

## **The Effect of Reflective Teaching Practice on Iranian EFL Learners' Complexity, Accuracy and Fluency of Oral Speech**

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### **Abstract**

Reflection is a professional development strategy that equips language teachers with opportunities to explore, articulate and represent their own teaching practices. This research was conducted to evaluate the impact of English teachers' reflection on EFL learners' speaking proficiency as measured in terms of accuracy, fluency and complexity. Employing a quasi-experimental design, the researchers collected the required quantitative data through the audio recording of interviews conducted with the participants in the study and through a measure of teacher reflection. Sixty students (30 males and 30 females) and thirty instructors (15 males and 15 females) were randomly selected from English institutes in Bandar Abbas as the sample of the study. The results revealed that teachers' reflectivity significantly affects Iranian EFL learners' oral performance in terms of fluency and learners' syntactic complexity of oral speech but it was found that those instructed by the high reflective teacher did not show any progress in accuracy of oral speech.

**Keywords:** reflective teaching, EFL Learners, complexity, accuracy, fluency

### **INTRODUCTION**

The term "reflective practice," coined by Schon (1987), focuses on the ways people think about their experiences and formulate responses as the experiences happen. Reflective teaching boosts problem solving and decision-making processes among language teachers while fostering critical-thinking abilities. According to Burton (2009), reflection should be regarded as an essential element of both L2 teaching practice and L2 teacher training, and promoting reflective thinking is an objective of most teacher education programs. Nonetheless, it is yet to be explored whether reflective teachers are capable of bringing any change in their students. Addressing this gap, this paper explores the possible effects of reflective teaching on improving EFL learners' speaking ability as measured by complexity, accuracy and fluency of their speech.

## LITERATURE REVIEW

Recently, there has been a surge of interest in studying the notion of reflection and in expanding reflective practice. Reflective teaching was first raised by Dewey (1933), who believed that “teachers are not just passive curriculum implementers, but they can also play an active role in curriculum design and educational reform” (p. 49). He suggested that teaching needs to be a process comprising the following components: hypothesizing, investigation, reasoning, testing and evaluation. Reflective action is in effect “the dynamic, continuous and in-depth consideration of any belief or any form of expertise and knowledge by drawing on the grounds that reinforce it” (Dewey, 1933, p. 9). These components will lead to adaptations and modification, if needed, leading to a teaching method which will take account of the class dynamics. This is what today has come to be named “reflective teaching”.

Schon, (1983) describes reflection as a form of mental processing used to fulfill a purpose or to achieve some anticipated outcome. It is applied to gain a better understanding of relatively complicated or unstructured ideas and is largely based on reprocessing knowledge, understanding and possibly, emotions that teachers already possess (Schon, 2009). According to Thomas and Dykes (2011), reflective practicing includes requirements for teachers to not only regularly monitor progress but also to analyze progress monitoring data, reflect on each student’s progress and modify teaching practices based on each student’s response to instruction. Also, Bruder (2010) discusses that the use of reflective teaching influences accountability of learners. Teachers’ feelings and self-reflection is regarded as a tool to motivate learners in reflective processes.

Hung (2008) describes reflection as a professional development strategy through which professionals are equipped with opportunities to explore, articulate and represent their own ideas and knowledge. Boud, Keogh and Walker (1985, p. 19) view reflection as “intellectual and affective abilities in which individuals engage to explore their experiences in order to achieve new understandings and appreciations”.

There are a number of investigative attempts examining the role of reflective practice in second language context on different language skills and individual difference factors such as motivation, self-reflection and language learning strategies. Yang (2009) studied the application of blogs to enhance critical reflection and community of practice among student teachers and found that the student teachers actively discussed teaching theories and their implications through blogs. Yang pointed that applying blogs as a medium promoted critical reflection for EFL teachers in the way that they can communicate with each other by blogging without the restrictions of time and space. Wach (2015) in another article examined teachers’ reflections on EFL learning and teaching in a computer-mediated communication (CMC)-based project as an optimal intervention. The author found that using cross-cultural collaboration project can stimulate reflective thinking and have a positive effect on fostering students’ reflections. So, students have opportunities to get hands-on knowledge, experience and practice in developing their intercultural awareness within the constraints of their EFL contexts.

One of the articles conducted on reflective practice and speaking ability was the one carried out by Frolikova (2014) which aimed to describe a methodology that has been created to improve students' ability to reflect that results in their speaking skills development. It resulted that integrating reflective practice into the course of study for intending teachers has made the learning process more efficient because it facilitated and developed students' reflection and enabled them to make informed decisions concerning their learning strategies and acquired skills.

Skehan (2009) introduced Complexity, accuracy, and fluency as useful measures of second language performance. He found that performance in CAF "complexity, accuracy, and fluency" requires attention and working memory involvement. Committing attention resources to one may have a negative impact on others. According to Ellis (1987), depending on the situation, an L2 learner's attention might be focused on one of the three aspects of performance while jeopardizing the other two. For example, L2 learners who are more concerned with the correctness of what is said might not pay much attention to how something is said or vice versa. Ortega (1999) found that L2 learners, especially those at lower levels of proficiency, find it difficult to attend to meaning and form at the same time. L2 learners' problems in production may be lessened if they are given time to plan before they produce an L2 utterance more accurate and fluent. According to Levelt (1989), to communicate orally learners have some challenges with some cognitive processes while conveying messages according to situation and purpose, choosing correct rules and appropriate words, evaluating mechanical articulation as phonetic and intonation, and monitoring for accuracy and fluency or self-correcting if necessary.

The linguistic subcomponents of second language performance namely, complexity, accuracy and fluency (known as CAF) have been under the focus of researchers in recent years. These three components have been used both in written and oral assessment of second language learners' performance (Ahmadian, 2012; Ahmadian & Tavakoli, 2011; Ellis, 2009; Ellis & Yuan, 2003). Ellis (2009) investigating differential effects of three types of task planning on the fluency, complexity, and accuracy in L2 oral production examined the impact of different tasks on L2 oral production in English. He claimed that letting learners plan their task performance enhances their grammatical complexity, increases their attention on new structures, and results in the development of their interlanguage competence as more fluent and accurate. Vercellotti (2012) in another investigative attempt explored the relationship between CAF and learners' speaking performance. The author found that the students at different proficiency levels sacrifice performance in one CAF area while improving in another. The rate of CAF growth is not the same for all learners linearly. She also explicitly addressed that there is a significant relationship between lexical variety and fluency in language performance over L2 development in an instructed environment. Lambert and Kormos (2014) also examined the effects of task performance on Complexity, Accuracy, and Fluency of L2 development. They introduced some important factors in an effective speaking performance in the task which play a crucial role in Complexity, Accuracy, and fluency enhancement. The authors found that interactive tasks lead to

significantly greater learners' accuracy and fluency. The greater the quality of the interaction, the greater there is found a trend to accuracy. Therefore, tasks can lead to a greater degree of focus on CAF. The present study attempts to investigate the role of reflective practice and training strategy in development of intermediate Iranian EFL learners overall teaching skills specially their speaking performance, as well as to investigate the effect of this strategy on learners' mastery in speech performance. It also aims to find whether the teacher's reflection and his/her feelings as a tool can help learners become more motivated on accountability and to have fluent, accurate communicative speech in and out of the classroom, and this research is going to have a different and innovative view to the subject.

## RESEARCH QUESTION

Does Iranian EFL teacher's reflection significantly affect learners' speaking as measured in terms of complexity, accuracy, and fluency? Based on the theoretical and empirical evidence which supported the effect of applying different types of tasks (Ellis, 2009; Kormos, 2014) on improving learners' oral speech and following Frolikova (2014) who pointed to the effect of reflective practice on speaking performance, the following hypotheses were made:

H1: Reflective teaching practice significantly affects Iranian EFL learners' speaking performance in terms of accuracy.

H2: Reflective teaching practice significantly affects Iranian EFL learners' speaking performance in terms of fluency.

H3: Reflective teaching practice significantly affects Iranian EFL learners' speaking performance in terms of complexity.

## METHODOLOGY

### Participants

For the purpose of this research, the researcher selected thirty English teachers (15 males and 15 females) among the fifty teachers who were in the age range of 25 to 45 years old (Mean 32), with 1 to more than 15 years teaching experience. In addition, sixty intermediate English learners (30 males, 30 females) with 3 to 4 year experience of learning English were selected by simple random sampling to participate in the study. The participants were divided in to two groups equally. They were selected through a test to ensure their homogeneity in their English level. The participants varied in age from 15 to 17 (Mean 16). All participants (teachers and learners) agreed to be videotaped and audiotaped. The researcher obtained the required demographic information (participants' age, gender, graduation degree and teaching experience) through the data gathered by the questionnaire.

### Instruments

As the purpose of the study was to investigate the role of teacher's reflection on Iranian EFL learners' CAF, the researcher applied the following instruments, in two phases of

pretest and posttest, for gathering data to find firstly, the students' level prior to the study, second, teachers' awareness of their teaching style, as following:

### ***Oxford Placement Test (OPT)***

Oxford Placement Test (2001) was used to determine learners' L2 proficiency level, and to ensure the homogeneity of learners at the onset of the study, The Oxford Placement Test is a valid and reliable test and a highly effective instrument in grouping students into appropriate levels. This test consisted of grammar (20 items), vocabulary (20 items), and reading comprehension (20 items). Participants' responses were scored on a scale of 60 points. Conventionally those who could attain 39 and above (out of 60) are considered as intermediate learners. Results revealed that participants had a range of scores between 42 and 49.

### ***Teacher's Reflection Inventory***

The teacher reflectivity questionnaire used in this study was designed by Akbari, Behzadpour and Dadvand (2010). The questionnaire included 29 items on a 5-point Likert scale ranging from 1=never to 5=always. The questionnaire measures five dimensions of reflectivity, namely, affective, cognitive, metacognitive, practical and critical.

### **Data Collection procedure**

Audio recording procedure was used to investigate learners' proficiency on their speaking and measure fluency, accuracy and complexity of learners' speech. Audio recording enables researchers to document the learners' proficiency on their foreign language speaking, and gives learners an opportunity to speak on a general topic during the recording step, an opportunity to notice a difference between the language produced and their explicit knowledge of the target language. This stage of the study was conducted in a language institute through interviews. All interviews produced at both stages (pre-test and post-test) were audio-recorded, and then transcribed by the researcher. The transcribed interviews were then segmented, coded and scored based on the measures chosen for assessing complexity, accuracy and fluency. All intermediate EFL learners and their teachers signed the informed consent forms for participating in this study. To measure the students' CAF, the researchers used Ahmadian's (2012) formula as follows:

The Complexity measuring phase consists of two different parts.

- a) Syntactic complexity: The amount of subordination -the ratio of clauses to AS units (the Analysis of Speech Unit) - in the participants' production. In this formula, the mistakes are not considered.
- b) Syntactic variety: In this part the total number of different grammatical verb forms used in participants' performances are regarded. Just diversity in tense and modality as grammatical verb forms are considered for the analysis.

The Accuracy measuring phase also consists of

- a) Error-free clauses: In this phase, accuracy is measured according to the number of error-free clauses, the percentage of clauses that were not erroneous. All syntactic, morphological and lexical errors were taken into account.
- b) Correct verb forms: Here the percentage of all verbs that were used correctly in terms of tense, aspect, modality and subject-verb agreement were considered.

To measure Fluency two different rates are applied.

- a) Rate A: This part was done according to the number of syllables produced per minute of speech - the number of syllables within each narrative, divided by the number of seconds used to complete the task and multiplied by 60.
- b) Rate B: The procedure for Rate A was followed again, but all syllables, words and phrases that were repeated, reformulated or replaced were excluded.

## DATA ANALYSIS

In order to assess the research hypotheses, first the relevant and vital information was gathered out of the pre- and post-study interviews conducted with each participant including teachers and learners and the questionnaire taken throughout the study. Then statistical methods including descriptive and inferential analysis were run by SPSS software. Cronbach's Alpha was used to compute a reliability scores for teachers' reflection Inventory. Data normality in pretest and posttest was checked by kolmogrof-Smirnof normality test. Paired sample t-test was employed to analyze the hypotheses which investigated the effect of teachers' reflection on EFL learners speaking proficiency. By comparing the means in this statistical method, the researchers evaluated the differences between high and low reflective teachers' performance in improving Iranian EFL learners' measures of speaking proficiency which consists of accuracy, fluency and complexity.

## RESULTS

The first hypothesis posed that reflective teaching practice significantly affects the Iranian EFL learners' speaking performance in terms of accuracy. In order to evaluate the effect of the level of teacher's reflectivity on learners' speaking performance we divided the teacher participants into two groups of low reflective and high reflective based on the scores obtained from teacher reflectivity questionnaire (Akbari, Behzadpour & Dadvand, 2010). Tables 1 and 2 show the results for both conditions.

**Table 1.** Paired Samples T –Test for the first accuracy measure of the low reflective Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	LR error free clause pre – LR error free clause post	.02933	.15349	.02802	-.08665	.02798	1.047	29	.304*
	LR correct verb form pre – LR correct verb form post	.09233	.12993	.02372	-.14085	-.04382	3.892	29	.001*

Table 1 shows that while the low reflective group's progress in correct verb was significant ( $t = 3.892$ ,  $p = 0.001$ ,  $df = 29$ ,  $CL=95\%$ ), its progress in error free clause was not significant ( $t = 1.047$ ,  $p = 0.304$ ,  $df = 29$ ,  $CL=95\%$ ). Table 2 reports on the high reflective group's progress.

**Table 2.** Paired Samples T –Test for Accuracy Measures of the High Reflective Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	HRG error free clause pre – HRG error free clause post	.01867	.08740	.01596	-.05130	.01397	1.170	29	.252
	HRG correct verb form pre – HRG correct verb form post	.04100	.12965	.02367	-.08941	.00741	1.732	29	.094

Table 2 indicates that participants in the high reflective group were found to be at similar levels of accuracy in producing error free clauses at the beginning and end of the course of instruction ( $t = -1.170$ ,  $df = 29$ ,  $CL=95\%$ ). However, they progressed significantly with respect to correct verb use ( $t = -1.170$ ,  $df = 29$ ,  $CL=95\%$ ). Thus, teacher's reflectivity affects the second rate of accuracy, i.e. the use of correct verb form.

The second hypothesis posed that reflective teaching practice significantly affects the Iranian EFL learners' speaking performance in terms of fluency. Tables 3 and 4 show the results for both conditions.

**Table 3.** Paired Samples T –Test for Fluency Measures of the Low reflective Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	LRG rate A pre	.02933	.15349	.02802	-.08665	.02798	-1.047	29	.304
	LR rate A post								
	LRG rate B pre	.09233	.12993	.02372	-.14085	-.04382	-3.892	29	.061
	LR rate B post								

Table 3 shows reports on levels of English fluency in producing numbers of syllables per minute of speech at the beginning and end of the course of instruction. The participants in the low reflective group were found to be at similar levels of fluency in producing numbers of syllables per minute of speech at the beginning and end of the course of instruction as shown by rate A ( $t = -1.047$ ,  $df = 29$ ,  $CL=95\%$ ), indicating no progress. Similarly, their progress was insignificant when it was measured by rate B measure of fluency ( $t = -3.892$ ,  $df = 29$ ,  $CL=95\%$ ). Table 4 reports on the high reflective group's progress.

**Table 4.** Paired Samples T –Test for Fluency Measures of the high reflective Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	HR rate A pre – HR rate A post	.01867	.08740	.01596	-.05130	.01397	-1.170	29	.002
	HR rate B pre – HR rate B post	.04100	.12965	.02367	-.08941	.00741	-1.732	29	.024

Table 4 shows that participants instructed by high reflective teachers were found to progress significantly in producing numbers of syllables per minute of speech before and after the course of instruction as measured by rate A ( $t = -1.170$ ,  $df = 29$ ,  $CL=95\%$ ) and rate B ( $t = -1.732$ ,  $df = 29$ ,  $CL=95\%$ ). In sum, the results support the second hypothesis that teacher's reflection significantly affect learner's fluency.

The third hypothesis posed that reflective teaching practice significantly affects the Iranian EFL learners' speaking performance in terms of syntactic complexity and variety. Tables 5 and 6 show the results for both conditions.



**Table 5.** Paired Samples T –Test for complexity measures of the low reflective Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	LR complexity pre – LR complexity post	.01967	.11713	.02139	-.06341	.02407	-.920	29	.365
	LR variety pre – LR variety post	.40000	1.42877	.26086	-.93351	.13351	1.533	29	.136

Table 5 indicates that participants instructed by low reflective teachers were found to be at similar levels of English complexity in producing syntactic complexity before and after the course of instruction ( $t = 0.920$ ,  $p = 0.136$ ,  $df = 29$ ,  $CL = 95\%$ ). It also indicates that participants instructed by low reflective teachers were found to be at similar levels of complexity in producing syntactic variety at the beginning and end of the course of instruction ( $t = 0.13351$ ,  $p = 0.136$ ,  $df = 29$ ,  $CL = 95\%$ ), indicating no progress. Table 6 reports on the high reflective group's progress.

**Table 6.** Paired Samples T –Test for complexity measures of the high reflective Group

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	HR complexity pre	-	.07243	.01322	-.07104	-.01696	3.328	29	.002*
	HR complexity post	.04400							
HR variety pre HR variety post		- .50000	1.81469	.33132	-1.17762	.17762	- 1.509	29	.142

Table 6 indicates that the difference observed in the scores obtained for the first measure of complexity (i.e. syntactic complexity) of the students instructed by high reflective teachers was significant from pre-test to post-test ( $t = 3.328$ ,  $p = .002$ ,  $df = 29$ ,  $CL = 95\%$ ). However, the difference for the second measure (i.e. syntactic variety) was not significant ( $t = 1.509$ ,  $p = 0.142$ ,  $df = 29$ ,  $CL = 95\%$ ). Thus, teacher's reflectivity affects the learner's syntactic complexity of oral speech but not the syntactic variety.

## DISCUSSION

To sum up, regarding accuracy, it was revealed that while the students in the low reflective group progressed on correct verb form use in terms of accuracy, they did not do so with respect to error free clauses and those instructed by the high reflective teacher did not show any progress in both measures of oral accuracy. As for learners' fluency, the effect of instruction of high reflective teacher's on Iranian EFL learners'

measures of fluency has been confirmed and participants instructed by high reflective teachers showed improvement in producing numbers of syllables per minute of speech prior and after the treatment. In addition, the results gained confirmed the effect of instruction by high reflective teacher and learners' syntactic complexity of oral speech, in reverse they rejected the relation between high reflection and syntactic variety.

Thus, with regard to fluency, it was revealed that the high reflective group progressed in both rate A and B measures and the results of Thai and Boers (2015) were in accordance with our findings in that they revealed that task repetition leads to performance improvement in learners and fluency was enhanced in the shrinking-time condition with no significant changes in learners' complexity or accuracy in that condition. De Jong and Perfetti's (2011) findings were also in line with this research's findings.

No piece of research could be deemed as perfect and complete. Due to time limitation, only 50 participants (equal males and females groups of students) and 30 teachers (equal males and females groups of teachers)) were included in this research and all teachers were from English language institutes in Bandar Abbas (Iran). Had the researcher had more time, teachers from other cities or from other academic levels (i.e. university level) could have been added to the research and the results could have more generalizability.

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