

## **The Effects of Symmetrical and Asymmetrical Scaffolding on University Students' Grammar Learning**

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### **Abstract**

This study investigated the extent to which two types of scaffolding, namely symmetrical and/or asymmetrical scaffolding could contribute to the acquisition of grammar among Iranian EFL sophomores. To fulfill this objective, 42 female college students whose age ranged between 19 and 24 were selected through convenience sampling and, after taking a pretest, divided into two groups of: symmetrical scaffolding (SS) and asymmetrical scaffolding (AS). The experimental group AS received instruction according to asymmetric strategy, while the experimental group SS was instructed via the symmetric strategy. To answer the research questions, a post-test was conducted, and its results were analyzed using independent and paired t-test. The results showed that AS scaffolding is a more fruitful strategy in improving participant's grammar achievement. The findings of this study have implications for teachers. Pair work is a central task in any language class and teachers usually do not know how to arrange the pairs. Some teachers arrange them by age, while other teachers arrange pairs by proficiency level. The results of this research indicated that when arranging pairs, teachers need to choose students from differing proficiency levels.

**Key words:** ZPD, symmetrical scaffolding, asymmetrical scaffolding, grammar

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## **1. Introduction**

From sociocultural point of view, learning and progression are investigated within the social and cultural context. Its founder, Vygotsky, thought that “human learning cannot be understood independently from the social and cultural forces that influence individuals” (Barnard & Campbell, 2005, p. 76). Based on this perspective, people use different instruments to learn and to give order to their mental activities, and any type of learning happens through dialogues in the Zone of Proximal Development (ZPD) which Vygotsky (1978) suggested as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). Vygotsky takes issue with traditional psychology which assumes that development is a prerequisite of learning. Walqui (2006) maintains that:

Traditional psychology assumes that learning can only be successful after the learner shows that the relevant mental functions have already matured. From this standpoint, all else would be premature instruction and would therefore be useless. Instead, Vygotsky proposes that learning is only useful if it is ahead of development, that is, if it challenges learners to think and act in advance of their actual level of development. (p. 161)

The research of Piaget and Vygotsky has had a huge influence on the methods and approaches of language teaching (Daniels, Cole, & Wertsch, 2007). Both have suggested their opinions to the field of education through providing explanations for children's cognitive learning styles, intelligence and competence (Greenfield, 2001). Even though Piaget and Vygotsky may have opposing opinions about cognitive development in children, both educators provide good ideas on how to teach certain materials in a developmentally appropriate manner. As determined by Piaget (1960), learning is an event that is resulted from mental and physical development and also experience. In other words, development precedes learning. On the other hand, Vygotsky maintains that learning processes result in development. Vygotsky maintained that learning is a necessary and central aspect of the process of developing culturally organized, specifically human, psychological functions. This means that, learning is what leads to the development of higher order thinking (Dahms et al., 2009). Vygotsky (1978) believed that learning and development are sociocultural activities that people engage in together, instead of, regarding them as an internal, individualistic process. Also, he believed that learning must help cognitive development.

Although to both Piaget and Vygotsky, interaction with others can boost the development of mind and cognition, there is a considerable

difference between their theories of interaction (Lourenço, 2012). Lourenço (2012) believes that in the Piagetian perspective, cognitive development is dependent on individuals interacting with those who hold contradictory thoughts and claims, thereby creating conflicts that ends in higher levels of reasoning (symmetrical scaffolding). In stark contrast to this view, Vygotsky, coining the term Zone of Proximal Development (ZPD), maintains that learning is boosted when learners interact with more proficient peers (asymmetrical scaffolding). In fact, Piaget believes in symmetrical relationship among peers, while Vygotsky supports asymmetrical relationship among learners.

The difference in the concept of equal-unequal expertise or knowledge is the gist of disagreement between the pioneer cognitive and social constructivists, Piaget and Vygotsky (Lourenço, 2012). According to Piaget, a peers' asymmetrical interactions with more knowledgeable others may be counter-productive to learning since they generally show compliance to adults' authority and, as a result, prevent cognitive reconstructing (Granott, 1993). On the other hand, as Cheyne and Tarulli state, Vygotsky focused on a "master-slave or supervisor-subordinate relationship which is markedly asymmetrical and hierarchical" (as cited in Daniels, 2005, p. 133).

In the developmental psychology account, an individuals' social relationship with another person may be of two sorts: a relationship based on authority between two of one person over the other, or a relationship between two equal peers (Piaget, 1965). According to Lourenço (2012), when the relationship is between two equal peers the idea of autonomy can be fostered while a relationship based on authority is a heteronomous relationship. Piaget (1965) believed that when the relationship between individuals is based on equality, cooperation and mutual respect development can happen. He believed that in an asymmetric relationship (i.e., between a child and an adult, where the child should obey and follow the adults' principles) conformity, obedience and passivity will be prevalent and a child's initiative, questioning and activity will be circumscribed.

Scaffolding is a general term with vast classifications (Bruner, 1997). The main concern of this study is investigating symmetrical and asymmetrical scaffolding (SS and AS). In actual fact, symmetrical scaffolding is based on the fact that peers discover new knowledge by cooperation and interaction while the asymmetrical scaffolding denotes that knowledge is transmitted from capable adults to incapable youngsters (Lourenço, 2012). An example to clarify the issue regarding symmetrical scaffolding is helpful. Consider a writing class in which two learners cooperate with each other. One learner is aware of different writing strategies and the other learner has a good vocabulary and grammar repertoire. In this class, considering optimum conditions, these two learners can cooperate with each other to deliver a text

that is both clear and coherent and rich in vocabulary and grammar. On the other hand, consider a class in which there is no feeling of cooperation among the learners. In this class, the teacher, supposed to be competent in strategies vocabulary and grammar, helps the learners to deliver their writing tasks as accurate as possible. Both types of scaffolding can be effective but depending on the philosophy of language learning, they may be more or less efficient.

The concept of scaffolding, however, is sometimes misinterpreted. As Ellis (2003) truly observed, "Scaffolding is not dependent on the presence of an expert; however, it can also arise in interactions between learners" (p. 193). Because in the present study the asymmetrical group is based on the interaction between more knowledgeable others and less able peers, it is keeping with Vygotsky's original theory dealing with the importance of instruction and the role which is played by more knowledgeable other in the cognitive development. The other type of scaffolding, which is more similar to collaboration, is symmetrical scaffolding. This is more observable when two or more learners who have almost the same level of knowledge in a specific language assist each other to add something to their actual knowledge. Meanwhile, there is no more knowledgeable other in this group. Put another way, all of the students can be considered as more knowledgeable others. Therefore, this kind of scaffolding is in parallel with Piaget's theory which focuses on peer (students who have the same level) interaction and free-exploration (Fotos, 2001; Garton, 1992). Moreover, as Nassaji and Cumming (2000) state "Numerous authors have recently observed that peer groups of students or work teams, for instance, are also able to construct a ZPD through joint efforts among their members, without expertise residing in any one member of the group" (Nassaji & Cumming, 2000, p. 98). Comparing these two types of scaffolding in a sense is in fact comparing the theories of Vygotsky and Piaget in cognitive development.

## **2. Literature Review**

Scaffolding techniques have been widely used in a lot of studies and have indicated positive results. Donato's (1994) research developed the scaffolding framework for peer interaction. The study recruited second language (L2) learners of French who were working on a familiar open-ended task. The students were involved in a one-hour planning session as an introduction to an oral activity. The session was recorded and transcribed. Throughout the course of the class session, 32 cases of scaffolded help were recorded. Nine of the 24 co-constructed episodes of linguistic knowledge were later employed in independent performance by the learners when help was no more available. The researcher maintained that learners can scaffold each other, or 'mutually construct' assistance, just in the same way as experts scaffold the performance of novices. He also explained that dialogic interaction has the potential to

expand appropriation of linguistic knowledge through individuals, while working together, forming a collective expert, and after that have the ability to collaboratively complete tasks that they might not have the ability to perform personally. These claims argue in favor of developing dyad and group work from "simple opportunities to exchange linguistic artifacts to that of the collective acquisition of the second language" (p. 53).

In a longitudinal study, Storch (2002) explored the nature of dyadic interaction among intermediate ESL students. By the use of Damon and Phelps's (1989) dimensions of equality and mutuality, she discovered four different patterns of interaction out of her data: collaborative, dominant/dominant, dominant/passive, and expert/novice. Among these four types of interaction, collaborative and expert/novice types of interaction showed more instances of knowledge transfer and fewer instances of missed opportunities for learning compared to the other two types. Based on these results, she suggested that some interaction patterns are more beneficial than others in improving second language proficiency.

The study by Belland, Glazewski and Richardson (2008) is one of the many examples of investigating scaffolding techniques based on problem-based approaches to improve critical reasoning abilities of middle school learners. A small group of students were provided with an authentic, ill-structured problem where they had to comprehend the problem, provide a possible answer and offer evidence to support and present it. Different scaffolding techniques were used to help these learners. The research results indicated that it was necessary for teacher to scaffold learners as a temporary support before learners have the ability to accomplish scaffolding tasks on their own.

Kim and McDonough (2008) conducted a study to investigate the collaborative dialogue between Korean intermediate L2 students and their intermediate and advanced level peers in terms of the occurrence and resolution of lexical and grammatical problems, and the patterns of interaction between them. The results revealed that the collaborative dialogues with the advanced peers ended in more lexical language related episodes and correctly resolved them.

Lee (2008) studied the way corrective feedback was provided in expert-to-novice collaborative efforts and scaffolding using 30 participants who were working on three different types of tasks which were jigsaw, spot-the-differences and open-ended question. The results indicated that text chats helped the focus-on-form approach through collaborative interaction.

A study in the Iranian EFL context, which is the context of the current study too, was conducted by Maftoon and Ghafoori (2009) on the effect of homogeneous (symmetrical) and heterogeneous (asymmetrical) collaborative interaction on the development of EFL learners' writing skill. Their findings

showed that although the writing skill of both groups increased significantly as the result of interaction, no significant difference was observed between the two groups.

In another study exploring the effects of symmetrical scaffolding versus asymmetrical scaffolding on Iranian EFL learners' reading comprehension, Baleghizadeh, Timcheh Memar, and Memar (2010) found differences in the performances of learners regarding the scaffolding provided. The research was carried out on 80 elementary male students in six classes. The six classes were randomly assigned to two inter-class groups, i.e., symmetrical group (SG) and asymmetrical group (AG). At the end of the study two independent and two dependent *t*-tests were run, which indicated that the SG outperformed the AG.

Investigating the University students' writing capability, Veeramuthu (2011) designed a study to look at how second language learners acquired the use of English language through journal writing. Several interactive writing techniques were used to scaffold the learners in this study. The results showed that learners' journal writing ability improved as a result of the scaffolding techniques presented in a way that these techniques helped remedy the challenges faced by the target students.

Pishghadam and Ghadiri (2011) tried to investigate the impact of symmetrical and Asymmetrical scaffolding on students' reading comprehension achievement of English as Foreign Language students. Through their performance on a pre-test devised by the researchers, fifty-two learners were divided into two homogeneous groups: experimental group A, who covered their English reading passages in homogeneous pairs and the experimental group B, who covered their English reading passages in heterogeneous pairs. The results of the study showed that asymmetrical scaffolding was more effective than symmetrical scaffolding in promoting English reading comprehension achievement.

The studies mentioned above are examples of scaffolding techniques which were used in the learning process in developing communication abilities, reading and comprehension, and writing. The reviewed studies also indicated that scaffolding can be employed in improving many learning processes and language skills. The main goal would be the development of language process by using scaffolding. The process starts with the instructor or controlled learning context controlling the learning process. Then it continues to the next stage in which the instructor only helps or offers partial guidance to the learners or by step-by-step encouragement of peer interaction and collaboration. Finally, the learning process is left to the learners where they have to expand the needed skills themselves in the specific area. This is the point where the learners become autonomous and the learning occurs through discovery resulting from the investigation made by learners. In other words, the learners become autonomous, which is the final goal of scaffolding.

As the results of the reviewed empirical investigations indicate, there is no agreement among the scholars on the influence of some variables such as peers' level of competence and collaboration patterns on the achievement of EFL learners. The context of investigations becomes even more complex if the teacher is supposed to be one of the interlocutors in interaction configurations or proximal processes. To the researchers' knowledge, no research study has been conducted to compare the efficiency of teacher's scaffolding with peers' collaborative dialogue when the learners' level of knowledge is viewed as an influential variable. Therefore, the main purpose of this study was to compare the influence of Symmetrical (SS) and Asymmetrical (AS) scaffolding on grammar learning of adult learners in an English as a foreign language (EFL) setting in Shiraz, Iran. The comparison is between the theory of Vygotsky (1978, 1987) and Piaget's (1960) in cognitive development. Thus, this study is seeking to answer the following questions:

- 1- Is there any significant difference between symmetrical and asymmetrical scaffolding on grammar learning of Iranian university students?
- 2- Does symmetrical scaffolding have any significant effect on grammar learning of Iranian university students?
- 3- Does asymmetrical scaffolding have any significant effect on grammar learning of Iranian university students?

### **3. Method**

#### *3.1 Participants*

This research project was conducted throughout the fall semester of 2014 involving 42 female EFL students at a university in Arak, Iran. Each semester lasted about three months in the college, and it consisted of 13 sessions, once a week and each session lasted for one hour and thirty minutes. The age range of the participants, who also had several years of experience of studying English at language institute, was from 19 to 23. One of the qualifications needed for the English learners to be chosen as the subjects of this study was their level of proficiency; in other words, they needed to be at intermediate level. The researcher regarded the participants' grammar course achievement tests (final examinations from previous courses) as the criteria for their proficiency. Through their performance in a pre-test on grammar knowledge, devised by the researcher, they were divided into two groups: group one, who covered their English grammar in homogeneous pairs and were labeled as the SS group with 20 students and the experimental group two, who covered their English grammar in heterogeneous pairs and were labeled as the AS group with 22 students. However, the study had 4 dropouts, which means that the post-test was carried out with 38 students.

### 3.2 Materials

In the present study two types of instruments were used: first, a grammar test was given to the participants to measure their knowledge of grammar. The test was given to participant as both pre- and post-test. This test items covered six areas of grammar, including: a) tenses b) reported speech C) comparison D) subject-verb agreement E) active and passive modals and F) dependent and independent clauses. The test involved 40 items, each item one point, and they were taken from *Understanding and Using English Grammar*, 4th Edition. The format of items was multiple choice and the participants had 60 minutes to take the test. The test was checked for internal consistency and Cronbach's coefficient equaled 0.8. For the purpose of ascertaining validity, the test was checked through panel discussion with TEFL experts. The panel verified the validity of the test.

The second instrument which was used for this study was a set of two-way tasks. Three types of two-way exchange tasks that elicited collaborative interaction were chosen for the current study. Some examples of the topics which were given to the participants are given in the following table:

Table 1

*Topic, Task Type, and the Description of the Task*

<i>Topic</i>	<i>Task type</i>	<i>Description of the task</i>
Movie Making	Jigsaw	Information gap; convergent; one closed outcome
Persian vs. American culture	Spot-the-differences	Goal-oriented; convergent; one closed outcome
Population growth policy	Open-ended question	Opinion exchange; divergent; multiple outcomes

\*Description of each task is based on Pica, Kanagy, & Falodum (1993)

Information gap (jigsaw) and goal-oriented (spot-the-differences) activities are closed tasks with one possible outcome. These two-way exchanges promote negotiation of meaning and *form* (Skehan, 2003). For instance, one of the goal-oriented activities was for the participants to work together to identify 15 differences between two drawings of a messy room. It is likely that specific lexical items or grammar points would be required to achieve mutual comprehension. In contrast, open-ended questions allow free responses that may not necessarily require precise information to complete the task. Task type influences the amount of corrective feedback received from the expert during interaction. The topics for the tasks were chosen in a way to involve both spoken and written. As an example for the task "population

growth policy" the participants were required to write their opinion and then compare and discuss it orally.

### *3.3 Data Collection Procedure*

The researcher started gathering the data in October 2014 and it took around two months. As stated earlier, at the outset of the study, a grammar knowledge pretest was given to ensure the groups' knowledge of grammar. Based on the results of the test, participants were assigned to SS and AS pairs. From the experimental groups' participants those whose scores did not differ more than one standard deviation were assigned to SS group while the AS involved those students whose scores on this test differed from others more than one standard deviation. In this way 11 pairs were assigned to SS group and 10 pairs were assigned to AS group. Throughout the process of the research the pairs remained constant. The students in the experiment groups were taught by the same instructor (the researcher) who was an MA student in applied linguistics and had six years of teaching experience. A set of two-way tasks, as mentioned in the instruments section, was used in this study for a total of 10 sessions. In both groups (SS and AS), the participants covered the same tasks for 20 minutes each session. At the first session of treatment, about 20 minutes of the class time was spent on introducing the concept of scaffolding by the teacher. The students were told the purpose of scaffolding: by discussing the material with each other and helping each other, they would improve their own comprehension. Emphasis was placed on both asking for and giving help, and the need to reach shared knowledge. It was also emphasized that both pairs must participate equally in the activities.

The participants of both groups were required to pay close attention to the target structures (the six areas of grammar which were included in the pretest) depending on the nature of the task. For example, in a task about "rural or urban life", which is an open ended task, the participants were enticed and also encouraged to use *comparison*. In that case language related episodes like what follows were observed:

*X: I think life in village is so good and productive*

*Y: However, people in cities more earn than people in villages*

*X: You mean "villagers earn more than city people"? Verb before "more than", OK?*

*Y: Yeah, right.*

These tasks were taught cooperatively to the subjects in both SS and AS pairs. This cooperation formed the treatment of the study. The pairs discussed their understanding of the tasks. They were also required to focus on form. At the end of the study, the SS and AS groups took the post-test in order to compare the subjects' performance on this test after treatment.

### 3.4 Data Analysis

The raw data which was collected from participants' performance on pretest and post test were entered into the SPSS. To start analyzing the test results, the researcher conducted a Smirnov Kolmogrove to check the homogeneity of the participants of both groups. Since the results were satisfactory, the researcher started to compare means of both group test results, using t-test. To check the usefulness of SS group a paired t-test comparing their pretest and posttest was used. The same comparison was made between pretest and posttest of AS group to check asymmetrical scaffolding's usefulness. Finally, to find which type of scaffolding is more fruitful, an independent samples t-test was used to compare the post test results of SS and AS group.

## 4. Results and Discussion

Regarding the first research question which was concerned with the difference between symmetrical and asymmetrical scaffolding on grammar learning of Iranian university students the descriptive statistics are presented in Table 2.

Table 2

*Descriptive Statistics for Posttest Scores of the SS and AS Groups*

	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
Symmetrical	20	26.05	4.95	1.10
Asymmetrical	18	27.66	6.59	1.55

As it has been shown by descriptive statistics, the AS group scored better than the SS group. The mean score of AS group in posttest was 27.66 while the mean score of SS group equaled 26.05. However this difference needed to be checked for statistical significance. An independent samples t-test was used to show if this difference is statistically significant or not. The t-test results are indicated in Table 3.

Table 3

*Independent Samples T-test for Significance of Posttest Scoring Difference*

AS & SS	<i>F</i>	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
post-test	5.489	-.859	36	.0396

As the t-test results indicate, the difference of achieved scores on the posttest has not been by chance. In other word, since sig. (2-tailed) at  $p < 0.05$  is less than 0.05 (equaled 0.039); the score difference between the two groups has not been by chance.

Regarding the second research question, this was concerned with the effects of symmetrical scaffolding on grammar learning of Iranian university

students, the students' mean score in SS group raised from 25.4 in pretest to 26 in the post test. Descriptive statistics of pre- and post-test results of symmetrical group are given in Table 4.

Table 4

*Descriptive Statistics of Pre- and Post-test Results of Symmetrical Group*

<i>Symmetrical</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
Pretest	20	25.45	2.13	.47
Posttest	20	26.05	4.95	1.10

As the mean scores indicate, the SS group participants have gained higher scores after receiving the treatment. However, it needed to be checked for statistical significance to see if the raise of scores has been accidentally or as a result of treatment. To check the significance of the difference between pretest and post test, a paired samples t-test was conducted. The t-test results are indicated in Table 5.

Table 5

*Paired Samples T-Test for SS Group before and after Treatment*

<i>Symmetrical</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>T</i>	<i>Df</i>	<i>Sig. (2-tailed)</i>
Pre-post	-.60	4.01	-.668	19	.512

As the t-test results indicate, the change of scores after treatment has been by chance. In other word, since sig. (2-tailed) at  $p < 0.05$  is higher than 0.05 (equaled 0.51), the score difference between the two groups has been by chance.

The third research question was concerned with the effectiveness of AS on grammar learning of Iranian university students. The students mean score in AS group raised from 26.7 in the pretest to 27.6 in the post test. Descriptive statistics of pre- and post-test results of the symmetrical group are given in Table 6.

Table 6

*Descriptive Statistics of Pre- and Post-Test Results of Asymmetrical Group*

<i>Asymmetrical</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
Pretest	18	26.72	7.33	1.72
Posttest	18	27.66	6.59	1.55

As the mean scores indicate, the AS group participants have gained higher scores after receiving the treatment. However, it needed to be checked for statistical significance to see if the raise of scores has been accidentally or

as a result of treatment. To check the significance of the difference between pretest and post test, a paired samples t-test was conducted. The t-test results are indicated in Table 7.

Table 7

*Paired Samples T-test for AS Group before and after Treatment*

<i>Symmetrical</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>
Pre-post	-0.94444	1.76476	-2.271	17	.036

As the t-test results indicate, the change of scores after treatment has been due to treatment. In other word, since sig. (2-tailed) at  $p < 0.05$  is less than 0.05 (equaled 0.51), the score difference between the two groups has been due to treatment.

This study was an investigation to check which degree of proficiency distance between the possible interlocutors in educational settings resulted in better improvement in EFL learners in some aspects of grammar. The obtained results indicated that there was significant difference between SS group participants and AS group participants. When comparison of scores of before and after treatment was done on SS group, the results revealed that they did not progress significantly. However, when comparison of scores of before and after treatment was done on AS group, the results revealed that they progressed significantly. The other finding of the study was that AS is a more fruitful strategy than SS in improving the participant's grammar achievement.

According to the results demonstrated through examination of the data in the preceding sections, it was found that the participants in the AS group achieved more. This may imply that AS instruction is vital to improving EFL learners' grammar knowledge. The results were more compatible with Vygotsky's theories than with those of Piaget's on learning. They are compatible with Vygotsky's findings (1978) that learning appears first on the social plane, in collaboration with more knowledgeable individuals

Findings of this study are in some aspects consistent with Pishghadam and Ghadiri (2011). Although their focus of investigation was reading comprehension, they found that both symmetrical and asymmetrical scaffolding can be effective. However, what is more consistent with this study's results is that based on their study asymmetrical scaffolding is more effective than symmetrical scaffolding in promoting English reading comprehension achievement.

Findings are not much consistent with Maftoon and Ghafoori (2009). While the present study showed that SS was not significantly helpful, their study revealed that both types of scaffolding (SS and AS) increased writing ability significantly. The other discrepancy between the two studies is that while the present study indicated that AS group participants achieved significantly higher scores than SS group participants, Maftoon and Ghafoori

(2009) found that there is not statistically significant difference between the two groups. However, it must be borne in mind that they investigated the participants' writing ability and not grammar.

In the case of heterogeneous dyadic collaboration, the findings of this study are in partial agreement with those of Storch (2002) and Kim and McDonough (2008), which have indicated that better results can be obtained if unequal partners instead of equal partners are paired up. In this study, no significant difference was found between the symmetrical groups, indicating that an equal level of success cannot be achieved in homogenous pairs. But statistically better performance in AS group in comparison to the SS group indicates the superiority of the heterogeneous pairing to the homogenous pairing and provides additional support for the findings of the previously-mentioned studies.

## 5. Conclusions and Implications

As the analysis of the data revealed, the AS instruction group benefited significantly more in knowledge of grammar than the SS instruction group. It can be concluded that SS instruction is less efficient than the AS instruction. That is, after treatment, using SS approach has less positive effect on students' grammar knowledge score. The positive effect of AS instruction is revealed after receiving treatment. When compared to the SS group scores that were instructed through the SS instruction the mean scores of AS group has a significant and meaningful increase. As Pishghadam and Ghadiri (2011) convincingly state, when pairs are AS, learners are able to function in a role more typically restricted to the teacher, providing scaffolding to assist the other. It provides comprehensible input and output, that is, to say when students cooperate with each other, they modify and adjust the sentences in a way that other students have almost no difficulty in understanding.

The findings of this study have implications for teachers. Pair work is a central task in any language class and teachers usually do not know how to arrange the pairs. Some teachers arrange them by age, while other teachers arrange pairs by proficiency level. The results of this research indicated that when arranging pairs, teachers need to choose students from differing proficiency levels. This study also indicated that the needed knowledge or expertise for scaffolding does not necessarily reside within instructor but can be constructed collaboratively by peers. To get such quality collaboration, at least one of the peers must exceed a knowledge threshold to provide a sound base from which collective scaffolding can be built.

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