Gender, Scaffolding Mechanism and Output Complexity in Task-based Language Learning

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Abstract

The purpose of this study was to investigate the role of gender in Iranian EFL learners' output complexity and scaffolding mechanism as they were performing the tasks. The participants were 18 intermediate learners from both genders who were selected based on a proficiency test and an interview. They were placed into three groups based on their gender. They were also assigned into nine different collaborative pairs and were required to perform four tasks while being tape-recorded for 36 sessions. The audio-recorded dialogues were then transcribed and divided into AS-units. Ohta's (2001) seven types of scaffolding methods were used as a framework to analyze the data. The findings indicated that the interlocutors in female-female pairs scaffolded their struggling partners more than the other pairs and produced a more complex output; however, the interlocutors in male-male pairs underperformed the other groups. It can be concluded that gender plays an important role in EFL learners' output complexity and scaffolding mechanisms they employ.

Keywords: AS-units, gender, scaffolding mechanism, sociocultural approach, task-based language learning

1. Introduction

Language learners vary extremely in their language learning and performance. It is now proved that a number of individual characteristics play crucial roles in the way learners learn and perform a second/foreign language (Gardner & MacIntyre, 1992; Grandman & Hanania, 1991; O'Malley & Chamot, 1990; Oxford & Ehrman, 1993; Skehan, 1986). The study of individual differences (IDs) in second language acquisition (SLA) has received considerable attention over the last decades (Ellis, 1994; Oxford 1992; Skehan, 1989, 1991). As Gardner and MacIntyre (1992) mention, "there are probably as many factors that might account for individual differences in achievement in a second language as there are individuals" (p. 212).

As far as IDs are concerned, SLA research has shown that age, gender, aptitude, motivation, attitude, intelligence, etc. are among the determinant factors which may lead to the success or lack of success in language learning. As Brantmeier, Schueller, Wilde and Kinginger (2007) believe, gender is one of the significant individual and social variables and the most eminent IDs. Since the mid-1990s, the effect of gender on language learning and dynamics of the classroom has been investigated in SLA (Ehrlich, 1997; Norton, 2000; Pavlenko, Blackledge, Piller & Teutsch-Dwyer, 2001; Sunderland, 2000a, 2000b). However, research findings are not still convincing regarding male/female advantages, and more research is needed concerning gender and language learning (Brantmeier, et al. 2007).

As far as the socio-cultural view of language learning is concerned, the concept of scaffolding has become prevalent since the mid-1970s. It goes back to the work of Vygotsky (1978), who stated that with an adult or a more capable peer's support, children could carry out tasks that they generally could not perform alone (Bruner, 1975; Wood, Bruner, & Ross, 1976). In the context of education, an adult can be a teacher or an expert and a more capable peer can be a student in the same class or at a higher level. The adult controls those elements of the task that are necessarily beyond the learner's capacity to let him/her concentrate upon and carry out only those elements that are within his competence (Wood et al., 1976). As Vygotsky (1978, p. 86) argues,

through collaborative interaction with peers, learners apply the tools at hand to solve linguistic and interactive problems as they work to do the assigned tasks, learning the language as they use it for particular purposes. Language is acquired as learners interact in the zone of proximal development (ZPD).

ZPD lies at the heart of the notion of scaffolding. Vygotsky (1978) defines ZPD as "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem-solving under the guidance or in collaboration with more capable peers" (p. 86). Hence, when the individual learns with an adult or a more capable peer's support, learning occurs within the individual's ZPD. Although Vygotsky never utilizes the concept of scaffolding, he underscores the sociocultural environment in which learning takes place and the social interaction which is the essential part of the cognitive development (Stone, 1998). While most of the studies on scaffolding have concentrated on teacher-student interactions (Davis & Miyake, 2004; Many, Dewberry, Taylor & Coady, 2009), the use of scaffolding is not anymore restricted to the face-to-face interaction between an adult/expert and a child/novice (Nguyen, 2013). Donato (1994) proposed the concept of "mutual scaffolding" to indicate that interaction among peers when performing tasks in small groups or pairs can be as effective as the interaction between the teacher and students (Barnard, 2002; Donato, 1994; Storch, 2002, 2005, 2007; Van Lier, 2004).

However, with the advent of task-based language teaching, scaffolding has become increasingly more prominent. Since then, an increasing number of studies have been conducted to investigate the advantages of using tasks during meaning-oriented collaborative interactions of learners in language classrooms (Bygate, Skehan & Swain, 2001; Crookes & Gass, 1993; Ellis, 2003, 2009; Mehnert, 1998; Samuda & Bygate, 2008; Skehan, 1998; Tavakoli & Foster, 2008). Task-based language research is consistent with the sociocultural approach which claims that learning takes place in a sociocultural environment and learners affect the extent to which they engage in learning (Johnson, 2006; Mitchel & Myles, 2004; Williams & Burden, 1997). It is claimed that tasks provide contexts for the learners to produce output collaboratively and via this collaboration second language (L2) use and acquisition occur concurrently. However, to the researchers' best knowledge, most, if not all, of the previous studies viewed gender and peer-scaffolding as separate mechanisms for efficient learning and, up to the present, no study has ever been conducted regarding the role of gender and peer scaffolding within the framework of task-based language learning. Thus, the present study aimed at investigating the role of gender and scaffolding patterns among peers in task-based language learning. That is, the present study intended to show how social interaction and mutual cooperation between peers with different genders may contribute to the extension of ZPD and the learning process. In addition, this study aimed to examine the appropriate classification of EFL learners in Iran's context to scrutinize whether forming two collaborative partners leads to maximum and effective scaffolding, cognitive growth, and language development. To address these issues, the following research questions were posed:

1. To what extent do the three groups in this study employ scaffolding strategies while completing the tasks?
2. Which type of pair-grouping (Male-Male, Male- Female, Female-Female) leads to more instances of scaffolding?
3. Which type of pair-grouping (Male-Male, Male-Female, Female-Female) leads to the production of more complex output?

2. Literature Review

Sociocultural theory (SCT), as one the theories justifying how language learning takes place, has its origins in the work of the Russian psychologist, Lev Vygotsky, who lived from 1896 to 1934. Based on Vygotsky's (1978) belief, the properties of the mind can be found out by observing mental, physical, and linguistic activities because they are basically connected. The main purpose of SCT is to explain and develop the connection between mental functioning and the cultural, instructional, and historical condition in which mental functioning happens (Van Lier, 2004). Ranter (2002) defines SCT as the field that "studies the content, mode of operation, and interrelationships of psychological phenomena that are socially constructed and shared, and are rooted in other social artifacts" (p. 9).

In a sociocultural view of language learning, learners actively construct their own learning environment (Mitchell & Myles, 1998). In other words, learners are responsible for their own learning environment. According to Vygotsky (1978), learning is socially constructed throughout activity and interaction with others. Form Vygotskian perspective, human cognition and learning are social and cultural rather than individual, and the most fundamental source of human cognition is interaction. The interaction between and among the learners in a group affects the cognitive activity that is taking place, and this cognitive activity influences the learning that occurs (O'Donnell & King, 1999; Webb & Palincsar, 1996).

Vygotsky (1978) also investigates the relationship between thought and language as well as the relationship between human cognition development and the role of mediator. As Vygotsky proposes, human development or consciousness is primarily a mediated mental activity (Lantolf & Appel, 1994), which is the main premise of SCT (Lantolf, 2000). He further states that development arises as the alteration of inborn capacities entangles with socioculturally-constructed mediational means (Ellis & Barkhuizen, 2005). An external operation is internally reformed through this transformation, or internalization (Blanton, Berenson & Norwood, 2001). Walqui (2006) summarizes the main tenets of Vygotsky's learning theory as

> (1) learning precedes development, (2) language is the main vehicle (tool) of thought, (3) mediation is central to learning, (4) social interaction is the basis of learning and development. Learning is a process of apprenticeship

and internalization in which skills and knowledge are transformed from the social into the cognitive plane, and (5) the Zone of Proximal Development (ZPD) is the primary activity space in which learning occurs (p. 160).

The pedagogical concepts of sociocultural theory such as social interaction, ZPD, scaffolding, mediation, etc. have widely influenced second and foreign language acquisition theoretically and practically. To support the concept of ZPD, Vygotsky (1978) employed the metaphor of scaffolding. In fact, ZPD must contain two features to be successful. The first feature is termed "subjectivity". It entails the process of two individuals carrying out a task with different perceptions and arriving at a mutual perception. The second feature is "scaffolding" which indicates a change in the social support in a teaching session. In Vygotskian social interactionist constructivism, learners progress from lower levels to higher levels under the support of or in collaboration with more capable peers. In SCT, this support or collaboration is termed "scaffolding". As Donato (1994) states, this notion stems from cognitive psychology and L1 research. Scaffolding is a dialogic process by which one speaker aids another in doing a function that he or she cannot carry out without help (Ellis, 2003).

The role of the adult or the expert is one of the most crucial aspects of scaffolding. The expert is a facilitator with the skills, strategies, and processes necessary for teaching and erudite about the content of instruction. The expert motivates the learners by means of providing enough support and assists them to achieve the goal. The expert also models the crucial features of the task by providing questions that help the learners to reflect. Then, the expert gradually shifts the responsibility to the learners (Wood et al., 1976). Thus, in this concept, the expert (or adult) has a perceptual, cognitive, and affective role (Stone, 1998). Scaffolding also clarifies the purpose of the task, guides students through its completion, engages students and motivates them to complete the task, provides assessment, etc. (McKenzie, 1999).

Wollman-Bonilla and Werchadlo (1999) employ the concept of "peer-scaffolding" in their study. They underscore that the peer-scaffolding might be as crucial as teacher-scaffolding for learning. Lee and Choi (2006) also emphasize the significance of peer-scaffolding. According to Donato (1994), in an L2 classroom, the presence of a teacher or a more capable peer is not a requisite for learning, and learners can benefit from the same opportunity of scaffolded help in collaborative work as in expert-novice interactions. In both situations, learners are able to shift from interpersonal to intrapersonal that enables them to further carry out the tasks independently.

As far as scaffolding in language learning is concerned, many studies have been conducted thus far. In a study, Villamil and De Guerrero (2000) investigated how learners mutually scaffolded their partners. The participants of the study were two Spanish male college students who had enrolled in an ESL writing course. They were required to perform a revision task in which they revised each other's writing. Then, they commented on different points in Spanish or English while they were tape-recorded. The results revealed that two learners utilized different scaffolding mechanisms to revise the text while the reader played the role of a mediator. Ohta (2001) examined peer-peer interaction in a longitudinal study of seven adult Japanese learners. It was aimed to determine how learning process was affected by social interaction, while learners were engaged in doing interactive language learning tasks. The results showed that the novice learners were able to scaffold their expert partners, and not all the peer interaction was error-free; however, incorporation of incorrect utterances was low. It was concluded that the benefits of peer interaction outperformed its negative effects because peer scaffolding constructed "bridges to proficiency" (p. 123).

Ko, Schallet, and Walters (2003) examined the important role of the teacher in improving the quality of discourse by guiding the discussions to be more productive and constructive. The participants of the study were 21 ESL students who engaged in a storytelling task. They were required to tell a personal narrative twice with a negotiation of meaning (NOM) session in between. The results showed improvements from the first to the second story telling. The researchers stated that the teacher was not the only factor determining the learner's improvement, even though, it was facilitative and conducive. All of the subjects were being exposed to rich sessions of NOM, yet some of them had improved little. The researchers suggested that their lack of success was attributable to other factors such as the story teller's responsiveness to negotiation and his/her willingness to incorporate changes in the second story telling. McDonough (2004) investigated the perceptions of instructors and learners in a Thai EFL classroom about the use of pair and small group activities. It was found out that learners who had more participation during the pair and small group activities showed improvement in the production of the target forms.

In another study, Foster and Ohta (2005) studied the merits and demerits of cognitive and sociocultural approaches to language development. The participants of the study were divided into two groups of Japanese learners who were studying in the third year Japanese course. In one of the groups, all of the participants were native English speakers; however, in the other group, the participants were from different language backgrounds. Both groups were required to perform an information-exchange task in which they interviewed their partners using a prompt question. The researchers audio-recorded, transcribed, and segmented the data into LREs. The researchers reported that the learners integrated the support of their peers into their successive language production and even in the absence of negotiation for meaning; they were able to produce modified input.

Storch (2007) also carried out another study to explain the advantages of pair work in ESL classes. The participants of the study who were studying in four intact ESL classes were required to perform a text editing task. They were asked to change the text in order to improve the accuracy and academic expression of the text. Nineteen ill-formed items were included in the task which were related to the use of articles, verbs, and word forms. While some participants were asked to perform the task in pairs, others were required to do it individually. Their interactions were tape-recorded, transcribed, and analyzed into LREs by the researchers. The results of the study revealed that both groups edited the texts in the same way, and there was not any significant difference in the accuracy of each group.

Watanabe and Swain (2008) conducted a study among pairs of adult ESL learners. They aimed to investigate how learners' different language proficiencies might affect collaboration. The participants of the study were divided into core and non-core groups. Each group was interacting with the participants of lower and higher language proficiencies. The participants were required to perform a written task while interacting with each other. Their interactions were tape-recorded, transcribed, and analyzed into language related episodes (LREs) by the researchers. The results revealed that collaborative pairs (collaborative and expert-novice) produced more LREs than the non-collaborative pairs and concluded that "peers of different proficiency level could benefit from working with one another, which supports the previous peer-peer learning research" (p. 138).

In another study, McCosker and Diezmann (2009) conducted a study on two language teachers' employment of specific scaffolding strategies in their classes. The findings of the study showed that all conversations between the teacher and a student could not be considered as scaffolding. They asserted that scaffolding fluctuated in that it involved the teacher demonstrating "an awareness of and responsiveness to the students' thinking" (p. 33) and encouragement for "creative and divergent thinking" (p. 27). Nguyen (2013) asserts that since the emergence of the concept of scaffolding, it has been elucidated and operationalized in various ways. The focus of scaffolding has shifted from "expert" to "expertise" and it is no longer a question that who provides scaffolding. The use of scaffolding is not restricted to expert-novice interactions any longer. In addition to interactions between a teacher and classroom (e.g. Riazi & Rezaii, 2010), many researchers have considered peer collaboration (e.g. Barnard, 2002; De Guerrero & Villamil, 2000) as scaffolding.

2. Method

2.1 Participants

The participants of the current study were 18 male and female intermediate-level EFL learners, aging between 20 to 30 years old, who enrolled at Jahad University in Isfahan province, Iran. Communicative language teaching (CLT) is the pedagogical approach adopted in this institute. Most of the participants were undergraduate and graduate students. They had been studying "Top Notch English Language Textbook" series for about six terms. These participants were selected based on a language proficiency test and an interview. They were then placed into three groups according to their gender, and pairs were made afterward. In the first group, there were three male-male pairs, in the second group three male-female pairs, and in the last group three female-female pairs.

2.2 Instruments

In this study, a language proficiency test and an interview were used. Four oral tasks were also utilized in this research.

2.2.1 Language Proficiency Test

To shape homogeneous groups and to classify the participants into novice, collaborative, and expert, the Pearson language proficiency test was administered. It generally addresses the four language skills. The test included items testing knowledge of vocabulary, grammar, and social language. In part one, the test takers were required to complete 3 listening tasks, including 10 multiple-choice items of increasing difficulty in 15 minutes. In part II, the test takers were required to complete 2 reading tasks, including 10 multiple-choice items of increasing difficulty in 30 minutes. In part III, the test takers were asked to answer 120 multiple-choice items in 50 minutes. Totally, the test included140 items which were answered in 95 minutes.

2.2.2 Interview

In order to measure the participants' speaking ability, an interview was conducted. The interview topics were mostly related to their general world knowledge, including population explosion, air pollution, traffic, etc. The participants' interviews were scored based on Brown's oral proficiency scoring categories (2001). The mean score of the placement test and interview was considered as every participant's final score. The results were then ranked from the highest to the lowest. The participants who ranked in the middle were chosen as collaborative pairs.

2.2.3 Treatment Tasks

Based on task-based syllabus design, required interaction, scaffolding, and the discourse of interaction, four tasks were designed. The tasks were 1) a picture description task, 2) a problem-solving task, 3) an argumentative task, and 4) a story-telling task. Following Ellis's (2003) model, the four tasks designed for this study were unfocused, output-prompting, and open (Appendix A).

2.3 Procedures

2.31 Data Collection Procedure

The main part of the present research required the participants to carry out the tasks in pairs while being tape-recorded by the researchers with the participants' consent. They performed the given sequences of the tasks in the specified time limit. Every task lasted for about 15 minutes. They shared personal views or experiences and completed the tasks in 36 sessions. At the onset of any session, the participants were given instructions on what they were supposed to do. The researchers monitored the participants while they were completing the tasks. The researchers also took notes of the behavioral and gestural communication between the participants, which was an effective source of information of how they scaffolded their struggling partners.

2.3.2 Data Analysis

The current study employed a qualitative method for data analysis. In order to analyze the data, the performance of the participants, while they were carrying out the tasks, was tape-recorded. Every nine pairs performed four different tasks. There were 36 excerpts to be analyzed. The audio-recorded dialogues of each pair were transcribed based on the transcription conventions developed by Gardner and Wagner (2004). The qualitative data were then coded in order to let some patterns emerge. Next, Ohta's (2001) list of seven types of scaffolding methods was used as a framework to analyze the data (Appendix B). The transcriptions were studied thoroughly several times. The frequency of each method of scaffolding was examined in two different directions: how the use of a specific method of scaffolding altered when the same pair carried out different tasks, and how the use of that specific method of scaffolding altered when different pairs carried out the same task. Meanwhile, in order to measure the language production of the participants, a qualitative method of data analysis was employed. All the narratives produced by the participants were coded by the researchers. The complexity of oral production was measured by calculating the total number of AS-units.

3. **Results**

To address the first research question and to explore the scaffolding methods employed by the three groups while performing tasks 1, 2, 3, and 4, the frequencies of the occurrence of the seven scaffolding methods among all the groups were calculated (Table 1).

Table 1. The percentages of each scaffolding method in three groups

	Waiting	Prompting	Co-construction	Explaining	Initiating repair	Providing repair	Asking the teacher	Total
Group 1	56.55%	11.90%	23.21%	1.19%	1.19%	4.17%	1.79%	100%
Group 2	63.67%	10.20%	16.33%	1.63%	0.41%	5.71%	2.04%	100%
Group 3	43.91%	13.78%	29.17%	1.60%	0.64%	6.09%	4.81%	100%

Note: Group 1: Male-Male; Group 2: Male-Female; Group 3: Female-Female

As Table 1 shows, "waiting" method, with 56.55% instances of occurrence in the male-male pairs, 63.67% in the male-female pairs, and 43.91% in the female-female pairs, was the first method with the highest frequency of occurrence among all groups; however, the "co-construction" method, with 23.21% instances in the male-male pairs, 16.33% in the male-female pairs, and 29.17% in the female-female pairs, and the "prompting" method, with the frequencies of 11.90% in the male-male pairs, 10.20% in the male-female pairs, and 13.78% in the female-female pairs, ranked second and third, respectively. A series of Chi-squares were also run. It was found that female-female pairs significantly differed from the other pairs in terms of the strategies of prompting, co-construction, initiating repair, providing repair, and asking the teacher [p=.03; p=.02; p=.02; p=.04; p=.02]. However, it was the male-female pairs who outperformed the other groups with regard to the use of waiting strategy [p=.00].

The second purpose of the current study was to investigate which type of pair-grouping resulted in the most instances of scaffolding methods. To address this research question, first, the total number of scaffolding methods among the three groups and tasks was computed. As Table 2 reveals, employing the scaffolding strategies was the most frequent in the performance of female-female pairs (Group 3); female-female pairs (Group 3) resorted to 43.03% instances of the scaffolding methods and outperformed the other groups; on the other hand, male-male pairs (Group 1) employed 23.17% instances of the scaffolding methods and underperformed the other groups. Yet, male-female pairs (Group 2) used 33.79% of the scaffolding methods, which was more than male-male pairs (Group 1) and less than female-female pairs (Group 2). Chi-square analysis also showed that there is a significant difference between female-female pairs and the other groups [p=.00]

Table 2. Total number of scaffolding methods in each group

Groups	Group 1	Group 2	Group 3	Total
Scaffolding	23.17%	33.79%	43.03%	100%

Note: Group 1: Male-Male; Group 2: Male-Female; Group 3: Female-Female

To address the third research question, to determine which type of pair-grouping led to the most complex output, and to decide how interactive the participants were, the percentages of AS-units produced by all pairs while doing the four tasks were calculated (Table 3).

Table 3. Total number of AS-units produced by each group

Groups	Group 1	Group 2	Group 3	Total
AS-units	28.26%	32.60%	39.14%	100%

Note: Group 1: Male-Male; Group 2: Male-Female; Group 3: Female-Female

As Table 3 shows, in performing the tasks designed for this study, it was the female-female pairs (Group 3) who produced more AS-units than the other pairs (39.14%). The male-female pairs (Group 2) ranked the second in producing AS-units (32.60%); however, the male-male pairs (Group 1) generated the smallest number of AS-units among the three groups (28.26%). To ensure the difference, Chi-square analysis was used. It was then confirmed that there is a statistically significant difference between female-female pairs and the other groups with regard to the production of AS-units, hence complex output [p=.03].

4. Discussion

Regarding the results of the first research question, it was observed that all pairs resorted to the same scaffolding strategies while performing the four tasks. Following Ohta's (2001) framework, "waiting" was seen to be the first scaffolding method which showed a high frequency of occurrence among all the three groups. "Co-construction" and "prompting" were the second and third methods, respectively, that were employed by all the three groups. Yet, other methods showed very low frequencies of occurrence among all the three groups; however, the female-female pairs (Group 3) resorted to the "waiting" method less than the other groups; on the other hand, "co-construction" and "prompting" methods were used by the female-female pairs (Group 3) more than the other groups. Thus, it can be claimed that gender might affect the way that learners scaffold their struggling partners while carrying out the tasks.

The second major variable in this study was pair-grouping which was based on the participants' gender. To the researchers' best knowledge, no empirical study had been conducted on the relationship between gender and peer-scaffolding following the principles of task-based language teaching and the sociocultural theory of second language learning. The data analyses indicated that in the performance of all tasks, the "female-female" pairs (Group 3) resorted to more scaffolding methods than the other groups. This finding is in contrast with Lee's (1993) finding that males and females, when working collaboratively in different gender composition groups, might employ different scaffolding methods, which may also help them better understand the underlying structure of subject matters and thus improve their performance and achievement. This might be due to the psychological differences between men and women in the way they communicate and try to influence others. Research on gender differences in communication has shown that men and women view the purpose of conversation differently (e.g., Merchant, 2012). Whereas men are task-oriented and concerned with status and independence, they use communication to exert dominance and achieve tangible outcomes, women are responsive, expressive, supportive, and concerned with intimacy and connection; they use language to enhance social connections and create relationships (Aries, 1996; Leaper, 1991; Mason, 1994; Mulac, Bradac, & Gibbons, 2001; Wood, 1996). Men see the purpose of communication to offer solutions to problems so as to prevent further unnecessary discussions of interpersonal problems; on the other hand, women are viewed to create and foster intimacy with the other party by talking about topical problems and issues (Basow & Rubenfeld, 2003; Tannen, 1990). Hence, it can be claimed that the female-female pairs were more supportive during collaborative interactions and this is maybe because of the effects of gender on the peer-scaffolding mechanism.

The third research question dealt with the type of pair-grouping which resulted in the most complex output. The results obtained from the analyses revealed that the female-female pairs (Group 3) produced more AS-units (more complex output) than the other groups and that the male-female pairs (Group 2) generated more AS-units than the male-male pairs (Group 1), which may be due to the effects of gender on the participants' production.

The results of the study highlighted that female learners had a better performance in comparison with males, which was apparent during the study. As evidenced, females who interacted with males or other females performed better than males who interacted with males. In other words, the findings indicate that females resorted to more scaffolding strategies when their interlocutors were struggling. Furthermore, females attempted to produce a more complex output which represents more linguistic elements than males while interacting with each other. This finding is in line with Bassiri's (2012) study claiming that females participate more actively in the interactions than males. Moreover, the findings confirmed the predictions that scaffolding has a positive effect on learners' achievement. These findings are in line with the previous studies (Mehdian, 2009; Pishghadam & Ghadiri, 2011; Walqui, 2006) confirming that scaffolding can lead to the full engagement of the learners.

The other finding of the study is the development observed in collaborative pairs instead of expert-novice pairs, which can be considered as convincing evidence that, as well as of teachers or more capable peers, peers with the same level of proficiency can also play the role of mediators for the learners in achieving higher mental functioning. Thus, it can be concluded that the knowledge or expertise required for scaffolding does not essentially reside within the teachers; instead, it can be constructed by collaborations of peers. The evidence presented here confirms Vygotsky's (1978) prognoses of scaffolding as proposed in some of the previous studies, such as Donato (1994), Khodamoradi, Iravani and Jafarigohar (2013), Ohta (2000), and Swain (2000).

5. Conclusion and Implications

Based on the premises of the sociocultural theory and task-based language teaching, this study intended to investigate the scaffolding patterns and output complexity of peers in terms of gender in the EFL context of Iran. It was hypothesized that gender affects the frequency of using any of the scaffolding methods and the frequency of producing AS-units as measures of output complexity in the performance of the three groups while performing the designed tasks.

One of the main findings of this study was the relationship between gender, as a biological variable, and the way that participants scaffolded their struggling partners. The findings revealed that when females interacted with the other females or males while performing the tasks, they resorted to more scaffolding methods to assist their partners compared with males who interacted with the other males. Besides, compared with males, females employed different scaffolding strategies to help their struggling partners, which confirmed the primary prognosis. Thus, it can be claimed that gender may have a positive effect on learners' interaction and achievement.

The other finding discussed in this study was the relationship between gender and the frequency of producing AS-units as measures of output complexity. The results showed that females produced more complex output than males when interacting with each other in performing the tasks. In this study, the development of a specific linguistic element was not taken into consideration; thus, the scaffolding instances and output complexity can be considered as an indication of the participants' attempts to generate a more complex output which represents more linguistic elements. In other words, it can be concluded that gender may impact the complexity of output in classroom contexts.

A secondary intention of this study was to ascertain whether or not forming collaborative partners, instead of novice-expert partners, had any effect on employing scaffolding methods by the participants and their language development. The present study showed that the knowledge or expertise required for scaffolding does not necessarily reside within the teachers or more capable peers; instead, it can be constructed by collaborations of peers with the same level of proficiency.

To sum up, this study came up with the finding that there was almost congruence between gender, execution of scaffolding methods, and output complexity. In other words, the present study revealed that gender and communicative tasks may affect the amount of peer-scaffolding among EFL learners and further influence the quality of interaction and output which occur in classroom contexts. Consequently, it can be claimed that the findings of this study considerably contribute to the ELT literature by indicating that gender plays a critical role in determining the scaffolding mechanism and the complexity of the output among EFL learners. The findings of this research may also contribute to the classroom-oriented research on scaffolding. Materials developers, learners, and teachers should take scaffolding into consideration. Language policy makers, syllabus designers, and materials developers should utilize a significant amount of pair work in the textbooks. Curricula should be designed in such a way that emphasizes interaction and negotiation of meaning and form between learners and the learning tasks.

In learning a second language, as Aslan (2009) believes, success is based on individual factors (nature) as well as the environment (nurture). Therefore, it is not straightforward to clarify the success of either gender in learning a language because it is much more complex than other areas such as athletics. Furthermore, every culture and every society has its own features that constitute gender. Hence, attributing specific identities to males and females is still a vague area of discussion. Yet, research on gender and other factors related to gender provides the teachers with beneficial information about the learners. The findings of this research suggest that learners with different genders at the same level of proficiency interacted differently according to how pairs were formed during interactions. The main implication of this research is that by being aware of the effects of pair grouping on the occurrence of learning opportunities, language teachers should probe innovative ways to promote learners' involvement and engagement in the classrooms and enhance learners' achievement.

Furthermore, the results obtained from the study highlight the efficacy of the peers' collaboration as a mediating tool for the acquisition of second language and the extension of ZPD. Language teachers can apply for pair work and group work in their classrooms by teaching different scaffolding strategies and providing interactional contexts that invite learners to manage their roles as a facilitator, an encourager, or a director in the pair works through the manipulation of certain scaffolding mechanisms in the communicative activities in classroom settings in ways that extend one another's learning. Consequently, the teacher should give the learners more opportunity to select the partners with whom they are more willing to collaborate. Learner-learner interaction and mediation is closer to what Vygotsky (1978) characterized as "internalization" which means learners' full understanding of the issues. In addition, learner-learner collaboration may reduce anxiety because when students work with each other, they have more time to think, rehearse, and receive feedback from their partners, and they have more opportunities to arrive at the right answer. Furthermore, in contrast to teacher-centered classrooms, when students cooperate with each other in pairs or groups, they modify and adjust the sentences in a way that others would have no difficulty in understanding. Hence, it provides comprehensible input and output and improves learners' motivation, self-esteem, and self-confidence of the learners.

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Appendix A
Task I
The participants were given a depiction of the human body's blood circulation system, showing the routes by which blood circulates from the heart through the body and goes back to the heart. They were asked to describe the process by which blood goes from the heart to head and upper limbs, and to the rest of body, through the arteries, and then how it returns to the heart through the veins.

Task II
The participants were given a letter from a parent to a friend. In this letter, the parents are worried about their daughter because she refuses to do anything they tell her and she is very rude to them. Also, she has become friendly with a girl they don't like. She mentions that they don't trust her anymore because she is always lying to them. The participants were required to discuss their ideas, and then agree on four best pieces of advice to the parents.

Task III
The participants were to imagine that one of them is a judge, and the other a doctor who was supposed to be a murderer. The doctor gave an overdose to an 85-year-old woman because she was dying painfully from cancer. The woman herself had asked for the overdose. The woman's family has accused the doctor of murder. There were four decisions to be made. For each decision, they had to decide for how long to send the accused to prison .The maximum was a real life sentence, the minimum was three months. They could also set her/him free.

Task IV
The participants were asked to create an imaginary story using the following words:
Safety fence, suicide, narrow ledge, New York, top floor, unemployment, Fifth Avenue, Empire State Building, 85th floor, the wind, television station

Appendix B: Methods of assistance occurring during classroom peer interaction (Ohta; 2001)

Types of Scaffolding Methods (when interlocutor is struggling)	
Waiting	One partner gives the other, even when struggling; time to complete an L2 utterance without making any contribution
Prompting	Partner repeats the syllable or word just uttered, helping the interlocutor to continue
Co-construction	Partner contributes an item (syllable, word, phrase, etc.) that works towards completion of the utterance
Explaining	Partner explains in L1
Additional Methods (when interlocutor makes an error)	
Initiating repair	Partner indicates that the preceding utterance is somehow problematic, for example saying "huh?" This provides an opportunity for the interlocutor to consider the utterance and self-correct
Providing repair	Partner initiates and carries out repair
Asking the teacher	Partner notices the interlocutor's error and asks the teacher about it