction between treatment and style ($F_{1, 96} = .08$, $p = .778$, partial eta-squared = .001) were not statistically significant. This model explained $R^2 = 14.6\%$ of the variance in reading scores.

Table 12

Two-way ANOVA, Reading Post Test (Dependent Variable)

Source	Type II Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	130.640 ^a	3	43.547	5.463	.002	.146	.930
Intercept	32544.160	1	32544.160	4082.906	.000	.977	1.000
Treatment (Portfolio/no treatment)	112.360	1	112.360	14.085	.000	.128	.961
Style (introvert/extrovert)	17.640	1	17.640	2.212	.140	.023	.313
Treatment * Style	.640	1	.640	.080	.778	.001	.059

Error	765.200	96	7.971
Total	33440.000	100	
Corrected Total	895.840	99	

a. R Squared = .146 (Adjusted R Squared = .119)

b. Computed using alpha = .05

Mean scores (Table 10) showed that experimental group1 ($M = 19.35$, $SD = 3.083$) and experimental group2 ($M = 18.87$, $SD = 2.975$) participants performed better than control group3 ($M = 16.48$, $SD = 2.786$) and control group4 ($M = 16.35$, $SD = 2.584$). So, the second and the third null hypotheses of the study (H_02 and H_03) were **rejected** and using portfolio assessment had significant effect on reading comprehension of both introvert and extrovert Iranian EFL learners' at intermediate level. Cohen's d , index of effect size for independent samples, was calculated in order to check the fourth hypothesis (H_4) of the study. Table 13 indicates the result for three pair-wise comparisons of different groups. According to Cohen (1992) the effect sizes is small for $d = 0.2$, medium for $d = 0.5$, and large for $d = 0.8$. The effect size between experimental group1 (Introvert) and control group3 (Introvert) is large ($d = 0.976$) and also the effect size between experimental group2 (Extrovert) and control group4 (Extrovert) is large, too ($d = 0.904$). But the effect size between experimental group1 (Introvert) and experimental group2 (Extrovert) is small ($d = 0.158$). So, according to the effect sizes and comparing the mean scores of two experimental groups, the **fourth hypothesis of the study (H_4) were rejected** and portfolio assessment does not have more effect on reading comprehension of extrovert EFL learners compared to introvert EFL learners.

Table 13

Effect Size, Reading Post Test

Between group comparisons	Cohen's d
Experimental group1 (Introvert) – Control group3 (Introvert)	0.976
Experimental group2 (Extrovert) – Control group4 (Extrovert)	0.904
Experimental group1 (Introvert) – Experimental group2 (Extrovert)	0.158

Discussion

The study proved that portfolio assessment could have a positive effect on reading comprehension of Iranian EFL learners. This effect includes both impulsive learners and reflective learners. However, the effect of portfolio assessment on reading comprehension of impulsive and reflective Iranian EFL learners is not significantly different. Rostami Charvade, Jahandar and Khodabandehlou (2012) conducted a study to compare the effect of portfolio assessment with traditional assessment on reading comprehension of Iranian EFL learners. They concluded that portfolio assessment can increase reading comprehension of Iranian EFL learners. In accordance with the results gained from their study, the findings of this study proved that Iranian EFL learners can benefit from portfolio assessment. This increase in reading comprehension can be explained by Kadagad and Kotrashetti (2013) who posited that portfolio assessment provides an opportunity for EFL/ESL learners to increase their awareness of their skill by monitoring their own reading progress. Nurianfar, Akbar Azizi Far, Gowhary (2014) carried out a study to find out which of the introvert and extrovert EFL learners are better strategy users. The results of their study conducted by 60 EFL learners proved that extrovert EFL learners are more skillful strategy users and may be able to increase their reading comprehension more easily. In terms of portfolio assessment and learning styles, the findings of this study proved that EFL learners learning styles is not a determining factor and does not cause any difference.

Conclusion

In terms of research question 1, the results of the independent t-test ($t(49) = 0.12, p = .991, r = .712$ representing a large effect size) (Table 5) indicate that the difference between the mean scores of the control group and experimental group is not meaningful. Thus, the first null hypothesis was **rejected**. As for research hypothesis 2 and 3, mean scores (Table 10) showed that experimental group 1 ($M = 19.35, SD = 3.083$) and experimental group 2 ($M = 18.87, SD = 2.975$) participants performed better than control group 3 ($M = 16.48, SD = 2.786$) and control group 4 ($M = 16.35, SD = 2.584$). So, the second and the third null hypotheses of the study (H_02 and H_03) were **rejected** and using portfolio assessment had significant effect on reading comprehension of both introvert and extrovert Iranian EFL learners' at intermediate level. As for the last research hypothesis, Cohen's d 's effect size was calculated. According to Cohen (1992) the effect

sizes is small for $d = 0.2$, medium for $d = 0.5$, and large for $d = 0.8$. The effect size between experimental group1 (Introvert) and control group3 (Introvert) is large ($d = 0.976$) and also the effect size between experimental group2 (Extrovert) and control group4 (Extrovert) is large, too ($d = 0.904$). But the effect size between experimental group1 (Introvert) and experimental group2 (Extrovert) is small ($d = 0.976$). So, according to the effect sizes and comparing the mean scores of two experimental groups, the **forth hypothesis of the study (H4) were rejected** and portfolio assessment does not have more effect on reading comprehension of extrovert EFL learners compared to introvert EFL learners.

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