

### Effect of Self-Evaluation Techniques on Iranian EFL Teachers' Reflective Teaching

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Received: 2018/06/02

Accepted: 2018/10/22

**Abstract:** As reflective practice has become an influential factor in teacher professional development, teachers need some techniques to enhance their reflective teaching. In this light, this study was intended to examine: (a) whether self-evaluation techniques could promote English as Foreign Language (EFL) teachers' reflective teaching, (b) whether EFL teachers who used self-evaluation techniques would differ from the teachers who did not use them in the 5 aspects of reflection (practical, cognitive, affective, metacognitive, and critical), and (c) whether EFL teachers' years of experience and gender would make a significant difference in their degree of reflectivity. To these ends, 20 male and female Iranian EFL teachers participated in the study with its pretest posttest control group design and responded to Akbari, Behzadpour, and Dadvand's (2010) Teacher Reflectivity Questionnaire. Unlike the control group, the experimental group employed 3 self-evaluation techniques of video recording lessons, advance organizers, and colleagues' reviews. Results from a one-way analysis of covariance, a one-way multivariate analysis of covariance, and a two-way analysis of variance revealed that the self-evaluation techniques significantly improved the EFL teachers' reflectivity. Also, the self-evaluation techniques made a significant difference in the practical, cognitive, metacognitive, and critical aspects of the teachers' reflection. However, the EFL teachers' years of experience and gender did not make a significant difference in their degree of reflectivity. The findings encourage EFL teachers to join other stakeholders to evaluate and reflect upon their own teaching for positive changes in EFL classrooms.

**Keywords:** Advance Organizers, Colleagues' Reviews, EFL Teachers, Reflective Teaching, Self-evaluation, Video Recording.

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## Introduction

It is commonly acknowledged that teachers have a crucial role to play in the betterment of the education system. They are the principal players who can make transformations happen. Thus, due to their vital role, teachers must be supported and well-equipped with learning opportunities to hone their skills and become qualified enough to teach as efficiently as possible. In fact, to improve any education system, it is indispensable to enhance the efficiency of teachers (Wright, Hom, & Sanders, 1997). However, as Akbari (2008) states, the second/foreign language (L2) teaching profession has witnessed substantial ups and downs with the decline of method-based pedagogy and the advent of the postmethod perspective over the last two decades. Against such a backdrop, much attention and recognition have been attached to teachers as one of the key players in the era of the postmethod pedagogy.

In the postmethod era, the concept of reflective teaching has gained significance. In other words, reflective teaching has become a key component in teachers' educational development, providing opportunities to merge theory and practice and create multiple learning experiences for teachers (Griffiths, 2000; Jay & Johnson, 2002). In fact, reflection is defined as "the process of mirroring the environment nonjudgmentally or critically for the purpose of decision-making" (Milrood, 1999, p. 10). Likewise, reflection upon teaching practice can make teachers understand the pragmatics of classroom practice, and this will improve teachers' self-reflective awareness of their assumptions about language instruction and willingness to examine how their implicit theories are put into effect in the classrooms (Wallace, 1991). According to Griffiths (2000), a reflective teacher is the one who looks at his/her performance in the classroom carefully, attempts to explore ways of promoting his/her practices, and tries to apply them in practice.

Furthermore, evaluation is a crucial element in teaching effectiveness. According to Peterson (2000), self-evaluation is a powerful tool and a data source for teachers to measure their teaching quality. An integral component of self-evaluation is reflection. Teachers' self-evaluation is a procedure that provides a rich source of information about teachers' strengths and weaknesses which help them improve their reflection upon teaching. As Stronge (2010) asserts, self-evaluation is a systematic process through which the teachers examine their performance.

In recent years, much attention has been attached to teachers' personal characteristics since they may affect their reflectivity. Gender and length of teaching experience are among

the constellation of factors which might influence teachers' reflectivity. Nonetheless, this topic is controversial in the literature. For instance, several studies (e.g., Karadag & Sadik, 2012) have reported a significant relationship between teachers' length of service and their degree of reflectivity. Nonetheless, the results of some other studies (e.g., Odeh, Kurt, & Atamtürk, 2012) have indicated no significant differences in teachers' reflectivity with respect to their years of experience.

Given the paramount importance of teacher reflection, there exists a need for conducting an investigation into reflection practiced by teachers and various ways to improve teacher reflection in the EFL context. To the best of the current researchers' knowledge, almost no empirical studies have delved into the effect of self-evaluation techniques on EFL teachers' reflectivity. Thus, to address this lacuna, the current study made an attempt to explore whether self-evaluation techniques could promote EFL teachers' reflectivity. Also, to find out about the moderating role of demographic factors in teachers' reflectivity, the present study explored the role of demographic variables of gender and years of teaching experience in the EFL teachers' degree of reflectivity.

### **Review of Related Literature**

Historically speaking, most of the studies on reflective teaching trace the roots and origin of the term reflection to Dewey (1933) and his influential book, *How We Think: A Restatement of the Relation of Reflective Thinking to the Educational Process*. Dewey defines reflection as an action based on "the active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it" (p. 9). He regards reflective action as opposed to routine actions that are guided by impulse, tradition, and authority. In Dewey's view, an individual starts reflecting upon a complex situation when he/she encounters that situation and asks him/herself what needs to be done.

Dewey (1933) considered three prerequisite attitudes for reflective action which should be developed in teacher education. The first one is open-mindedness, which is "an active desire to listen to more sides than one to recognize the possibility of error even in the beliefs that are dearest to us" (p. 30). In fact, it refers to the willingness to listen to and admit the strengths and weaknesses of one's own and others' points of view. As Zeichner and Liston (1996) have pointed out, the teachers with open-mindedness attitude ask themselves why they do what they do by questioning assumptions from different perspectives. The second one is the attitude of responsibility, which involves careful consideration of consequences of one's

actions and the willingness to accept those consequences. As Zeichner and Liston (1996) state, responsible teachers think about the issues like the impact on students' lives and self-esteem, academic consequences, political and social consequences, and the effect on the community. They claim that the teachers who evaluate their teaching and question its effectiveness to see whether their practices are effective are responsible. The third attitude is wholeheartedness. Whole-hearted teachers think about their assumptions, beliefs, and consequences of their practice regularly and try to learn something new from each situation (Zeichner & Liston, 1996).

According to Giaimo-Ballard and Hyatt (2012), Donald Schön was the first scholar who expanded Dewey's notion of reflection in 1980s. Schön (1983) suggested two frames of time for reflective thinking. He made a distinction between reflection-in-action and reflection-on-action. Reflection-in-action is the reflection that happens during the lesson and at the moment of teaching. It happens when teachers are faced with a unique and surprising situation (Griffiths, 2000). In this situation, the teachers should find new solutions in order to solve the problem without applying theory or past experience in a direct way. Reflection-on-action, on the other hand, is the type of reflection that teachers get involved after or before an action. It is the teachers' thinking about a lesson before it is taught and then looking back again and reviewing their type of teaching they had and analyzing its outcomes in order to improve their teaching. Reflective practitioners engage in both kinds of reflection.

Likewise, other frameworks have been proposed for reflective thought. For instance, Stanley (1998) has presented a model which had five phases. In the first phase, *engaging with reflection*, he focuses on teachers' awareness of reflection. He states that "When basic personal, professional, and contextual factors are stable and teachers are curious about learning the process of reflecting on their teaching, they can engage with reflection" (p. 686). In the second phase, *thinking reflectively*, he assumes that "many teachers' initial reaction to reflection is simply to think back on a classroom situation and describe what happened and how they felt about it" (p. 686). He believes that for reflective teaching to be implemented spontaneously, it should be exercised much in different ways. In the third stage, *using reflection*, he assumes that "When teachers have understood what reflection is and how to think reflectively, they can use it as a tool" (p. 687). In this phase, teachers try to find and explore the actions that are commensurate with their context. In the fourth phase, *sustaining reflection*, he refers to different problems teachers face while trying to practice reflection.

Finally, in the fifth phase, *practicing reflection*, he refers to the practical aspects of reflective teaching as an indispensable part of teacher reflectivity.

Moreover, Jay and Johnson (2002) have suggested a typology for reflective teaching which seems to be more comprehensive compared to other models. The typology entails *descriptive*, *comparative*, and *critical* reflection. Descriptive reflection involves the process of solving a problem. According to them, the descriptive dimension is about describing a matter, such as a classroom task, a recognized prejudice, an interesting theory, or a feeling. Furthermore, comparative reflection involves thinking about the matter for reflection from a wider perspective. In this stage, the teacher attempts to investigate others' ideas and analyze the alternatives which are inconsistent with his/her own attitude. Moreover, reflective practitioners in critical reflection stage see themselves as representatives of change, capable of recognizing what is as well as trying to create what should be (Jay & Johnson, 2002).

Also, Farrell (2004) has summarized five approaches to reflective teaching. The first type of reflection is referred to as *technical rationality*, in which teachers examine their practice after the class. The second type is *reflection-in-action*, which deals with the teachers' reflecting at the time of teaching. The third type is *reflection-on-action*, in which teachers look back on their action and reflect upon it. *Reflection-for-action* is the next type, which is proactive in nature. Teachers can prepare for the future though using knowledge from what happens during class and what they reflect on after class. The fifth type is *action research*, which is an important part of reflective teaching. It is a self-reflecting inquiry through which teachers can become autonomous and have their own desire so as to reflect on their problematic situations.

Moreover, Khelifa (2009) considers six phases for reflective teaching. The first phase, *awareness*, begins when teacher recognizes a particular pattern in student learning. The second phase, *critical inquiry*, starts when the teacher analyzes what happens and goes wrong in their teaching. Reflection in this phase can be in-action and on-action. The third phase, *consultation*, initiates when the teacher attempts to solve problems by consulting with colleagues, receiving feedback from students, and getting information from literature. The fourth phase, *consideration* and *selection*, starts when the teacher selects a solution for solving problem from an alternative list. In other words, the teacher has a time to make decisions about the recognized issue. The fifth phase is *implementation*, in which the teacher tries out the selected solution/strategy to solve the problem. Finally, the teacher in the last phase, *evaluation*, evaluates the effectiveness of the changes he/she has implemented.

Various empirical studies have been conducted to find better ways of teaching. Accordingly, there have been some empirical studies on reflective teaching. In a study, Akbari, Kiany, Imani Naeeni, and Karimi Allvar (2008) attempted to investigate the relationship between Iranian EFL teachers' teaching styles, sense of efficacy, reflectivity and their students' achievement outcomes. The results showed a high correlation between each pair of variables and revealed that the three teacher characteristics significantly predict students' achievement gains. Similarly, Fatemi, Shirvan, and Rezvani (2011) examined the effect of EFL teacher's reflection on their learners' writing achievement. About 100 EFL teachers and their 1000 EFL learners participated in their study. The results of the study revealed that teacher's reflection significantly affected EFL learners' writing achievement.

In a study, Welsch and Devlin (2006) investigated how viewing one's teaching on video (video-based) in contrast to not viewing one's teaching on video (memory-based) affected teachers' reflectivity. Twenty-six undergraduate students and eight graduate students were the participants of the study and were assigned into two groups: video-based reflection and memory-based reflection groups. A lesson was taught to the participants in group memory-based reflection, and they were asked to have a written reflection on their teaching by responding to some questions. A video-taped lesson was taught to the teachers in video-based reflection group. They were also asked to respond to the same questions after viewing the video of their teaching. The results of their research suggested that the teachers in video-based group had a greater degree of reflectivity than the teachers in the memory-based group.

Moreover, to demonstrate the influence of reflective practice on improving teaching quality, Moradkhani, Raygan, and Moein (2017) investigated the possible relationships between teachers' reflective practices and their self-efficacy. Data were collected from 102 Iranian EFL teachers through a survey and follow-up interviews. The results showed that reflection subscales had significant positive relationships with teachers' self-efficacy. Besides, metacognitive reflection was found to be the predictor of teachers' self-efficacy. Analysis of the interview data showed that reflection contributed to teachers' self-efficacy through mastery experience, vicarious experience, verbal persuasion, and physiological/ emotional arousal.

Regarding the role of demographic factors on teachers' reflectivity, findings of the study of Karadag and Sadik (2012) indicated that teachers with higher lengths of service had a higher reflective teaching tendency. However, the results of the study by Odeh, Kurt, and Atamtürk (2010) showed that demographic factors such as gender and experience did not play a significant role in teachers' reflection. Odeh et al. (2010) in their study at an English

Preparatory School in a Turkish university with 60 teachers, who had varying levels of qualifications and a wide range of teaching experience, examined whether gender, length of experience, and level of education made a significant difference in the levels of teacher's reflection and whether the teachers were aware of their reflective practices. The results showed that teachers employed reflection-in-action strategies far more frequently than reflection-on-action. However, gender, experience, and level of education did not make a significant difference in the teachers' reflection.

What supports conducting the current study is the scarcity of evidence about the connection between self-evaluation techniques and Iranian EFL teachers' reflection and its components. In Iran, English is taught and learnt as a foreign language and being a foreign language makes teaching/learning more difficult compared to the countries that English is their second language. Most of novice Iranian EFL teachers are not aware of the complexity of teaching process and teach in the same way as they have been taught without much reflection on their teaching. Teachers' self-evaluation is a procedure that may provide a rich source of information about their own strengths and weaknesses and may help them reinforce their reflection upon their teaching. Self-evaluation techniques may help EFL teachers find the strengths of action and areas for improvement. Thus, the current study aimed to investigate the effect of self-evaluation techniques on Iranian EFL teachers' degree of reflectivity and see if variables such as years of experience and gender can make a difference in promoting their reflection upon the teaching. In light of the above issues, this study set out to explore the following research questions:

1. Do self-evaluation techniques significantly improve Iranian EFL teachers' degree of reflectivity?
2. Is there any significant difference in the components of reflection (i.e., practical, cognitive, affective, metacognitive, and critical) between the EFL teachers who use self-evaluation techniques and those who do not use them?
3. Do Iranian EFL teachers' years of experience and gender make a significant difference in their degree of reflectivity?

## **Methodology**

### **Participants**

The participants consisted of 20 male and female (10 males and 10 females) EFL teachers teaching at several language institutes in Izeh, a city in Khuzestan Province, Iran. Because

random sampling was not possible in this study, non-random sampling was used. They were initially selected based on accessibility and demographic criteria. All the participants were volunteers and nonnative English teachers. They had degrees in language-related disciplines. The participants' experience in teaching English ranged from 2 to 29 years.

The participant teachers were stratified based on gender and their years of experience. Ten EFL teachers were assigned to the control group, and 10 EFL teacher were assigned to the experimental one. Each group consisted of 5 male and 5 female teachers. In each group, 2 EFL teachers had 1-5 years of teaching experience, 5 teachers had 6-10 years of teaching experience, 2 had 11-15 years of teaching experience and 1 teacher had above 15 years of teaching experience.

### **Instruments**

The English Language Teaching Reflective Inventory (ELTRI), a reflective teaching questionnaire developed by Akbari et al. (2010), was used in order to measure the participants' degree of reflectivity. According to Akbari et al., the questionnaire is designed based on five components of second language teacher reflection, including practical (6items), cognitive (6 items), metacognitive (7 items), affective (3items), and critical (7items). The practical component deals with the actual practice of teaching. The cognitive component is concerned with teachers' attempts aimed at professional development. Affective component deals with a teacher's reflecting on his/her students, how they are learning, and how learners respond or behave emotionally in their classes. Metacognitive and critical components are the other two subscales that deal with teachers and their reflections on their own beliefs and personality, and the sociopolitical aspects of pedagogy and reflections upon them, respectively.

The questionnaire consists of 29 items on a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*). As Akbari et al. (2010) claim, the questionnaire has high reliability and validity as a measuring instrument for teacher reflectivity. In order to verify face validity of the instrument, two applied linguistics professors with language teacher education background proofread its first draft. Furthermore, to examine the construct validity of the proposed six factor model (i.e. metacognitive, cognitive, practical, critical, moral, and affective), the validation process went through two phases of exploratory and confirmatory data analysis on a sample of 300 Iranian EFL teachers. Through the confirmatory process, the moral factor was deleted. It should be mentioned that four items related to affective and one related to

practical components were also deleted in confirmatory factor analysis. All in all, the instrument changed into a five-factor model with 29 items. Moreover, reliability of the questionnaire computed using Cronbach's coefficient alpha was found to be 0.90 (Akbari et al., 2010). In the present study, the reliability of the questionnaire, calculated through Cronbach's coefficient alpha, was found to be .86, which was acceptable.

### **Procedure**

A quasi-experimental research design was used in this study. Twenty EFL (10 males and 10 females) volunteer teachers, selected non-randomly from several language institutes in Izeh, participated in this study. Ten EFL teachers were considered as the control group and 10 were considered as the experimental one. In order to examine the teachers' degree of reflective teaching, they were asked to respond to the Akbari et al.'s (2010) ELTRI. Then, three self-evaluation techniques of video-recorded lessons, advance organizer, and colleagues' reviews were used as the intervention (i.e., treatment) in the experimental group. The techniques were intended to make the EFL teachers reflect upon their teaching.

First, the teacher participants in the experimental group read an advance organizer before they teach. The advance organizer entailed several questions (e.g., what do you believe your strengths are when you think about lessons you teach?) with the purpose of provoking the teachers to reflect. The questions intended to direct the teacher participants' thoughts towards their teaching. They were presented to them before video-recording their teaching because, as Ausubel (1968) suggests, asking questions after a learning experience may not be as effective as posing the questions before the learning experience. The advance organizer was intended to help the teacher participants think about their strengths and weaknesses. It also assisted them to think about new ways of teaching and their effectiveness in the classroom.

The focus of advance organizers was on the teacher participants' strengths and weakness. For instance, following Artesani (1996) and Darling-Hammond (1997), the first question i.e., advance organizer, (what do you believe your strengths are when you think about lessons you teach?) made teachers think about their strengths. The second question, (what do you believe your weaknesses are when you think about lessons you teach?), intended to evaluate the teachers on whether or not they would see the weaknesses in their teaching. The third question (How would you present a lesson so that it will be effective?), aimed at making the teachers think about whether or not their teaching would engage learners

in an effective learning. The next question (what indicates that you have taught an effective lesson?) allowed the teachers to reflect upon whether they would realize the effectiveness of their practice. The last question (what would you have done differently to reteach this lesson tomorrow?) made teachers think about the effective changes in their teaching. Meanwhile, as the teachers in other studies did not prefer written tasks (Pugach, 1990), the teacher participants in the present study were not required to respond to the questions of advance organizer in written form.

Second, after signing written permission forms giving consent to be video-recorded, a 20-minute segment of the participants' teaching was recorded with the purpose of providing them with opportunities to observe their own teaching later and reflect upon it. As Sherin (2000) points out, viewing video lessons could help the teachers engage in the practice of self-evaluation. The teachers' behaviors and interactions with their students in the real context of classroom were video-recorded because it could inform teachers of what happened (verbally and nonverbally) in the classroom so that they could review their teaching practices later.

Third, the participants were asked to review the video-recorded lessons and discuss them with their colleagues (other teachers). This technique helped the teachers understand their teaching. In the present study, first, the teachers and colleagues reviewed and discussed what happened in each session in the classroom during teaching in detail. They discussed two general questions: 'What did they do?' and 'What did the students do?' Second, the colleagues and the teachers elaborated on the objectives the teacher had in mind for the lesson and what was learned in the class. In other words, they discussed: 'What was achieved?' and 'What did the students learn?' Third, alternative strategies for a similar future lesson or teaching were discussed. In other words, they discussed: 'What else could have been done?' Finally, the teachers reflected upon what they have learned from the observed teaching experience. At this stage, the major question for them was: 'What have you learned?'

Furthermore, while reviewing the video-recorded lessons, the colleagues tried to apply positive support and face-saving strategies. In other words, they attempted to create an atmosphere free from anxiety by trusting and respecting each other. Also, the topics were discussed in a nonthreatening and friendly situation. They were sure that the evaluations would not result in any demotion. The self-evaluation techniques were used for a month during the spring academic term in 2015-2016.

The teacher participants in the control group attended the class and taught without reading the advance organizer questions before their teaching. No procedure was taken to

provoke them into reflection upon their strengths and weaknesses as well as their teaching practice. In addition, their teaching was not video recorded, so they did not have opportunity to observe and review their teaching practice. Moreover, they did not discuss the issues related to the teaching and learning processes which happened in their classes. Neither did they discuss the issues with their colleagues. Thus, the teacher participants in the control group did not use the techniques (advance organizer, video-recorded lessons, and colleagues' review), which were used by the teachers in the experimental group. In other words, their teaching was traditional in the sense that it was without self- or peer-evaluation.

### Data Analysis

The data were analyzed by the Statistical Package for the Social Science (SPSS, Version 22). The data were subjected to both descriptive statistics and inferential statistics. In order to investigate the first research question, that is, to examine whether self-evaluation techniques significantly would affect teachers' degree of reflectivity, the one-way analysis of covariance (ANCOVA) was conducted. To probe the second research question of the study, that is, to see whether there was any significant difference in the 5 components of reflection (i.e., practical, cognitive, affective, metacognitive, and critical) between the EFL teachers who used self-evaluation techniques and those who did not use them, the multivariate analysis of covariance (MANCOVA) was run. Moreover, the two-way analysis of variance (ANOVA) was run to investigate the third research question, which was intended to see whether Iranian EFL teachers' years of experience and gender would make a significant difference in their degree of reflectivity.

### Results

Table 1 displays the descriptive statistics results of pretest and posttest reflective teaching scores obtained by the teachers in both experimental and control groups of the study.

**Table 1.** *Descriptive statistics of reflective teaching scores in the experimental and control groups*

Group	Variable	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Experimental	Pretest	72	103	90.30	10.11	-.80	.60
	Posttest	99	116	109	5.52	-.67	-.18
Control	Pretest	75	104	91.20	9.44	-.64	-.81
	Posttest	72	107	92.00	10.89	.61	-.19

As Table 1 demonstrates, the reflective teaching mean scores in the experimental and control groups at the pretest phase were 90.30 and 91.20, respectively. This small difference in the mean scores supported the homogeneity of the two groups at the pretest phase. The reflective teaching mean scores at the posttest phase were 109 and 92 for the experimental and control groups, respectively. The increase in the means of reflective teaching scores at the posttest phase was noticeable in the experimental group.

To address the first research question of the study i.e., to investigate the effect of self-evaluation techniques on Iranian EFL teachers' reflective teaching, a one-way ANCOVA was conducted, with the EFL teachers' reflective teaching scores in the posttest as the dependent variable, teachers' reflective teaching scores in the pretest as the covariate, and the group (experimental vs. control group) as the independent variable of the study. ANCOVA was carried out after checking the normality of reflectivity score distribution, equality of variance in the groups, and the lack of a significant interaction between the covariate (reflective teaching scores in the pretest) and the independent variable (group/type of instruction). The normality of reflective teaching scores, which was examined by Kolmogorov-Smirnov test, confirmed the acceptable normality level of the scores for both experimental ( $F = .20$ ,  $p = .200$ ) and control ( $F = .16$ ,  $p = .200$ ) groups (see Appendix A, Table A1). Moreover, the Levene's test for homogeneity of variance (see Appendix A, Table A2) indicated that the variance was equal and there was no significant difference between the variance of both groups, ( $F = 4.33$ ,  $p = .520$ ). In addition, as displayed in Appendix A (see Table A3), the interaction between the covariate and independent variable was not significant ( $F = 20.09$ ,  $p = .235$ ), giving assurance to run ANCOVA for the effect of the self-evaluation techniques on the reflective teaching scores at the posttest phase (see Table 2).

**Table 2.** ANCOVA for the treatment effect on the posttest reflectivity scores

Source	Sum of Squares	df	Mean Squares	F	Sig.	Partial Eta Squared
Corrected Model	1561.44	2	780.71	10.83	.001	0.56
Intercept	1225.33	1	1225.33	16.99	.001	0.50
Pretest	116.44	1	116.44	1.61	.221	0.08
Group	1481.58	1	1481.56	20.55	.000	0.54
Error	1225.57	17	72.01			
Total	204792	20				
Corrected Total	2787	19				

As demonstrated in Table 2, the results revealed that the treatments of the study had a statistically significant effect on the teacher participants' posttest reflectivity scores,  $F(1, 17) = 20.55$ ,  $*p \leq .05$ . The partial eta squared, indicating the effect size of the treatment, was

found to be somehow large (.54), meaning that about 55% of variance in the posttest scores were due to the treatment effect. The experimental group in the posttest (with adjusted mean score of 109) performed better than the control group (with adjusted mean score of 92) on the posttest reflective scores. These statistics indicate that the experimental group performed better than the control group on their reflectivity scores after the treatment ( $p=.000$ ).

In order to address the second research question, that is to say, to investigate whether there was any significant difference in the components of reflection (i.e., practical, cognitive, affective, metacognitive, and critical) between the EFL teachers who use self-evaluation techniques and those who do not use them, a one-way MANCOVA was carried out. Meanwhile, preliminary checks were first conducted to ensure that there was no violation of MANCOVA assumptions, including independence of covariates, normality, and homogeneity of regression slopes. As displayed in Appendix B (Table B1), the results derived from test of equality of covariance matrices revealed that the significant value was larger than .05 (Box's  $M = 18.78$ ,  $p = .602$ ), demonstrating that the equality of covariance assumption was not violated. Moreover, as displayed in Appendix B (Tables B2 and B3), the results indicated normality of reflective teaching score distributions at the pretest and posttest phases ( $p > .05$ ). Additionally, in order to test the homogeneity of variance, Levene's test of equality of error variances was run. None of the variables recorded significant values. That is, the  $p$  values for the practical ( $p = .282$ ), cognitive ( $p = .125$ ), learner ( $p = .540$ ), metacognitive ( $p = .650$ ), and critical ( $p = .693$ ) reflection were larger than .05 (see Appendix B, Table B4).

Tables 3 and 4 report the results of MANCOVA with the five components of reflective teaching for the treatment effects between the experimental and control groups of the study.

**Table 3.** *Multivariate tests of the differences between the two groups on the components of reflective teaching*

	Effect	Value	<i>F</i>	<i>df</i>	Error <i>df</i>	<i>Sig.</i>	<i>Eta</i>
<b>Intercept</b>	Pillai's Trace	.68	3.97	5	9	.035	.68
	Wilks' Lambda	.31	3.97	5	9	.035	.68
	Hotelling's Trace	2.20	3.97	5	9	.035	.68
	Roy's Largest Root	2.20	3.97	5	9	.035	.68
<b>Group</b>	Pillai's Trace	.72	4.45	5	9	.026	.72
	Wilks' Lambda	.29	4.45	5	9	.026	.72
	Hotelling's Trace	2.48	4.45	5	9	.026	.72
	Roy's Largest Root	2.48	4.45	5	9	.026	.72

As Table 3 displays, the results revealed a statistically significant difference,  $F(5, 9) = 4.45$ ,  $*p < .05$  (Pillai's Trace = .035; partial eta squared = .68); the  $p$  value for the group variable, i.e. the type of instruction, was found to be statistically significant at .05. Therefore,

there was a statistically significant difference between the experimental and control groups when the components of reflective teaching were taken into account. Also, Table 4 reports the results of pairwise comparisons of estimated marginal means between the control and experimental groups for the five components of reflective teaching.

**Table 4.** *Pairwise comparison of reflective teaching scores between the control and experimental groups at the posttest*

Dependent Variables	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Practical.	Experimental	Control	4.12	1.16	.003	1.66	6.69
cognitive.	Experimental	Control	3.54	1.46	.031	.38	6.69
Metacognitive	Experimental	Control	5.35	5.35	.008	1.65	9.05
Critical.	Experimental	Control	2.37	.61	.002	1.03	3.70
Learner	Experimental	Control	.93	1.59	.568	-2.50	4.36

As displayed in Table 4, the pairwise comparison of the experimental and control groups on the posttest reflective teaching scores revealed statistically significant mean differences of reflective teaching scores for the four components of practical (4.12), cognitive (3.54), metacognitive (3.35), and critical (2.37) at the posttest phase. The  $p$  values for the practical (.003), cognitive (.031), metacognitive (.008), and critical (.002) reflection were less than .05 ( $p < .05$ ). In sum, the results in Tables 3 and 4 indicated a significant effect of the self-evaluation techniques on reflective teaching scores.

Table 5 displays the descriptive statistics of reflective teaching scores based on the teachers' gender and their years of teaching experience (1-5, 6-10, 11-15, and above 15 years).

**Table 5.** *Descriptive statistics of male and female teachers' reflective teaching scores*

Gender	Years of Experience	<i>M</i>	Std. deviation
Male	1-5	107	6.83
	6-10	107.50	12.02
	11-15	96	20.81
	Above 15	101.50	8.35
	Total	101	12.53
Female	1-5	111	3.54
	6-10	103.50	9.72
	11-15	78	3.64
	Above 15	93	7.55
	Total	99.40	12.25
Total	1-5	110	3.61
	6-10	104.84	9.48
	11-15	91.50	19.23
	Above 15	97.86	8.63
	Total	100.50	12.12

As Table 5 shows, the highest mean scores belonged to the male participants with 6-10 years of teaching experience ( $M = 107.50$ ) and the lowest ones belonged to the male group with 11-15 years of experience ( $M = 96$ ). In addition, the highest mean scores of female participants belonged to the group with 1-5 years of teaching experience ( $M = 111$ ) and the lowest mean scores was related to the group with 11-15 years of experience ( $M = 78$ ).

The focus of enquiry in the third research question was to seek whether Iranian EFL teachers' years of experience and gender would make a significant difference in their degree of reflectivity. To find an answer for this research question, a two-way between groups ANOVA was conducted, with the posttest reflective teaching scores as the dependent variable, and the teachers' gender (males and females) and years of teaching experience (1-5, 6-10, 11-15, and above 15 years) as the two independent variables in the analysis (see Table 6).

**Table 6.** Results of ANOVA for the effect of the gender and teaching experience

Source	Sum of Squares	df	Mean Squares	F	Sig.	Partial Eta Squared
Corrected Model	1158.00	7	165.42	1.21	.006	.41
Intercept	152832.96	1	152832.96	1125.84	.000	.98
Experience	947.52	3	315.84	2.32	.120	.36
Gender	162.24	1	162.24	1.19	.290	.09
Experience * Gender	194.61	3	64.87	.47	.700	.10
Error	1629.00	12	135.75			
Error	204792.00	20				
Total	2787.00	19				

As Table 6 displays, the teachers' years of teaching experience,  $F(3, 12) = 2.32$ ,  $p = .120$ , and gender,  $F(1, 12) = 1.19$ ,  $p = .290$ , did not have a statistically significant effect on the teachers' reflective scores. Also, the interaction effect between gender and years of teaching experience was not statistically significant,  $F(3, 12) = .47$ ,  $p = .700$ . Thus, the teachers' years of experience and gender did not make a significant difference in their degree of teachers' reflectivity.

## Discussion

As to the first research question of the study, the results showed that self-evaluation techniques promoted the EFL teachers' reflective teaching. Three self-evaluation techniques used in the present study assisted the EFL teachers think critically about their teaching practice in the classroom in the language institutes. It can be argued the three self-evaluation

techniques provided a rich source of information about the teachers' strengths and weaknesses and helped them reinforce their reflection upon their daily teaching practice. In fact, advance organizers entailed questions regarding the EFL teachers' teaching in the classroom. To use Paul and Elder (2006) terms, questions could provide opportunities for them to listen critically and become self-correcting in the teaching practice. According to Ausubel, who advanced a theory which contrasted meaningful learning from rote learning, expository advance organizers, composed of questions given as a pretest before new material, can maximize clarity of new materials to be learned/taught (Driscoll, 1999). This way, advance organizers could make the teachers ponder over their strengths and drawbacks in the real context of classroom, making them evaluate their teaching practice and making decisions over the success or failure of their teaching and students' L2 learning. Also, the use of advance organizers in the experimental group activated the relevant concepts existing in the teachers' mind and acted as an introductory exercise to their teaching, helping them improve their reflection on their performance in the classroom.

Moreover, it can be argued that video-recording technique used in the experimental group increased the teachers' awareness of their professional identities. In fact, the teachers benefited from observing themselves in action. By observing their own interactions with the students in an authentic context, they engaged in the processes of evaluation and reflection for improvement. As Kozulin (1998) argues, the video is not just a teaching instrument, but has the potential to act as a psychological tool for improvement. The results of this study are in tune with those of Lofthouse and Birmingham (2010) and Kavoshian, Ketabi, and Tavakoli (2016), who found that video-recording could enable teachers to explore their own actions and engage them in reflective practice. They believe that video use is a means for teachers to take a more critically reflective approach, ascertain their own teaching practice in the classroom, and take actions for enhancing their professional actions. The findings of the current study can also find support from the results obtained by Jalilifar and Natteq (2013) and Sherin and van Es (2009), who found that teachers' participation in video clubs significantly improved their reflective thinking towards their teaching.

Also, the above results on the improvement of the teachers' reflective teaching in the experimental group can be justified in relation to the beneficial outcome of teachers' collaborative discussion with their colleagues. While observing videos with colleagues in a non-punitive environment, they provided feedback on the areas that required improvement in the class. By making constructive comments on the activities used in the processes of

teaching/learning in the classroom, the colleagues made the teacher participants think critically about their own practices and deepen their insights in teaching. These findings are consistent with the findings of the research carried out by Kelly (2015), confirming that the collegial relationship and collaboration among teachers make them aware of their actions. They found that by having collaborative dialogue with their colleagues, the teachers who participated in a professional development initiative reflected upon their practice and reinforced their professional development.

As to the second research question of the study, the above results showed that after controlling for potential differences between groups (pretest scores), the participant teachers who used the three self-evaluation techniques in the experimental group outperformed the teachers in the control group in the four components of reflection (i.e., practical, cognitive, metacognitive, and critical). It stands to reason that these four elements related directly or indirectly to the concept of self-evaluation through the three techniques used in this study. For instance, as Akbari et al. (2010) has pointed out, the practical component would deal with tools for the reflective practice and, according to Hillier (2005), self-evaluation is related to reflection and involves metacognition. The self-evaluation techniques engaged them in a metacognitive element which would deal with the teachers' reflection on their own beliefs and personality. Moreover, the teacher participants in the experimental group thought critically and reflectively on social aspects by observing the video-recording of their practice in the classroom. The critical element of reflectivity deals with reflecting on the political and social topics. Besides, the participants in the experimental group observed the video clips of their teaching and discussed different issues with their colleagues to improve their profession and their knowledge about various aspects of teaching/learning processes by sharing their experiences in the every-day life. This measure could relate to the cognitive component of reflectivity. However, the affective component of reflectivity did not improve significantly. According to Pollard et al. (2005) and Zeichner, and Liston (1996), the learner component of reflection deals with the knowledge of learners and their affective states in the classroom. It emphasizes reflection about students, their backgrounds, interest and developmental readiness for the tasks. One possible reason for small improvement of this element of reflective teaching in the current study might be that the teacher participants of this study focused more on themselves rather than their students, and understanding of the issues related to students' affective states and responses was not the primary focus of the self-evaluation techniques used in the current study.

Furthermore, the results of the present study revealed that Iranian EFL teachers' gender did not make a significant difference in their degree of reflectivity. This seems logical as the expected framework of teaching in Iran is defined identically for both male and female teachers. In other words, different roles are not defined for each gender in the EFL teaching practice. Thus, their similarity in degree of reflectivity was not beyond expectations. In addition, the teachers' years of teaching experience did not make a significant difference in the degree of their reflectivity in the current study. The novice and experienced Iranian teachers were not significantly different in terms of their degree of reflectivity. This confirms Dewey's words that "we do not learn from experience. We learn from reflecting on experience" (1933, p. 78). In other words, increasing years of teaching experience cannot be helpful by itself. What is important is increasing teachers' reflection upon their experience to learn from them. The findings of the present study do not support a strong correlation between male and female teachers' degree of reflectivity and their years of teaching experience. The above findings do not support the results of the study by Karadag and Sadik (2012) who claimed that teachers with higher lengths of service would have a higher reflective teaching tendency. However, they find support from results of the study by Odeh et al. (2010), who showed that demographic factors did not play a significant role in Turkish teachers' reflection. According to them, gender, length of experience, and level of education did not make a significant difference in the teachers' reflection. Also, Mahmoodi, Izadi, and Dehghannezhad (2015) reported no significant difference between the male and female EFL teachers regarding their reflection in the classroom. Perhaps, what is important is finding ways for both genders to increase their reflection upon their teaching experience.

### **Conclusion and Implications**

The results of the present study showed that self-evaluation techniques had a significant impact on Iranian EFL teachers' reflective teaching. The three self-evaluation techniques of video recording lessons, advance organizers, and colleagues' reviews improved the teachers' reflectivity. The findings of present study can be taken as evidence to support the use of self-evaluation techniques by Iranian EFL teachers in order to reinforce their degree of reflective teaching. By implication, by engaging in self-evaluation process, L2 teachers can gain higher levels of reflectivity and increase the quality of L2 teaching.

Also, the self-evaluation techniques improved four components of reflection, that is, practical, cognitive, metacognitive, and critical reflection, which were more related to their

cognition. However, the affective component of reflectivity, dealing more with students' affective states, did not improve very significantly, perhaps because the teacher participants focused more on themselves rather than their students' affective states. Moreover, the above results revealed that the effect of gender and years of teaching experience variables was not significant in the teacher's reflectivity. This indicates that the self-evaluation techniques could be effective for both male and female teachers as well as novice and experienced practitioners.

The aforementioned results imply that L2 teacher educators can draw upon the findings of the current study so as to create more practical learning opportunities for L2 teachers in both pre- and while-service teacher education programs in the hope of promoting L2 teachers' reflective teaching. Additionally, L2 teachers should be given opportunities to reflect upon their own teaching by discussing their classroom practices with their colleagues, participating in colleague meetings in a nonjudgmental environment routinely.

The findings have implications for administrators who are concerned about the role of gender and teaching experience. Both novice and veteran L2 teachers can benefit from self-evaluation techniques to enhance their reflective teaching and quality. Also, both genders can take advantage of self-evaluation techniques such as the ones used in the current study. Regardless of gender and length of service, L2 teachers can record themselves, jointly discuss their recordings, join forces with local language schools and collaborate with each other on an ongoing basis to maximize the opportunities for reflective thinking and improve classroom instruction.

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## Appendix A

### Tables for Checking the Assumptions of ANCOVA

**Table A1.** Tests of normality on the reflective reaching posttest scores in the experimental and control groups

Variable	Group	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Posttest	Experimental	.20	10	.200	.91	10	.294
	Control	.16	10	.200	.96	10	.777

**Table A2.** Test of equality of variance on the reflective reaching posttest scores in the experimental and control group

Test	Variable	F	df <sub>1</sub>	df <sub>2</sub>	Sig.
Levene	Reflective Teaching	4.33	1	18	.520

**Table A3.** Analysis of covariance for the interaction effect

Source	Sum of Squares	df	Mean Squares	F	Sig.
Corrected Model	1546.09	2	773.04	10.59	.001
Intercept	1247.31	1	1247.31	17.09	.001
Group* Pretest	1466.21	1	1466.21	20.09	.235
Error	1240.91	17	72.99		
Total	204792	20			
Corrected Total	2787	19			

## Appendix B

### Tables for Checking the Assumptions of MANOVA

**Table B1.** Box's test of equality of covariance matrices

Test	Variable	F	df <sub>1</sub>	df <sub>2</sub>	Sig.
Box's M	Reflective Teaching	18.78	.86	1304	.602

**Table B2.** The Kolmogorov-Smirnov and Shapiro-Wilk test of normality for reflectivity scores in the pretest for the experimental and control groups

Variable	Group	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Practical	Experimental	.197	10	.200	.888	10	.162
	Control	.199	10	.200	.888	10	.163
Cognitive	Experimental	.243	10	.097	.896	10	.197
	Control	.233	10	.131	.846	10	.052
Learner	Experimental	.183	10	.200	.942	10	.573
	Control	.181	10	.200	.924	10	.394
Metacognitive	Experimental	.167	10	.200	.945	10	.607
	Control	.134	10	.200	.934	10	.489
Critical	Experimental	.329	10	.093	.825	10	.059
	Control	.211	10	.200	.884	10	.145

**Table B3.** *The Kolmogorov-Smirnov and Shapiro-Wilk test of normality for reflectivity scores in the posttest for the control and the experimental groups*

Variable	Group	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Practical	Experimental	.152	10	.200	.952	10	.693
	Control	.164	10	.200	.947	10	.629
Cognitive	Experimental	.156	10	.200	.948	10	.651
	Control	.198	10	.200	.936	10	.507
Learner	Experimental	.183	10	.200	.942	10	.573
	Control	.181	10	.200	.924	10	.394
Metacognitive	Experimental	.168	10	.200	.900	10	.219
	Control	.201	10	.200	.875	10	.114
Critical	Experimental	.254	10	.067	.890	10	.170
	Control	.178	10	.200*	.940	10	.551

**Table B4.** *Levene's test of equality of error variances*

	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>Sig.</i>
Practical	1.233	1	18	.282
Cognitive	2.582	1	18	.125
Learner	.391	1	18	.540
Metacognitive	.214	1	18	.650
Critical	.161	1	18	.693

