The Effect of Self-Reflection Strategy-Based Instruction on Developing Speaking Ability among Iranian EFL Learners

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Abstract

The Present study addresses the influence of self-reflection strategies on developing speaking ability among Iranian EFL learners. These strategies were derived from framework suggested by Angelo and Cross (1993). Self-reflection strategies such as information literacy, visual learning tools, interactive notebooks and others definitely help learners improve themselves in many different aspects such as speaking ability. This study employed 60 TEFL students majoring in English Translation in Islamic Azad University of South Tehran Branch. The participants were at intermediate proficiency level and were divided into control and experimental groups. The researchers used OPT (Oxford Placement Test) for homogeneity purposes, TOEIC for pretest and TSE posttest for speaking ability measurement, Weir's analytic speaking criteria (1993) as an instrument to rate the interviews, and Angelo and Cross's (1993) framework with the aim of direct instruction. The study employed quantitative and quasi experimental research designs. An Independent samples t-test was used to ascertain if there was any significant difference between the means of the experimental and control groups. The findings of the study displayed that students in the experimental group did not outperform the ones in the control group regarding speaking ability suggesting that self-reflection strategy-based instruction does not have any significant effect on developing speaking ability among Iranian EFL learners.

Keywords

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Introduction

Many students in educational centers are mostly requested to have presentations and produce something as an output. They often do not know how to manage and present their lectures, because they are not familiar with self-reflection strategies before the performances. As a matter of fact, they cannot have a profound impact of what they say and unfortunately do not have a deep review, flexible thinking and useful summaries before the action of output. This major problem has been generated regretfully because there is not any instruction and practice in educational contexts or it is too little. Lack of self-reflection instruction is the main problem that affects the student's speaking ability in the classrooms, conferences, meetings and congresses. This gap has been filled with this study and the other's support by participating in the oral interviews and questionnaires as an exam.

Identifying the strategies of self-reflection lead students into a better performance and generalizing its teaching process in academic settings also creates a progressive education in the mentioned country. This study reminds governors and educators to pave the ground and use this research for the improvement of education in their home land. Furthermore, the gaps and contradictions in this study were filled by systematic experiment which is done on the participants according to Angelo and Cross (1993) proposed items. The readers absolutely find out whether self-reflection strategies based instruction has any effect on improving performances and outputs such as speaking ability among Iranian EFL learners or not.

The overall purpose of the study is to examine whether self-reflection strategy based instruction is significantly more effective than common instructions on developing EFL learner's speaking ability or not. Actually, the research mainly tries to investigate the instructional effects of self-reflection strategies on the speaker's performances as an output in comparison to the regular instructions. In other words, speaking ability among Iranian EFL learners have been tested throughout self-reflection strategies and techniques. The major

focus was on the examination of Angelo and Cross (1993) suggested techniques and its impact on Iranian EFL learner's performances and outputs. The following research question was proposed:

RQ: Does self-reflection strategy-based instruction have any significant effect on developing speaking ability among Iranian EFL learners?

Literature Review

According to philosophical beliefs on self- reflection, all of our thoughts and sensations come with beliefs that have an effect the fact that we are having those thoughts and beliefs (Locke, 1689). Reflection is concerned with consciously looking at and thinking about our experiences, actions, feelings and responses and then interpreting or analyzing them in order to learn from them (Atkins & Murphy, 1994; Boud, Cohen & Walker, 1993). Typically, we do this by asking ourselves questions about what we did, how we did it and what we learnt from doing it. Schön (1991) distinguishes between reflection-on-action and reflection-in-action in the following way: Reflection-in-action is concerned with practicing critically. So, a physiotherapy student working with a client on an exercise program is making decisions about the suitability of particular exercises, which exercise to do next and judging the success of each exercise at the same time as they are conducting the activity. Reflection-on-action on the other hand, occurs after the activity that has taken place when you are thinking about what you (and others) did, judging how successful you were and whether any changes to what you did could have resulted in different outcomes or not.

Kolb's (1984) experiential learning model incorporates considers reflective observation an integral part of the learning cycle. Schon (1983), in his seminal work The Reflective Practitioner, also emphasized the importance of reflection in professional practice and added that reflection may occur not only after an event but simultaneously within the moment as well. The term reflection, however, can mean many things. It can range from simply thinking about one's experience as a means to increase awareness (of thoughts,

feelings, values, or actions) to considering possible alternatives to a problem. Senge (1990) placed the process of reflection as integral to organizational learning. Studies have shown that students engaging in reflective activities have reported increased self-awareness, self-confidence, and feeling of empowerment to recreate their own self-concept (Morrison, 1996).

The scientist singles out three types of it: reflection-inaction, reflection-on-action and reflection-for-action. Reflection-in-action, according to Schon (1983), is about the practitioner being aware of what they are doing while they are doing it. As Farrell notices this simultaneous thinking about the action causes reshaping of what the person is doing (Farrell, 2003). Reflection-on action is concerned with our looking back on what we have done to analyze how it could have been improved (Schon, 1983). Reflection-for-action is proactive in nature (Farrell, 2003); it guides the Practitioner's future actions basing on the results gained from the other two types of reflection.

There are 5 major types of self-reflection strategies presented in the following sentences by Angelo and Cross, (1993).

1. Open-ended questioning techniques: Essay type questions making you think and present.
2. Reflective Writing Activities: Essays, Letters, Diaries, Notes, etc.
3. In-class discussion or other speaking activities: Presentations, Interviews, Story telling.
4. Diagrammatic Activities: Concept Maps, Mind Maps, Conceptual Diagrams.
5. Media/Performance activities: Photos, Videos, Film Making.

According to Şimşek (2011), instruction requires not only systematic guidance for learning but also a purposeful organization of experiences to help students achieve the desired change in their performances. Instruction is also known as an action taken by teachers to create a stimulating learning environment for the purpose of providing guidance along with the necessary instructional tools and carrying out activities that will facilitate learning and help develop behavior. Instruction is also defined as procedures and activities

planned for teaching (Canady & Retting, 1996). Instruction is an active process that is helping individual's self-actualization and self-fulfilling (Moore, 2000).

In other words, speaking is an interactive process of constructing meaning that involves producing and receiving and processing information (Brown, 1994; Burns & Joyce, 1997). Its form and meaning are dependent on the context in which it occurs, including the participants themselves, their collective experiences, the physical environment, and the purposes for speaking. It is often spontaneous, open-ended, and evolving. Speaking is one of the four language skills (reading, writing, listening and speaking).

Strategies for language learning and language utilization have been absorbing ever emerging attention in the realms of foreign language teaching and learning (Brown, 1991; Cohen, O'Malley & Chamot 1990; McDonough, 1995; Mendelsohn, 1994; Oxford, 1990; Rubin & Thompson, 1994; Wenden 1991). Learning strategies are described as the signs of the process of information executed by the learners. In this sense, learning strategies can be viewed as tactics utilized by learners (Ögeyik, 2009, p. 9). Cohen et al. (1996) delineate the final purpose of the strategy instruction:

> The goal of this kind of instruction is to help foreign language students become more aware of the ways in which they learn most effectively, ways in which they can enhance their own comprehension and production of the target language, and ways in which they can continue to learn on their own and communicate in the target language after they leave the language classroom. In other words, strategies-based instruction aims to assist learners in becoming more responsible for their efforts in learning and using the target language. It also aims to assist them in becoming more (p. 6).

Strategy-Based Instruction is established on all classroom activities incorporated with proper strategies. It embraces direct classroom teaching targeted at learners concerning their language learning and use strategies, and provided alongside instruction in the foreign language. Assisting second language learners to turn to more knowledgeable individuals involving in the most fruitful learning, to

boost their understanding and performing of the target language, and to keep on gaining after being outside of the classroom (Cohen, 1996). Students are invariably required to use ample various strategies in different situations. Consequently, they are primarily aware of the prevailing strategies that concord to the students' favorites, then, foster chances for practice. To put it differently, they need to be exposed to training. This process is labelled strategy-based instruction. Cohen (2003) claims that this approach is premised on the outlook that learning will be lubricated by making students informed of the gamut of strategies from which they can adopt during language learning and utilization. The most productive way to enhance learner cognizance is to demonstrate strategy training—direct instruction in how to exercise language learning strategies—as portion of the foreign language syllabus.

With respect to the significant contribution that listening comprehension has in the process of language learning, Porter and Roberts (1981, p. 30) declare that "listening, more than any other skill, has been sold short". Despite the extensive attendance of listening activities young learners undergo in the EFL context, they still manifest an impoverishment in listening skills arisen in incompetence to interact efficiently, stick to oral guidelines and perceive listening activities, because their teachers' listening instruction is considerably concerned with testing their perception rather than instructing them to listen in hope of yielding productive results (Brown, 1986; Richards, 1983). Learners' not agreeable points of view about their own listening performances is viewed as another noteworthy facet that some researchers (e.g., Graham, 2006; Underwood, 1989) also mention this. From the learners' outlooks, the major hatches are "dealing with such dilemmas as the speed of delivery of text, making out individual words in a stream of spoken English and making sense of any words identified, limited vocabulary knowledge, failing to recognize the signals, and lack of contextual knowledge" (Graham, 2006, p. 221). Based on the aforementioned facts, the present study aimed at an investigating the conceivable efficacy of strategy-based instructional procedures in elevating EFL learners' listening proficiency. The

reflection-based methodology is built on Galperin's Theory of Stage-by-Stage Formation of Mental Activity (Galperin, 1969), which in its turn is established on the perspectives of Vygotsky's scientific school. The methodology is aimed at the evolvement of students' speaking skills on the basis of reflection. This objective is obtained through the application of the system of exercises of the step-by-step growth of reflection and speech production adeptness.

Empirically speaking, Dadour and Robbins (1996) trained Egyptian EFL university students to employ strategies to boost their speaking skills and discovered escalation in their experimental group students' speaking skills and strategy utilization. Cohen et al. (1998) examined the impact of explicit strategy instruction on EFL speaking ability. Although they explored a meaningful influence for speaking strategy instruction, they concluded that students' language proficiency level played an important role in benefiting from such instruction.

Method

Participants

The participants included in this research were chosen from both genders. Their nationality was Iranian and they lived in the capital city, Tehran and they were students with at least intermediate English language proficiency level, studying TEFL and English Translation in Islamic Azad University of South Tehran Branch. Their age was over 18 and seemed to be adult physically. The number of the participants in this study was 60 and they were divided into two groups. At the same time, students from different courses with various living places who were not familiar with English language were excluded in this research. The rating process was done by the raters subjectively. Raters participated in this study include the researcher himself and an English teacher.

Instruments

In this study , OPT (Oxford Placement Test) for homogeneity purposes , TOEIC pretest and TSE posttest for speaking ability measurement , Weir's analytic speaking criteria, (1993) as an

instrument to rate the interviews , Angelo and Cross' (1993) suggested framework with the aim of direct instruction were employed in this study . By the way, some other instruments like text books, websites, journals, web logs, magazines, dictionaries, essays and a voice recorder were used as sources to get relevant information. Actually, some instruments have been gathered here to create a unique instrumentation for the purpose of related research and lead it toward an authentic conclusion which was reported in the following parts.

Data collection Procedure

In the initial phase of the study, the sampling process was done by Oxford Placement Test (OPT) for the homogeneity purpose. The sampling type applied in this study was also stratified for more generalizability. Most of the locations that research went for sampling process were divided into two parts, physical and virtual sites. Physical site such as Islamic Azad University of South Tehran Branch in the capital city – Tehran, and virtual sites such as websites, weblogs, and on line Libraries on the Internet. In fact, the research was done in educational context and negotiations were done with the administrations of above mentioned places to conduct the study. To continue, there were two groups, one experimental group and control group as the other one. At first, the number of participants in each group was 30.

Second, a TOEIC speaking pretest in a structured interview was prepared for students of the two groups to know their speaking ability level according to Weir's analytic speaking criteria, (1993). Next, treatment or teaching process started for experimental group to instruct them the strategies of self-reflection through Angelo and Cross (1993) proposed items directly. In fact, the control group did not receive any treatment because comparison was regarded between the two groups. As a matter of the fact, the suggested models of Angelo and Cross (1993) plus related details was taught to the learners one by one explicitly after their first exam (TOEIC) in the university and also a copy of strategies was sent to the test takers email as a file in Microsoft office word format to declare them how to self-reflect the

materials on their own by reading the mentioned framework and applying those orders after their first speaking test.

They were required to self-reflect because the researcher was supposed to know whether there was any considerable development in their speaking ability by self-reflection strategies or not. In fact, their speaking ability improvement was clarified through these two tests. After that, a TSE speaking posttest again in a structured interview was made ready for test takers of the two groups to check their speaking ability improvement again by Weir's analytic speaking criteria, (1993). Actually, there was inter-rating in the process of the current study just for understanding the reliability. It means that there was another rater to judge about the responses given by test takers and the operation of inter rating was also done to see whether there was any reliability between the obtained scores or not.

There are restrictions and raters might not be present for interviewing at the same time, so the voice of interviewees was recorded simultaneously by the researcher while interviewing and then, the recorded files were presented to other rater to keep the operation on his own idea. After that , an independent T test was used to check out whether there was any development or significant differences in their speaking ability level by self-reflection strategies-based instruction or not . Finally, the outcome of the research was analysed by virtual tools known as SPSS. All these tests for more consciousness are available in appendices of the thesis, either.

The type of the current method used in this research was quantitative and quasi experimental. Verification of this inquiry also was done through cross-sectional type of the study. Meanwhile, the participants were from two equal intact classes that contained 15 boys and 15 girls in every group. The type of the interview in data collection procedure was all chosen from structured ones. It means that interviews (TOEIC & TSE) have been done by pre-determined questions. Moreover, the schematic representation of the design in this study is also demonstrated below to help readers have a greater vision of the research process. However, the following demonstration was considered to investigate both the effect of self-reflection strategy

based instruction on developing speaking ability among Iranian EFL Learners for experimental group and the other one known as control group which refers to the students who improved their speaking ability by common strategies without any instruction.

Experimental Group	Control Group
Pretest – Treatment – Posttest	Pretest – Placebo – Post test

The data in this research was gathered out of a pretest, treatment, posttest pattern for experimental group and a pretest, placebo, posttest pattern for control group in the initial phase of data analysis. The raw data known as scores was obtained through TOEIC speaking pretest and also TSE speaking posttest. Given responses by test takers were judged by raters according to Weir's analytic speaking criteria, (1993). In the second step, the mean of generated scores in experimental group and control group before and after the treatment was calculated by an independent t-test.

Independent t-test was applied as we had to know if there was any considerable difference between the means of the two groups or not. Specifically, the gathered data were calculated by SPSS software as a virtual tool to present the relevant detailed data. There are diagrams, charts, figures, graphs and tables shown by this study mostly for more tangibility of the obtained outcomes.

Results and Discussion

Piloting Results

As mentioned earlier, three instruments were executed in this study: OPT for homogeneity, TOEIC Speaking Pretest, and TSE Speaking Posttest. A group of 30 intermediate EFL learners who had the same features to the main population of the study took part in the pilot study. As seen in Table 1, the results show the first draft of OPT containing 100 items. In fact, no item was deleted, and the reliability index of OPT was computed using KR-21. It turned out to be .90. Furthermore, the table reflects that the reliability index for TOEIC

speaking Pretest and Posttest comprising four parts were assessed .85 and .87 each one respectively through Pearson correlation coefficient (inter-rater reliability) between the two raters' scores.

Table 1. Reliability Statistics for the Instruments of the Study

Instrument	No. of Items before Piloting	No. of Items after Piloting	Reliability Method	Reliability Index
OPT	100	100	KR-21	.901
PET Speaking Pretest	4 parts	4 parts	Inter-rater	.854
PET Speaking Posttest	4 parts	4 parts	Inter-rater	.872

Placement Test Results

As mentioned before, the convenient sampling was used in this study. So the Oxford Placement Test (OPT) was administered to both Experimental and Control Group to ensure that both groups were homogeneous concerning English language proficiency. Table 2 represents the mean and standard deviation of both groups. As Table 2 shows, the OPT mean score and standard deviation of the Experimental Group ($\bar{x} = 77.90$, $SD = 4.35$) is not much different from those of the Control Group ($\bar{x} = 77.20$, $SD = 4.33$). Additionally, Table 2 indicates that Skewness and Kurtosis ratios of the two sets of OPT measures do not exceed +/- 1.96 and then enjoy normal distribution.

Table 2. Descriptive Statistics of the Two Groups' OPT Scores

Group	N	Mean	SD	Skewness Ratio	Kurtosis Ratio
Experimental	30	77.90	4.350	-.145	-1.377
Control	30	77.20	4.334	-.042	-1.357

Independent sample t-test was used to compare the experimental and Control Groups' proficiency scores and also the relevant results are given in Table 3. Parametric independence samples t-test to the OPT scores was met because of four assumptions such as interval data, independence of subjects, normality and homogeneity of variances (Field, 2009). Based on the results shown in Table 3, the hypothesis of equal variances was met as the significant level associated with Levene's Test (.95) exceeded .05.

Table 3. Independent Samples T-test to Compare Two Groups' OPT Scores

Levine's Test for Variances			T-test for Means			
Factor	**F**	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Diff.**
Equal variances assumed	.003	.954	.624	58	.535	.700
Equal variances not assumed			.624	57.999	.535	.700

Moreover, the independent samples t-test (Table 3) found no statistical significant difference (t (58) = .62, p = .53, p > .05) in OPT measures between the Experimental and Control Groups. It means that the students in the two mentioned groups were at the same level of English language proficiency. In order to demonstrate the results graphically, the Box Plot (Figure 1) was drawn.
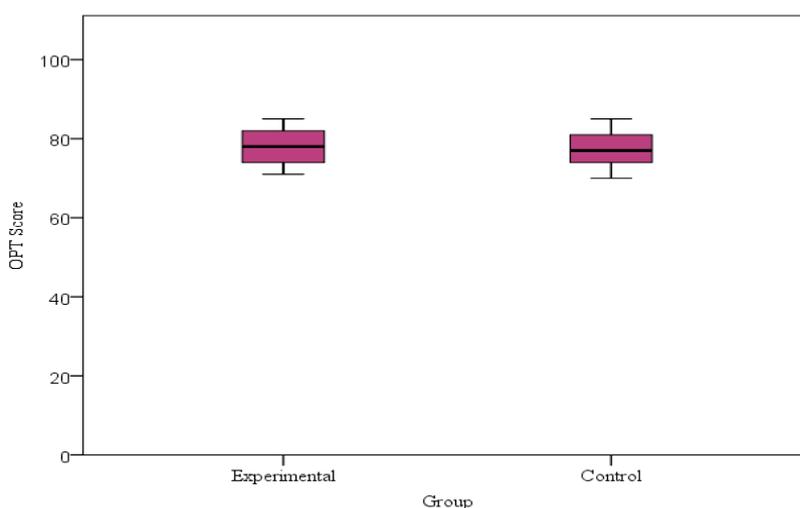

Fig. 1. **Box Plot of the two groups' OPT score**

The Box Plot in Figure 1 shows the distribution of two groups on the measurement of English language proficiency. It indicates that the median of the two groups are almost the same, and since these are symmetric distributions perfectly, the mean scores are not far from each other. Additionally, the Box Plot reflects that the two groups have similar variances understood from the spread of points in the box plot.

Investigation of the Research Question

The research question of this study asked if self-reflection strategies-based instruction have any significant effect on developing speaking ability among Iranian EFL learners. In fact, the selected homogenized students comprised the two Experimental Group ($N = 30$) and Control Group ($N = 30$). In order to examine this research question, the paired samples t-test and independent samples t-test were conducted. They are explained in the following sections.

Paired samples t-test (Experimental group)

The paired samples t-test was applied to compare the pretest and posttest speaking measures for the Experimental Group. "A paired-samples t-test is used when you have only one group of people and you collect data out of them on two different occasions (pretest and posttest in this study) or under two different conditions" (Pallant, 2013, p. 252). The results of descriptive statistics for the speaking scores in the Experimental group are manifested in the following table.

Table 4 indicates the mean and standard deviation of speaking scores for the pretest ($\bar{x} = 15.73$, $SD = 2.21$) and posttest ($\bar{x} = 15.72$, $SD = 2.08$) in the Experimental group. Remember that two raters scored oral production of the students, and the average score of the two raters was computed. They were also used for the main analysis.

Table 4. Descriptive Statistics for Pretest and Posttest of Speaking Scores
(Average of Two Raters; Experimental Group)

Test	N	Mean	SD	Std. Error Mean
Posttest	30	15.733	2.207	.403
Pretest	30	15.717	2.083	.380

Table 5 below summarizes the results of paired samples t-test for comparing the pretest and posttest speaking measures. It is done because of the students in the Experimental Group.

Table 5. Paired Samples T-test for the Pretest and Posttest of Speaking Means in the Experimental Group

Gained Score	SD	95% Confidence Interval of the Difference		t	df	sig. (2- tailed)
		Lower	Upper			
.0167	.960	-.342	.375	.095	29	.925

As represented in Table 5, the results of paired samples t-test revealed that there was no statistically significant increase (t (29) =.09, p = .92, p > .05) among speaking scores from the pretest to the posttest in the Experimental Group. Actually, gained scores in speaking was just .02 (out of 20) with a .95% confidence interval ranging from -.34to .37;

Paired samples t-test (Control group).

Another paired samples t-test was conducted to compare the pretest and posttest speaking measures for the students in the Control Group. Table 6 includes the results of descriptive statistics for the speaking scores in the Control group. Table 6 reflects the mean and standard deviation of speaking scores for the pretest ($\bar{x}$ = 15.53, SD = 2.43) and posttest ($\bar{x}$ = 15.13, SD = 2.48) in the Control Group.

In fact two raters scored student's oral production in the Control Group and the average scores of the two raters were computed. They were used for the main analysis, either. Table 6 provides the results of paired samples t-test for comparing the pretest and posttest speaking measures in the Control Group.

Table 6. Descriptive Statistics for Pretest and Posttest of Speaking Scores (Average of Two Raters; Control Group)

Test	N	Mean	SD	Std. Error Mean
Posttest	30	15.533	2.431	.443
Pretest	30	15.133	2.477	.452

As demonstrated below, the paired samples t-test detected a statistically significant increase (t (29) = 2.73, p = .01, p < .05) in speaking scores from the pretest to the posttest in the Control Group. Actually, gained score in speaking was .40 (out of 20) with a .95% confidence interval ranging from .10 to .70;

Table 7. Paired Samples T-test for the Pretest and Posttest of Speaking Means in the Control Group

Gained Score	SD	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
.400	.803	.100	.699	2.728	29	.011

Independent samples t-test (pretest).

The independent samples t-test was performed to compare the two groups' speaking scores on the pretest. According to Pallant (2013), one uses an independent samples t-test when one wants to compare the mean score on some continuous variables for two different groups of participants. Before explaining the results of independent samples t-test, the related descriptive statistics (Table 8) on the pretest are mentioned here.

Table 8. Descriptive Statistics of Two Groups' Speaking Scores (Average of Two Raters; Pretest)

Group	N	Mean	SD	Std. Error Mean
Experimental	30	15.717	2.083	.380
Control	30	15.133	2.477	.452

Table 8 above is a display of the mean, standard deviation, and number of students for the Experimental Group ($\bar{x} = 15.72$, $SD = 2.08$, $n = 30$) and Control Group ($\bar{x} = 15.13$, $SD = 2.48$, $n = 30$) on the pretest of speaking. As Field (2009) believes,, four assumptions (interval data, independence of subjects, normality and homogeneity of variances) should be met before one decides to perform parametric tests.

The first assumption is met because the present data are measured on an interval scale. The second one refers to Bachman (2005) who argues about the assumption of subject independence which is met when "the performance of any given individual is independent of the performance of other individuals" (p. 236). The third assumption deals with the normality of the data which is checked via ratios of skewness and kurtosis and also the results are laid out in the following table.

Table 9. Skewness and Kurtosis Test of Normality for Two Groups' Speaking Scores (Pretest)

Group	N	Skewness	Std. Error	Skewness Ratio	Kurtosis	Std. Error	Kurtosis Ratio
Experimental	30	-.329	.427	-.771	-.364	.833	-.437
Control	30	-.163	.427	-.383	-1.053	.833	-1.265

According to the above table 9, the speaking scores have normal distribution as the ratios of skewness and kurtosis over their respective standard errors which are not beyond the ranges of +/- 1.96. Hence, the current researcher was justified to perform parametric independent and paired samples t-tests instead of using non-parametric Mann Whitney U test and Wilcoxon signed rank test.

Table 10 below manifests the result of independent t-test comparing the Experimental and Control Groups' speaking scores on the pretest. As observable in Table 9, the significance level of .21 associated with Levene's value was met under the selected significance level of .05 indicating the assumption of equal variances.

Table 10. Independent Samples Test for Two Groups' Speaking (Pretest)

Levine's Test for Variances				T-test for Means		
Factor	F	Factor	F	Factor	F	Factor
Equal variances assumed	1.607	.210	.987	58	.328	.5833
Equal variances not assumed			.987	56.341	.328	.5833

The results of independent samples t-test, has been appeared in the above table indicating no statistically significant difference in speaking scores (*t* (58) = .99, *p* = .33, *p* > .05) between the Experimental and Control Groups. This result led the researcher to conclude that the students in the two groups were at the same level of speaking ability and at the beginning of the study, either.

Independent samples t-test (posttest)

The researcher provided the related descriptive statistics before explaining the results of independent samples t-test on the posttest and also the results of which are set forth in Table 11. The table exhibits the mean, standard deviation, and number of students for the

Experimental Group ($\bar{x}$ = 15.73.38, *SD* = 2.21, *n* = 30), and Control Group ($\bar{x}$ = 15.53, *SD* = 2.43, *n* = 30).

Table 11. Descriptive Statistics of Two Group's Speaking Scores
(Average of Two Raters; Posttest)

Group	N	Mean	SD	Std. Error Mean
Experimental	30	15.733	2.207	.403
Control	30	15.533	2.431	.443

The following figure is the Histogram of speaking posttest scores for the Experimental Group. The relevant details have been prepared to make you more conscious of what is going on, either.
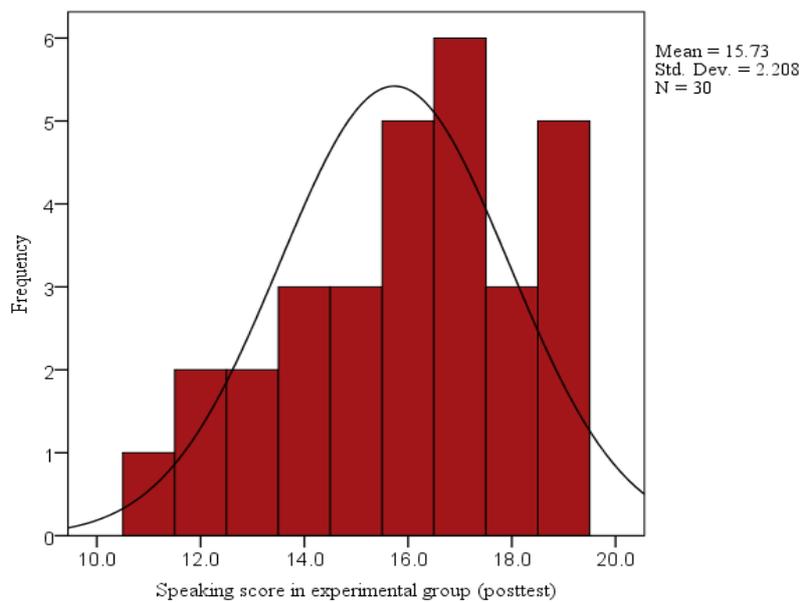

Fig. 2. **Histogram of speaking measures in the experimental group (posttest)**

Figure 2 manifests the minimum score of speaking posttest which is 11.0 recorded by one student, and maximum score was 19.0 gained by one student. Additionally, the Histogram shows that the scores have formed a bell shape denoting normal distribution of the scores. The Histogram of speaking posttest scores out of the control Group was also drawn and demonstrated in Figure 3.
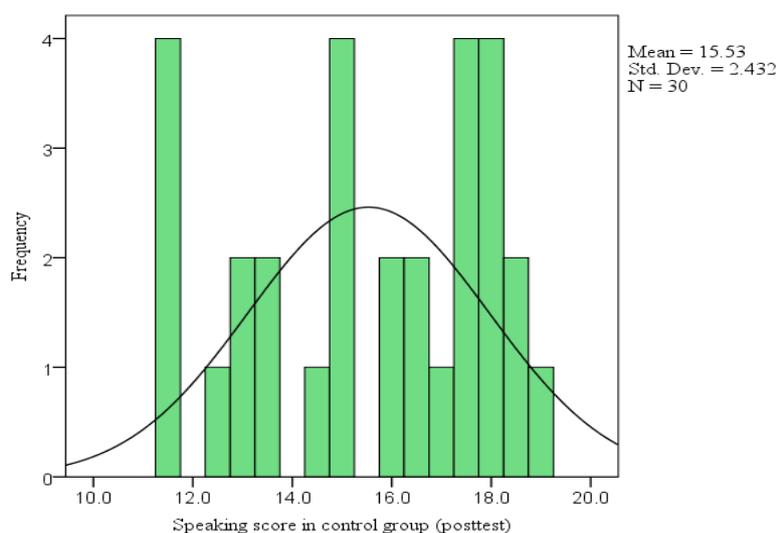
Fig. 3. **Histogram of speaking measures of the control group (posttest)**

As seen clearly in the above Figure, the minimum score of speaking posttest was 11.5 obtained by four students, and the maximum score was 19.0 recorded by one student as well. Additionally, the Histogram shows that the scores made a bell shape indicating normal distribution of the scores around the mean. The assumption of data normality was checked via the ratios of skewness and kurtosis (Table 4.11).

Table 12. Skewness and Kurtosis Test of Normality for Two Groups' Speaking Scores (Posttest)

Group	N	Skewness	Std. Error	Skewness Ratio	Kurtosis	Std. Error	Kurtosis Ratio
Experimental	30	-.435	.427	-1.020	-.693	.833	-.833
Control	30	-.390	.427	-.914	-1.184	.833	-1.421

As seen in Table 4.12, the speaking scores are normally distributed as the ratios of skewness and kurtosis over their respective standard errors that do not exceed the ranges of +/- 1.96. The results of independent samples t-test was carried out on the posttest to compare the speaking scores of Experimental and Control Group. The result is shown in the following table, either.

Table 13. Independent Samples Test for Two Groups' Speaking (Posttest)

Levine's Test for Variances			T-test for Means			
Factor	F	Factor	F	Factor	F	Factor
Equal variances assumed	.912	.344	.334	58	.740	.200
Equal variances not assumed			.334	57.468	.740	.200

As demonstrated in Table 4.13, the significance level of .34 associated with Levene's value is greater than the selected significance level of the study (.05). It reveals that the data met the assumption of equality of variance. Besides, the independent samples t-test (Table 4.13) failed to find a statistically significant difference (t (58) = .33, p= .74, $p >$ .05) in speaking measures between the Experimental and Control Groups.

As a result, the null hypothesis of the study is retained and states that "Self-reflection strategy-based instruction does not have any significant effect on developing speaking ability among Iranian EFL learners". In other words, it is claimed that self-reflection strategy-based instruction does not develop speaking ability among Iranian EFL learners.

The figure 4.4 below contains a Bar Graph which is made to illustrate the results of both pretest (TOEIC) and posttest (TSE) of the two groups. The Bar Graph indicates that the speaking mean score in the Experimental Group does not increase from the pretest to the posttest. Nevertheless, there is a slight raise in speaking mean score from the pretest to the posttest in the Control Group.
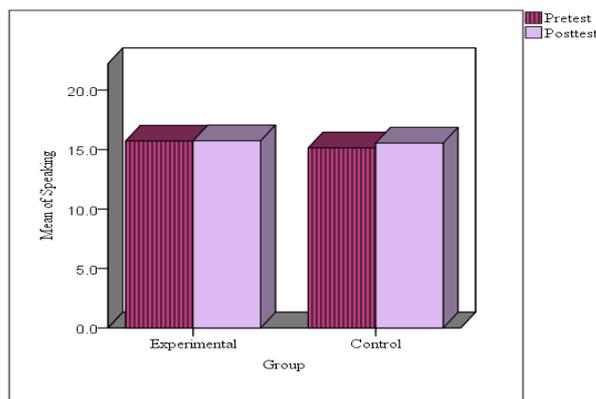

Fig. 4. Bar Graph of two groups' means of speaking (pretest & posttest)

As mentioned earlier, the aim of this study was to investigate the effect of self -reflection strategy-based instruction on developing speaking ability among Iranian EFL learners. To do so, a research question was raised by the researcher as "Does self-reflection strategy-based instruction have any significant effect on developing speaking ability among Iranian EFL learners?" Therefore, one research null hypothesis was formulated as "Self-reflection strategy-based instruction does not have any significant effect on developing speaking ability among Iranian EFL learners". Independent samples t-test (t (58) = .33, p = .74) revealed that the students in the experimental group did not outperform the ones in the control group regarding speaking ability. Accordingly, the present researcher could answer the research question of the study negatively, and also retain the null hypothesis of the study. The result of the current study does not support Dewey's (1933) finding that we do not learn from experience but we learn from reflecting on experience, and Fade's (2005) opinion that reflection involves describing, analyzing and evaluating our thoughts, assumptions, beliefs, theory bases and actions. Additionally, our finding is not in line with Angelo and Cross' (1993) discovery that self-reflection strategies such as information Literacy, visual learning tools, interactive notebooks and others definitely help learners improve themselves in many different aspects like speaking ability as an output in a unique test. Actually, the instruction of these strategies is certainly significant and goal oriented in the research process.

Conclusion

Dewey in 1933 generated the concept of self-reflection and worked on it as a project. Dewey (1933) mentioned that "We do not learn from experience... we learn from reflecting on experience". According to Fade (2005), reflection involves describing, analyzing and evaluating our thoughts, assumptions, beliefs, theory bases and actions. Dewey, (1933) also defined reflection as an active persistent and careful consideration of any belief. According to Angelo and Cross (1993), self-reflection strategies such as information Literacy, visual learning

tools, interactive notebooks and others definitely help learners improve themselves in many different aspects such as speaking ability as an output in a unique test. Actually, the instruction of these strategies is certainly significant and goal oriented in the research process. Furthermore, instruction is defined generally as the action or process of teaching , but educators such as Joyce, Weil and Calhoun (2003) stated that it is "the purposeful direction of the learning process and one of the major teacher class activities along with planning and management". At the end, we focused on speaking ability which is the object in this research and defined generally as a productive message produced by the speakers. Speaking is an interactive process of constructing meaning that involves producing, receiving and processing information (Brown, 1994; Burns & Joyce, 1997).

The theoretical implications of the study are that Whatever the type of reflection, the outcomes of the reflection process can be a new understanding of the situation at hand, an awareness of how emotions are involved in the situation, some form of action , and the recognition that further exploration and learning are needed (Mann et al 2009; Moon 2005). The role of reflection in education was grounded in the first half of the 20th century by John Dewey (1933) who distinguished between routine and reflective actions. He argued that routine actions are unsystematic and habitual, whereas reflection "enables us to direct our activities with foresight and to plan according to ends-in-view […], to act in deliberate and intentional fashion, to know what we are about when we act". The scientist's ideas were developed in the early 1980s by Donald Schon (1983) who concentrated on the meaning of reflection for teaching process. Schon maintains that a teacher should be a reflective practitioner who continually learns from their experience with the help of reflection. Bulman, (2012) sees reflection as reviewing experience from practice so that it may be described, analyzed, evaluated and consequently used to inform and change future practices. Clarke (1995) suggests that reflection is not about a single event in time, but occurs over time as teachers begin to construct meaning for them Pedagogically speaking, identifying the strategies of self-reflection lead students into a better performance and

generalizing its teaching process in academic settings also create a progressive education in the mentioned country. This study reminds governors and educators to pave the ground and use this research for the improvement of education in their home land. Furthermore, the gaps and contradictions in this study were filled by systematic experiment which is done on the participants according to Angelo and Cross's (1993) proposed items. The readers absolutely find out whether self-reflection strategies based instruction has any effect on improving performances and outputs such as speaking ability among Iranian EFL learners or not .

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