

The Effects of Scaffolding Techniques on IELTS Candidates' Horizontal Grammatical Variability: A Mixed-Method Study

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Abstract

Grammatical accuracy has always been a concern for most Iranian EFL learners. This is mainly because the methods used for teaching grammar in Iran are mostly outdated. Grammatical variability is more visible in the writing performance of Iranian IELTS candidates. In the present study, the impacts of various scaffolding techniques (distributed, peer and reciprocal scaffolding) on IELTS learners' horizontal grammatical variability before and after the course were investigated. To do so, an explanatory mixed design was employed to first statistically measure the differences among scaffolding types, and second, to develop a better understanding of teachers' and the learners' perceptions toward them. To this end, 120 IELTS candidates were randomly selected from a pool of 367 candidates, and they were put in three experimental groups and a control group. Each scaffolding type was used in one of the experimental groups as the treatment. Five different essay topics were given to each student before the course and after the course. Two official IELTS mock examiners rated the writing performances according to the details of IELTS criteria about grammar accuracy and variability. ANCOVA results showed that in distributed and reciprocal scaffolding classes, the differences were significant. The qualitative findings showed that although there was a discrepancy between the teachers' and the learners' attitudes toward the possible success of the treatments, in the end, both parties confirmed that they can be beneficial. Due to the fact that 'time' has always been a precious parameter in IELTS preparatory classes, these findings can be of help to IELTS teachers and candidates.

Keywords: IELTS, horizontal grammatical variability, scaffolding, teachers' perception

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INTRODUCTION

IELTS, as a reputable international test of the English language, has become a preliminary requirement for the immigration process. In IELTS, the candidates' scores may be between 1 and 9, depending on their English knowledge in different skills and sub-skills. The competition to obtain higher scores is tense, since higher scores in IELTS have abundant benefits for immigrants' future. This pressure has passed on to IELTS teachers and language institutes as well. Hence, discovering novel ideas to accelerate the process of preparation for this popular exam can be crucial.

The scoring system in IELTS is based on the four language skills. Research has shown that the writing skill is probably the most challenging one for Iranian candidates, and grammar is possibly the most problematic part of their writing skill (Afzali & Izadpanah, 2021; Meshkat & Hassani, 2012; Pirasteh, 2014; Zohrabi et al., 2012). This weakness in grammar is visible in all of the four skills; however, it can definitely be more obvious in productive skills (writing and speaking). One of the ways of recognizing the deficiency in grammar is through analyzing the learner's essay writing performance and checking the grammar variability that they have in the same inter-language stage, which is called 'horizontal grammatical variability'. Lack of consistency in the use of grammatical structures in writing has always been a sign of shortcomings in the learner's grammar knowledge (Long et al., 2020; Tagarelli et al., 2016; Valian, 2020). Thus, generally, for EFL learners and specifically for IELTS candidates, eliminating this variability means improvement in grammar.

Scaffolding techniques have proven to be effective in learning language skills (Ahangari et al., 2014; Ahmadi Safa & Rozati, 2021; Gonulal & Loewen, 2018; Hammond, 2001; Hammond & Gibbons, 2005; LaBranche, 2006; Van de Pol & Elbers, 2013; Walqui, 2006). There is little doubt that students need help and support in their learning process. In fact, different scaffolding techniques and activities in English learning environments can create a more dynamic and interactive atmosphere in which learning can be

more successful. However, it is not yet clear which type of scaffolding can better facilitate grammar learning and lower the grammatical variability among language learners. The purpose of this study was to compare the relative effectiveness of three types of scaffolding (distributed scaffolding, peer scaffolding and reciprocal scaffolding) on the horizontal grammatical variability of Iranian IELTS candidates. The findings of this study can help both teachers and learners of English to make more informed decisions about the choice of scaffolding techniques in grammar teaching and learning.

LITERATURE REVIEW

Horizontal Grammatical Variability

Variation is a phenomenon that can be recognized in language learners' performance regardless of the stage of their inter-language development. By variability, it is meant that the learner is sometimes successful in using the target structure and sometimes fails to do so (Valian, 2020). This variation can be noticed and studies in different parts of the learner's inter-language. Various researchers have focused their studies on the effects of variability on language development. Hoff (2006), for example, studied the effects of social contexts and different environmental factors on children's variability in the language learning process. She suggests that all communicative environments in which children have more opportunities to interact can facilitate learning and reduce the unwanted language variability. She also mentions that individual differences have a major role in this regard as well. Szagun and Schramm (2016) investigated the variability and its sources in the language development process with children at different age levels. They found that parental scaffolding and teacher scaffolding are the most significant parameters for controlling language variability. Chang and Zhang (2021) conducted a longitudinal study within the Dynamic System Theory (DST) to investigate the patterns and the extent of language variability for three English learners. The study focused on the variability in the learners' listening performances. The results showed that, depending on the individual, complex

patterns were traceable for each of the participants. In addition, unexpected changes in the patterns should be expected.

Variation in language learning has been classified based on its nature by different figures. Ellis (2008) proposed a typology for formal variation in which he differentiated between two different types of variation, namely 'horizontal' and 'vertical' variation. The concept of variability can be attended to from different aspects. Chomsky's proponents (such as Tarone, 1983; White, 1989) suggest that variations can be seen as a sign of performance, and not competence. From this point of view, variability in EFL learners' production is not necessarily a defect. Labovian figures (such as Bardovi-Harlig, (1998), who employ a more socio-linguistic view and emphasize the significance of social factors in learning, on the other hand, see variation as a sign of deficiency in the learner's knowledge, and hence, believe that it should be controlled and eliminated. Finally, the proponents of the psycho-linguistic view of language learning believe that although variability is in fact a sign of language deficiency, any variability in the learner's performance merely comes from the learner's individual characteristics and mental processes (Tagarelli et al., 2016). In the present study, the Labovian paradigm was mainly used as the theoretical framework.

Ellis (2008) defines vertical variability as the variation that is shown in the learner's inter-language over time. In contrary, according to him, horizontal variability refers to the learner's language variation at a specific time during his/her language learning process. In this study, horizontal variability was the variation in the IELTS candidates' grammatical accuracy in their writing performance before and after the treatment. Various studies have been conducted on language variability (Ebrahimi & Imandar, 2021; Verspoor et al., 2008) suggesting different approaches for controlling these types of inter-language variability. In this study, horizontal grammatical variability was measured by two official IELTS Mock examiners on two different occasions; in the first session and after the course. In each session, five randomly-selected IELTS essay question topics were given to all the

students to write. This way, each learner's horizontal grammatical variability could be checked and compared.

Scaffolding Techniques

One of the central terms in Vygotsky's socio-cultural theory (SCT) is 'scaffolding', which basically means the facilitative support given by a more-knowledgeable source (Mohammed Qadir & Yousofi, 2021). This 'more-knowledgeable source' can be the teacher, a peer, or even a book. All the techniques based on the involvement of these elements could be named 'scaffolding techniques' (Vygotsky, 1978).

Ever since the introduction of the SCT and the concept of 'scaffolding', different classifications have been proposed for scaffolding techniques. Jackson et al. (1998) presented three scaffold designs that serve different purposes in software systems: supportive, reflective, and intrinsic. Hannafin et al. (1999) identified four kinds of scaffolding, namely conceptual, meta-cognitive, procedural, and strategic, which can be used to foster student learning in open-ended learning environments. Ge and Land (2004) identified three kinds of question prompts, namely procedural, elaborative, and reflective, that can be used as scaffolds to support the solving of ill-structured problems.

Various researchers have attempted to employ these techniques in class environments to improve language skills. Van de Pol et al. (2015) conducted a research on the effects of teacher scaffolding in EFL classes. According to him, teacher scaffolding, if done properly, should be considered an inherent part of language classrooms. Zarei and Alipour (2020) also carried out a study on the impacts of various scaffolding activities on the reading skill. In Gholami Pasand and Tahriri's (2017) research, the effects of peer-scaffolding and teacher-scaffolding techniques on EFL learners' writing ability were studied. Beck et al. (2020) also worked on the effects of scaffolding on the writing skill. Veerappan et al. (2011) used scaffolding techniques as treatments to study their effects on L2 learners' journal writing ability. Yildiz

and Celik (2020) studied the impacts of scaffolding techniques as an instructional tool on the learners' competency and task accomplishment. In all of the mentioned studies, scaffolding techniques such as peer evaluation and feedback, teacher scaffolding, and distributed scaffolding (using multimedia and realia) have been shown to facilitate learning language skills.

Computer-assisted scaffolding techniques have recently received much attention. Hsieh (2017) studied the effects of online resources for scaffolding in ESL classrooms. The findings of this case study showed that using online peer-, individual, and multi-directional scaffolding leads to learner autonomy and knowledge construction. In another study, Li (2010) studied the vocabulary learning and retention in English texts using computer-based scaffolding. The results showed a correlation between the learners' L1 vocabulary knowledge and the type of CALL environment.

As for the impacts of various scaffolding techniques on learners' grammar knowledge, a number of studies have been conducted as well. Pohner (2018) studied the effects of scaffolding on L2 grammar. He proposed a theoretical framework in which corrective feedback is divided into two groups, namely implicit and explicit. He further recommended that peer-to-peer scaffolding along with dynamic assessment be used. Other researchers have also conducted experimental studies on the relationship between scaffolding and grammar. Faraj (2015) employed scaffolding techniques such as pre-revision activities, corrective feedback, and editing comments, to observe the learners' progress in their writing performance. The variability in sentence formation was also under investigation. Izanlu and Feily (2016) conducted a research to analyze the possible improvements in university learners' grammar acquisition. They employed asymmetrical and symmetrical scaffolding techniques to do this. Abune (2019) carried out a study on the effects of peer scaffolding on EFL learners' grammar proficiency. In all the mentioned studies, scaffolding techniques were shown to have positive effects on second language learning.

PURPOSE OF THE STUDY

Although some of the scaffolding techniques have been used in previous studies, the effects of these techniques on IELTS learners' grammar variability, to the knowledge of the present researchers, have not been investigated. To fill this gap, and in an attempt to develop a clear understanding of this issue, the present study is designed in two phases; first a quantitative phase, and then, after the treatment, a qualitative phase. Therefore, two research questions are proposed as follows:

1. Are there any significant differences among the effects of distributed scaffolding, peer scaffolding, reciprocal scaffolding, and the control condition on IELTS learners' horizontal grammatical variability in writing?
2. To what extent do the IELTS teachers and learners' perceptions about the scaffolding techniques confirm the results of the quantitative phase?

METHOD

Research Design

An explanatory sequential design was employed for the present study. According to Creswell et al. (2003), the purpose in such a design is to conduct an experimental quantitative research using quantitative instruments, and then, to conduct a qualitative phase to reject or confirm the quantitative results. This way, more light is expected to be shed upon the quantitative results and hopefully give a better picture of the whole issue.

Participants

In the present study, 120 male and female (47 males and 73 females) IELTS candidates were selected out of a pool of 367 applicants who had the IELTS Mock exams in an official IELTS center. For the selection process, after the initial Mock IELTS, all the candidates whose overall scores fell between 3.5 and 4.5, with writing scores of 3.5 to 4, were selected. Official Mock IELTS

exams held at official IELTS centers are reliable due to the fact that they are totally similar to the real IELTS exam. Hence, they were used as an instrument to check the learners' English proficiency level. The participants were randomly placed in four different groups, a control and three experimental groups. They were between 16 to 42 years old; more than 80 per cent of them aged between 20 and 34. At the time of the study, all of the participants were living in Iran.

The teachers were two Ph.D. candidates who had six and nine years of experience in teaching IELTS. The reason for choosing these two teachers was first, being academically familiar with the theoretical concept of scaffolding and its different types, and second, having the practical experience in using these techniques in their previous EFL classes. Needless to say, for employing the treatment in different classrooms, these criteria are necessary.

Instruments

IELTS Essay Topics

At the beginning of the course, all the IELTS students' were given five different randomly-selected essay topics. The same thing happened at the end of the course. The essay topics were chosen from the previous IELTS exams. Two expert IELTS mock examiners with at least two years of experience gave scores to the learners' grammatical accuracy and variability (according to official IELTS criteria) from 1 to 9. Using SPSS, the horizontal grammatical variability on two occasions (before the course and after the course) was measured and compared.

Teachers' Diaries

The present researchers asked both teachers to keep a diary and note everything that happened in each session. Moreover, they were allowed to project their perceptions and speculations about the learners' possible progress or regression and the reasons. The diaries are invaluable sources for

a qualitative analysis of what is going on in the teachers' minds. The contents of these diaries were analyzed and then compared with the contents of the teachers' answers to the interview. This was to find any concrete themes for qualitative analysis which can shed light on the teachers' perceptions.

Interview with IELTS Teachers

Thirteen experienced IELTS teachers from different cities in Iran, as well as the two teachers involved in the study, were interviewed before and after the course. The questions were about the teachers' perceptions of scaffolding techniques and grammatical variability.

Interview with the Participants

An online interview with 30 IELTS candidates who were selected randomly from among the participants was conducted after the course. They were asked about what they thought about their grammar knowledge before the course and what they expected to happen in regard to their progress during the course. In addition, they were asked about the effectiveness of the treatment that was used in their course. The aim was to analyze the learners' perception of the scaffolding techniques and their impacts on grammar.

The Textbooks

The course book *Complete IELTS (Band score 4 to 5)* was the main book for IELTS. In addition, the book *Grammar in Use (Intermediate)* was also used and practiced every session, and some parts of it were assigned to the students as homework. The necessary grammar for the students was taught from this book in each session according to the treatment type for each group. The grammar materials covered in this book included all the verb tenses and their passive forms, different types of conditional sentences, adjective and adverbial sentences, relative clauses, modals and prepositional phrases, different techniques for paraphrasing, comparative adjectives and

superlatives, word families and parts of speech, and the proper use of cohesive devices.

Data Collection Procedure

Before the course started, all the participants had an official IELTS mock exam, and their overall band score was between 3.5 and 4.5, with writing band scores of 3.5 to 4. At the beginning of the course, they were again tested for their writing skill, only this time they were merely analyzed based on their grammatical accuracy and variability (which is a formal criterion for giving scores in IELTS). Three days before the course, and on the first session of the course, they were given five different essay writing topics, and they were asked to write essays for each one of them in standard IELTS time (40 minutes). For each student, all of these five essays were analyzed and rated (from 1 to 9, exactly based on the IELTS scoring system), by two official mock examiners of IELTS, just for their grammatical accuracy, variability, and the number of mistakes. The same process was exactly repeated at the end of the course, and all the students' essays were once more analyzed and rated, and given a score from 1 to 9. This way, the researchers hoped to be able to measure the changes in the students' grammatical horizontal variability.

In all the groups, the techniques for all the four skills and the strategies for dealing with questions were taught in an identical way using the main course book. However, for teaching grammatical points, lessons, and exercises, each group received a different type of treatment. In the control group, the traditional method of teaching was used. The grammar structures were written on the whiteboard and taught directly to the students. Then, some relevant exercises and drills were practiced. Finally, some of the exercises in the book and some other sources were given to them as homework assignments. At the beginning of the next session, the homework was checked and mistakes were corrected. The same procedure happened every session throughout the course.

In the experimental group 1 (EG1), peer scaffolding techniques were practiced. In this class, grammar was mainly taught based on pair work. Each pair included a more knowledgeable student. In each session, the teacher gave the target grammatical lesson to the pairs and asked them to reflect on it and write some similar samples. Then, he taught the grammar lesson and asked the pairs to help each other and do the exercises. As for the homework, the pairs were allowed to do it together and check the answers. In fact, they were both responsible for possible mistakes.

In the experimental group 2 (EG2), distributed scaffolding techniques were practiced. In this class, the teacher used various multimedia devices for teaching grammar lessons. All the exercises were given to the students in a video clip or an audio file via their tablets or smartphones. As for their homework, they were asked to record a video or a voice, or prepare a PowerPoint file.

In the experimental group 3 (EG3), reciprocal scaffolding techniques were used. In this class, the teacher taught grammar lessons in a discussion-based environment. In each session, first, he started a discussion in which the target grammatical structure was used. The reason was for the students to see and understand the function of that structure in practice. Then, the teacher explicitly taught the lesson, and at the same time, the students were allowed to talk and ask questions about it. Afterwards, all the students were encouraged to discuss how and when to use the structure, and shared their own experiences about that structure. They were also encouraged to do the homework as teams.

After the course, the second phase of the study started, in which the teachers' diaries, plus the content of the interview with teachers and students, were coded and analyzed.

Data Analysis

To answer the first research question, using the scores of grammar given by mock examiners to the IELTS candidates' essays, their horizontal

grammatical variability was measured and checked both before and after the course. Next, for each of the groups, the statistical significance of their improvement in variability was checked. This process involved a one-way ANCOVA.

To answer the second research question, first, the contents of both teachers' diaries were analyzed. They were encouraged to note everything that happened in each session and every thought they had about the students and their learning process. Additionally, both teachers, and 30 randomly-picked students answered some questions in an interview about the treatment and their perception of their progress. Moreover, 13 IELTS teachers from different cities in Iran were asked the same questions without knowing the results of the study. These data were also coded and analyzed to trace any common theme which could reject or confirm the quantitative results of the present study.

RESULTS

The First Research Question

The first research question aimed to study the effects of peer scaffolding, distributed scaffolding, and reciprocal scaffolding on Iranian IELTS candidates' horizontal grammatical variability. The learners' writing performance in all four groups was checked, and their horizontal grammatical variability was measured based on the standard IELTS criteria by two official examiners at the beginning and at the end of the course. Before the course started, five different randomly-chosen essay topics were given to the learners, and they were asked to write their essays in the standard IELTS time (40 minutes), and then, based on IELTS criteria, each student's grammatical mistakes and score for grammar was checked to analyze their horizontal grammatical variability. The same procedure was gone through after the course as well.

Since there was one categorical independent variable (groups with four levels) and one continuous dependent variable (learners' grammar score in the

essay writing), and the continuous covariate was the learners' score on the first session (the pretest), a one-way ANCOVA procedure was employed to examine the significance of the learners' possible progress in writing grammatical variability. All the assumptions underlying the ANCOVA procedure were first checked.

The normality and linearity of the data were checked. The results of Kolmogorov-Smirnov test showed that the data is normal ($KS_{120} = .09$, $p > .05$). The assumption of sphericity was also met. Additionally, the results for the assumption of homogeneity of regression slopes are shown in Table 1.

Table 1: Test of Homogeneity of Regression Slopes

Source	SS	Df	MS	F	P
Corrected Model	12.992 ^a	7	1.856	20.582	.000
Intercept	14.653	1	14.653	162.491	.000
Groups	.659	3	.220	2.438	.068
GRAMMARsession1	4.713	1	4.713	52.270	.000
Groups * GRAMMARsession1	.359	3	.120	1.328	.269
Error	10.100	112	.090		
Total	2797.500	120			
Corrected Total	23.092	119			

According to Table 1, the significance level of the interaction (GRAMMARsession1*Groups) is more than .05 (.26), which indicates that the assumption of homogeneity of regression slopes is not violated. Once the assumption checks were done, a one-way ANCOVA procedure was used by the researchers and the results are shown in Table 2.

Table 2: Tests of Between-Subject Effects for Horizontal Grammatical Variability

Source	SS	df	MS	F	p	η^2
Corrected Model	14.211 ^a	4	3.553	27.023	.000	.485
Intercept	7.401	1	7.401	56.292	.000	.329
GRAMMARsession1	9.239	1	9.239	70.267	.000	.379
Groups	2.803	3	.934	7.107	.000	.156
Error	15.120	115	.131			
Total	2235.250	120				
Corrected Total	29.331	119				

The ANCOVA results showed that there are significant differences among the four groups ($F_{(3,115)} = 7.107$, $P < .005$, $p\eta^2 = .156$). This means that the scaffolding techniques used in the experimental groups had positive effects on the learners' writing horizontal grammatical variability. Furthermore, according to the table, the covariate is also statistically significant ($F_{(3,115)} = 70.267$, $P < .005$, $p\eta^2 = .379$).

In the next stage, post-hoc comparisons had to be made in order to locate the place of the significant difference(s). The results of post-hoc comparisons are shown in Table 3.

Table 3: Post-hoc Comparisons for Horizontal Grammatical Variability

(I) Groups	(J) Groups	Mean Difference (I-J)	Sig. ^a
control	EG1	-.218*	.062
	EG2	-.435*	.000
	EG3	-.263*	.006
EG1		*	
	EG2	-.218*	.062
	EG3	-.046	.626
EG2		*	
	EG3	.172	.069

As the results show, distributed and reciprocal groups showed statistically significant differences from the control group (Sig. < .05), however, the peer scaffolding group did not. Additionally, a significant difference is seen between the EG1 (peer scaffolding) and the EG2 (distributed scaffolding). However, no significant differences were observed between EG1 and EG3, and EG2 and EG3 groups.

The Second Research Question

In the second phase of this mixed-method study, qualitative instruments were employed to develop a better understanding of the possible gap between the

teachers' and learners' perceptions about the effectiveness of scaffolding techniques on the participants' grammatical variability.

The Content Analysis of the Teachers' Diaries

Before the start of the course, both teachers were asked to keep a diary and note down everything that happened in each session. More importantly, they were encouraged to project their ideas about the reasons for any change in the learners' grammatical variability. After the course, both diaries were collected, coded, and analyzed to find any common theme. The results showed that although both teachers were generally in favor of using scaffolding techniques in English learning environments, they were not originally convinced that these techniques would actually work on grammar in 30 sessions. The signs of improvement were first reported in one of the diaries on the 14th session for distributed scaffolding group. The teacher clearly expressed that the students seem to be more enthusiastic than in other classes, and as a result, they were more willing to participate in the class and do their homework. The other teacher, similarly, on the 18th session reported that both distributed and reciprocal groups showed improvement in their grammar and that they had relatively fewer grammatical mistakes. At the end of the course, the contents of the diary showed that both teachers had a positive attitude toward reciprocal and distributed scaffolding groups; however, one of them believed that distributed scaffolding was more effective. At the same time, both teachers seemed to agree that peer-scaffolding techniques will be unlikely to yield desirable results if they are not used in combination with other techniques.

The Content Analysis of the Interview with IELTS Teachers

Fifteen experienced IELTS teachers, including two teachers in the present study, were interviewed before and after the course. The questions had to do with 'the reasons why Iranian IELTS candidates show a high range of grammatical variability at a single time', 'the effectiveness of scaffolding

techniques on grammar and its reasons', and 'what they thought about using peer, distributed, and reciprocal scaffolding techniques in IELTS preparatory classes'. The answers of the two teachers involved in the present study were mainly in accordance with the contents of their diaries. Before the course, they both believed that scaffolding techniques can be facilitative. However, they were not sure about their quick impact on grammar variability. Most of the other 13 IELTS teachers (9 out of 13) believed that scaffolding techniques can have positive effects on learning grammar. Among the different scaffolding types, reciprocal scaffolding appeared to be the most popular one (7 out of 15). Distributed scaffolding (5 out of 15) and peer scaffolding (3 out of 15) were in the second and third ranks, respectively. When they were asked about the reason, they mainly focused on the role of negotiation in the classroom. They believed that the reciprocal scaffolding class can have the most interactive atmosphere and hence, it can be most beneficial for learning a language.

When the teachers were told about the results of the quantitative phase, they were surprised to learn that the distributed scaffolding techniques turned out to be the most effective scaffolding type.

The Content Analysis of the Interview with the Students

Thirty students, from among all the participants in the present study, were randomly selected to be interviewed before and after the treatments. Before the course, the general view toward the effectiveness of scaffolding techniques for grammar was shockingly negative. Most of the interviewees believed that scaffolding techniques cannot significantly reduce their grammatical mistakes in a 30-session course. When they were asked why, various reasons were presented. It seemed that most of the participants had bad experiences with learning grammar. This became clear to the present researchers and was even anticipated before the start of the study. Moreover, according to the content analysis of the students' answers to the interview questions, some kind of distrust was sensed toward the teaching methods when it came to English grammar, which was rather interesting.

Of the three scaffolding types, most of the interviewees completely rejected the peer scaffolding due to the simple fact that the peers are presumably not better than themselves, and hence, cannot help them. They were also not particularly keen on the reciprocal scaffolding techniques and believed that grammar can hardly be improved merely by discussion and conversational activities. However, most of them (17 out of 30) had a positive attitude toward distributed scaffolding. This was surprising because unlike teachers, who were generally in favor of reciprocal scaffolding, the students realized that distributed scaffolding may be more effective in teaching grammar.

DISCUSSION

The quantitative results in the first phase suggested that distributed and reciprocal scaffolding techniques are probably more effective for teaching grammar. As for the peer scaffolding techniques, the results suggested that they were less effective than the other types of scaffolding. This, to a high extent, is in contrast with various studies. In fact, a large amount of research done in this field has shown that peer scaffolding techniques and the use of pair-work activities in language learning classrooms can be facilitative (e.g., Gholami Pasand & Tahriri, 2017; Hanjani, 2019; Kaivanpanah et al., 2015; Zarei & Alipour, 2020). Since the effects of scaffolding techniques on grammar variability for IELTS level English learners, to the best knowledge of the present researchers, have never been studied, perhaps the high proficiency level of the students is an interfering factor. To elaborate, it seems that IELTS candidates' grammatical improvement is more visible in the language environment with the maximum amount of contact with the teacher rather than peers. In other words, given the relatively high level of proficiency of the participants, their problems with English grammar may probably have been of a type requiring the expert opinion of the teacher rather than feedback from peers. Along the same line, IELTS candidates seem to be keen on discussing their mistakes and are not generally interested in being simply told

what to do. This was a clear theme extracted from the contents of the interview with most of them.

According to the results, as was mentioned previously, interactive learning environments seem to be facilitative. One explanation for this could be related to the fact that learners are allowed to share their weak spots with others and talk about their fears and concerns. This can provide an atmosphere in which learners, step by step, feel less stressed about their mistakes, and as a result, they can learn better. Controlling the detrimental effects of language learning anxiety has been shown to be positively effective in learning different parts of a language (Cheng, 2002; Gregersen & Horwitz, 2002). Besides, when the learner understands that he/she is not alone in their weaknesses and that other peers have the same deficiencies as well, their self-confidence will most likely increase. Previous research shows that learner-centered constructivist-based classrooms in which the chances of interaction between learners and teachers are higher, will help learners to become generally more self-confident and creative (Omar et al., 2020; Ozdemir & Papi, 2021; Ruegg, 2015). This self-confidence will help learners to be more focused and, as a result, the frequency of grammatical mistakes will come down.

Another facilitative factor could probably be the usage of multimedia devices, which has been shown to have positive effects on teaching different language skills and sub-skills (Eitel et al., 2013; Islam, 2020; Li et al., 2019). In the group with distributed scaffolding techniques, the teacher constantly used power point presentations, short educational video clips, podcasts, and audio files. As it was observed by the teachers and confirmed by the students in the classroom, this variety in using multimedia was actually helpful. Furthermore, another recognizable theme in the qualitative results of the study was the element of joy in the experimental classes, especially in the distributed scaffolding class. According to the teachers' diaries and the contents of the students' interviews, it was clear that the environment in this class was more enjoyable for the students. Enjoyment in the language learning process has mostly been disregarded. However, some researchers (e.g.,

Martinez et al., 2011) have investigated this element in various studies and suggested that there is a direct relationship between learners' enjoyment and ease of mind and their subsequent success.

The content analysis of the qualitative data showed that, first of all, there were discrepancies between the teachers' and IELTS candidates' perceptions of the effectiveness of scaffolding techniques. That is, the teachers mainly believed that these techniques can actually be beneficial, albeit, to different extents. Most of the teachers were in favor of reciprocal scaffolding, and distributed scaffolding was the second most popular type. On the other hand, students were mostly pessimistic about the effectiveness of these techniques for their grammar, which is in line with the findings of Rasti (2009). It seems that the majority of the learners had negative previous experiences with English grammar learning. Due to the use of traditional strict drill-based techniques in the governmental educational program and some private language institutes, most English learners have not learned grammar in a proper way (Afzali & Izadpanah, 2021). They show fossilized errors in their grammar and, as a result, a large amount of grammatical variability is seen in their performance. The reason why IELTS teachers approve of scaffolding techniques may be the fact that they are familiar with them. Some of the teachers said, in the interview, that they had had experience in using scaffolding techniques in their previous classes and that the results were satisfying.

In the interview after the course, before the announcement of the quantitative results, the students in the distributed and reciprocal scaffolding groups mostly changed their original attitude toward the treatments. As for the peer scaffolding group, the students were not notably enthusiastic. This confirmed that the learners can, to a large extent, feel their progress and the effectiveness of the treatments.

CONCLUSION AND IMPLICATIONS

The findings of the present study suggest that, in IELTS preparatory classes, interaction and negotiation between the teacher and the learners can facilitate

learners' grammar learning and lower their grammatical variability, which is a sign of lack of competence. The basic elements of Vygotsky's SCT were also shown to be practically facilitative in such educational environments. Since there are strict rules for immigration and competition is tight, 'time' has always been, and probably will be, a crucial factor for IELTS candidates. According to this study, employing scaffolding techniques in IELTS classes could be a fruitful approach for shortening the IELTS preparation time. Although it is clear that scaffolding techniques may be different in results, they can be used for various purposes based on learners' needs.

These findings can suggest some alternative techniques for IELTS teachers. As it was mentioned above, the methods and techniques used in Iranian English learning classes are rather outdated. In simple terms, these classes are mostly teacher-centered and full of drill-based activities. Even though the use of multimedia in EFL classes has recently become popular in Iran, the teachers' ability and expertise in the creative employment of such instruments seem to be limited. It can be suggested that for teaching grammar lessons in IELTS classes, teachers should employ a range of relevant multimedia-based materials, especially power point presentations and short video clips, for both class activities and homework assignments. Moreover, they should prepare a stress-free environment in which discussion is encouraged.

The results of the present study can also guide material developers, language learning institutes, syllabus and curriculum designers, and official authorities who are decision makers in education. Material developers are suggested to design the materials in a way that could be practiced in an interactive way. Moreover, instead of just written materials, they should employ different applications, videos, games, and PowerPoint presentations. Curriculum and syllabus designers in public and private educational centers are advised to take an interactive approach in which teachers are allowed to be more creative and are encouraged to use multimedia. Group work and pair work activities, if combined with multimedia, can be facilitative as well.

Most importantly, the findings of this study could be beneficial for IELTS learners since the 'time' factor is often critical for them. These learners are advised to find IELTS preparatory classes in which distributed and reciprocal scaffolding techniques are practiced. For IELTS candidates who want to self-study, the results of the present study suggest that learning grammar in an isolated environment by reading grammar books is probably not so much effective. Instead, they should learn grammatical structures using various video clips, PowerPoint presentations, and podcasts, preferably, in interactive discussion-based groups with some of their peers.

Nevertheless, it should be acknowledged that, for manageability reasons, this study focused only on horizontal grammatical variability among only IELTS candidates. Other studies on vertical variability in areas other than grammar with other groups of learners can clearly broaden our understanding of how scaffolding techniques can affect variability among EFL learners.

Disclosure statement

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