

The Effect of Self-Transcription and Expert Scaffolding on the Accuracy of Oral Production of EFL Learners

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ABSTRACT

This study investigates the effect of self-transcription and expert scaffolding on the accuracy of oral production of EFL learners. Thirty elementary level and six advanced level EFL learners from a private language institution in Sari, Iran, participated in this study. The elementary learners formed two experimental groups that were engaged in self-transcription (n=10) and self-transcription followed by expert scaffolding (n=10) and one control group (n=10). Another group of advanced learners (n=6) were invited to participate as the expert assistants. A picture description task was administered to all the elementary participants as their pre-test and post-test. Furthermore, their oral performance in all stages of the study was audio-recorded one at a time. Finally, the participants' oral performance in the pre-test and post-test was analysed based on the accuracy rate of five linguistic features (verb form, preposition, pronoun, subject-verb agreement and vocabulary) and error-free clauses. The analysis showed that both treatment types of self-transcription with or without scaffolding had significant effect on improving the accuracy of two linguistic features (preposition and verb form) and error-free clauses. It can be implied that self-transcribing an oral production and expert scaffolding can be conducive to noticing the gaps in some linguistic

features, which under normal circumstances are hard to recall and notice. The findings of the study provide some pedagogical implications for employing these techniques in EFL contexts for improving the overall accuracy of oral production.

ARTICLE INFO

Article history:

Received: 07 November 2016

Accepted: 27 November 2017

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Keywords: Expert-novice, oral production, scaffolding, self-transcription, accuracy, noticing

INTRODUCTION

Assigning students to working in pairs or small groups in the second language classroom is considered a beneficial teaching strategy. A great body of research shows that learners interacting in small groups or pairs use target language more in comparison with learners working individually or attending teacher-fronted classes (Storch, 2001, 2002; Wigglesworth & Storch, 2009). According to Goh (2017), there are some studies offering insight into how teachers can scaffold the learning of speaking skills in the classroom through activities such as task-repetition and pre-task planning. These tasks can promote learners' awareness of speech processes. She stated that scaffolding activities can help "learners in planning and organizing speech" and "strengthening oral communication abilities" (Goh, 2017, p. 248).

One such activity for speaking practice is self-transcription of oral output and self- and/or peer-editing of the transcripts. This technique is believed to attract the participants' attention to linguistic gaps in their oral production (Lynch, 2005). When learners speak on their own during a task, they rarely attend to all aspects of their language (Goh, 2017, p. 248). When self-transcribing their oral performance, they focus on their production and notice the possible gaps in their knowledge or performance. According to Stillwell et al. (2009), "student self-transcription can greatly enhance the power of tasks to promote language learning" (p. 445). They believe that this technique allows learners

to "re-examine their experience freed from the pressure of performing the task itself, so they can notice and reflect on the language used and encountered" (p. 445).

From a theoretical stance, according to Schmidt (2001), the emergence of new forms should be preceded by their being noticed in the input. The noticing hypothesis (Schmidt, 1990) claims that conscious awareness of grammar plays an important role in second language acquisition because it triggers certain cognitive processes such as searching for the new information or consolidating already existing knowledge (Swain, 1995). Considering this hypothesis, self-transcribing of the oral production can make learners consciously aware of the problematic areas of their language. Lynch (2005) argues that self-transcription can be a productive route to noticing, in which the learners reflect on the formal correctness and semantic precision of their own output.

Four important gaps can be identified in the previous literature. Firstly, very few studies seem to have been conducted on the effectiveness of self-transcription in the accuracy of oral production (Lynch, 2001, 2007; Mennim, 2003, 2012; Stillwell et al., 2009). The findings of some studies have shown that the interaction between pair members may have a positive effect on the accuracy of a few grammatical features. For instance, Goss, Yang-Hua and Lantolf (1994) compared the performance of students on some grammar judgement tasks when completed in pairs and individually. They found that there were some modest differences in favour of

dyads on some grammatical features such as referential pronouns. It is not clear what linguistic features are strengthened after the completion of a self-transcription task. Another issue is that pair work, as a form of scaffolding, has been initially embedded into the studies of self-transcription. In these studies, self-transcription was predominantly followed by peer and/or teacher editing of the transcripts; as a result, the participants relied on two different sources of feedback i.e. external feedback provided by the instructor or peer editor and internal feedback conducted by the learners themselves during the editing and self-evaluation of their transcribed oral output. The question was whether self-transcription, by itself and without any external feedback, can promote noticing and learning linguistic features. Finally, in the studies of self-transcription, the learners were paired with the similar proficiency-level ones to edit the transcripts. To improve collaborative skills and develop responsibility in social contexts, some researchers, for instance, Zangoei and Davoudi (2016) have suggested provision of scaffolding by higher-proficiency level learners to the lower-level ones. Thus, it might be interesting to examine the case with high-proficiency learners, that is, expert-novice learners editing the transcripts in collaboration.

To sum up, the purpose of the current study was to examine the effects of self-transcription and expert scaffolding on the accuracy of oral production of EFL learners in two types of treatment, that is: (a) self-transcription and editing of the transcript

by the learners themselves; and (b) self-transcription followed by expert scaffolding during the editing phase of the transcripts.

THEORETICAL FRAMEWORK

One of the underlying theories of this study was Swain's (1985, 1995) output hypothesis. Swain claimed that learners need to actively engage in language production in order to promote their second-language proficiency. She argued that output can trigger certain cognitive processes that facilitate the acquisition of a second language. One of these processes is the 'noticing' or triggering function, which is defined as learners' awareness of the discrepancy between their own production and the target language. According to Swain (as cited in Valdebenito, 2015), the awareness of the gaps or holes in their linguistic knowledge facilitates the detection of errors and re-evaluation of their assumptions about the target language. This is closely linked to Schmidt's (1990) 'noticing hypothesis', which claims that the emergence of new forms should be preceded by their being noticed in the input. Schmidt (2001) argued that "noticing requires of the learner a conscious apprehension and awareness of input," and "while there is subliminal perception, there is no subliminal learning" (p. 26). The noticing hypothesis claims that conscious awareness (noticing) of grammar plays an important role in the process of acquisition. This kind of noticing is beneficial for second-language acquisition because it triggers certain cognitive processes such as searching for the new information or consolidating

already existing knowledge (Swain, 1995). Considering these hypotheses, it is motivating to examine how learners notice their linguistic gaps when they are struggling to describe a set of pictures and self-transcribe their oral performance.

Another theoretical concept underlying this study is scaffolding, which is understood as the assistance provided to the learner by the teacher or a more knowledgeable peer in order to move the learner into the zone of proximal development (Wood, Bruner, & Ross, 1976). The term scaffolding is one of the main concepts embedded in the sociocultural theory of mind (Vygotsky, 1978). Vygotsky proposed that cognitive development is an inherently social activity involving interaction between people. He argued that children acquire knowledge and gradually internalise it through interaction with people around them. In this regard, what has been learnt through interaction (social property) will transform into personal property of the child. In its original conception, sociocultural theory proposed that this kind of interaction is between an expert (e.g. parent, teacher) and a novice (child). The expert should carefully attune the assistance to suit the novice's need; in other words, the expert scaffolds the novice. For scaffolding to occur in the language learning process, students need to work collaboratively. Within the scope of second language research, there are some studies that have shown that such scaffolding can occur not only in teacher-learner interaction (Aljaafreh & Lantolf, 1994) but also in

peer-peer interaction, when learners work in small groups or pairs.

Apart from the pedagogical arguments of scaffolding discussed above, Schmidt's (2001) noticing hypothesis can also support the significance of this study. In other words, self-transcribing of an oral production may induce noticing the problems and removing them in the next performance. According to the sociocultural theory of learning, scaffolding can provide learners with exactly the support they need to move forward along their zone of proximal development (ZPDs) and internalise the information.

LITERATURE REVIEW

Some studies have closely investigated the nature of group and pair work in the L2 context. For example, Pica and Doughty (1985) compared teacher-fronted classes with learner-centred classes. They showed that the learners in groups or pairs engaged in negotiation of meaning such as clarification request, confirmation checks and repairs. These examples of modified interaction are considered as facilitators of second-language acquisition.

Long and Porter (1985) discussed the pedagogical arguments for group-work activities and expressed several reasons for employing them. They stated that group-work provides L2 learners with more opportunities to use and practise language. The next argument raised was that group work not only increases the amount of student talk, but also improves its quality as well. Wigglesworth and Storch

(2009) showed that learners working in pairs performed better on a task than those working on the same task individually. They concluded that learners are provided with more opportunities to pool their knowledge during joint activities.

Studies by Storch (2001, 2002) have shown evidence of 'collective scaffolding', a process by which learners pool their linguistic resources in order to solve the language problems they encounter. Donato (2004) investigated collaboration in three themes of community, language development and identity. Regarding the first theme he argued that working collaboratively, students would show greater control of the target language; therefore, they would work with each other as a collaborative community. Furthermore, he suggested that active participation of the learner is another consequence of collaborative working. Therefore, when working collaboratively, students will volunteer more frequently and participate more actively. Investigating the effect of collaboration on language development, he elaborated on the power of collaborative dialogue in developing more accurate language during the composing, noticing and recall procedures.

Some recent studies (Cooke, 2013; Lynch, 2001, 2007; Mennim, 2003, 2012; Stillwell et al., 2009) have supported the use of student transcription activities to assist students in reflecting on their language, noticing the gaps in their knowledge and making their output more sophisticated and comprehensible. Lynch (2001) investigated the impact of self-transcription on the oral

skills of learners. In an after-class session, the participants were asked to listen to an extract of the audio sound-track of their performance and to transcribe it. They worked together and negotiated when to stop or replay the tape. After each member of the pair produced two transcripts, they were asked to agree on a final version. If making any changes, they were asked to review, revise and edit the final version. In the next step, one copy of their transcripts were reviewed by the teacher, who changed any linguistically incorrect point, and finally the teacher gave them his own reviewed transcript and made them compare it with their version. Analysing the extracts of the students' production, Lynch concluded that listening and transcribing the oral production provided the learners with the opportunity for explicit feedback, which is believed to be a requirement for formal language learning. Furthermore, he suggested that this activity made students notice their linguistic gaps and engage in reflective self-correction. He also mentioned that although the students noticed many errors themselves, the teacher also provided them with post-task feedback, particularly in the area of vocabulary.

Mennim (2003) investigated reactive focus on form by focussing his students' attention on their own output. The students were encouraged to reflect on their oral output by tape-recording and transcribing a rehearsal of their presentation. They scrutinised and corrected the transcript before giving it to the teacher, who provided further feedback on the points that they had not noticed. The study showed the

effect of this treatment by comparing the transcripts of the students during rehearsal with a transcript of their oral presentation two weeks later. Findings of the study demonstrated that they could recall many of the corrected forms and reformulations; the final presentation showed improvements in pronunciation and grammar and in the organisation of content.

In his next study, Lynch (2007) compared teacher's transcripts of learners' performance on paired speaking tasks with the transcripts provided by the learners themselves on their own speaking performance. He reported that learners who had been active producers of their own transcripts achieved a higher rate of accuracy in producing English forms than did the learners who had been passive users of the teacher's transcribed extracts.

Stillwell et al. (2009) carried out their study with 20 freshmen students. The participants made posters based on the main points of five film genres and then summarised and presented them in response to questions asked by their classmates. The students worked in pairs and switched roles to discuss each other's posters while their conversations were audio recorded. Next, the three-minute conversation of each member was listened to and transcribed by both members of the pair. The pair then worked jointly to identify and correct mistakes in their spoken language. Next, the teacher provided feedback by correcting the mistakes in the transcripts of the students. The analysis showed that both the teacher's and the students' corrections were predominantly focused on

grammatical features, although the teacher gave greater focus to grammatical features (68%) than the students (48%). Stillwell et al. (2009) concluded that student self-transcription seemed to provide valuable learning opportunities.

Cooke (2013) examined learners' perceived input and noticing weaknesses among university students over a ten-week period. The students' conversations were recorded when they were discussing a series of topics in groups of five for six minutes. They were required to self-transcribe and reflect upon their spoken performance by evaluating their speaking skills. The results of the study indicated that transcription and reflective practice could support the development of noticing, a crucial element in L2 learning.

Mennim (2012) investigated problem-solving efforts of higher-level learners during negotiation of language form in the context of a self-transcription exercise. The students first transcribed the recordings of their own presentation made in the English classroom. This task was then followed by a discussion session in which the learners were required to inspect their own transcripts in groups and attempt to find and correct their language problems through collaboration. The excerpts of their negotiations and discussion demonstrated serious and active involvement in the exercise. The exercise helped learners recognise various internal and external sources of information on L2 form. They concluded that self-transcription can be regarded as a beneficial way of generating knowledge-building discussion

about language that stimulates learners to think about their own language use to tackle their language problems.

Afsharrad and Sadeghi (2014) assigned a transcription task to beginning learners to investigate its effect on their listening ability at phoneme level. They asked students to transcribe a listening section in their course book after it was played two to three times. The students' transcriptions were then checked by themselves and also their classmates as they were read in class. The findings revealed that transcribing could be considered an aural input enhancement device that has a significant effect on the learners' phonemic perception. They concluded that transcribing attracted learners' attention to incoming aural stimuli and raised their awareness of phonological features of English.

Skeates and Murphy (2015) investigated the effect of self-transcription tasks on the oral presentations of the learners. In their study, the students were asked to first video-record their class presentations and then transcribe their own presentations. After transcribing their own oral production, they were asked to reflect on their transcripts in order to find their strengths, weaknesses and the areas that needed improvement. In the final task, the students were made to assess themselves by self-made scoring rubrics. At the end of the course, the learners' opinions on the tasks were elicited in the form of a semi-structured interview. The students unanimously reported that recording their presentations was beneficial. However, their views on self-transcription

were mixed. Some students believed that it helped them focus their attention on their strength, weakness and the areas of future improvement while others considered it a troublesome and time-consuming task. Regarding their self-made scoring rubrics, they mostly felt it was effective. The results of the study suggested that students generally favoured and benefitted from all of the tasks related to self-transcription, but they needed further explicit instruction on how to use their transcripts.

Likewise, Valdebenito (2015) investigated the effect of self-transcribing on developing the metacognitive skill of noticing the gap. In his study, the students were provided with the audio-file of their oral performance in the speaking part of a diagnostic test. The learners were asked to transcribe a three-minute segment of their speech, highlight all the errors they specified, identify the kind of error (lexical, grammatical, phonological etc.) and then send the annotated transcript to the teacher via email. Then, the students' opinions and perceptions of the potential advantages of self-transcribing tasks were elicited through a questionnaire. Findings of the study demonstrated a low rate of self-corrections. The researcher justified this result by indicating the diagnostic nature of the test. That is, since the students' linguistic performance was not being graded, they did not feel any pressure to self-monitor. Moreover, another unexpected result was that the participants only noticed one out of 4 errors (25%) in a transcript of a three-minute recording. The researcher related this

rather disappointing result to the inadequate treatment sessions and lack of pair work in comparison to some similar studies conducted on this area (e.g. Lynch 2001).

Considering the stated problems in the introductory section and taking the gaps into account, the present study was carried out to explore the effectiveness of self-transcription of oral production with or without expert scaffolding in improving oral accuracy of elementary EFL learners. Two research questions were investigated in this study, as given below.

1. Does expert scaffolding of a self-transcribed oral production have any effect on the accuracy of the oral production of EFL learners?
2. Does self-transcription and self-editing of their own oral production have any effect on the accuracy of the oral production of EFL learners?

METHODS

Participants

The participants of this study were 36 EFL learners who were studying English in a private language institution in Sari, Iran. The selection of the participants was based on convenience sampling. They included 30 elementary learners within the age range of 11 to 16 and six advanced learners within the age range of 18 to 23. They were all female students and their proficiency level was based on a placement test developed and administered by the institution at the beginning of the term. It is to be mentioned

that the data source for the analysis in this study was based on the oral performance of the elementary learners (n=30) and no part of the data belonged to the advanced group. The advanced learners only participated as expert assistants to scaffold the elementary learners during the editing phase of their self-transcriptions.

Before starting the study, the researchers mentioned that participation in the study was completely voluntary and no one was compelled to take part. In addition, the participants and their parents were also assured of the anonymity of their identity, privacy and confidentiality of the collected data in that the recorded files would be kept secret.

Research Design

The study utilised a pre-test/post-test quasi-experimental design with comparison groups selected based on convenience sampling. It involved two experimental groups and one control group. A mixed method design was employed in order to collect and analyse both quantitative and qualitative data in the research process. The reason for mixing is that neither quantitative nor qualitative methods are adequate to address research problems or answer research questions (Tashakkori & Teddlie, 2003). Therefore, based on the overall purpose of the study and the identified research questions, this study used a mixed method in order to have a better understanding of the results. The design of the study is presented in Table 1.

Table 1
Design of the study

Group	Tasks & Tests				
	Pre-test	Treatment 1 (PDT)	Treatment 2 (ST)	Treatment 3 (SC)	Post-test
Scaffolding	*	*	*	*	*
Self-transcription	*	*	*	—	*
Control	*	—	—	—	*

PDT=Picture description task; ST=Self-transcription; SC=Scaffolding by experts; *= Participants took part

All elementary participants (n=30) attended a training session prior to the study. The scaffolding group attended a pre-test, three treatment sessions and a post-test. The self-transcription group was administered a pre-test and a post-test but attended two treatment sessions. The study further involved tape-recording all elementary participants during pre-test and post-test sessions and transcribing the recorded speech by the researchers. Self-transcription was conducted during the second treatment session by the elementary participants in the two experimental groups, which involved transcribing their own oral production for the picture description task. The control group took part in the two testing sessions. Each group consisted of 10 participants, data pertaining to whom were collected individually i.e. one at a time. Therefore, as Table 1 shows, there were 30 separate sessions for pre-testing, 50 individual sessions for the treatments of the two experimental groups, and 30 separate sessions for the post-testing. Therefore, in total, the study took place in 110 sessions of about 5 to 15 min each.

Procedure

All elementary participants were provided with a training session on how to tell a story based on a set of pictures. Next, they were randomly assigned into two experimental groups of self-transcription plus scaffolding (n=10) and self-transcription (n=10) and one control group (n=10). The two experimental groups were also trained on how to transcribe their recorded voices. In addition to the elementary participants, there was another group of advanced learners (n=6) who took part only in the third treatment session (See Table 1). They were trained on how to scaffold their elementary peers by modelling and practising. Before the start of the main study, the students arranged their time with one of the researchers and came to the institution one hour earlier than their usual class time. For the pre-test session, all elementary participants came to the allocated room in the institution at a specified time and were asked to tell stories based on two picture stories taken from Chabot (2006). Their presentations were audio-recorded individually in a quiet room one at a time. In the first treatment session,

the two experimental groups were asked to tell two stories based on a picture description task (Chabot, 2006); their production was also audio-recorded one at a time. In the second treatment session, each student in the self-transcription (ST) and scaffolding (SC) groups received her relevant recorded file via the Bluetooth device to listen to her own presentation and transcribe it carefully. Next, they were asked to individually review their own transcriptions to find out if there were any problems in their own production. In the third treatment session, the students in the scaffolding group (n=10) were assigned with expert participants to edit their transcriptions. Following Aljaafreh and Lantolf (1994), the regulatory scale of the ZPD was provided for the experts on how scaffolding should be conducted in two steps of modelling and practice (see also Abadikhah & Valipour (2014) for a full description of scaffolding). The participants were allowed to use the Persian language during their interaction since it was assumed that native language works better in order to lower possible tension and also to remove any misunderstanding between the learners in their pairs (Swain & Lapkin, 2000).

Data Analysis

Since the study sample was small and several tests of mean comparison were expected to be conducted, the normal distribution of the scores of each group in any treatment was assured by conducting the Kolmogorov-Smirnov test. To answer the questions, first, all of the recorded files of students' oral production in each group

and in each stage (pre-test and post-test) were fully transcribed. Then the accuracy percentages of the students' oral production in the five target linguistic features (verb form, preposition, pronoun, subject-verb agreement, vocabulary) and error-free clauses were calculated. The rationale for considering these linguistic features was that they were among the most inaccurate features frequently observed in the students' productions during the training session. In this study, accuracy is defined as the ability to produce grammatically correct sentences (Richards & Schmidt, 2002). Therefore, all obligatory occasions for the use of targeted grammatical features were identified in the speech of the participants and then the correct usage for each of them was quantified. Following previous studies, producing grammatically correct clauses is considered the accuracy index (Nassaji & Swain, 2000).

For measuring accuracy, the proportions of the correct items to the total obligatory occasions for each feature were calculated and their percentages were tabulated. To examine the reliability of rating and scoring for each feature, all the transcripts of the students' oral production were re-scored by the researchers three months after the initial scoring. The transcripts were also scored twice by both researchers. The intra-rater and inter-rater reliability indices were 96.8% and 87.9%, respectively. It should be mentioned that in measuring the accuracy of verb form, two features of verb tense and aspect were taken into account. Furthermore, in calculating the total error-

free clauses, the grammatically correct clauses were calculated and correct phrases were not taken into account. For the analysis of data, SPSS software was employed. To answer the research questions, the accuracy percentage of each item produced during the pre-test and post-test sessions were compared across the groups.

RESULTS

As it was explained in the methodology section, during the pre-test, two picture

description tasks were employed to obtain reliable output from the learners; each task consisted of six separate pictures that were sequentially related to each other. The students were asked to tell a story based on the pictures. Then, the self-transcriptions of their tape-recorded speech were analysed in terms of the accuracy of the target linguistic features and error-free clauses. Table 2 displays the mean accuracy percentage of each feature in the pre-test session for the three groups of participants.

Table 2
Mean accuracy percentage of the features in pre-test

Groups	S-V Agreement	Preposition	Pronoun	Verb form	Vocabulary	Error- Free Clauses
SC	54.86	68.78	86.68	54.74	93.55	29.85
ST	51.72	67.21	79.56	43.80	88.91	39.62
C	46.98	69.76	76.32	40.71	92	37.63

SC=Scaffolding plus self-transcription; ST=Self-transcription; C=Control

To check the homogeneity of the three groups at the start of the sessions, the accuracy percentage of the features and error free-clauses produced during the pre-test were compared across the groups. Based on the results of a one-way ANOVA test, it was found that there was no significant or meaningful difference among the groups since the p value (0.704) was higher than the set significance level ($p < 0.05$). Therefore, it could be inferred that the groups were homogenous in terms of accuracy of oral performance prior to the treatments.

In the first treatment session, both experimental groups were asked to tell two stories based on two sets of pictures different

from those used in the pre-test session. In the second treatment session, the participants of both groups were asked to listen to their own oral production (audio-recorded by the researchers), transcribe it and then identify any possible mistake. In the third treatment session, only the participants of the scaffolding group participated and were scaffolded by an expert. According to Vygotsky (1978), in this kind of interaction, the expert assists the novice to internalise the learning and reach a higher level of development.

In order to administer the post-test, two weeks after the implementation of the intended treatments, the participants of

the three groups were unexpectedly asked to do the same task that they had already described in the pre-test session. Once again, their oral productions were audio-recorded and transcribed by the researchers. Again, the accuracy values of the five specified features and error-free clauses were obtained and their percentages were calculated. Table

3 presents the mean accuracy percentage of each feature produced by the three study groups in their post-test session. As stated before, the aim of the first research question was to investigate the effect of expert scaffolding on the oral production of learners in terms of their accuracy percentage.

Table 3
Mean accuracy percentage of the features in post-test

Groups	S-V Agreement	Preposition	Pronoun	Verb form	Vocabulary	Error-Free Clauses
Scaffolding	62.13	70.34	86.63	60.25	91.47	50.19
Self-transcription	53.40	69.97	79.87	48.26	88.86	41.93
Control	49.21	69.20	76.84	41.36	93.02	37.00

In order to see if treatment would influence the students' oral production, paired sample analysis for the pre- and post-test of each group of participants was conducted.

Table 4 displays the results of the paired samples t-test on all linguistic features of the scaffolding group from the pre-test to the post-test.

Table 4
Paired samples t-test comparing the accuracy of linguistic features from pre- to post-test of scaffolding group

Features	Paired Differences		t	d.f.	Sig.
	Mean	SD			
S-V Agreement	7.27	13.14	1.75	9	0.11
Preposition	1.56	1.55	3.19	9	0.01*
Pronoun	0.05	6.92	-0.02	9	0.98
Verb form	5.51	11.96	1.46	9	0.18
Vocabulary	2.08	8.11	-0.81	9	0.44
Error-Free Clauses	20.34	17.57	3.66	9	0.01*

Based on the results, the p values were significant ($p < 0.05$) for the preposition and error-free clauses but not for the rest of the features (Subject-Verb Agreement, Pronoun, Verb Form and Vocabulary). This means that

the treatment was effective in improving the accuracy of prepositions in this group.

A similar paired samples analysis was conducted on the post-test result of the control group. Table 5 presents the summary of this analysis.

Table 5
Paired sample t-test comparing the accuracy of linguistic features from pre- to post-test of control group

Features	Paired Differences		t	d.f.	Sig.
	Mean	SD			
S-V Agreement	-2.22	6.03	-1.16	9	0.27
Preposition	0.55	2.47	0.71	9	0.49
Pronoun	-0.51	1.80	-0.90	9	0.38
Verb form	-0.65	3.05	0.67	9	0.51
Vocabulary	-1.02	2.13	1.51	9	0.16
Error-Free Clauses	0.62	3.66	-0.54	9	0.60

Considering the statistical results of the scaffolding and control groups presented in Tables 4 and 5, it can be inferred that the related treatment (expert scaffolding plus self-transcription) had a positive effect on the accuracy of the learners' use of preposition and error-free clauses.

The aim of the second research question was to find out whether self-transcribing of oral production by itself had any effect on the accuracy of oral performance of the learners. To this end, another paired samples analysis on the pre- and post-test scores of this group was conducted. Table 6 displays the summary of the findings.

Table 6
Paired samples t-test comparing the accuracy of linguistic features from pre- to post-test of self-transcription group

Features	Paired Differences		t	d.f.	Sig.
	Mean	SD			
S-V Agreement	1.68	3.19	1.66	9	0.13
Preposition	2.77	4.56	1.92	9	0.09
Pronoun	0.31	3.03	0.32	9	0.75
Verb form	4.46	5.16	2.73	9	0.02*
Vocabulary	-0.06	3.34	-0.05	9	0.96
Error-Free Clauses	2.31	2.66	2.74	9	0.02*

Although the mean differences of the majority of linguistic features in the post-test session increased compared to the pre-test session, the p value was significant for the verb form and total error-free clauses ($p < 0.05$). Therefore, it can be suggested that self-transcription by itself is effective for improving the accuracy rate of verb form and error-free clauses of learners.

The next analysis intends to specify if the treatment type (self-transcribing or scaffolding plus self-transcribing) had any effect on the accuracy of learners' oral performance. Focussing on this goal, again descriptive statistics, presented in Table 7, are used to compare the post-test of the two groups.

Table 7
Descriptive statistics of ST and SC for post-test

Linguistic Features	Groups	N	Mean	Std. Deviation
S-V Agreement	SC	10	62.13	32.93
	ST	10	53.41	26.67
Preposition	SC	10	70.34	18.68
	ST	10	69.98	16.07
Pronoun	SC	10	86.64	17.34
	ST	10	79.87	15.72
Verb form	SC	10	60.26	17.67
	ST	10	48.27	25.97
Vocabulary	SC	10	91.48	8.10
	ST	10	88.86	10.17
Error-Free Clauses	SC	10	50.20	31.09
	ST	10	41.93	26.17

SC=Scaffolding plus self-transcription; ST=Self-transcription; N=Number of participants

Table 8 illustrates the outcome of the analysis applied to the data. Comparing the two groups' mean accuracy rates, using an independent samples t-test in the post-test session, it can be seen that there was no significant difference between the two groups in their post-test accuracy level since the p values for all the features were higher than 0.05.

Table 8
Independent samples t-test analysis comparing post-test scores of ST and SC groups

Variable	t	df	Sig. (2-tailed)
S-V Agreement	0.65	18	0.52
Preposition	0.05	18	0.96
Pronoun	0.91	18	0.37
Verb form	1.21	18	0.24
Vocabulary	0.64	18	0.53
Error-Free Clauses	0.64	18	0.53

This means that the two treatment types were similarly effective as the two experimental groups did not differ in their performance during the post-test session. The results of a one-way ANOVA test on the post-test scores of the three groups (ST, SC and C) also confirmed this finding ($df=2$; $F=1.833$; $p=0.163$).

DISCUSSION AND CONCLUSION

This study examined whether self-transcription with or without expert scaffolding would affect the accuracy of some linguistic features in oral production.

For this purpose, three groups of EFL elementary learners i.e. self-transcription followed by expert-scaffolding, self-transcription and a control were compared. Drawing upon this comparison, the effectiveness of self-transcription with or without scaffolding in producing accurate linguistic features and error-free clauses was then empirically compared and supported in the learners' spoken output produced during the post-test.

The analysis of data concerning the first research question, which examined the benefits of scaffolding following self-transcription, indicated that the treatment had positive effects on the accuracy index of error-free clauses and use of prepositions. Regarding the impact of self-transcription, the findings of the present study were in conformity with those of Cooke (2013) and Stillwell et al. (2009), which regarded self-transcription with peer-scaffolding as a beneficial technique that leads students to reflect on their performance, notice their linguistic gaps, correct possible mistakes and produce more accurate language. Our finding was also compatible with Mennim's (2003, 2012) studies, which found that self-transcription exercise provided the learners with the opportunity to reflect on their language performance and consequently, tackle their linguistic problems through knowledge-building dialogues in groups.

As stated earlier, many eminent scholars like Long and Porter (1985), Nelson and Murphy (1993), and Storch (1999, 2001, 2002) have acknowledged the significance of pair work in classrooms. Although

foreign language learners may prefer teacher-fronted activities, teachers should create more opportunities for students to work collaboratively in pairs. In this study, the expert-novice pattern seemed to work effectively in improving production of error-free clauses and prepositions. Therefore, by employing this pattern, teachers can assign higher- and lower-proficiency students to work together as expert and novice pairs. Furthermore, since all learners do not make similar improvements for the same activity, and in most cases, only higher-level proficiency learners are aware of the changes they have made, scaffolding by the expert can induce noticing and create an opportunity for lower-proficiency learners (novices) to be informed of the problematic areas in their use of language.

The results obtained from investigating the second research question, which explored the effect of self-transcription on oral accuracy, indicated that the participants improved in the accuracy index of error-free clauses and verb form from pre-test to post-test. This finding was consistent with the findings of Lynch (2007), who investigated the impact of self-transcribing and teacher transcribing of students' own speaking performance on the students' production. He concluded that participants in the self-transcription group achieved a higher rate of accuracy in producing English forms than the group that had been passive users of the teacher's transcribed extracts.

The results offer some theoretical and pedagogical implications to the study of foreign languages. According to Schmidt's

noticing hypothesis (1990), conscious awareness (or noticing) of grammar plays an important role in the process of L2 acquisition. In the current study, self-transcribing was used as a technique through which the learners reflected upon their performance and stimulated noticing of the existing gaps or holes in their linguistic knowledge. The participants received no external feedback from the teacher or peer. However, they made significant improvement on two features in the post-test. Therefore, it seems that self-transcription without external feedback can provide an opportunity for students to capture and analyse their own speech and reflect on their language use.

The results also indicated no significant difference between the two experimental groups. This means that the two treatments were equally effective in improving accuracy of error-free clauses. On the other hand, we observed that the two treatments positively influenced two different linguistic features of verb form (self-transcription) and prepositions (self-transcription plus scaffolding). The results confirm the findings of previous studies (e.g. Storch, 1999), suggesting that not all grammatical features benefit from the same type of classroom task or treatment. This result also supports the findings of a study by Goss, Yang-Hua and Lantolf (1994) that investigated the performance of students on several grammatical judgement tasks carried out in pairs and individually. They found that dyads performed better in some grammatical

features such as referential pronouns but not in all the features.

Similarly, this study shows that self-transcribing resulted in improvement of the accuracy rate of some linguistic features (verb form and error-free clauses) in participants' oral production. However, contrary to this result, which accentuates the effectiveness of self-transcribing, studies by Skeates and Murphy (2015) and Valdebenito (2015) found the opposite. In Skeates and Murphy's (2015) study, mixed views (both positive and negative) regarding the effect of self-transcription were revealed. However, Valdebenito (2015) reported on the low rate of self-correction through self-transcribing, which might have been due to the lack of pair work during the correction phase. Since this limitation is addressed in the present study, in which the students worked in pairs during the editing session and concluded with the effectiveness of self-transcription, the current findings seem to be accurate.

Another pedagogical implication of the findings is that self-transcribing and editing activities are found to generate natural language-related episodes where learners discuss the accuracy of their output. Therefore, the task of recording and transcribing their voice can be carried out by the learners themselves in order to have a better understanding of their problematic areas.

Nonetheless, the current study has some limitations. Since the study involved three groups of participants who were individually recorded and required to attend several

sessions (training, pre-test, treatments and post-test), a small sample size was found to be more manageable. Further research can be conducted on a larger sample with more treatment sessions in order to generalise the findings to a larger population and obtain more conclusive results. Also, future studies can investigate more linguistic features to have a thorough analysis and results. Researchers can replicate this study investigating the effects of expert scaffolding and self-transcribing on the fluency and complexity of learners' oral production. Finally, continued and expanded research on a longitudinal basis with subsequent recordings and transcriptions will provide more in-depth information on whether all these weaknesses in oral production are remedied or not.

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