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The impact of scaffolding and nonscaffolding strategies on the EFL learners’ listening comprehension development

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ABSTRACT
Drawing on sociocultural theory, and a large number of empirical studies conducted on the effectiveness of scaffolding on second or foreign language learning, the authors investigated the application of different forms of scaffolding to improve listening comprehension of the Iranian intermediate English as a foreign language (EFL) learners. To this end, 90 intermediate EFL learners were randomly assigned to 2 experimental groups and a control group. During 15 treatment sessions of listening comprehension instruction, expert peers in the first experimental group assisted their less knowledgeable peers in their listening comprehension tasks. The participants in the second experimental group were asked to assist their coequal peers while doing the listening comprehension tasks, but the participants in group 3 did not interact with each other or even their teacher and no scaffolding scheme was used when they were doing the listening comprehension tasks. One-way analysis of variance and post hoc analyses revealed that the expert peers’ scaffolding was the most effective procedure for the intermediate EFL learners’ listening comprehension development. Furthermore, coequal peers’ scaffolding was proved to be the second effective procedure for the listening comprehension improvement. The findings underscore the relative efficacy of different forms of scaffolding procedure and the superiority of the expert peers’ scaffolding over coequal’s scaffolding. The qualitative analysis of the recorded data indicated that the implicit scaffolding strategies were more frequently used by the expert peers. However, the explicit scaffolding strategies were more frequently used to by the coequals. The findings of the study underscore the positive potentiality of scaffolding in its different forms for the EFL learners’ listening comprehension development.

For years, the importance of listening comprehension in language pedagogy was neglected. Second- and foreign language listening was often left to be developed incidentally through oral language activities and only recently, during the communicative language teaching era, it has gained its rightful place in second or foreign language learning contexts (Vandergrift & Goh, 2009). Celce-Murcia (2001) maintained that until quite recently listening comprehension had been undervalued, but now it is felt to be a prerequisite for oral proficiency as well as a fundamental skill in its own right. The complex nature of the mental processes of listening comprehension might be one of the reasons for the late attention to this skill. Vandergrift (1999) defined listening comprehension as a complicated, active procedure through which the listener needs to distinguish between sounds, comprehend new words, grasp the grammatical structures, infer intonation and stress, keep all the information that is gathered through the stated process, and relate the recognized meaning to the current and the sociocultural context in which the utterance takes place.

This single definition of the skill clearly characterizes it as a truly complicated and active skill in need of systematic planning of the policy makers, material developers and syllabus designers, and English as a foreign language (EFL) teachers and practitioners for its development in EFL contexts. Notwithstanding the necessity, language teaching syllabuses have primarily emphasized written language in the educational systems (Wendy, 2002) of countries such as Iran and the listening skill as a complicated and dynamic skill has still been left in need of attention in the era of communicative instruction through which second-language (L2) learners can receive “graduated,” “contingent,” and “dialogic” assistance (Aljaafreh & Lantolf, 1994, p. 468). The intended assistance, support, or scaffolding is defined in a variety of ways and can be given in different forms. Mercer (1995) for example defined this scaffolding as the assisting interference of an instructor to help a learner unable to overcome the task independently to improve a particular task.

The complicated nature of listening comprehension process as a fundamental language skill, the problems that EFL learners encounter when dealing with oral language, and the prevailing absence of attention to listening skill in instructional materials designed for teaching English in the Iranian foreign language education context compelled the researchers of the present study to explore the efficacy of different forms of scaffolding for the development of the Iranian EFL learners’ listening comprehension skill, a project that, to the best of the researchers’ knowledge, seems to be virgin yet or at most only few studies have embarked on in recent years.
Review of the related literature

As Lantolf and Pavlenko (1995) recount, the aim of sociocultural theory is recognizing the way human beings arrange and employ their minds for performing the act of living. However, the study of people’s mental activities is not adequately achievable through particular tests or through introspective techniques; rather, such mental functions will be thoroughly studied while perceived either during development by the passage of time, or while it is interrupted, such as in pathological conduct (Vygotsky, 1978). In other words human mental activities can be analyzed while interacting with the other people. Sociocultural theorists describe this sort of interaction as the participation metaphor (Lantolf & Appel, 1994).

Vygotsky (1978) built his sociocultural theory on the basis of the key concepts of mediation and the zone of proximal development (ZPD) and defined the ZPD as the distance between a child’s actual developmental level and the level of potential development as could be achieved under guidance or in collaboration with more expert peers. Interaction with other persons on the basis of the ZPD forms an activity frame that relates the individual’s present developmental level to the prospective development that may occur through collaboration with a more competent individual (Lantolf & Thorne, 2006). Vygotsky claimed that any mental activity, such as logical memory, determined attention, idea formation, and voluntary performance, is basically shared between two persons such as a novice and an expert.

Researchers such as Lantolf and Thorne (2006) and De Guerrero and Villamil (2000) mostly considered the concepts of the ZPD, scaffolding, and mediation as part and parcel of each other. It is believed that scaffolding as a notion contains a noticeable ZPD formulation, where supposedly the emphasis is on the learner, while the control resides actually in the expert peer or instructor until the learner gains the capacity of taking the responsibility of the task (Lantolf & Thorne, 2006). De Guerrero and Villamil (2000) defined scaffolding in terms of the ZPD, and believe that it is a notion associated with ZPD which was first used by Vygotsky in reference to how adults introduce children to their culture. This means that scaffolding in the L2 would be made of supportive behaviors employed by the more expert peer in interaction with the L2 learner, which might facilitate the learners’ progress. On the other hand, scholars such as Bruner (1983) stated that scaffolding is a metaphor for a mother’s spoken attempt to maintain conversation with her child, and to improve language acquisition, or, as Wertsch (1979) defined, scaffolding is an interactive interspsychological procedure by which learners acquire knowledge while interacting with expert peers. In the present study we adopted De Guerrero and Villamil’s definition of the concept of scaffolding and applies the term to mean as they meant.

In the context of second or foreign language teaching and learning, the efficacy of scaffolding for the development of skills and language elements is relatively explored for only some of the language skills and components. Nassaji and Swain (2000), as an example, investigated the effectiveness of two kinds of feedback-related help for the grammar learning of two English as a second language (ESL) learners. They systematically compared the efficacy of ZPD and non-ZPD assistance and finally concluded that the learner who received the ZPD based scaffolding outperformed the non-ZPD learner. Unlike Nassaji and Swain’s case study, Garcia and Asencion (2001) studied the effect of scaffolding on the listening comprehension of L2 learners using an experimental research design. The learners of both the experimental and control groups were asked to listen to mini-lectures and take notes. The participants in the experimental group shared their notes in small groups for 5 min, while the students in the control group did not interact with each other after the listening task. Garcia and Asencion found that the students in the experimental group could perform significantly better than their control group counterparts in the listening comprehension posttest. They concluded that scaffolding can develop listening comprehension.

From a rather slightly different perspective, as they did not distinguish between more knowledgeable and less knowledgeable peers, Xu, Gelfer, and Perkins (2005) examined the impact of class wide peer tutoring on second language development and concluded that class wide peer tutoring was beneficial for both English language learners and native English speakers in forming positive social interactions.

Al-Yami (2008) scrutinized the effects of socioculturally oriented mediation and scaffolding from another aspect. He explored the impact of interactive activities on listening comprehension of elementary schoolgirls. During the treatment, the experimental group learners were asked to listen to listening activities while the teacher scaffolded the learners pedagogically, psychologically and cognitively using interactive tasks designed by the researcher. Findings revealed that the scores of the learners in the experimental group were significantly higher than those of their counterparts in the control group.

In a recent project, Nguyen (2013) studied the peer-peer interaction impact and analyzed the ways Vietnamese EFL learners offer peer scaffolding to each other. He found that peer scaffolding and interactive pair work develop learning situations in which peers offer assistance to each other. Nguyen (2013) reported that peer scaffolding was effective for the learners because it assisted them to overcome different difficulties while doing the tasks. He concluded that peer scaffolding led the learners to accomplish tasks better than they could do individually.

Scholars in the field have also explored the evolving quality of the interaction process among learners and their teacher in ESL contexts. Their research findings indicated that students improved from the stage in which they needed their teachers’ assistance (other regulation) to a comparatively self-driven ability level to identify and correct mistakes (self-regulation) and finally to overcome the task of learning autonomously (self-regulation; Adair-Hauck & Donate, 1994; Aljaafreh & Lantolf, 1994; Al-Yami, 2008; Bruch, 2007; Ohta, 2000).

The benefits of interaction among peers at different levels of L2 proficiency for L2 improvement are also highlighted in numerous studies (Garcia & Asencion, 2001; He & Ellis, 1999; Klinger & Vaughan, 2000; Lynch, 2001; Nguyen, 2013; Ohta, 1995, 2001; Spielman-Davidson, 2000; Storch, 2005). For one, He and Ellis, investigating the effectiveness of peers and teachers’ scaffolding in doing postlistening tasks on learning vocabulary, suggested that interaction between peers was more effective in incidental vocabulary learning than the teacher’s
scaffolding. In addition, researchers examining the effectiveness of expert peers’ scaffolding indicated that both the less proficient L2 learners and the more knowledgeable peers could benefit from the interactions (Lynch & Maclean, 2001; Pishghadam & Ghadiri, 2011; Xu et al., 2005).

And finally, Swain, Brooks, and Tocalli-Beller (2002) in their review article analyzed recent studies in which peer-peer dialogues had been applied with the aim of exploring its effects on second language learning. They reported that the collaborative dialogue in which peers engage as they work together on writing, speaking, listening and reading activities mediates second language learning (Swain et al., 2002).

As is quite evident in the brief review of the literature, only few studies are conducted on the typology and efficiency of scaffolding strategies for the EFL learners’ listening comprehension development. Against this backdrop, in the present study we aimed at first investigating the effects of different forms of scaffolding on the listening comprehension of the Iranian Intermediate EFL learners and second exploring the typology of the spontaneous scaffolding strategies the expert peers and coequal peers apply in their interaction. Hence, the following research questions were raised and addressed.

Research questions

Research Question 1: Does the expert peers’ scaffolding have any significant effect on the Iranian EFL learners’ listening comprehension improvement?
Research Question 2: Does the coequals’ scaffolding have any significant effect on the Iranian EFL learners’ listening comprehension improvement?
Research Question 3: Does note taking as a cognitive strategy (nonscaffolding) have any significant effect on the Iranian EFL learners’ listening comprehension improvement?
Research Question 4: Is there any significant difference between the expert peers and coequals’ scaffolding strategies in their effects on the EFL learners’ listening comprehension development?
Research Question 5: What scaffolding strategies are frequently used by the expert peers to scaffold their partners’ listening comprehension?
Research Question 6: What scaffolding strategies are frequently used by coequals when scaffolding each other’s listening comprehension?
For each one of Research Questions 1–4 a null hypothesis was assumed.

Method

Participants

The participants in this study were 90 Iranian Intermediate EFL learners from different language institutes in Hamedan, Iran. They were all female, ranging in age from 12 to 20 years old. As the mainstream course they were taking at the language institute was labeled Intermediate Level, the participants were assumed to be at this level of general English proficiency; however, their true general proficiency level was identified using a standard general proficiency test.

Instruments

All participants took part in a sample Test of English as a Foreign Language (TOEFL; Educational Testing Service, 2016) junior standard test. The TOEFL junior test is designed for the eleven and above age range of EFL learners. The listening section of TOEFL junior standard test was used as the pre- and posttests as well.

To ensure the reliability of the pre and posttests, Cronbach’s alpha consistency test was run, and the estimated alpha for a test battery of 42 items was .78.

The instructional material used for teaching listening for the three groups was a sample material extracted from Tactics for Listening: Expanding (Richards, 2011). This specific material was chosen on the grounds that the book is used as the main material for the listening and speaking courses of EFL learners at intermediate level of general English proficiency in the studied institutions. Therefore, they were quite familiar with the Tactics for Listening series.

Procedure

This study was conducted at private language institutes in Hamedan, Iran. Ninety EFL learners from two language institutes were selected through convenience sampling procedure. In each one of the two institutions, there were three classes of around 15 participants available to the researchers. To ensure the homogeneity of the class takers in both sites in terms of their general English proficiency, the sample TOEFL junior standard test was administered to the so-called intermediate learners in the first session of the semester. Since the number of the participants in each one of the language institutes was limited and the same limitation could have adversely affected the inferential parametric statistics results, the researchers used two intact classes (one from each institute) to form each single research group so that each study group included altogether around 30 participants. The relatively homogeneous classes of participants in each site were randomly assigned into the three study groups and were named as group 1: expert peers’ scaffolding, group 2: coequals’ scaffolding, and group 3: nonscaffolding group. To identify the expert peers from among the 90 participants, based on the results of the TOEFL junior test, of 13 participants whose score fell above one standard deviation above the mean, eight participants were chosen from the top of the list of the raw scores as the expert peers and were placed in group one.

As the language institutions held 16 instructional sessions in each term, all the three groups attended sixteen instructional sessions and the study was done as an integrated part of their main course. The treatment was carried out in 30 min in each session by the teacher who was the same for all three main groups so that the instructional fidelity was guaranteed. The treatment procedure for the groups is described in detail subsequently.

Group 1. The participants in this group were divided into eight working teams each including two or three coequal
members and an expert peer. It is notable that peers at more or less the same knowledge levels are deemed coequals and the more knowledgeable peers are considered as the expert peers in recent studies built on the sociocultural theory (e.g., Khatib & Ahmadi Safa, 2011; Nassaji, & Swain, 2000). The instruction in each session started with the teacher who played a 5-min listening comprehension text twice, and then she asked the experts to assist their less knowledgeable peers to do the follow up practices provided by the text. No predetermined scale of scaffolding was used as the framework of expert peers’ scaffolding, however, they were required to interact with, assist and support the less knowledgeable members of their team while doing the postlistening tasks and practices. The scaffolding process was recorded for later transcription and the recognition of the spontaneous scaffolding strategies employed by the expert peers.

Group 2. The participants in this group were divided into 10 working teams each including three coequal learners. After playing the 5-min listening section for two times, the teacher asked the learners to work in their working teams and assist each other to do the follow up tasks and practices. Their assistance or scaffolding procedure was also tape recorded to recognize the scaffolding strategies employed by the coequal peers.

Group 3. The researcher decided to employ note taking as a cognitive strategy that is frequently used by the individuals while listening. The listening texts played for the participants of this group were similar to the experimental groups and the participants were asked to take notes while listening to the 5-min listening comprehension texts, which were played twice, as was done for experimental groups 1 and 2. The participants had no group work, peer-peer dialogue, or interaction with the teacher in the postlistening phase and were required to do the tasks and activities individually. Moreover, they were free to use their notes for the completion of the tasks.

At the end of the treatment phase, the listening section of the TOEFL junior standard test was administered again to the participants of the three groups.

Results

To ensure the homogeneity of the groups’ general English proficiency at the outset of the study, a one-way analysis of variance (ANOVA) was run on the TOEFL junior test results of all participants, the descriptive results of which are summarized in Table 1.

As is evident in Table 1, although the mean score for the first group was a bit higher (66.33) than the other groups, one-way ANOVA proved no significant differences among the participants at the beginning of the study (Table 2).

As displayed in Table 2, no significant difference among participants’ general English proficiency was found at the outset of the study ($p = .2 > .05$).

The analysis of the pretest results revealed no significant difference among the participants’ listening comprehension ability as well. Table 3 presents the descriptive statistics of the three groups’ performances on pretest.

As is evident in Table 4, no significant difference among the participants’ listening comprehension ability was found, $F(2, 89) = 2.29$, $p = .1$, which means that the three groups were deemed similar in terms of their listening comprehension skill at the outset of the study.

In order to test the null hypothesis assumed for the research questions one to three regarding the efficacy of the expert peers and the coequals scaffolding strategies, as well as the note-taking strategy, a one sample matched $t$ test was run and the results are shown in Table 5.

As is evident in Table 5, the $p$ values are all equal to .00 ($p = .00 < .05$) indicating that the null hypotheses assuming no significant difference among the three groups’ pretest and posttest scores are all rejected. In other words the expert peers, the coequals, and the note-taking groups’ posttest scores were significantly different from their pretest scores.

As displayed in Table 5, it is evident that the expert peer group’s mean score was the highest, while the note-taking group’s mean was the lowest (29.47 for expert peer group, and for the coequals it is 20.83).

To test the fourth null hypothesis which assumed no significant difference between the expert peers and the coequals’ scaffolding in their effects on the EFL learners’ listening comprehension development, a one-way ANOVA was run, the results of which are shown in Tables 6 and 7.

Table 6 summarizes the descriptive statistics of the three groups’ performances on the posttest.

Regarding the mean scores of the posttest results in Table 6, it is evident that the mean of the expert peers group is outstanding, as it was 29.47, but was 24.57 for the coequals and 20.83 for the note-taking group. To make sure that the
differences among the groups were significant, the inferential statistics (ANOVA) was run as well (Table 7).

The ANOVA analysis verified that the performances of the three groups in their posttest were significantly different, $F(2, 89) = 23.74, p = .00$, which means that the null hypothesis assuming no significant difference among three groups’ posttest scores was rejected.

In order to spot the exact location of difference, a Scheffé post hoc test was run, the results of which are given in Table 8.

As is evident in Table 8, differences among expert peers versus note-taking groups ($p = .00 < .05$), the expert peers versus coequals ($p = .01 < .05$) and the coequals versus note-taking groups ($p = .01 < .05$) posttest scores were significant.

To further distinguish the efficacy of three strategy types, an effect size analysis was run on the posttest performances the results of which are summarized in Table 9.

As is evident in Table 9, the most successful scaffolding process for the participants’ listening comprehension improvement was the expert peers’ scaffolding procedure and the coequals’ scaffolding procedure was confirmed to be the second effective, while the note-taking nonscaffolding strategy was proved to be the third effective strategy type for the listening comprehension improvement of the intermediate EFL learners.

Research Questions 5 and 6 sought to find out the typology of scaffolding strategies which were frequently used by the expert peers and the coequals. To answer the questions, the recorded scaffolding process and the interactions of the two experimental groups were transcribed and analyzed. The frequency and percentage of the different scaffolding strategies used by the expert peers and coequals are presented in Table 10.

The mediating behaviors presented in Table 10 start from the most implicit and end with the most explicit scaffolding strategies. As is evident in Table 10, overall, the expert peers’ application of the scaffolding strategies was higher than those of coequals (8447 vs. 6830). This indicates that the expert peers used more scaffolding strategies than coequals. In addition, the implicit scaffolding strategies were more frequently applied, and turning to the teacher for help was the least frequently used strategy in both groups.

The schematic representation of the frequency of different scaffolding strategies employed by the expert peers is presented in Figure 1.

As is evident in Figure 1, the ten most frequently used scaffolding strategies by the expert peers, that accounted for about 67.06% of total scaffolding behaviors included extracting information by asking questions (800), providing clues and directions to help the peer to find the correct answer (748), waiting for the peer to answer the questions (650), providing some explanations to clarify the correct answer (651), co-constructing the information to reach the correct answer (622), telling and confirming the correct answer (573), inviting the peers to contribute clues (526), inviting the learners’ participation (475), indicating that the answer may be wrong (435), and narrowing down the place of the error in the sentence (420).

The five least frequently used mediating behaviors that made only 4.54% of the scaffolding strategies in the expert peers group were asking the teacher (only 10), discussing to reach a compromise about the correct answers of the questions (42), controlling exhaustion during problem solving (100), identifying the error (114), and generating interest in the task (120).

The schematic representation of the frequency of the scaffolding strategies applied by the coequals is presented in Figure 2.

As Figure 2 illustrates, The 10 most frequently applied scaffolding strategies by the coequals, that accounted for about 73.61% of total scaffolding behaviors, were telling and confirming the correct answer (950), rejecting unsuccessful efforts at finding the error (781), constructing the information to reach the correct answer (678), providing clues and directions to help the peer to find the correct answer (560), inviting the peers to contribute clues (503), inviting the learners’ participation (407), verifying and clarifying the peers’ understandings (304), identifying the error (270), providing some explanation to clarify the correct answer (260), and discussing to reach a compromise about the correct answers of the questions (229).

The scaffolding strategies that received the least attention on the part of the coequals were about only 6.1% of the total amount of the mediating behaviors and were the following strategies: Asking the teacher (39), prompting to reach the correct answer (68), narrowing down the place of the error in the sentence (97), generating interest in the task (100), and repeating the sentence (or the part of the sentence) containing the error (114).

Discussion

As outlined previously, the results of this study revealed that both expert and coequal peers scaffolding were quite effective

| Table 4. Three groups’ pretest result’s ANOVA analysis. |
|-----------------|----------|----------|----------|------|
| Pretest         | Sum of squares | df      | Mean squares | F    | Sig. |
| Between groups  | 32.07      | 2       | 16.03       | 2.29 | .1  |
| Within groups   | 608.83     | 87      | 6.99        |      |     |
| Total           | 640.90     |         |             |      |     |

| Table 5. Three group’s posttest result paired samples t test. |
|-----------------|----------|----------|----------|------|
|                 | n       | M        | t(29)   | Sig. |
| Expert peers    |          |          |         |      |
| Pretest         | 30       | 20.8     | −7.76   | .00  |
| Posttest        | 30       | 29.47    |         |      |
| Coequals        |          |          |         |      |
| Pretest         | 30       | 21.27    | −8.21   | .00  |
| Posttest        | 30       | 24.57    |         |      |
| Note taking     |          |          |         |      |
| Pretest         | 30       | 19.83    | −3.63   | .00  |
| Posttest        | 30       | 20.83    |         |      |

| Table 6. Three groups’ descriptive statistics for posttest results. |
|-----------------|----------|----------|------|
| Group           | n        | M        | SD   |
| Expert-peers    | 30       | 29.47    | 6.71 |
| Coequals        | 30       | 24.57    | 4.7  |
| Note taking     | 30       | 20.83    | 3.09 |
| Total           | 30       | 24.96    | 5.98 |

| Table 7. ANOVA analysis of the three groups’ posttest results. |
|-----------------|----------|----------|------|
| Posttest        | Sum of squares | df  | Mean square | F    | Sig. |
| Between groups  | 1124.82  | 2       | 562.41    | 23.74 | .00 |
| Within groups   | 2061     | 87      | 23.69     |      |     |
| Total           | 3185.82  |         |           |      |     |
for the EFL learners listening comprehension development while the individualistic cognitive strategy (i.e., note taking) was comparatively less effective for the development of the skill. The first research question aimed at investigating the effects of expert peers’ scaffolding on listening comprehension improvement of the Iranian EFL learners. The results revealed that the expert peers’ scaffolding significantly improved the EFL learners’ listening comprehension, and compared with the coequals’ scaffolding and note-taking nonscaffolding strategies, it was the most effective intervention procedure.

This piece of finding indicates that if the EFL learners take advantage of expert peers’ scaffolding, their listening comprehension development would probably improve more than the occasion in which they resort to individualistic strategies such as note taking which utterly exclude the role of interaction and other’s mediation in learning process. The same finding in this regard was reported by Khatib and Ahmadi Safa (2011), who found that the explicit and implicit mediating behaviors of expert peers seem to have stronger impacts than the coequal and teacher scaffolding procedures on the EFL learners’ improvement. This idea confirms Mercer’s (2004) claim that in a supportive group context, learners who are more knowledgeable may enable the improvement of less knowledgeable partners more than other sorts of arrangements. On the other hand, concerning listening comprehension skill the finding is also in line with those of Garcia and Asencion (2001) and Al-Yami (2008), which indicated that scaffolding procedure can help develop the listening comprehension skill of the learners. The reason for the superiority of the expert peer’s scaffolding over the coequals group’s may be the fact that the learners in this group took the advantage of an individual with higher expertise and less social distance with them than their teachers and hence they grabbed the opportunity to discuss the matters much more freely compared with the time that they had to negotiate with their teachers or even they had no choice of interaction with either their peers or teacher.

Many experts have emphasized the essential role of an expert peer in any scaffolding procedure. For instance, Stetsenko (1999) suggested that the scaffolding and assistance serve as a useful pedagogical construct in a learning environment where an expert or a more knowledgeable peer provides graduated assistance. De Guerrero and Villamil (2000) also underscored the importance of the role of peers’ expertise. They argue that the adults or more knowledgeable peers introduce children or less knowledgeable peers to their culture or new learning material.

The second research question addressed the effect of coequals’ scaffolding strategies on the EFL learners’ listening comprehension development, the results of one-way ANOVA, post hoc, and effect size analyses revealed that the scaffolding techniques employed by the coequals, had also statistically more positive effects compared with note-taking nonscaffolding strategy type. This means that the

<table>
<thead>
<tr>
<th>Scaffolding strategy</th>
<th>Expert peer</th>
<th>Coequal</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>1. Generating interest in the task</td>
<td>120</td>
<td>1.42</td>
</tr>
<tr>
<td>2. Controlling exhaustion during problem solving</td>
<td>100</td>
<td>1.18</td>
</tr>
<tr>
<td>3. Inviting the learners’ participation</td>
<td>475</td>
<td>5.62</td>
</tr>
<tr>
<td>4. Asking the peer to read the question independently and find the correct answer</td>
<td>240</td>
<td>2.84</td>
</tr>
<tr>
<td>5. Engaging in the collaborative tasks and interacting to accomplish the tasks prompted by a dialogic partner</td>
<td>360</td>
<td>4.26</td>
</tr>
<tr>
<td>6. Involving all the peers in negotiation by asking questions</td>
<td>200</td>
<td>2.36</td>
</tr>
<tr>
<td>7. Extracting information by asking questions</td>
<td>800</td>
<td>9.47</td>
</tr>
<tr>
<td>8. Waiting for the peer to answer the questions</td>
<td>650</td>
<td>7.69</td>
</tr>
<tr>
<td>9. Simplifying the task and trying to make it more achievable for her peers</td>
<td>218</td>
<td>2.58</td>
</tr>
<tr>
<td>10. Verifying and clarifying the peers’ understandings</td>
<td>401</td>
<td>4.74</td>
</tr>
<tr>
<td>11. Repeating the sentence containing the error (focused on the section that contains error)</td>
<td>318</td>
<td>3.76</td>
</tr>
<tr>
<td>12. Indicating that the answer may be wrong</td>
<td>435</td>
<td>5.14</td>
</tr>
<tr>
<td>13. Inviting the peers to contribute clues</td>
<td>526</td>
<td>6.22</td>
</tr>
<tr>
<td>14. Narrowing down the place of the error in the sentence</td>
<td>240</td>
<td>2.84</td>
</tr>
<tr>
<td>15. Providing clues and directions to help the peer to find the correct answer</td>
<td>748</td>
<td>8.85</td>
</tr>
<tr>
<td>16. Prompting to reach the correct answer</td>
<td>245</td>
<td>2.9</td>
</tr>
<tr>
<td>17. Co-constructing the information to reach the correct answer</td>
<td>622</td>
<td>7.35</td>
</tr>
<tr>
<td>18. Discussing to reach a compromise about the correct answers of the questions</td>
<td>42</td>
<td>0.49</td>
</tr>
<tr>
<td>19. Providing some explanation to clarify the correct answer</td>
<td>651</td>
<td>7.1</td>
</tr>
<tr>
<td>20. Rejecting unsuccessful efforts at finding the error</td>
<td>359</td>
<td>4.25</td>
</tr>
<tr>
<td>21. Identifying the error</td>
<td>114</td>
<td>1.34</td>
</tr>
<tr>
<td>22. Telling and confirming the correct answer</td>
<td>573</td>
<td>6.78</td>
</tr>
<tr>
<td>23. Asking the teacher for help</td>
<td>10</td>
<td>0.11</td>
</tr>
<tr>
<td>Total</td>
<td>8,447</td>
<td>100</td>
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</tbody>
</table>
EFL learners’ listening comprehension improved as a result of interaction with their coequals when doing collaborative tasks. This finding confirms that of van Lier (1991), for instance, that negotiation, interaction, and participation of even same level learners generate learning opportunities for the second language learners. Other scholars such as Donato (1994), He and Ellis (1999), Ohta (2000), and Nguyen (2013) have also indicated that the language learners, irrespective of their linguistic competence level, were not only capable of offering scaffolding to each other but also could improve linguistically. However, contrary to the attested endorsement of scaffolding for the second or foreign language development, some scholars are still skeptical in this regard. For instance, Anthony (2007), Stone (1998), and Verenkina (2004, 2008) were not sure about the positive effects of scaffolding on L2 improvement and argue that although the concept of scaffolding remains popular among instructors, scaffolding can inhibit the learning process rather than help children to develop. Verenkina (2004) believed that if scaffolding is accepted as direct teaching it would become a hindrance for learners’ development.

What the attested piece of finding of the present study implies is that the EFL teachers should provide their students with the opportunities to offer scaffolding to each other while doing listening comprehension’s tasks. Such opportunities can come up in the pair and group works done in symmetric and asymmetric groups while doing listening comprehension tasks specifically and other language skills in general. Swain et al. (2002), suggest more or less the same point claiming that collaborative dialogue in which peers work together, mediates second language learning.

The third research question was associated with the effectiveness of note taking as a cognitive (nonscaffolding) strategy on the EFL learners’ listening comprehension improvement. The results denoted that the learners who applied note-taking strategy and did not interact with each other or the teacher while doing the postlistening tasks, had the least improvement in their listening skill. In other words, the nonscaffolding strategy was the least successful procedure compared with the two other studied scaffolding strategies. A justification for the superior efficiency of scaffolding strategies over the so-called nonscaffolding procedure might be in the concept of co-construction, which takes place in the collaborative tasks. As Wood, Bruner, and Ross (1976) asserted, tutorial collaborations

**Figure 1.** Scaffolding strategies used by the expert peers.

**Figure 2.** Scaffolding strategies used by the coequals.
are vital in fostering improvement in human beings. Similarly, Mitchel and Myles (2004) believed that the second language is co-constructed in collaborative activities. Vygotsky (1978) also believed that learning develops internal procedures that act while the child is interacting with people in his environment, and when these procedures become internalized, they will form the child’s independent progressive accomplishment. And, finally, other studies such as Nassaji and Tian (2010), Spilman-Davidson (2000), and Storch (2005) found that doing the tasks in groups, results in a superior impact on task completion compared with completing them individually or without attention to the peers’ ZPD (Nassaji & Swain, 2000).

On the other hand, some other researchers (e.g., Kuiken & Vedder, 2002; Storch, 1997, 2005) argued that although peer assistance may result in better task performance, it might not necessarily result in learning of the forms aimed at in doing the tasks. The present study results partially contradict their claim since the expert peers and coequals’ engagement in collaborative tasks and scaffolding procedures led to the improvement of the listening comprehension skill. This improvement was evident after the eight weeks of intervention and not in the form of immediate improvement which might have been observed immediately after the collaborative completion of the tasks.

The fourth research question aimed at investigating the difference between the expert peers and the coequals’ scaffolding in their effects on the EFL learners’ listening comprehension development. The research findings indicated that the expert peers’ scaffolding had statistically significant superiority over the coequals’ scaffolding and the effect size was quite large. This is in line with the findings of Xu et al. (2005) who found that expert peer tutoring was beneficial for their fellow English language learners and for expert peers in forming social interactions. Lynch and Maclean (2001) who also explored the effect of expert peers scaffolding on ESP improvement, revealed that expert peers did not improve in their level of English language proficiency; however, their language use improved as a result of interaction, but the less proficient learners improved more significantly. Their finding indicated that expert peers’ scaffolding enhanced second language learners’ acquisition process.

In addition, De Guerrero and Villamil (2000), Klinger and Vaughn (2000), Pishghadam and Ghadiri (2011), and Xu et al. (2005) indicated that both the expert peer and the novice learner could improve their second language proficiency as a result of their interactions in symmetric and asymmetric groups. They believed that the chance of interacting in the second language allowed both learners recognize and accomplish knowledge of second language and assist their peers for their benefit.

The fifth research question explored the scaffolding strategies which were frequently used by the expert peers. The analysis of the transcriptions of the peer-peer dialogues and interactions revealed that expert peers were able to offer a wider range of scaffolding strategies to their less knowledgeable peers in their dyads. The three scaffolding strategies most frequently employed by the expert peers were, questioning to extract information, providing clues and directions to help their peer find the correct answer, and waiting for the peer to answer the questions. These mediating behaviors were among the more implicit scaffolding strategies. Hence, it was found that the expert peers employed more implicit scaffolding strategies more often to help their peers while doing the postlistening tasks. There were also some strategies that were rarely applied by the expert peers. For instance, asking the teacher was the least frequently used strategy. This indicates that the learners might have been relatively confident about their abilities to function as successful mediators and could have addressed their peer’s needs. The EFL learners in this group appeared to be considering the task as a context for language learning as they were engaged actively in assisting each other and were relatively successful at solving their problems.

The findings of present study in this regard are partially congruent with those of De Guerrero and Villamil (2000), Donato (1994), Foster and Ohta (2005), Storch (2001), Swain (2000), Swain and Lapkin (1998), and Villamil and De Guerrero (1996), in that students and learners of both similar and different proficiency levels are able to provide each other with scaffolding while performing collaborative tasks in classroom settings.

Finally, the last research question was an attempt to explore the scaffolding strategies frequently used by the coequals. Although the EFL learners in this study considered and utilized a wide range of mediating behaviors while negotiating with their peers, the scaffolding strategy that was most frequently employed by the coequals was the explicit strategy of confirming the correct answer. In other words, the coequals mostly tried to assist their peers in a more direct and explicit way. Rejecting unsuccessful efforts at finding the error and providing clues and directions to help the peer arrive at the correct answer were the second and the third most frequent scaffolding strategies in the coequals group. This means that the coequals attempted to provide more explicit types of hints and clues to guide their peers. If one can assume the kids and less knowledgeable peers similar and comparable with each other because of their limited knowledge, the findings of the present study in this regard can be put alongside to that of Gagné and Parks (2013) who explored how elementary ESL learners scaffolded each other while performing cooperative tasks, and found that kids were capable of engaging in linguistic scaffolding and although a wide range of scaffolding strategies were used by the peers, the two most frequent ones were the explicit strategies of asking for direct help and other-correction. The findings of the present study and those of Gagné and Parks (2013) give a relative support to Tudge (1999), who believed that student mediators are required to have a higher knowledge and thinking abilities levels to receive the role of mediators and act more appropriately in this role. Another study, partially supporting the finding of this study in this respect, was that of Nguyen (2013), who studied the ways Vietnamese EFL learners provided scaffolding to their peers during a collaborative task performance and found that the learners were able to employ a range of peer scaffolding strategies and suggested “six categories of peer scaffolding behaviors among the students, namely workload sharing, pooling ideas and resources, technology support, peer feedback, support in answering the audience’s questions, and affective support” (p. 64).

**Conclusion**

The findings of the study verified that the expert peers’ scaffolding was more effective for the intermediate EFL learners’ listening
comprehension development than the coequals’ scaffolding and the nonscaffolding strategy of note taking. Moreover, the coequal learners were able to offer scaffolding to each other while interacting with their peers and could improve their listening comprehension. It is noteworthy that both the expert peers and the coequals were able to offer a wide range of scaffolding strategies to help their peers. Based on the research findings, it seems that the EFL learners’ listening comprehension development can be achieved through engagement in collaborative activities in which a more knowledgeable peer continuously assists the less knowledgeable peers. However, if all the learners are at same level of listening comprehension ability, they can also assist each other and improve their ability and proficiency level through interactive group works. It implies that EFL teachers need to provide their learners with more opportunities to interact and offer scaffolded assistance to their peers. The results also imply that both symmetric and asymmetric group works that include peer-peer dyadic interactions are pedagogically more preferable to individual task completion activities that rely on personal cognitive strategies in for the EFL learners’ listening comprehension development. The findings also revealed that both expert peers and coequals were able use a wide variety of different scaffolding strategies in their efforts to assist their peers listen and comprehend more successfully.

Limitations of the study

An important limitation of this study lies in its’ dominant quantitative nature. It could have presented a more vivid profile of the multidimensional impacts of different forms of scaffolding on the EFL learners’ listening comprehension development once it was carried out using a mixed method of data collection and qualitative data in addition to the obtained quantitative data concerning the differential effects of the studied independent variables on the cognitive, affective, and pedagogical aspects of the learning process. The following researches are suggested to address the need and try to shed light on these aspects as well.

References


