On Vygotsky and Piaget Approaches Towards Scaffolding: The Case of Teaching Writing Abilities[1]

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Abstract

Debates on Vygotskian and Piagetian approaches towards social interaction are widespread. Vygotskian concept of heteronomous and Piagetian concept of autonomous individuals have attracted researchers' attention. Adopting this dichotomy, this study investigated scaffolding in English as a Foreign Language (EFL) learners' writing abilities. Using a microgenetic approach, the researchers investigated nuanced variations in learners' writing performance based on the scaffoldings provided. Three EFL learners and their teacher were divided into two groups: a symmetrical (two learners) group and an asymmetrical (one learner and the teacher) group. One individual (scaffoldee) in each group was required to write a paragraph and the other (scaffolder) was required to provide some comments on his text. Results showed that the nature of scaffolding, types of scaffolding and quality of scaffolding behaviors were different in the two groups. The researchers concluded both types of scaffolding behaviors led to improvement in learners' zone of proximal development. Scaffoldings provided by the teacher appeared richer and more varied compared to the scaffoldings provided by an equal peer.

Resumen

Los debates sobre los enfoques vygotskianos y piagetianos de la interacción social son generalizados. El concepto vygotskiano de individuos heterónomos y el concepto piagetiano de individuos autónomos han atraído la atención de los investigadores. Adoptando esta dicotomía, este estudio investigó el andamiaje en las habilidades de escritura de estudiantes de inglés como lengua extranjera (EFL). Utilizando un enfoque microgenético, los investigadores analizaron las variaciones sutiles en el rendimiento de escritura de los estudiantes con base en el andamiaje proporcionado. Tres estudiantes de EFL y su profesor se dividieron en dos grupos: un grupo simétrico (dos estudiantes) y un grupo asimétrico (un estudiante y el profesor). Un individuo (el que recibía el andamiaje) en cada grupo debía escribir un párrafo y el otro (el que recibía el andamiaje) debía proporcionar algunos comentarios sobre su texto. Los resultados mostraron que la naturaleza, los tipos y la calidad del andamiaje fueron diferentes en ambos grupos. Los investigadores concluyeron que ambos tipos de andamiaje condujeron a una mejora en la zona de desarrollo próximo de los estudiantes. Los andamiajes proporcionados por el profesor parecían más ricos y variados en comparación con los andamiajes proporcionados por un compañero igual.

Introduction and Review of the Literature

The socio-cultural theory of Vygotsky is at the heart of the social turn on the way to learning. This theory highlights peer collaboration and interaction in a second language (Fernández Dobao, 2012). From a sociocultural perspective, learning is a socially situated activity in which complex cognitive operations develop first among individuals and then within an individual (Vygotsky, 1978). Novices learn in cooperation with experts (Fernández Dobao, 2012). Socially constructed knowledge is gradually internalized and turned into learning (Kozulin, 2002). According to Vygotsky, individuals are not confined to artless stimulus–response performances; they are capable of constructing indirect associations between stimulations and responses using different links (Luria, 1976). These implied links are denoted as "mediation," which is obtained through technical artifacts (such as a saw) and psychological signs or tools (such as language) (Vygotsky, 1978). Through mediation, our connection with the world is facilitated by apparatuses—physical and figurative. However, Vygotsky's mediation construct didn't reflect on the "activities of human mediators beyond their function as vehicles of symbolic tools" (Kozulin, 2002, p. 69). This gap was occupied by Feuerstein and his associates (Feuerstein, 1990; Feuerstein et al., 1979), who established the concept of mediated learning experience (MLE) to explain the variance in children's mental growth. MLE is grounded on the fact that individuals' cognitive capabilities are not stationary but dynamic and liable to change based on proper forms of collaboration and tutoring (Naami & Farangi, 2023; Presseisen, 1992). In teaching, MLE is an intervention method proposed to expand learning; in second and foreign language studies, its

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utilization has lately been initiated in dynamic assessment (Farangi et al., 2015; Kozulin & Garb, 2002; Lantolf & Poehner, 2011), that is, borrowed from Vygotsky's theory of zone of proximal development and grounded in the mutual connection between instruction and assessment. Employment of the mediation approach and Activity Theory has recently bourgeoned in writing studies (Prior, 2006; Russell, 1997; Villamil & De Guerrero, 1996), simultaneous with the accumulative acceptance of sociocultural investigation in S/FLA and language learning approaches (Lantolf, 2000, 2006; Parks & Raymond, 2004). Since MLE highlights the collaborative and interactive nature of education, ordinary feedback characteristic of the teacher-controlled, product-based writing techniques in EFL classrooms is not recommended.

An extensively-accepted title associated with the theory of MLE exemplifying how assistance backs up progressive education using the Zone of Proximal Development (ZPD) is *scaffolding* (Aljaafreh & Lantoff, 1994; Bruner, 1978; Lidz, 1991). It was primarily presented by Wood et al. (1976) as teaching or other types of support delivered in an educational context to help learners accomplish levels of understanding that are difficult for them to attain without help. They regarded scaffolds as private in nature; that is to say, assistance delivered by a tutor or peer to facilitate the educational procedure. More recently, the idea of scaffolding was enlarged to embrace a host of diverse apparatuses and tools which can be employed by learners to help them with instructional practices. Lidz (1991) recognized scaffolded learning as the scaffolder's fine-tuning the intricacy and development of the instructional interaction to smooth the learner's grasp of the activity, delivering fuel when required, and giving inspiration and stimuli to the student to advance when prepared. As De Guerrero & Villamil (2000) suggested, scaffolding is a supportive behavior, chosen by an expert in cooperation with the novice learner, that facilitate the learner's achievement to higher levels of regulation. Wood et al. (1976) proposed that scaffolding has six important functions. These functions include (a) recruitment: involving the learner in a thought-provoking and interesting task; (b) reduction: simplifying the task so it has fewer elements; (c) maintenance: helping the learner stay on task and motivated; (d) marking: stressing the chief part of the task; (e) frustration control: reducing learner stress; and (f) demonstration: modeling an example answer for the learner. Williams (2012) contended that as learners taking part in scaffolded tasks, they are able to build up knowledge together, which brings about improvement in their ability. Research has also documented that cooperative interaction, the conversation which takes place among learners as they work together to answer linguistic problems, facilitates L2 writing. As such Prior (1998) perceived writing as a literary activity that is simultaneously localized, diffused, and mediated, and whose functional systems "involve co-genesis of individuals, practices, artifacts, institutions, and communities" (p. 32). Through Activity Theory research, Russell (1997) tried to link writing in the classroom with writing in broader social settings. Villamil and De Guerrero (1996) employed the concept of mediation to investigate revision in L2 writing of Spanish-speaking students by a peer and recognized five sorts of mediating tactics: use of symbols and external resources; employing the first language (L1); delivering scaffolding; going back to interlanguage knowledge; and voicing private speech. The results of all these studies demonstrated that a new learning experience is provoked by collaborative activities which include writing.

There is a bulk of empirical studies suggesting the significance of scaffolding behavior in students' learning process and achievement. Pishghadam and Ghadiri (2011), aimed at observing the process by which symmetrical and asymmetrical scaffolding contributed to EFL students' achievement in reading comprehension. This study was conducted in two phases; first, the quantitative phase of administrating a pre-test and post-test and second, the qualitative phase of interviewing students to delve into their attitudes, feelings, and experiences towards the way they learned reading comprehension strategies in the groups. The results of this research illustrated that asymmetrical scaffolding was more efficient than symmetrical scaffolding method. After eight weeks of asymmetrical scaffolding, it was evident that learner's reading scores significantly increased when compared to the symmetrical group scores. Also, it was concluded that the interaction between peers reduces anxiety, because when students work with each other, they receive feedback so that they can easily arrive at the correct answer. Likewise, in another study conducted by Izanlu and Farangi (2015) the effects of symmetrical (peer-level) and asymmetrical (expert-novice) scaffolding on the grammar acquisition of Iranian EFL university students was examined. This research contributed to the ongoing debate on optimal pairing strategies in collaborative language learning. The results of this study revealed that asymmetrical scaffolding for grammar instruction, aligning with Vygotskian perspectives and offering practical guidance for EFL classroom practices can significantly improve learner's grammar scores. Moreover, Xiao (2024) employed a scaffolding-based instructional design for integrating reading and writing in English language teaching, grounded in Vygotsky's ZPD. Using a narrative text from a senior high school textbook, the author designs a lesson that systematically deconstructs writing

into manageable tasks. These include genre analysis, structural mapping, procedural sequencing, and guided writing exercises, all intended to foster both comprehension and independent writing skills. The results showed how scaffolding can bridge the gap between learner's current abilities and desired writing outcomes. Also, it was concluded that scaffolding not only enhances students' writing competence and critical thinking but also supports teachers in diagnosing learning difficulties and refining instruction.

While the results of studies on mediated second and foreign language writing have been enlightening, there is still a gap in full appreciation of how scaffolding helps the L2 learning process. To add to the growing body of writing research and sociocultural research on writing and second language acquisition, the present study explored EFL learners' writing practice by drawing on two scaffolding procedures as mediational means. The central argument in this paper refers to two procedures of providing feedback to the students. These two procedures are rooted in two different psychosocial approaches which are widely discussed.

Piaget and Vygotsky on scaffolding

Jean Piaget (1896-1980) and Lev Vygotsky (1896-1934) have made such a deep impact on the area of psychological development and education that one may rightly consider their contributions as the building blocks of the field (Lourenço, 2012). One can find many differences in the works of these scholars, but we should not neglect the significant similarities. According to Lourenço, the similarities lie in the fact that these two scholars share the following: "1) a genetic, i.e. developmental, perspective; i.e. both scholars believe that development will occur regardless of the situation 2) a dialectical approach; i.e. both scholars believe that development is a feature of interaction with oneself or with the environment 3) a non-reductionist view; i.e. both scholars believe that development cannot be reduced to parts 4) a nondualistic thesis; 5) an emphasis on action; i.e. both believe that being active is the determining factor 6) a primacy of processes over external contents or outcomes; and 7) a focus on the qualitative changes over the quantitative ones" (Marti, 1996, p. 282). In spite of these similarities, there is one important difference between these two scholars, related to the interaction of development with the outside world. Piaget (1995) considered individuals as autonomous when facing with the social and physical world. According to Lourenço, (2012), in Piagetian psychology, development can be described without considering the important factors which can play roles in it (see Farangi & Mehrpour, 2022a, b; Piaget & Inhelder, 1974). For Vygotsky on the other hand, an individual's development is deeply rooted in the various social interactions in which he or she learns (Vygotsky 1962, 1978, 1994). In Vygotsky's theories individuals' social relationships are heteronomous. According to Lourenço, (2012), individuals' social relationships can be of two sorts: the relationship between two equal peers (symmetrical) and the relationship between individuals at different levels of ability (asymmetrical). He argues that the relationship between two equal peers is in line with the idea of autonomy and the relationship between two individuals at different ability levels is in line with the idea of heteronomy. Therefore, we considered this distinction as the cornerstone of our study and investigated the difference between symmetrical and asymmetrical scaffolding in an EFL context. The uniqueness of the study is bound to the fact that it used a microgenetic procedure to examine scaffolding processes. The microgenetic approach allows us to go into details while giving a more comprehensive approach. For this purpose, the following research question was addressed:

RQ1. Do symmetrical and asymmetrical scaffolding behaviors lead to improvement in an intermediate EFL learner's writing ability?

Methodology

This study investigated the implementation of two scaffolding behaviors, symmetrical and asymmetrical, and examined the results in Iranian EFL learners' writing quality. According to Vygotsky (1978), a systematic, infinitesimal scrutiny of psychological developments is indispensable for the inspection of development, "any psychological process, whether development of thought or voluntary behavior, is a process undergoing changes right before one's eyes. The development in question can be limited to a few seconds, or even fractions of seconds. [...] Under certain conditions it becomes possible to trace this development." (p. 61). This sort of "microgenetic" examination, as denoted by Wertsch (1985), is vital in discerning how psychological operations are molded. Employing microgenetic analysis, it is probable, in Vygotsky's (1978) metaphor, to "grasp the process in flight" (p. 68). Using the microgenetic approach, every minute variation in the contributors' performance was noted and explored for the sake of analyzing interactions among three intermediate EFL learners and a teacher as they worked collaboratively in producing an essay.

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Participants & setting

The participants of the present study were recruited from an EFL language classroom. The researchers selected six groups' interactions during writing tasks to illuminate the microgenesis of socially based individual writing skills. The core motive behind choosing these specific groups was the fact that their communications were adequately well-supplied and varied to give space to the inspection of a wide spectrum of performances that may happen during ZPD activation. The participants were three male intermediate EFL learners, native speakers of Persian who were registered in a foreign language institute to develop their writing skills, and their teacher, who held MA in teaching EFL. At the beginning of the study, those who were selected to take part in the study were given a consent form to fill out and asked to talk to their parents about taking part in the study. The researchers also met with the institute's educational director and explained the procedures to him (Farangi et al., 2017). The educational supervisor agreed to help the researchers in the research process by providing them with a suitable classroom and time.

Scaffolding procedure

At first, the participants were divided into two groups, including two learners in one pair (symmetrical) and one learner and a teacher in the other (asymmetrical). In symmetrical pair, the researchers assigned one of the students as scaffolder (reader) and the other as scaffoldee (writer). In asymmetrical pair, the teacher was considered as scaffolder (reader). Both scaffolders were trained by the researchers on how to scaffold. The training sessions took five hours and Lidz's (1991) twelve component behaviors of adult mediating instruction were used with some modeling and examples of scaffolding. Both scaffolders were required to scaffold some learners on their writing abilities to ensure they had grasped the procedure. Then, the participants entered the treatment phase. The treatment took six 90-minute sessions. The researchers provided the groups with around 50 questions. The scaffoldees were required to answer these questions in a three to five line paragraph. They were given two minutes to think about the selected questions. After writing a paragraph, the scaffolders read it and provided comments on different elements of the scaffoldee paragraphs. The scaffolders (readers) and scaffoldees (writers) interacted throughout the process of finalizing the paragraph.

Data analysis

All the interactions between scaffolders (readers) and scaffoldees (writers) were audiotaped and transcribed by the researchers. For the purpose of analysis, the transcriptions were segmented into episodes, and those episodes which provided the richest scaffolding data were selected. As the context was an EFL classroom focusing on communicative language teaching, all interactions among scaffolder and scaffoldee occurred in English. Some episodes from asymmetrical and some from symmetrical pairs were compared and examined. Employing a microgenetic lens, instances or episodes were carefully observed to investigate (a) nuance variations in scaffoldees' writing performance during mediational process (b) the types of scaffolding behaviors provided by scaffolders to revise and improve the paragraphs (De Guerrero & Villamil, 2000; Soozandehfar & Souzandehfar, 2022). To analyze the scaffolding mechanisms, features and categories of assistance in ZPD developed by other researchers (e.g., Aljaafreh & Lantolf, 1994; Bruner,1978; & Lidz, 1991) and were considered.

Results

The pairs settled down and the scaffoldees started to write. The participants agreed that, after writing each paragraph, the scaffoldee should pause and asks for the scaffolder's comments. In the asymmetrical group, the scaffolder (teacher) provided the scaffoldee with some comments before writing the first paragraph. The comments are provided in the following episode:

Scaffolder: Read the question carefully and write the related vocabularies on paper.

Scaffoldee: Ok.

Scaffolder: Don't rush and think. Use your two minutes.

Scaffoldee: Ok.

As demonstrated above, the scaffolder provided the scaffoldee with some points on how to start the activity in order to succeed. These comments were not instructional but a type of rapport building comments to ameliorate the atmosphere. In other words, the scaffolder tried to attract his peer's attention to the task. Wood et al. (1976) described this scaffolding behavior as *recruiting interest in the talk.* According to Bruner (1978), among the scaffolding characteristics, one is related to making sure the learner attends to the task

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and concentrates on it. This type of scaffolding behavior necessitates a high degree of skill and experience from scaffolder to understand the situation and act appropriately. The scaffolder tries to remove distractions and support the learner to move forward. Based on the twelve component behaviors of adults mediating instruction (Lidz, 1991), the scaffolder attempted to give meaning to the task by making the scaffoldee notice what was important and providing them with related information. This scaffolding action was also in line with De Guerrero and Villamil's (2002) arguments that scaffolding in the second language learning consists of those supportive actions adopted by the expert to facilitate the learning process for the novice. This behavior only occurred in the interactions between the teacher and student in the asymmetrical group. This may be due to teachers' overall control over the task and their experience. The teacher is aware that the learners may feel anxious at the beginning. Based on that knowledge, they select some relaxing techniques to help the learner. This act was in line with Wood et al.'s (1976) principles of successful scaffolding as they argued that it was essential for the scaffolder to attract the scaffoldee's attention and make the task less frustrating. It is clear that these actions necessitate a high level of skill and capability on the scaffolder's part. In the symmetrical group, the researchers were not able to find this type of scaffolding behavior. In the symmetrical pair, no interaction occurred at the beginning of the first paragraph.

In this pair, for the first question, the scaffoldee selected, "What are the differences between big and small cities?". He wrote four lines on this topic. He made some mistakes in capitalization, spelling, grammar and indentation. The scaffolder somewhat rudely started his comments about indentation.

Scaffolder: You have made some mistakes.

Scaffoldee: What?

Scaffolder: How do we start a paragraph in English.

Scaffoldee: What do you mean?

Scaffolder: We need something at the beginning of every paragraph.

Scaffoldee: [He thinks for some seconds.] *Aha, some space, do you mean?*

Scaffolder: Yup, indent the paragraph.

The above episode provided us with some evidence of scaffolding behavior. The scaffoldee did not indent his paragraph. The scaffolder noticed it and tried to help them to correct it. However, it seems that the scaffoldee was familiar with indentation, but he was not able to recognize the problem until the scaffolder provided a more explicit comment. After being referred to the beginning of the paragraph, the scaffoldee was able to notice what was missing. This is a type of scaffolding behavior in the form of giving a mini-lesson (Villamil & De Guerrero, 1996). The scaffolder tried to bring to the fore a structure which was learnt previously but could not be applied right now. It seems that the scaffoldee was convinced by the scaffolder's argument and accepted the correction.

The scaffolder continued reading the paragraph. In another part of the text, "*big cities have more parks and restaurants small cities have more gardens and mountains" was written. It seemed he focused more on acceptable meaning instead of a well-established structure. The scaffolder noticed that and started by appreciating the nice comparison made between large and small cities. However, he argued that besides paying attention to the meaning, the writer should consider the structure.

Scaffolder: There is a problem in these sentences.

Scaffoldee: What?

Scaffolder: Look at them.

Scaffoldee: Hum.

Scaffolder: You have two sentences.

Scaffoldee: Yes.

Scaffolder: You have two separate sentences.

Scaffoldee: Uhum. Yes. Separate sentences. I need a dot here [between the sentence].

Scaffolder: Yes, you are right.

As you can see from the above episode, the problem was with writing two sentences without separating them by a dot. This was not a point unknown to the scaffoldee. The scaffolder struggled to make the scaffoldee understand that you can improve your style of writing by following some simple rules. He did this indirectly without telling the scaffoldee what to do. The scaffoldee was able to understand that when a sentence is finished, we should use a dot and then start a new sentence. He argued that he knew this fact but didn't follow it here as he was focusing on the meaning. The scaffolder accepted the argument and

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suggested that he should pay attention to both meaning and form in his writing. Based on the Lidz's (1991) taxonomy, this behavior can be considered as contingent responsivity. It is the ability to "read the [tutee]'s cues and signals related to learning, affective, and motivational needs, and then to respond in a timely and appropriate way" (p. 109). The scaffolder guessed that explicitly telling the scaffoldee to correct the punctuation mistake might make him frustrated, so he helped the scaffoldee to correct his own mistake.

In the asymmetrical group, there were some errors in spelling. These types of errors were prevalent in paragraphs written by scaffoldees in both groups. The errors ranged from minor omissions or addition of a letter to major misspellings of a word. In the asymmetrical group, the scaffolder ignored some minor errors but reacted to some major errors. In most of the scaffolding episodes, something like the following happened. The scaffoldee wrote, "*so many poople live in big cities". The scaffolder tried to make the scaffoldee notice the error in his text. Look at the following episode:

Scaffolder: look at this sentence.
Scaffoldee: Ok.
Scaffolder: Is there any mistake?
Scaffoldee: I don't know, maybe.
Scaffolder: Pay attention to the words.
Scaffoldee: Ok. What?
Scaffolder: One word is wrong.
Scaffoldee: Which one?
Scaffolder: You! Find.
Scaffoldee: Many?
Scaffolder: No!
Scaffoldee: Poople?
Scaffolder: Yes.
Scaffoldee: What?
Scaffolder: Spelling.
Scaffoldee: I think it is right
Scaffolder: No.
Scaffoldee: What is correct?
Scaffolder: People.

In this episode, the scaffolder tried to make scaffoldee find his mistake in the sentence. Although the scaffolder could have pointed directly to the word, he decided to delay this so as to let the scaffoldee find the error.

In another example of scaffolding behavior for spelling, the scaffoldee was not able to find his error in the paragraph. This time, the scaffolder suggested the scaffoldee to consult the dictionary spelling of the words in a specific sentence. After checking some words, the scaffoldee was able to recognize his error and correct it. Although it is generally very difficult to pinpoint specific instances of improvement in a learner's ZPD, especially regarding their spelling, the researchers noticed that the scaffoldee in the asymmetrical group used the word "people" with correct spelling in another section. The scaffoldee did this independently without asking for the scaffolder's help. This can show that the scaffolding behavior was successful for this scaffoldee.

For the first question, scaffoldee in the symmetrical pair selected, "What do you do in your free time at school?". The scaffoldee wrote a paragraph about playing basketball in school with his friends. There were some errors in the paragraph including capitalization, spelling, grammar and indentation. The scaffoldee wrote the following sentence: "*they are two teams. *the guy trough ball into basket to score". As you can see in the sentences, the scaffoldee had some errors in capitalization and spelling. He did not start the sentence with a capital letter and the spelling of "through" is wrong.

Scaffolder: Your sentences are wrong.
Scaffoldee: Why?
Scaffolder: Some mistakes.
Scaffoldee: Where?
Scaffolder: At the beginning of your sentences.

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Scaffoldee: What are the mistakes?

Scaffolder: Start sentences with capital letters.

Scaffoldee: Oh, you are right.

We should keep in mind that the scaffoldee and the scaffolder in this group were at the same level of proficiency in English. A very significant difference from the asymmetrical group was that no affective involvement (Lidz, 1991) was observed in the symmetrical group from the scaffolder side. The scaffolder attempted to be strict and authoritative. In this episode, the scaffolder commented on the capitalization error directly and explicitly. He did not allot time to the scaffolder to find his error. After recognizing the error, the scaffoldee wrote the words "they" and "the" with capital letters. The scaffoldee's response to the scaffolder comment showed that he knew that we should start English sentences with capital letters but he missed it in these sentences. Then, the scaffolder continued.

Scaffolder: There is another mistake in your writing.

Scaffoldee: What else?

Scaffolder: Spelling.

Scaffoldee: I don't think so.

Scaffolder: Look at the second sentence.

Scaffoldee: I don't know. Maybe guy.

Scaffolder: No. trough.

Scaffoldee: What is the right spelling?

Scaffolder: You need an H between t and r.

Scaffoldee: Ok.

Again, the scaffoldee corrected the mistake and continued. As you noticed, in both cases the scaffolder corrected scaffoldee's mistakes explicitly. He didn't allow the scaffoldee to guess about the correct forms. Also, at first, the scaffoldee showed some resistance towards the scaffolder's comment on the spelling of his words, though he corrected it afterwards. Again, the scaffolder's tone was authoritative. It seemed that he enjoyed correcting his friend's mistakes.

Instruction or giving a mini lesson as a type of scaffolding behavior also occurred in the symmetrical group however differently from the asymmetrical group. Here, also, the problem was with indentation. The scaffoldee started his paragraph about the global warming without indentation.

Scaffolder: Again, you have a mistake.

Scaffoldee: What? [angrily]

Scaffolder: Indentation.

Scaffoldee: What do you mean?

Scaffolder: There should be some free space at the beginning of each paragraph.

Scaffoldee: Uhum.

The mistake in indention was recognized by the scaffolder in the symmetrical group. The scaffoldee in this group was aware of indentation but he was not able to recognize it as an error in his text. The scaffolder in the symmetrical group decided to scaffold the scaffoldee explicitly although it led to scaffoldee frustration. The scaffolder didn't pay attention to the scaffoldee's uneasiness at being corrected. This is an example of an episode in which contingent responsivity (Lidz, 1991) as a scaffolding behavior was not followed by the scaffolder.

In another episode of symmetrical scaffolding, the question posed was, "What do you know about global warming?". The scaffoldee wrote: "*We should not throw plastic waste on ground, we should not smoke because it causes pollution". The problem was with punctuation. There was a need for a period between the two sentences and the scaffoldee didn't use it. There is a significant difference in the scaffolding provided in this episode.

Scaffolder: You made a mistake here.

Scaffoldee: Which?

Scaffolder: Punctuation!

Scaffoldee: Which part?

Scaffolder: Look at your sentences!

Scaffoldee: I used comma between the sentences and dot at the end.

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Scaffolder: Do you think it's correct?

Scaffoldee: Yes, why not.

Scaffolder: You should finish one sentence and start the other.

Scaffoldee: Ok.

After this episode something interesting happened. Not only did the scaffoldee correct his mistake based on the scaffolder's comment, but he made some other changes to the sentences based on previous scaffolding. The scaffoldee in the symmetrical group put a period between the two sentences and wrote 'we' in "we should not smoke…" with a capital letter. This occurrence showed that the scaffoldee's ZPD had been activated. The scaffoldee did something individually that he was not able to do previously.

Both scaffoldees in the symmetrical and asymmetrical groups had some grammar errors in their texts. However, the styles of error correction and feedback provided by the scaffolders were very different. We expected that the providence of feedback for the scaffoldees should be of different natures as the scaffolders have extensively different proficiencies and experiences. On one side, there was a language teacher with a thorough and explicit knowledge of English grammar, while in the other side we had a language student whose partial acquaintance with English grammar is taken from the teacher and the textbooks. Each group will be examined in turn.

In the symmetrical group, the question asked, "What is important for families in your country about their teenagers?". The scaffoldee wrote a paragraph which included this sentence, "*There are many many universities in my country but there are only few spaces at very good university". The sentence was about the importance of teenagers' entrance into universities. The scaffoldee used two "many" in the sentence to emphasize the number of universities in his country.

Scaffolder: You have some grammar mistakes.

Scaffoldee: Where?

Scaffolder: In this sentence:

Scaffoldee: Which part?

Scaffolder: You should not use two "many" before a noun.

Scaffoldee: Why?

Scaffolder: Because you should use only one.

Scaffoldee: Why?

Scaffolder: I don't know why. But I know you should only use one before the noun. We read this in one lesson. Do you remember?

Scaffoldee: No.

Scaffolder: Ok. But change it. It's wrong.

Scaffoldee: I change it now, but we should ask the teacher later.

Scaffolder: Agree.

This can be a very interesting example. The scaffolder noticed that there was an error in the sentence. He mentioned that to the scaffoldee. The scaffoldee asked the reason but the scaffolder was not able to provide the reason. He only knew implicitly that we should not use "two *many*" before a noun. This may be due to the fact that the scaffolder's knowledge of English grammar was partial and implicit. He was not able to use his metacognitive knowledge to talk about the grammar rules. Based on his experience, he correctly identified an error in the text, but he didn't know that 'many' can be modified with "very" and "so," but not with its repetition. Another important point here is that the scaffoldee did not completely trust scaffolder's comment on grammar and suggested they should consult it with the teacher. This can be an important point in symmetrical scaffolding behavior as it may imply that the knowledge which comes from an authoritative figure (a teacher in this case) is more acceptable compared to other types of knowledge.

The correction of grammar mistakes was somewhat different in the asymmetrical group. The presence of an EFL language teacher made scaffolding more efficient and useful. The scaffoldee in this group wrote about his last holiday. He wrote, "In my last holiday, I went to the north of Iran. We went to the sea. *I swim with my family. The sea was very quiet". The scaffoldee used capital letters and the appropriate placement of punctuation. After finishing the paragraph, the scaffolder required the scaffoldee to read the sentence again.

Scaffolder: I think you made a mistake here.

Scaffoldee: I am not sure.

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Scaffolder: Look again.

Scaffoldee: I used capital letters.

Scaffolder: You are right. Something else.

Scaffoldee: What? I can't find.

Scaffolder: What is the time your sentence.

Scaffoldee: Past.

Scaffolder: Good [Silence for seconds]

Scaffoldee: What is wrong?

Scaffolder: What is the time of verbs in a past sentence?

Scaffoldee: Past.

Scaffolder: Ok, so!

Scaffoldee: Went is past, went is past, oh, yes, swim.

Scaffolder: Right. What's wrong with it?

Scaffoldee: It should be past.

Scaffolder: You are right

Scaffoldee: I swam with my family.

Scaffolder: Right, but!

Scaffoldee: What?

Scaffolder: The verb for swim is go! You can say go swimming! It is a collocation. Collocation means occurrence of two words together such as go swimming, take a taxi, big decision, great power, etc.

Scaffoldee: Ok. So, we go swimming with my family. Ok?

Scaffolder: No!

Scaffoldee: Oof! What?

Scaffolder: Remember the time.

Scaffoldee: You are right! We went swimming with my family.

There are some interesting points here. First, the previous scaffolding was effective in this group. Not only the did scaffoldee start his sentences with capital letters, but he also mentioned this to the scaffolder while he was searching for a mistake. This occurrence may imply that the scaffoldee's ZPD improved as a result of the previous scaffolding. Also, there was a significant difference in the way the scaffolder supported the scaffoldee in this group. The scaffolder in the asymmetrical group (the teacher) had a complete knowledge of grammar rules and knew how to explain them. He tried to be implicit when the scaffoldee knew the grammar rule (when explaining about the past tense in English). But, when the scaffoldee didn't know the rule, he was explicit and explained the rule (explaining about the collocations in English).

Although both scaffolders provided scaffolding on some grammar points, the scaffolder in the symmetrical group did this based on his intuition and was not sure, but the scaffolder in the asymmetrical group did that based on his knowledge and was sure. Also, there was another important difference. The scaffolder in the asymmetrical group was able to understand the scaffoldee's uneasiness about being corrected and responded appropriately. When the scaffoldee frowned and said that he used the capital letters, the scaffolder responded with a smile and soft voice so as to calm the scaffoldee. According to Lidz (1991), this is an example of scaffolding behavior called contingent responsivity.

An interesting scaffolding behavior was spotted in the asymmetrical group. It was in the third session and the scaffolder was aware that he had provided many corrections on the scaffoldee's writings. He was hesitant to correct another mistake for this session. Near the end of the session, the scaffoldee made a mistake. The title of the paragraph was, "Describe your best friend". The scaffoldee wrote: "We play together. We go to schools together. We eat sandwich together. We do the exercises together. We buy together". Although the sentences were correct, the scaffolder was not satisfied with this monotonous style of writing. So, he decided to ask the scaffoldee to change the structure, although he was aware that the scaffoldee might get angry about it.

Scaffolder: You know, all the sentences are correct.

Scaffoldee: Thanks.

Scaffolder: It seems you are close friends.

Scaffoldee: Yes, sure.

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Scaffolder: I think, you should write better when you are writing about your best friend.

Scaffoldee: What do you mean?

Scaffolder: It is better to change this sentences.

Scaffoldee: How?

Scaffolder: You used five sentences to talk about what you do with your best friend. Don't you think it is better to make them one?

Scaffoldee: Why?

Scaffolder: Because the sentence can look nicer. Do you agree?

Scaffoldee: You are right.

Scaffolder: Also, you can put an etc. at the end of the sentence to show that you do many other things together. Yes?

Scaffoldee: Yes, Thank you. You are right.

At the beginning of the episode, we can see that the scaffolder praised the scaffoldee for his good work. This may have two reasons. First, it may show that the scaffoldee desired to prepare the conditions for providing the next comment. He praised the scaffoldee in order to reduce the possible following tension. Second, the scaffolder may have praised the scaffoldee for its own sake and because he had done a nice job up to now. This is a type of scaffolding behavior recognized by Lidz (1991) as praise and encouragement. By this behavior, the scaffolder intends to increase the scaffoldee's self-esteem by communicating to him or her that he or she has done a great job.

Also, in this episode, the scaffolder recognized the scaffoldee 's feeling of being corrected many times. So, he decided to relieve the tension by giving a comment on something interesting to the scaffoldee. Therefore, he decided to provide scaffolding on sentences which were related to the scaffoldee's best friend. This way, the scaffolder attempted to arouse scaffoldee's interest and agreement about the comment. In other words, in this episode, the scaffolder showed that he cared about the scaffoldee's feelings. Lidz (1991) called this scaffolding behavior as affective involvement.

The next episode demonstrates a scaffolding behavior called modeling (Bruner, 1978). Modeling is a characteristic of every language teaching methodology in which the language teacher provides some models of the target element in order to facilitate learners' subsequent use. In ordinary language classes, this modeling is usually provided before the learners start to act. In this study, however, the researchers concentrated on the learner's performance before providing any feedback or help, so the teacher's modeling occurred based on the learner's need. As expected, the modeling behavior happened in the asymmetrical group. The learner was writing about a school story. He wrote, "I am always on time. I go to school every day. One day, I was very sick. I still went to the school. My teacher told me you should stay at home and take a rest". The scaffolder told the scaffoldee that he should rewrite this sentence: "One day, I was very sick. But I still went to the school". The scaffolder told the scaffoldee to make it a single sentence. The scaffoldee asked how and the following episode happened:

Scaffolder: Use "although" and change these two sentences into one.

Scaffoldee: Although?! What does it mean?

Scaffolder: It means گرچه [In Persian].

Scaffoldee: Good, but I don't know how.

Scaffolder: Ok! Look at this example!

Scaffolder: We have two sentences: "Its hot outside. I still want to go jogging!". You want to connect these sentences with "although". You write: "Although its hot outside, I want to go jogging!".

Scaffolder: Did you understand?

Scaffoldee: Yes, easy

Scaffolder: Now change your own sentence.

Scaffoldee: "Although I was very sick, I went to school".

Scaffolder: Great. You are right.

As seen in the previous episode, the scaffolder used a modeling strategy to help the scaffoldee transfer this model to a new structure. Although the scaffolder delivered a brief and non-collaborative act of instruction, the scaffoldee approved the scaffolder's modeling and his ZPD was activated when he revised this sentence by himself.

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Discussion

This study aimed to examine how two procedures of symmetrical and asymmetrical scaffolding can make variations in EFL learners' writing practices. While earlier studies highlighted the importance of scaffolds in learners' L2 writing, they have not used a microgenetic lens to show a comprehensive picture of how employing two different mediational procedures brings about improvement in EFL learners' writing abilities.

The findings of this study revealed that both symmetrical and asymmetrical feedback can be implemented through a variety of common techniques. Mainly, the researchers attempted to indicate that patterns of feedback among the two groups cannot be predicted and one group cannot be said to outperform over the other group. However, a microgenetic analysis of scaffolding episodes indicated some differences between the symmetrical and asymmetrical pairs. First, the nature of scaffolding behaviors was different. In the asymmetrical group, the scaffolding was performed by a teacher, which was from an authoritative stance with a higher level of knowledge and proficiency. While, in the symmetrical group, the scaffolding was provided by a peer at the same level of ability and knowledge. Given that, the knowledge which came from an authoritative expert was more acceptable to the scaffoldee than the knowledge from someone at the same level of language proficiency. Regarding this issue, the findings of this study are in line with the previous studies which highlighted that the excellence of instructor determines the success of learning and learner's acceptance and obedience to them (Bradley & Bradley, 1984; Hofstede, 1986; Liu, 1998; as cited in Keranen & Bayyurt, 2006).

Second, it was indicated that some scaffolding behaviors only happened within asymmetrical group. For instance, preparing the scaffoldee to write at the beginning of the study by the use of metatalk, encouraging and praising the scaffoldee for what he had accomplished and providing models for the scaffoldee were only identified in the asymmetrical group from the teacher. Likewise, Vahdat et al. (2024) suggested that while both collaborative scaffolding approaches are effective, asymmetrical pairs is more impactful for enhancing reading and writing skills in EFL context. In the same vein, Pishadast et al. (2022) in their study illustrated that while all forms of scaffolding are beneficial, incorporating motivationally oriented support such as encouraging feedback form an expert is particularly powerful in fostering writing development in EFL context. Also, Xiao (2024) highlighted that teacher's temporary, adaptive support is more efficient since it bridges the gap between learners' current abilities and desired writing outcomes.

Third, in the current study grammar scaffolding was provided in both groups, with the difference that the scaffolder in the symmetrical group did this based on his guesses and intuitions while the scaffolder in the asymmetrical group did this based on his knowledge. This finding is alignment with Farangi and Isanlu (2015), who suggested that asymmetrical scaffolding led to statistically significant improvements in grammar scores, whereas symmetrical scaffolding did not yield significant gains. Which means that heterogeneous pairs optimize scaffolding benefits since it is based on the expertise's knowledge.

Fourth, the scaffolders in the symmetrical and asymmetrical groups selected different strategies to help the scaffoldees improve their writing abilities. And the fifth finding is the way scaffoldees responded to the comments was different in the two groups. On the one hand, the scaffoldee in the symmetrical group felt angry and disturbed by being corrected by a peer at the same level of language proficiency. He knew that he was aware of his mistakes and resisted accepting the peer's suggestions. On the other hand, the scaffoldee in the asymmetrical group did not have any problem with being corrected as it was his teacher who corrected him. While the findings of this study indicated that scaffoldee in symmetrical pairs got angry by his peer-level comments in EFL writing practices, Pishghadam and Ghadiri (2011), found that there are several positive points in symmetrical pairs support in EFL reading scaffolding which reduces scaffoldee's anxiety, because when peers work with each other, they have more of a chance to arrive at the correct answer, they have enough time to think, rehearse, and receive feedback.

Conclusion

This study aimed to investigate how providing symmetrical and asymmetrical scaffolding through using a microgenetic approach, can make variation in EFL learner's writing abilities and performances. In the present research, data was collected from audio-recorded interactions between symmetrical (two learners) and asymmetrical (one learner and the teacher) pairs. Analyzing the data indicated that a microgenetic approach could be effective in demonstrating learners' progress from other-regulation to self-regulation. The researchers found some instances of improvement in the scaffoldee's ZDP based on the observations of scaffoldings and following performances in both groups. This is an important point which should be taken into account by language teachers and teacher educators that foreign language writing should be considered

as an evolving process, not a product. Moreover, based on our findings, the quality of provided scaffolding behavior in the asymmetrical group was richer and more efficient, which means that Iranian EFL learners need instruction and modeling to be able to cooperate effectively in writing tasks. Since the level of collaboration between Iranian EFL learners is very low in the language classrooms, it is the responsibility of teachers to provide opportunities for students to practice pair work and interact in ways that extend one another's learning.

This study sheds light on some avenue for future research based on its limitations. First of all, in the current research other criteria of peers such as sex, age and personal variables were not considered and controlled, so it can be used as a possible topic recommended for future scholars. Second, because this study was conducted in the context of Iran, the obtained findings cannot be safely generalized to other situations and the future studies advised to be done in other EFL context. Third, in the present study the researchers asked the participants to use English as a medium of their conversation. It should be taken into account that by using their first language scaffolders in both groups may produce more helpful comments and feedback. Hence, future researchers are suggested to explore the role of first language in scaffolding learners. Finally, to obtain all-embracing results a longitudinal design will be necessary. Because following pairs in the symmetrical and asymmetrical groups for a long period of time and jotting down the important episodes can provide a more comprehensive picture of the impact of scaffolding behavior for improving learner's writing skill. The results of this study showed that both Vygotskiyan and Piagetian approaches to scaffolding can be effective but with to different degrees. The researchers found some instances of improvement in the scaffoldee's ZDP based on the observations of scaffoldings and following performances in both groups. This is an important point which should be taken into account by language teachers and teacher educators. However, the appropriate relationship between two equal peers should not be taken for granted at least in contexts like our study. As the level of collaboration between Iranian EFL learners is very low in the language classrooms, they need instruction and modeling to be able to cooperate effectively in writing tasks. Also, the results showed that a microgenetic approach was could be effective in demonstrating learners' progress from other-regulation to self-regulation. The results of this study also provided us with evidences of the social nature of foreign language writing and the feedback process. The results provided evidence for considering foreign language writing as an evolving process, not a product.

Those interested to follow this line of research should consider two important points. To obtain all-embracing results a longitudinal design is necessary. Following pairs in the symmetrical and asymmetrical groups for a long period of time and jotting down the important episodes can provide a more comprehensive picture of scaffolding behavior. The other important point is the role of first language in scaffolding learners. In this study, the researchers asked the participants to use English as a medium of their conversation. It should be taken into account that by using their first language scaffolders in both groups may produce more helpful comments and feedback.

References

Aljaafreh, A., & Lantolf, J. P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal, 7*8(4), 465-483. https://doi.org/10.1111/j.1540-4781.1994.tb02064.x

Bradley, D., & Bradley, M. (1984*). Problems of Asian students in Australia: Language, culture and education.* Australian Government.

Bruner, J. S. (1978). The role of dialogue in language acquisition. In A. Sinclair, R. J. Jarvella, & W. J. M. Levelt (Eds.), *The child's conception of language* (pp. 241-256). Max-Plank-Institut for Psycholinguistic.

De Guerrero, M. C. M., & Villamil, O. S. (2000). Activating the ZPD: Mutual scaffolding in L2 peer revision. *The Modern Language Journal, 8*4(1), 51-68. https://doi.org/10.1111/0026-7902.00052

Izanlu, M., & Farangi, M. R., & (2015). The effects of symmetrical and asymmetrical scaffolding on university students' grammar learning. *English Language Teaching, 2*(3), 87-103. https://jmrels.journals.ikiu.ac.ir/article_803_37e597abf759bcd191976456b855b603.pdf

Farangi, M. R., Kamyab, J., Izanlu, M., & Ghodrat, N. (2017). The effect of using SMS as a post task activity on Iranian EFL learners' grammar knowledge. *Journal of Language Teaching and Research, 8*(2), 392-403. https://doi.org/10.17507/jltr.0802.24

Farangi, M. R., & Mehrpour, S. (2022a). Iranian preschoolers vocabulary development: Background television and socio-economic status. *Journal of Early Childhood Literacy, 24*(3). http://doi.org/10.1177/14687984211073653

Farangi, M. R., & Mehrpour, S. (2022b). Preschool minority children's Persian vocabulary development: A language sample analysis. *Frontiers in Psychology, 13.* https://doi.org/10.3389/fpsyg.2022.761228

Farangi, M. R., Nejadghanbar, H., Askary, F., & Ghorbani, A. (2015). The effects of podcasting on EFL upper-intermediate learners' speaking skills. *CALL-EJ Online, 16*(2), 1-18. https://old.callej.org/journal/16-2.html

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Fernández Dobao, A. N. (2012). Collaborative writing task in the L2 classroom: Comparing group, pair, and individual work. *Journal of Second Language Writing, 21*(1), 40-58. https://doi.org/10.1016/j.jslw.2011.12.002
Feuerstein, R. (1990). The theory of structural cognitive modifiability. In B. Z. Presseisen, R. J. Sternberg, K. w. Fischer, C. C. Knight, & R. Feuerstein (Ed.), *Learning and thinking styles: Classroom interaction* (pp. 68–134). National Education Association.
Feuerstein, R., Rand, Y., & Hoffman, M. B. (1979). *The dynamic assessment of retarded performers: The learning potential assessment device, theory, instruments, and techniques*. Scott Foresman.
Hofstede, G. (1986). Cultural differences in teaching and learning. *International Journal of Intercultural Relations, 10*(3), 301-320. https://doi.org/10.1016/0147-1767(86)90015-5
Izanlu, M., & Farangi, M. R., & (2015). The effects of symmetrical and asymmetrical scaffolding on university students' grammar learning. *English Language Teaching, 2*(3), 87-103. https://jmrels.journals.ikiu.ac.ir/article_803_37e597abf759bcd191976456b855b603.pdf
Keranen, S. A., & Bayyurt, Y. (2006). Teaching English as a world English: A case from Turkey. *World Englishes, 23*(3), 499-511. https://doi.org/10.1002/j.1545-7249. 2006.tb00085.x
Kozulin, A. (2002). Sociocultural theory and the mediated learning experience. *School Psychology International, 23*(1), 7-35. https://doi.org/10.1177/0143034302023001729
Kozulin, A., & Garb, E. (2002). Dynamic assessment of EFL text comprehension of at-risk students. *School Psychology International, 23*, 112-127. https://doi.org/10.1177/ 0143034302023001733
Lantolf, J. P. (2000). Second language learning as a mediated process. *Language Teaching, 33*(2), 79-96. https://doi.org/10.1017/S0261444800015329
Lantolf, J. P. (2006). Sociocultural theory and L2: State of the art. *Studies in Second Language Acquisition, 2*8(1), 67-109. https://doi.org/10.1017/S0272263106060037
Lantolf, J. P., & Poehner, M. E. (2011). Dynamic assessment in the classroom: Vygotskian praxis for second language development. *Language Teaching Research, 15*(1), 11-33. https://doi.org/10.1177/1362168810383328
Lidz, C. S. (1991). *Practitioner's guide to dynamic assessment*. Guilford.
Liu, D. (1998). Ethnocentrism in TESOL: Teacher education and the neglected needs of international TESOL students. *ELT Journal, 52*(1), 3-10. https://doi.org/10.1093/elt/52.1.3
Lourenço, O. (2012). Piaget and Vygotsky: Many resemblances and a crucial difference. *New Ideas in Psychology, 30*(3), 281-295. https://doi.org/ 10.1016/j.newideapsych.2011.12.006
Luria, A. R. (1976). *Cognitive development: Its cultural and social foundations*. Harvard University Press.
Maley, A. (1984). Reconciling communicative with traditional approaches to language teaching: Can it be done?. *Foreign Language Teaching and Research, 57*(1), 42-48.
Marti, E. (1996). Mechanisms of internalization and externalization of knowledge in Piaget's and Vygotsky's theories. In A. Tryphon, & J. Vonèche (Eds.), *Piaget–Vygotsky: The social genesis of thought* (pp. 57– 83). Psychology Press.
Naami, A., & Farangi, M. R. (2023). Attitude subsystem in recounts told by Persian male and female webloggers. *Journal of Foreign Language Teaching and Translation Studies, 8*(2), 19-44. https://doi.org/ 10.22034/efl.2023.392600.1242
Parks, S., & Raymond, P. M. (2004). Strategy use by nonnative-English-speaking students in an MBA program: Not business as usual. *The Modern Language Journal, 88*(3), 374–389. https://doi.org/ 10.1111/j.0026-7902.2004.00235.x
Piaget, J. (1995). *Sociological studies*. Routledge.
Piaget, J., & Inhelder, B. (1974). *The child's construction of quantities*. Routledge & Paul Kegan.
Pishdast, A., & Mojavezi, A., & Okati, F. (2022). Enhancing writing ability through scaffolding techniques: A mixed-methods study. *Journal of Foreign Language Research, 12*(3), 214-237.
Pishghadam, R., & Ghardiri, S. (2011). Symmetrical or asymmetrical scaffolding: Piagetian vs. Vygotskyan views to reading comprehension. *Journal of Language and Literacy Education, 7*(1), 49-64. https://files.eric.ed.gov/fulltext/EJ1097243.pdf
Presseisen, B. Z. (1992, February 9). *Implementing thinking in the school's curriculum* [conference session]. Third Meeting of the International Association for Cognitive Education, Riverside.
Prior, P. (1998). Writing/disciplinarity: *A sociohistoric account of literate activity in the academy*. Lawrence Erlbaum Associates.
Prior, P. (2006). A sociocultural theory of writing. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 54–66). The Guilford Press.
Russell, D. R. (1997). Rethinking genre in school and society: An activity theory analysis. *Written Communication, 14*(4), 504–554. https://doi.org/ 10.1177/0741088397014004004
Soozandehfar, S. M. A., & Souzandehfar, M. (2022). A socioculturally microgenetic scrutiny on the mediational role of teacher/peer scaffolding. *Iranian Evolutionary and Educational Psychology Journal, 4*(1), 156-177. https://doi.org/10.52547/ieepj.4.1.156
Vahdat, S., & Shooshtari, Z., & Al-Saedi, A. (2024). Investigating the effect of symmetrical scaffolding and asymmetrical scaffolding on Iraqi EFL learners' vocabulary development and reading comprehension. *The Islamic University College Journal, 2*(80), 28-49. https://doi.org/10.51837/0827-000-080-066

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Villamil, O. S., & De Guerrero, M. C. M. (1996). Peer revision in the L2 classroom: Social-cognitive activities, mediating strategies, and aspects of social behavior. *Journal of Second Language Writing, 5*(1), 51–75. https://doi.org/ 10.1016/s1060-3743(96)90015-6

Vygotsky, L. (1962). *Thought and language*. The M.I.T Press.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Vygotsky, L. (1994). Academic concepts in school aged children. In R. van der Veer, & J. Valsiner (Eds.), *The Vygotsky scaffolder* (pp. 111–126). Blackwell.

Williams, J. (2012). The potential role(s) of writing in second language development. *Journal of Second Language Writing, 21*(4), 321-331. https://doi.org/ 10.1016/j.jslw.2012.09.007

Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry, 17*(2), 89–100. https://doi.org/10.1111/j.1469-7610.1976.tb00381.x

Wertsch, J. (1985). *Mind as action*. Oxford University Press.

Xiao, L. (2024). A scaffolding teaching design: Reading for writing. *International Journal of Education and Humanities, 15*(2), 269-272. https://doi.org/10.54097/jc4np221

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