

In the name of God



Isfahan University of Technology

English Language Center

**An Investigation into the Types and Techniques of Scaffolding used
by Iranian EFL Teachers: A Case Study of Two English Institutes
in Isfahan**

A Thesis

Presented to

The English Language Center

Isfahan University of Technology

In Partial Fulfillment
of the Requirements for the Master's Degree
in Teaching English as a Foreign Language

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By

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Dedication

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Abstract

Scaffolding helps students improve their skills and handle complex materials (Cloud, Genesee, & Hayaman, 2009). Although a number of studies have been done on scaffolding in Iran, few studies have identified the types and techniques of scaffolding used in English language classes. Due to the importance of scaffolding in the teaching process, this study aimed to investigate the extent to which various scaffolding types were provided in EFL classes in Iran. It was also to delineate the types and techniques of scaffolding used in the EFL classes. Through availability sampling technique, eight Iranian EFL teachers who teach TOP NOTCH 2 at Jahad Daneshgahi academic institutes in Isfahan were surveyed. In order to study scaffolding, all of the sections of the classes were transcribed, codified, and analyzed using Wu's (2010) framework of scaffolding. The results of the study showed that the types of scaffolding used by Iranian EFL teachers included cognitive, metacognitive, procedural, and context scaffolding. However, Motivational scaffolding was not used in any of the classes. The techniques that teachers used to improve learning included giving instances, providing introduction to activate students' mind before teaching, relating new material to students' background knowledge, giving hints, providing some opportunities to help students evaluate their learning (i.e. summarizing and questioning), proposing a number of steps for teaching, dividing vocabularies to its parts, relating the concepts to pictures, and referring students to the resources. The extent to which scaffolding was used in EFL classes equaled 35.8 %, of which 6.55, 11.71, 17.4, and 0.03 % were devoted to cognitive, metacognitive, procedural, and context scaffolding, respectively. The results of the study can help universities and language institutes to instruct and choose the best teachers and material developers to prepare the best materials for teaching.

Keywords: scaffolding, cognitive scaffolding, metacognitive scaffolding, procedural scaffolding, context scaffolding, motivational scaffolding, ZPD.

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Transcription Key

Aspects of the Relative Timing of Utterances

[]	square brackets	overlapping talk
=	equals sign	no discernible interval between turns (also used to show that the same person continues speaking across an intervening line displaying overlapping talk)
(0.5)	time in parentheses	intervals within or between talk (measured in tenths of a second)
(.)	period in parentheses	discernable pause or gap, too short to measure
.	period	closing intonation
,	comma	slightly upward 'continuing' intonation
?	question mark	rising intonation
!	exclamation mark	animated tone
@	laugh	
:	colon	extension of preceding sound; the more colons the greater the extension
<u>here</u>	underlining	emphasized relative to surrounding talk
HERE	upper case	louder relative to surrounding talk
hhh		audible outbreath (no. of 'h's indicates length)
.hhh		audible inbreath (no. of 'h's indicates length)
()	empty single parentheses	transcriber unable to hear word
(bring)	word(s) in single parentheses	transcriber uncertain of hearing
((coughs))	word(s) in double parentheses	transcriber's comments on, or description of, sound; other audible sounds are represented as closely as possible in standard orthography (e.g. 'tcht' for tongue click; 'mcht' for a lip parting sound)

Chapter One

Introduction

1.1. Overview

In this thesis, we studied the types and techniques of scaffolding used among EFL teachers in Iran. In the first chapter, we address the problem under investigation, clarify the objectives of the study, formulate the research questions, point out the significance of the study, and define the key terms.

1.2. Statement of the problem

English as a Foreign Language (EFL) students live in countries where English is not the means of communication. They study English for different purposes like academic purposes or business. Most of them practice English a few hours per week and only inside the class (Camenson, 2007). EFL students must do a number of tasks and activities to help them learn English better; they are novice, however, and need help in this regard. They are not as familiar with the language as an expert is (Many & Aoulou, 2014). They even do not have

enough opportunities to use the language outside the classroom (Gebhard, 2006). Thus, it seems to be the teachers' responsibility to support students to do the task that students cannot do on their own. On the other hand, students should not be dependent on the teacher. In other words, the teacher should foster autonomy in his/her students. Accordingly, in order to help students manage their own learning, student-centered activities are proposed (Clark & Graves, 2005). The concept of scaffolding helps both teachers and students to reach this goal. By providing appropriate types of scaffolding, the teacher allows new knowledge to be constructed, incomplete or wrong concepts to be challenged and corrected, or forgotten knowledge to be recalled (Holton & Clarke, 2006). "This type of scaffolding stimulates learner activities in the zone of proximal development" (p.129).

In ZPD, we study the gap existing between what the student can do without help and what he/she can only do with assistance (Engin, 2014). For example, in a study by Vygotsky (1986), a task was given to two 8-year-old students. They could not, however, do the task alone. Thus, they received some help. The first child managed to do the task as a 12-year-old child did, but the second child could just do the task the same as a 9-year old child. The first child is said to have a larger ZPD guided by scaffolding of a teacher or a more able peer (Engin, 2014). Hence, in ZPD, individuals do a task with the assistance of the teachers or other students (Nguyen, 2013). They construct meaning by social and mental processes (Santoso, 2010). To do so, students need teachers' support to increase cognitive abilities; this is done through scaffolding (Wu, 2010). This collaboration between the expert and the novice leads to progress in their learning process (Ahmadi Safa & Rosati, 2016). The teacher helps the student to internalize the information in order to have a self-conscious control over his or her learning (Kazak, Wegerif, & Fujita, 2015).

Scaffolding includes four phases. In the first two phases (trust and collaboration), students, who learn a language, have absolute trust in the expert and rely on him or her, thereby resulting in collaboration between them. They work together to construct knowledge. This is the external phase. Next, there are two internal phases (self-reliance and internalization) in which students learn by themselves and internalize what they have learnt (Gillani, 2003). Teachers must choose an appropriate task for scaffolding. The task should help students' production and engagement. The difficulty of the task must be evaluated and the teacher should anticipate the errors students may make in activities in order to help them

learn better. A teacher may use some questions, modeling, cues, or explanation to facilitate the learning process. The teacher may also employ post-task activities (Yelland & Masters, 2007).

Since there are differences among students, teachers must scaffold, the learning which best motivates the students and is compatible with different interests (Daniel, 2016). Scaffolding is a difficult process since teachers must be sensitive to the progress or development of the students in the classroom and consider what things should be taught and what should be ignored. The teacher should know what types of assistance, and to what extent, is needed (Many & Aoulou, 2014).

Scaffolding helps students improve their skills and handle complex materials (Cloud, Genesee, & Hayaman, 2009). It is important because it helps to lessen language barriers (cognitive, metacognitive, motivational), motivating students to engage in different activities. It can provide metacognitive skills required to do the tasks (Wolf, 2016).

A number of studies have been done on scaffolding in Iran (e.g. Poorjamshidi, Zanganeh, & Momenirad, 2014; Khosravi, 2017; Ranjbar and Ghonsooly, 2017; Gholami Pasand and Tahriri, 2017; Amiri Samani and Khazayie, 2017; Soleimani and Biria2016; Shoari and Assadi Aidinlou, 2015), Few studies, however, have identified the types of scaffolding used in English language classes (e.g. Safein Salem, 2017). It is consequently important to know which type is used in order to guarantee students' success. Due to the importance of scaffolding in the teaching process, this study aims to investigate the extent to which various scaffolding types are provided in EFL classes in Iran. It is also to delineate the types and techniques of scaffolding used in the classes.

1.3. Objectives of the study:

The present study aims at:

- identifying the types of scaffolding that teachers are likely to provide in their EFL classes in Iran;
- identifying the techniques that teachers are likely to provide in regards to each type of scaffolding in their EFL classes in Iran;
- identifying the extent to which scaffolding is provided in EFL classes in Iran;

1.4. Research questions

Considering the importance of scaffolding in language teaching, this study will answer these questions:

1. What types of scaffolding are teachers likely to provide in EFL classes in Iran?
2. What techniques are teachers likely to provide in regards to each type of scaffolding in EFL classes in Iran?
3. What is the extent of scaffolding provided in EFL classes in Iran?

1.5. Significance of the study

Scaffolding is very important since it determines the degree of success in the classroom by engaging the learners in the tasks (Dabbagh, 2003). The students can shape the structures of their thought with scaffolding, helping them to solve their problems. Therefore teachers must know how to scaffold language learners in different levels (Holton & Clarke, 2006). It helps students to be independent, since they may go abroad, start a business, or continue education and they shouldn't be dependent on their teacher. In lower levels, including the intermediate one, it is necessary to provide substantial scaffolding for students who are not professional in order to engage them in activities. Scaffolding helps English learners decrease the barriers they may face in the process of learning and reach higher levels so as to do the activities better and attain their goal. It also persuades students to do classroom tasks in a social context (Wolf, 2016).

Many studies have investigated the impact of scaffolding on the improvement of language skills (e.g. Ahangari, Hejazi, & Razmjou, 2014; Rahimi, 2015; Shin and Song, 2015; Soleimani & Biria, 2016; Kim and Cho, 2016; Hsieh, 2016; Kamil, 2017; Gholami Pasand & Tahriri, 2017; Ranjbar & Ghonsooly, 2017; Liu, 2018; San Martín, 2018). When students are provided with scaffolding activities, their reading and writing abilities are increased (Bruch, 2007). Listening skill can also be improved through scaffolding (Ahmadi Safa & Rozati, 2016). Scaffolding within ZPD also improves students' speech (Khaliliaqdam, 2014). In an EFL class, a teacher should integratively work on these skills and provide scaffolding for students. This study thus aims to study the types and techniques of scaffolding and the extent to which scaffolding is provided by EFL teachers in language institutes in Iran.

1.6. Definition of key terms

1.6.1. Scaffolding

Scaffolding is a form of support to help learners reach educational goals they cannot achieve themselves. It makes a connection between learners' abilities and their goals (Yu, Tsai, & Wu, 2013). In fact, it's a kind of temporary support for the activities that are beyond their abilities (Kazak, Wegerif & Fujita, 2015). Wu (2010) identified the following types of scaffolding (p.39):

A. "*Cognitive scaffolding*: Support for helping individuals understand the content of learning materials; For example, a prompt provides further details explaining the meaning of a term".

B. "*Metacognitive scaffolding*: Support for helping individuals to develop both the ability to recognize their knowledge and regulate their behaviors based on their reflection. For example, teachers may use question prompts to ask students to reflect upon their strengths and weaknesses";

C. "*Procedural scaffolding*: Support for helping individuals to employ learning processes or strategies in order to complete a task, reach a goal, or solve a problem. For example, an organized framework embedded in a computer-based system provides guidelines for students to solve problems";

D. "*Context scaffolding*: Support for helping individuals to maneuver through a learning environment and to operate tools and resources embedded in the learning environment. For example, a Help button tells students how to operate the tools in a computer program";

E. "*Motivational scaffolding*: Support which helps individuals to increase their perception of their own interests, abilities, and task values; for example, instructors help students to see the value of the learning task and its potential applications outside of school".

1.6.2. ZPD

According to Vygotsky (1978), ZPD or zone of proximal development is "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (as cited by Santoso, 2010, p. 86).

1.7. Outline of the thesis

This dissertation includes five chapters. In the first chapter, we delineated the statement of the problem, objectives of the study, research questions, significance of the study, and definitions of the key terms. In the second chapter, we review the existing literature on scaffolding. In the

third chapter, we present the methodology of the study. In chapter four, we point out the results of the study, and in the last chapter, we discuss the results.

Chapter Two

Review of the literature

2.1. Overview

Scaffolding is a kind of support that is given to learners in order to learn to do their tasks in the classroom. The need for scaffolding gradually reduces as students become stronger, while teacher's guidance may still remain (Scott, Slough, William, & Rupley, 2010). For a successful learning plan, scaffolding has an important role and helps students engage in the tasks (Dabbagh, 2003). In this chapter we elaborate on the origin of scaffolding, the development of scaffolding theories, and the studies done on scaffolding.

2.2. The origin of scaffolding

Wood, Burner and Ross (1976) defined scaffolding as “an adult controlling those elements of the task that are essentially beyond the learners' capacity. Thus permitting him to concentrate upon and complete only those elements that are within his range of competence” (Wood, burner and ross1976, P9). Some features of scaffolding in their idea was enhancing

frustration, absorbing children's interest, modeling and decreasing freedom. They used scaffolding to describe how parents and teachers help during a play in order to learn it. This support leads to improve students' abilities and fills the gaps in their abilities and knowledge (B. R. Belland, 2017).

Scaffolding is associated with theory of Lev Vygotsky subsequently developed by other scholars. Lev Vygotsky introduced the concept of ZPD which is the basis of scaffolding (Gonulal & Loewen, 2018). The ZPD represents "the distance between the actual development levels 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" (Vygotsky, 1978, p. 86). In Vygotsky's idea, the tools that can help students gain knowledge include adults, a more knowledgeable person, language and culture (santoso, 2010). In fact, activities are done in a cultural framework, and language and other factors are regarded as mediators (Vygotsky, 1978). Vygotsky believed that knowledge is built through the interaction between students and the teacher. Thus, students have an active role and negotiate meaning by the help of the teacher (Dickson, Chard, & Simmons, 1993). The teacher is aware of students' level of performance while interacting with them and support students during the tasks (Rogoff & Gardner, 1984).

Gillani (2003) stated that, in the process of learning, learners expand the ability of learning through four phases of ZPD. First, learners rely on others and collaborate in order to learn. A scaffolder can help them during this process. Then students rely on themselves and can internalize knowledge.

2.3. Development of scaffolding theories

The concept of scaffolding later expanded; scaffolding was not just associated with interactions between individuals. Nowadays, a number of tools and strategies are used for scaffolding (santoso, 2010).

Bell and Davice (1996) divided scaffolding into metacognitive and conceptual scaffolding. According to Bell and Davice, metacognitive scaffolding consists of activity prompts and self-monitoring prompts that can develop learning. Students are also given some hints for the evidence in a conceptual framework in order to organize the evidence, that is to say, conceptual scaffolding.

Hanafine, Land and Oliver (1999) offered another model for scaffolding. They divided scaffolding into four types: conceptual scaffolding, metacognitive scaffolding, procedural scaffolding, and strategic scaffolding. When the problem and the domains are defined, methods can be designed to solve those problems. Conceptual scaffolding can help both difficult and known problems to be solved. Hints and tools can help students solve their problems. In the conceptual scaffolding, the teacher helps students to know what they should attend to. In metacognitive scaffolding, students are given help about finding the way of thinking about the problem. It also helps them think about the goals. Sometimes it helps them associate a device or resource to a specific problem. Procedural scaffolding is related to the use of tools and resources and in the strategic scaffolding, students are given guidance to find the best ways to solve the problems. Analysis of the situation, planning for the problem solving, designing strategy, and tactical decisions are the steps of procedural scaffolding. Material and resources should be provided and new knowledge should be related to background knowledge. Another form of strategic scaffolding is helping students to use the tools and resources that are useful and guiding them how to use those tools and resources. Responsive-sensitive guidance in important decisions is another form of strategic scaffolding. For instance, students may use a resource and work on a concept. At the end, they should test their understanding. They can test themselves using tools and the relationships between variables.

Say and Brush (2002) discovered two types of scaffolding: soft and hard scaffolding. Soft scaffolding is a kind of help which is not static and is dependent on the situation. The teacher must observe students' progress and help them to solve their problems while needed. He/she must help them think deeply in order to solve their problems. To make the point clear, Say and Brush(2002) give an example:" if students fail to discern the differences in the messages of two civil rights figures, a social studies teacher might help them think more deeply about the texts by asking questions such as: "What does John Lewis mean when he says ____? Why do you think he uses the word ____? Do you find similar words in Martin Luther King's speech? Do you notice any difference in his tone and King's? " (p. 2). However, sometimes we know that most of the students have some difficulties in a specific task in advance. Accordingly, we plan software to help them do the task. This is called hard scaffolding.

Holton and Clarke (2006) defined scaffolding as a kind of help that makes immediate knowledge and helps students to be independent in the future. They studied scaffolding in mathematics, but they believed that their results can be used in other context too. They also claimed that when the learners are aware of scaffolding, they will be able to scaffold themselves in the future. Nonetheless, Holton and Clarke admitted that scaffolding may not improve learning in a particular time. Holton and Clarke proposed two domains (conceptual and heuristic) and three agencies (expert, reciprocal and self) of scaffolding. Conceptual scaffolding promotes conceptual development, while heuristic scaffolding is related to the ways of solving a problem. Scaffolding can be used in different situations: it can be applied by an agent in a situation where he may know the end result of the learner's activity. The expert provides support and the student receives it. This is the expert scaffolding. Scaffolding can be applied mutually among a group of learners, called reciprocal scaffolding. The students exchange information while working together and may make errors in this phase. Students have varieties of skills and knowledge which result in a form of scaffolding. They play the role of peer and sometimes an expert, but some disequilibrium may occur in this stage. Self-scaffolding is applied by an individual while confronting new knowledge or problems. This is a kind of essential scaffolding for students because it has a unique quality. There is no expert in this stage who knows the answers of the problem. The students do not have enough knowledge and experience to solve the problems. But the students have self-knowledge. They know what they really know and what they prefer to do. This is what an expert doesn't know clearly. Therefore, they may scaffold students with an incorrect assumption. The positive points of Holton and Clarke in comparison with previous models was that in previous studies neglected the *agency* but Holton considers that in scaffolding, the role of metacognition and self-scaffolding. In previous models, the role of students was neglected, and the role of teacher was just considered in scaffolding, but in Holton's theory others students can scaffold as peers. The student can scaffold themselves in self-scaffolding. In addition, Holton's theory is flexible for scaffolding learning in comparison with previous models.

Yelland and Masters (2007) suggested that in order to have a better teaching and learning process in computer contexts, extended conceptualizations of scaffolding are needed. In their idea, in effective scaffolding, some techniques and tasks that help children to engage with concepts and higher-order thinking processes are necessary. They proposed three

different types of scaffolding: cognitive, technical, and affective scaffolding. They showed that these types of scaffolding were useful for teaching and learning processes and children could support each other through sharing the strategies. Cognitive scaffolding includes the activities, tools, and techniques which result in understanding, such as using models and questions, technical scaffolding is related to using technology in order to learn the material, and affective scaffolding denotes the persuasion of children in order to improve their learning and keep them engaged in the tasks. The role of teacher is important in this model. The teacher should persuade students to take risk and know that there is more than one way to solve a problem. The type of scaffolding that the teacher uses in the classroom depends on the needs of the students, their interests, and the task nature. Teachers should be informed of these features to scaffold students. Yelland and Masters (2007) showed that when teachers scaffolded learning, the performance of students was better than the time that students solved the problems without help.

Reingold, Rimor and Kalay (2008) identified that feedback and support were significant in instruction and teachers' response could help students to think to learn. They proposed four types of scaffolding, namely technical, content, procedural, and metacognitive scaffolding. Technical scaffolding is used to understand technical instruction, including internet. Content scaffolding is used to add or correct information. Procedural scaffolding is used to handle the data while searching, organizing, and representing the data. Metacognitive scaffolding is used for presenting the rationale for the activities, supporting reflective writing, the focus on the process of learning, and encouraging the relationship between participants.

One of the models, and of course the newest one, is the one proposed by Wu (2010). Wu (2010) introduced the newest scaffolding category. He tried to solve the problems in the scaffolding types previously proposed by other scholars (cf. Poorjamshidi, Zanganeh, & Momenirad, 2014). According to Wu (2010), scaffolding types are (p.39):

- Cognitive scaffolding: "support for helping individuals understand the content of learning materials";
- Metacognitive scaffolding: "support for helping individuals to develop both the ability to recognize their knowledge and regulate their behaviors based on their reflection";

- Procedural scaffolding: “support for helping individuals to employ learning processes or strategies in order to complete a task, reach a goal, or solve a problem”;
- Context scaffolding: “support for helping individuals to maneuver through a learning environment and to operate tools and resources embedded in the learning environment”;
- Motivational scaffolding: “support which helps individuals to increase their perception of their own interests, abilities, and task values”;

2.4. Rationale for using this model

We used Wu’s theory of scaffolding because it’s the newest theory of scaffolding and it has solved the problems in the previous theories. As stated by Wu (2010), the first problem in the previous studies was that there are too many definitions of scaffolding that were not coherent and were confusing. Most of the definitions were ambiguous and didn’t include the important features of scaffolding. Human scaffolding was less important in previous studies. The role of teachers was neglected in recent studies. It is necessary for teachers to motivate students because they have learning interests that can’t reflect them in cognitive engagement. Teacher’s scaffolding is also useful for students who can’t learn through certain scaffolding. In the conditions that students can’t identify their learning needs, teacher’s scaffolding can help them, control metacognition, and motivate them. Another problem was that most of the studies persuaded students to learn through self-experience and research-based data, instead of interaction with others and it was against social constructivism. Another problem was that researchers neglected motivation. When the teacher tries to scaffold for learning, he thinks that students use metacognitive approaches to think and do the activities, but for managing student’s autonomy, scaffolding should help a learners to be motivated too. Sungur (2007) said that without motivation, metacognition can’t help much to learning. Motivation makes students to get interested in the material and use metagognition to deal with difficulties. Wu (2010) believed that it was necessary for teachers to be sure that motivational scaffolding occurred during the learning progress. Wu (2010) referred to other problems in the previous studies. One of the problems was that there was no clear taxonomy of scaffolding. In the Most of the taxonomies, the function of different types of scaffolding is the same. Another problem was that some of the researchers failed to classify scaffolding types clearly and they were

ambiguous for themselves. Some researchers also used different names for the same type of scaffolding. Considering these problems, Wu introduced a new taxonomy for scaffolding.

2.5. Scaffolding in Iranian context

The concept of scaffolding has been studied in many studies. In this part, we pointed to some of these studies regarding the language skills.

2.5.1. Scaffolding in language learning

Poorjamshidi, Zanganeh, and Momenirad (2014) studied 126 language learners, showing that there was a positive relationship between scaffolding types (cognitive, metacognitive, technical, procedural and motivational) and language learning.

Rezaee, Marefat and Saeadakhtar (2014) studied the effect of symmetrical and asymmetrical scaffolding on the collocational competence in the context of concordancing. The participants were 160 Iranian intermediate learners of English. Data were collected through questionnaire and interview. The results revealed that scaffolding significantly improved knowledge of collocations both in the receptive and productive tasks. The results also showed that learners expressed positive attitudes towards both concordancing and scaffolding.

Shoari and Assadi Aidinlou (2015) studied 120 Iranian EFL learners. A language proficiency test was taken from them. Afterwards, a pre-test on the word knowledge was taken and after the program a post-test was taken from both groups to measure the effectiveness of the self regulation strategies. The results revealed that self regulation strategies are very important for learners because it helps them be independent learners and how to enhance their learning process. So they feel they are doing something valuable, which creates a comfortable environment for learning and using the language.

Amiri Samani and Khazayie (2017) studied seven under-intermediate adult EFL learners. A pretest and post-test were taken from students before and after treatment. The results showed that schemata building using on-going evaluation and explicit teaching improves adult's learning and makes students participate in creative manipulation of the syllabus.

Taghizadeh, Langari, Zeinali Gorizi and Rezaie (2017) studied the influence of computer scaffolding, through unique software developed by the authors, and teacher scaffolding on vocabulary learning. 108 Iranian high school students participated in the study

and were divided into three groups: (a) no-scaffolding group (b) teacher scaffolding group, and (c) computer scaffolding group. At first, they received several passages to read and underline the unknown vocabulary to help the researcher choose some unknown vocabulary items for the study. There was also a vocabulary knowledge scale used to check the participants' unfamiliarity with the vocabulary. Then a test, using 20 of the unknown vocabulary items, was given to the participants as a pretest. The results showed that groups b and c were more successful than group a. In both immediate and delayed post-tests the teacher scaffolding group outperformed the computer scaffolding group.

2.5.2. Scaffolding in writing skill

Baleghizadeh, Timcheh Memar, and Timcheh Memar (2010) studied the effect of high-structured scaffolding and low-structured scaffolding on the writing ability of EFL learners. The participants of the study were one hundred and fourteen elementary Iranian EFL learners in eight classes in Kish language institute in Tehran. They were divided to three groups: control group received no scaffolding; the high-structured group, that were given high-structured templates for writing, and the low-structured group, that were provided with low-structured templates for writing. The findings revealed that the low-structured scaffolding group performed poorly in comparison with other groups.

Hayati and Ziyaeimehr (2011) studied the influence of scaffolding writing proficiency through joint construction tasks on the writing composition of Iranian EFL learners. The participants were sixty intermediate learners of English, literature and translation in Shahid Chamran University of Ahvaz. They were randomly assigned into two groups, the experimental and the comparison. During 10 sessions, the participants wrote writings on eight topics. In order to understand whether there is any important difference in the writing proficiency of the learners who received joint construction instruction, a pretest and a post test were given to the students. Then, the writing performances of the groups were compared. Results of the study showed that there was a significant difference in the writing proficiency of the learners who received joint construction instruction. The results also indicated that female were more successful than men.

Riazi and Rezaii (2011) studied the effect of teacher- and peer-scaffolding behaviors on EFL students' writing improvement. The participants were university students in general English courses. Teacher and peer scaffolding was provided in writing tasks. For checking

writing improvement, Pre- and post-writing tasks were taken from the learners. The results showed that teachers used more scaffolding behavior in comparison with peers and teacher and peers used different types of scaffolding.

Baradaran and Sarfarazi (2011) studied the effect of scaffolding on the Iranian EFL learners' English academic writing. Sixty students in Islamic Azad University of Mashhad were divided to experimental and control group. The experimental group received instruction to scaffold writing while generating ideas, structuring, drafting, and editing their writings. The control group didn't receive any scaffolding. A sample t-test was collected to compare the post-test mean scores of the two groups. The results showed that scaffolding improved English academic writing.

Shoostari and Mir (2014) tried to investigate the effect of scaffolding on L2 learners' writing strategy application and writing quality with the help of their peers and with total or random mediation from their instructors. The participants of the study were thirty male and female EFL writing learners. The data were collected through recording their activities and a pretest and post-test of students were taken. The results showed that the participants with peers' and tutor's non-random scaffolding made remarkable progress in both writing quality and strategy application.

Ahangari, Hejazi and Razmjou (2014) studied the impact of scaffolding on EFL learner' summary writing ability. Fourty female participants within the age range of 12-15, studying in MoradTalkro Language Institute in Tabriz, Iran, were randomly assigned as experimental and control groups. The learners in the experimental group were provided with scaffolding techniques. The control group followed the instruction of the book without being helped with their writings. Comparison of the results showed that the students in the experimental group outperformed the learners in the control group in their writings and remembered more details from the story.

Rahimi (2015) studied the effect of scaffolding on the complexity and accuracy of Iranian EFL learners' narrative writing. Thirty eight Iranian EFL learners took part in the study (experimental group= 18, control group=20). The results showed that scaffolding had an important effect on the complexity and accuracy of Iranian EFL learners' narrative writing.

Jafarigohar and Mortazavi (2016) studied the impact of scaffolding mechanisms on 240EFL learners' individual and socially shared metacognition in writing. The results showed

that using structuring or problematizing scaffolding mechanisms improved learners' individual and socially shared metacognition. The results also revealed that offering structuring and problematizing scaffolding mechanisms offered together increased learners' metacognition at both the intra- and inter individual levels. The findings showed that learners' level of proficiency did not moderate the effect of scaffolding mechanisms on individual and socially shared metacognition.

Ranjbar and Ghonsooly (2017) studied the influence of peer-scaffolding on EFL writing ability and studied how revising techniques are constructed and expanded when two learners are working in their ZPDs. An intermediate EFL university student wrote a composition and with the help of another student revised a cause and effect of the writing. The researchers used a microgenetic approach to analyze the interactions. Results revealed that both students actively took part in revising the text with assistance being exchanged mutually between them at the end of the session. Results revealed that peer scaffolding could be reciprocal rather than unidirectional.

Gholami Pasand and Tahriri (2017) studied the effect of peer scaffolding on writing accuracy of intermediate EFL learners, and investigated scaffolding behaviors in planning and drafting phases of writing. The participants were 40 English Language and Literature students in the University of Guilan, who were divided into a control group and an experimental group consisting of a pair in which a competent writer provided scaffolding to a less competent one using the process approach to writing. Independent samples t-tests was used to analyze the data. Results showed that essays of experimental group were more appropriate. Scaffolding behaviors used in planning and drafting phases of writing were more or less the same as those identified in the revision phase.

2.5.3. Scaffolding in speaking skill

In a study by Khaliliaqdam (2014) the role of scaffolding via communicative activities in terms of development of basic speech on foreign language adult learners was examined. Six students were given the main words of the sentences and the students were required to create sentences. Each time the number of the main words of the sentence in an activity were reduced; therefore, the students had to create the sentences with the help of the teachers. Then a series of pictures were given to the learners and they had to tell a story based

on the pictures. The teacher provided few guided words for them if necessary. At the end of the course, the learners' speech level improved surprisingly.

Arfaei Zarandi and Rahbar (2014) studied the effect of interactive scaffolding on EFL students' speaking ability. The participants were 60 Iranian EFL learners that were selected according to the results of Oxford placement test. Then, they took a speaking pretest, were categorized to experimental and control groups. The control group were given routine speaking instruction in ten sessions while experimental group received scaffolded teaching. At the end, a post-test was taken from both groups. The results of paired-samples t-test revealed that interactive scaffolding strategies improved EFL learners' speaking ability. The finding of this study helped teachers understand that they could use different plans according to students' needs.

Abadikhah and Valipour (2014) investigated the impact of expert scaffolding on the internalization of linguistic features by Iranian EFL elementary learners. The participants were two groups of elementary and advanced learners of English. Elementary students were given a picture description task as their pretest and post-test. The participants' oral presentation was audio-recorded and transcribed. Two weeks after the pretest, another picture description task as the treatment was given to the students. In the next stage, each elementary student paired with an advanced learner as an expert to work on the transcripts of their oral presentations. The results showed that the advanced learners used several scaffolding techniques to absorb the novices' attention to the linguistic gaps and internalize the co-constructed knowledge during the treatment session.

Pazhouhesh and Ghapanchi (2014) studied the effect of story maps and audio podcasts on oral proficiency of Iranian EFL learners. Thirty three EFL undergraduate students participated in the study and were divided into three groups. Participants were placed in three treatment conditions of story retelling, story retelling plus story map and story retelling plus podcast. A post test was taken from the students. Results showed that there were important differences in the treatment conditions. The students under podcast condition were more successful than students under the story map and short story condition. According to the results, students preferred podcast and story map scaffolding to improve their EFL speaking proficiency. They were interested in using a mixture of scaffolds in EFL classes.

Mahdavi-Zafarghandi, Tahriri and Dobahri Bandar(2015) studied the effect of using chunks on speaking fluency of Iranian EFL learners. At first, a general proficiency test was taken from two intermediate classes and then, they were interviewed for their speaking ability. Then they were divided to experimental and control group. The 18-session instruction was given to both groups, but the experimental group received training on how to use chunks. Finally, the participants were interviewed in a post-test to identify differences in their speaking improvement. The results revealed that the treatment had dramatically improved speaking fluency of the experimental group and that there was a direct relationship between the number of the chunks and the listeners' perception of the participants' speaking fluency.

Mirahmadi and Alavi (2016) studied the effect of scaffolding techniques on Iranian EFL's speaking ability and their fluency, lexicon, grammar and pronunciation. The participants were 110 homogenous students, divided to four scaffolding groups. A pretest was taken from the students. Scaffolding treatments lasted for 8 weeks (16 sessions). After the treatments, the students completed a post-test of speaking. SPSS analysis showed that scaffoldings hard, soft, reciprocal and virtual scaffolding improved Iranian EFL students' post-test of speaking and their fluency, grammar, lexicon, and pronunciation.

Soleimani and Biria (2016) tried to investigate the impact of instructional scaffolding and socioeconomic status (SES) on the articulation of English utterances in Iranian preschoolers' English classes. Two kindergartens from both high and low SESs were randomly selected and two classes from each kindergarten were selected as experimental and control groups. Preschoolers in experimental groups received instructional scaffolding techniques while control groups were limited to textbook. The results revealed that scaffolding techniques had a significant effect on preschoolers' performance.

2.5.4. Scaffolding in reading skill

Rahimi and Tahmasebi (2010) conveyed a study on the impact of scaffolding and private speech (PS) on improving EFL learners' reading skills. The participants were 54 EFL students that took part in a reading comprehension course. Students were divided into two groups - control and experimental. An Oxford Placement Test was taken from them. Two types of measurements were used: 1) a final test of reading comprehension, 2) an oral presentation of a text. The results revealed that scaffolding and PS mediated students when

they were trying to present language activities. The results showed that integrating SCT components had positive effects in language classes.

Bassiri (2012) studied the impact of scaffolding on the motivation of Iranian L2 learners. Thirty four intermediate learners of English in an English language institute in Iran were studied. They were randomly divided into two groups of scaffolding and non-scaffolding. They received instruction during one course (17 sessions). Their reading comprehension was tested by quizzes. The results showed that scaffolding had a positive effect on learners' reading comprehension and increased their motivation. There was also a positive relationship between female learners' achievements in comparison with male learners' achievements in terms of their reading and motivation.

Rahimidoost, Noruzy, Fardanesh and Amirteimoori (2013) conveyed 422 articles and studied 20 experts in the scope of instructional technology through completing a questionnaire. The results showed that instructional scaffolding needed metacognitive, cognitive and motivational scaffolding.

Ghafar Samar and Dehqan (2013) studied the influence of sociocultural-based teaching techniques on EFL learners reading comprehension. The data were collected through a language proficiency test, a reading comprehension test and a questionnaire. The results showed that the sociocultural teaching techniques improved EFL students' reading comprehension and reading strategy use.

Karimi and Jalivand (2014) studied the impact of peer and teacher scaffolding on the reading comprehension of EFL learners in asymmetrical and symmetrical groups. The participants were sixty intermediate students in the Hamadan Islamic Azad University and the Kish Language Institute in Hamadan. They were divided into three groups, two experimental groups receiving respectively peer and teacher scaffolding, and just peer scaffolding, and one control group. After two months, the results showed that teacher scaffolding accompanied by peer scaffolding had more positive effects on the reading comprehension of EFL learners than the time that just peer scaffolding was presented in the classroom, rather than just having peer scaffolding.

Khosravi (2017) studied the effect of scaffolding on advance students' reading comprehension. The study was held for twenty four sessions (two months), three days a week and every session lasted for one hour and fifteen minutes. The participants were twenty

advanced Iranian EFL learners in Zahedan. They were both male and female students with an average age of 21. They were taught by symmetrical scaffolding. Before the study, a pre-test was taken and at the end of the study, a post-test was administered. A t-test was taken from the results and revealed that scaffolding through interaction affected students' performance in reading comprehension.

2.5.5. Scaffolding in listening skill

Talebinejad and Akhgar (2015) tried to investigate the relationship between scaffolding and listening comprehension in Iranian EFL students. The participants of the study were sixty male and female students at intermediate level. The result of the study revealed that scaffolding had effects on listening comprehension. The study showed that there was no relationship between gender and listening achievement.

Ahmadi Safa and Rozati (2015) studied the relationship between scaffolding strategies and listening comprehension development. The participants were 90 intermediate EFL learners that were divided into experimental and control group. Expert peers in the first experimental group helped their weaker classmates with their listening comprehension tasks. Participants in the second experimental group helped their coequal peers with listening comprehension tasks. The control group received no scaffolding. The results showed that the expert peers' scaffolding and coequal peers' scaffolding were effective for the intermediate EFL learners' listening comprehension development, but the expert peers' scaffolding was more effective than coequal peers' scaffolding was

Shabani and Malekdar (2016) studied the impact of Peer Scaffolding on Iranian EFL Learners' Listening Comprehension. Thirty three institute students at elementary level were chosen through an English Test and then were divided to experimental (scaffolding group) and control (non-scaffolding group). A pretest was given to the students to determine the level of listening comprehension. Then, the experimental group received interactive strategies of scaffolding. Next, a posttest and a delayed post-test were given to the students. The results showed that collaborative scaffolding strategies improved listening comprehension.

2.6. Scaffolding in other contexts

The concept of scaffolding has been studied in many studies. In this part, we pointed to some of these studies regarding the language skills.

2.6.1. Scaffolding in language learning

Some researchers believe that the process of scaffolding occurs with internalization, in which students internalize knowledge, and EFL teacher can gradually fade scaffolding (van Geert and Steenbeek, 2005).

Ge, Chen and Davis (2005) studied the impact of question prompts in scaffolding novice instructional designers solving ill-structured, instructional design problems in a Web-based learning environment. Level of learners' prior knowledge and experience were considered in the study. The data were collected through think-aloud protocols and interview. The participants were eight graduate students from the program of Instructional Design and Technology. The results showed that question prompts improved ill-structured problem solving.

Mertzman (2008) studied four elementary school teachers and introduced these scaffolding techniques: modeling, scolds, praise, repetition, explanations of the answer, convergent questions, focus on meaning, and focus on word recognition and phonics.

Lim Abdullah, Hussin, Asra, and Zakaria (2013) A.R. studied scaffolding in language learning via mobile devices at the undergraduate level using Gilly Salmon's five-stage scaffolding model. This model is supported by Vygotsky's Zone of Proximal Development as the basis of learning theory. They did a case study on undergraduate language learning in a private .The results showed that scaffolding improved language learning.

Rascu-Puttonen, Etelapelto, Hakkinen and Arvaja (2014) investigated how teachers with different conceptions of teacher role used scaffolding in their classroom. They studied two secondary schools with a shared network-based learning environment. The results showed that different conceptions of the teacher's role effects of the nature of classroom activities.

Mulia (2015) studied the use of first language scaffolding to teach English as a foreign language to pre-school children during dramatic play in West Sumatera, Indonesia. The participants of the study were bilingual pre-school children who were five to six years old. Children that received scaffolding demonstrated physical, social, and cognitive development in learning. The results of the study shows that scaffolding by using the first language helps children make meaning of new words and expression so code switching is useful in EFL teaching at pre-school level.

Shin and Song (2015) studied the effect of scaffolding type and learners' epistemological beliefs on ill-structured problem solving. The participants were undergraduate students at a major university located in Seoul, Korea. The results showed that students in the self-monitoring scaffolding group were more successful than those in the task-supported scaffolding group. Students with more advanced epistemological beliefs also were more successful on solution development and monitoring and evaluation than those with less advanced epistemological beliefs. It was found that there was a relationship between scaffolding type and epistemological belief level. The study suggests that student's epistemological belief level should be considered in providing scaffolding in the classroom.

In a study by Kleickmann, Tröbst, Jonen, Vehmeyer and Möller (2016) the effects of expert scaffolding in elementary science professional development (PD) on teachers' beliefs and motivations, instructional practices and student achievement were studied. Participants of the study were seventy-three teachers and 1,039 students. There were four groups in the study. Eighteen teachers received PD with extensive scaffolding. The second group (18 teachers) received reduced expert scaffolding. The third group (18 teachers) didn't receive any scaffolding (self-study group). A baseline group (19 teachers) completed questionnaires only on teacher outcomes. According to the results, scaffolded PD was greater than PD through self-study. The results showed that PD effects on student learning were mediated only to a small extent by teacher beliefs. The results showed that expert scaffolding in PD was useful for teachers in order to teach science.

San Martín (2018) investigated a supervisor's scaffolding of the student-teachers' learning-to-teach process in an English as a foreign language teacher education program in Argentina. One supervisor and ten student-teachers participated in the study. The results revealed that scaffolding had two main phases: a diagnostic and an intervention phase. The supervisor provided help according to the student-teachers' needs.

Smith, Gijssels, Hotze and Bakker (2018) studied the use of scaffolding to support primary teachers in a professional development program (PDP) to design and enact language-oriented science lessons. The participants were twelve primary school teachers who took six-session PDP classes. Data were collected through video recordings, field notes, researcher and teacher logs, and teacher design assignments. The results showed three scaffolding characteristics: diagnosis, responsiveness and handover to independence. The results showed

that these teachers learned designing and enacting language-oriented science lessons in PDP classes. The findings prove the success of PDP in terms of diagnosis and responsiveness.

2.6.2. Scaffolding in writing skill

Englert, Wu and Zhao(2005) implemented a Web-based technology to support the writing performance of 12 fourth- and fifth-grade students with learning disabilities (LD).Students wrote personal news stories in three conditions: Scaffolded Personal News, Unscaffolded Personal News, and paper and pencil. The results showed that the scaffolding improved writing performance, with respect to students' abilities to produce organized texts.

Yeh, Lo and Huang (2011) studied the influence of a computer-supported environment on EFL (English as a Foreign Language) students' collaborative writing experiences. Data were collected through a questionnaire and students' transcriptions and then analyzed. The results of the study revealed that students had positive attitudes toward the system and preferred to use the system in future writing tasks. Analysis of writing products indicated that system could help students produce better content and organization. The procedural facilitation provided by the system scaffolded students to speak more in the category of article-related interactions.

Li (2012) studied the ways of teacher interaction with university students in learning the target form in a second language. The discourse of a classroom was analyzed at a university in Hong Kong. Both expert and peers involved in the discourse and tried to make meaning by giving feedback. This led to high quality of mediation in the classroom. The results of this study showed that scaffolding could improve language learning.

Li (2013) investigated the process of collaborative writing in a small group of English as Foreign Language (EFL) students at a Chinese university. They conveyed the archived logs from the group wiki 'Discussion' and 'History' modules. The results showed that the students were actively engaged in reciprocal communication in terms of content discussion, social talk, task management, technical communication and language negotiation. They helped to improve each other's writing through multiple writing change functions, including addition, deletion, rephrasing, reordering and correction.

Samana (2013) studied Teacher's and Students' Scaffolding in an EFL Classroom. The participants of the study were students of an EFL university class with 14 students with low English proficiency. The researcher compared the scaffolding strategies used by the

teacher and by the classmates. At the end of each session, students in the class reviewed a collaborative task and practiced what they had learned. All audio recorded talks of research participants were written and translated into English. Then, the interaction was analyzed. The results showed that both teacher and students with low level of English proficiency could successfully scaffold their classmates. The results also showed that teacher and students provided support in different ways. Teachers controlled scaffolding while students told everything to their peer.

Yang and Wang (2013) tried to investigate the effect of a teaching model for scaffolding on students' scientific explanations and understanding. Non-randomized comparison group and a pre- and post-test design were used in the study. An experimental group including 25 students learned to use scaffolding model, but a comparison group received a traditional lecture teaching. Content analysis was used to assess students' scientific explanations. The independent sample t test was used to measure difference in conceptual understanding between the two groups, before and after instruction. The results show that scaffolding has a positive effect on Scientific Explanation Writing.

Siegel, Menon, Sinha, Promyod, Wissehr and Halverson (2014) studied the effect of scaffolding in written assessment. The voice of native English speakers and English language learners from two middle schools were recorded. Students did writing tasks and responded to a post-task interview. They used think aloud protocols to speak about the tasks. The results showed that scaffolding had positive effects on both groups. Modification helps students to comprehend and organize thinking.

Kim and Cho (2016) did a case study on L2 teacher's writing to understand how he used gesture, pen and paper to scaffold writing of a low proficiency student. They videotaped, transcribed and coded one 30 minutes' writing class. The teacher used gesture for scaffolding vocabulary or grammar and helped her self-repair. He used gestures involving pen and paper to scaffold the L2 student's writing and engage him in the task.

Hsieh (2016) investigated students' interactions with their classmates and online sources to understand the patterns of interaction. Four graduate-level ESL learners (three Taiwanese and one Japanese) participated in the study. They wrote an essay in pairs with the support of online resources. Three scaffolding patterns were found between learners and online resources: (1) peer-to-peer scaffolding, (2) multi-directional scaffolding, and (3)

individual scaffolding. Results showed that online resources improved critical scaffolding in students' interaction and building knowledge. It improved collaborative learner autonomy too. The results also showed that online resources helped to fill the gap between collaborating students.

Kamil (2017) investigated Teacher's Scaffolding in teaching Writing in seventh grade students in Indonesia. Data were obtained through classroom observation, field notes, and semi-structured interview. The results showed that teacher used different types of Scaffolding in teaching writing. The results revealed that teacher scaffolded teaching by asking previous lesson, providing illustration, explaining Grammar and text structure, participate students in learning process, reading text model, and providing supportive and corrective feedback to students' responses.

2.6.3. Scaffolding in speaking skill

Maloch (2002) examined the role of the tutor in a literature discussion group and found that gradual transfer of responsibility was one of the features of scaffolding.

Mercer (2004) did a study on a program called "thinking together" program, the teacher taught strategies for reasoning together in small groups, including sharing relevant knowledge and making ideas clear. Twelve lessons were studied, each containing a usual talk skill and had a special purpose. Students in the experimental condition (N=109), in which teachers were trained to use this program, could use reasoning skills better than students in the control group (n =121) where teachers did not receive such training. Furthermore, the students in the experimental condition made greater gains both in group and individual measurements (non-verbal reasoning measured with the Raven Progressive Matrices) than students in the control condition.

Pawan (2008) studied 33 content-area teachers (CATs) discussions in an American university classroom during 32 weeks. The results revealed linguistic, conceptual, social and cultural scaffolding in CATs' personal practical knowledge, CATs' knowledge of cultural scaffolding was limited in comparison to other scaffolding strategies.

Forman (2008) studied nine teachers from the English Department. He observed the classes and audiotaped 19 hours totally. Teacher interviews produced 24 hours of interview data. The results revealed that the scaffolding metaphor can be used for bilingual episodes;

and that an intertextual analysis across two languages/cultures makes a rich picture of the semiotic restructuring which is enabled by second language development.

Hong, Wei, Guanghua and Wanxia (2011) studied scaffolding in teacher-student interaction. Teacher-student interactions in two oral English classes were identified and the effect of teachers' perception of their roles on the interactions was studied. The data were collected through videotaping and interview. The results showed that distribution of responsibility was different in two classes and teachers' perception of their roles had effects on the interaction between teacher and students. The results also showed that shifting the responsibility from teachers to students required student's willingness and teacher's effort.

Molenaar, Chiu, Slegers and Boxtel (2011) studied the role of metacognitive activities as a mediator between different avatar scaffolds on students' learning. Conversations of 54 students were analyzed. The results showed that 'students who received metacognitive scaffolds made metacognitive knowledge more than control group. The results show that metacognitive scaffolding helps students perform better than cognitive scaffolding.

Nguyen (2013) tried to investigate the ways of providing peer scaffolding in an EFL classroom. Twelve Vietnamese students were studied through reflective reports and interviews. Six scaffolding behaviors were found in the classroom: workload sharing, pooling ideas and resources, technology support, peer feedback, support in answering the audience's questions, and affective support.

Engine (2014) did a qualitative research on macroscaffolding. The participants were fifteen English Teacher Education students in an English-medium university in Turkey. Data were collected through interviews, lesson observations, feedback sessions and respondent validation. The results showed that macroscaffolding includes the shared understanding of accepted practices of the training context in terms of what is considered 'good' teaching and feedback.

2.6.4. Scaffolding in reading skill

Clark and Graves (2005) introduced a three-phase model of scaffolding, including tutor responsibility, shared responsibility and learner responsibility.

Cromley and Azevedo (2005) identified three different types of scaffolding were identified: instruction, cognitive scaffolding, and motivational scaffolding, in which the teachers use explaining, summarizing, and planning future activities to help students'

learning. They made students correct their errors using hint, or made them pay attention to a special part of the response. If the teacher gave feedback to students, he increased their motivation to continue efforts.

Bhooth, Azman and Ismail (2014) studied the effect of L1 in the EFL reading classroom in a University in Yemen. The participants were 45 EFL undergraduate students from a University in Yemen. Data were collected through a questionnaire and interview. The results showed that in the students' point of view, L1 is an important strategy in EFL classes and its functions are translating new words, defining concepts, explaining and helping each other in their groups.

Many and Aoulou (2014) studied scaffolding of four literacy teachers using observation, interview and document analysis. These teachers used scaffolding to develop preservice teachers' dispositions, strategies, and conceptual understandings. Teachers used scaffolding processes such as modeling, feedback, purposeful structured assignments, discussions, and reflective pieces. More experienced teachers used stronger scaffolding strategies.

Safein Salem (2017) studied 94 Non-native English language teachers in the intermediate schools in Alexandria Governorate. Data were collected through some questionnaires. He concluded that teachers use scaffolding strategies for the assessment of students more than comprehension. The results also showed that Non-native English teachers were not aware of the scaffolding strategies they used in the classroom.

Liu (2018) investigated non-English major undergraduates' performances through and perceptions of teaching English reading skills with instructional scaffolding microlectures. Thirty four 1st-year non-English major undergraduates in intermediate level of EFL reading participated in the study. Data were collected through standardized reading tests, self-evaluation sheets of reading skills and reading course feedback self-reports. The results of the data analysis showed that this scaffolding made improvements in students' English language proficiency, increasing their interest and independence.

2.6.5. Scaffolding in listening skill

Read and Barcena (2016) studied scaffolding in a university in Spain. The results of their study showed that scaffolding had a positive effect on listening skill.

2.7. Summary

In this chapter we conveyed the studies on scaffolding in recent years. Briefly, a lot of researchers studied scaffolding and they believed that scaffolding had a special effect on learning. They have introduced new models and frameworks. The model that we used in this study was Wu's (2010) framework of scaffolding. Considering the importance of scaffolding in learning, and since few studies investigated the types and techniques of scaffolding and the extent of scaffolding in EFL classes, this study set out to examine the types and techniques of scaffolding in EFL classes in Iran. In the next chapter we will explain data analysis in details.

Chapter Three

Methodology

3.1. Overview

In this study, a number of steps were taken. At first, through availability sampling technique, 8 EFL teachers teaching English at Jahad Daneshgahi academic institutes in Isfahan were surveyed in order to study the types and techniques of scaffolding used among EFL teachers in Isfahan. Their classes were transcribed, codified and analyzed using Wu's framework of scaffolding. In this chapter, we will introduce the participants of the study and the instruments. Then we will explain data collection procedure and finally, we will present data analysis section.

3.2. Participants

The population of this study comprised of 8 EFL teachers of Isfahan Jahad Daneshgahi academic institutes who taught TOP NOTCH 2 at Isfahan Jahad Daneshgahi academic institutes who took part in this study based on the availability sampling technique. It was

supposed that intermediate students have found enough competence in English so that the teacher can provide a variety of scaffolding inside the classes. Therefore for selecting the teachers, non-random availability sampling technique was applied. At first, two branches of Jahad Daneshgahi academic institutes were introduced to the researcher (Because of confidentiality, we call them institute A and B). The researcher explained the research process for sixty teachers and finally fourteen teachers accepted to take part in the study. Six teachers then didn't remain in the study because of these problems:

The size of the classes was very large and the quality of the voice was very low.

Some of the teachers changed their idea; they didn't want their voice to be recorded.

Finally, 8 EFL teachers (male and female) teaching TOP NOTCH2 courses in these language institutes remained in the study and their classes were recorded. Two classes were held three times a week, the term lasted 25 sessions, each session in one hour and thirty minutes and two of them were held two sessions during a week, in 15 session, each session in 2 hours, and four classes were held once a week, in 8 session, each session in three hours and 45 minutes.

The teachers hold a BA and MA in English Literature, English translation, and English Teaching who taught EFL students and ranged in age from 24 to 36. In addition, their experience in teaching English as a foreign language changed from no-experienced to 12 years experience. The teachers were selected with different teaching experience to see whether there is any difference in their scaffolding or not, but because a few teachers participated in the study, we couldn't study the differences in teachers' scaffolding. We paid attention to what happened before and after a technique that teacher used in order to find the scaffolding techniques. Teachers used a lot of techniques in their classrooms in order to teach, like providing different examples, but just the techniques which had the features of scaffolding were considered in this study. The detailed information on the participants is shown in Table 3.1.

Table 3.1

Demographic profile of the participants (Teachers)

Gender	Age	major	Teaching experience	Language institutes
male	33	MA of English teaching	9	A
male	35	BA of English translation	12	A
male	30	MA of English literature	6	A
male	24	BA of English translation	-	B
male	29	BA of English translation, MA of management	9	A
female	25	BA of architectonics	6	B
female	29	MA of English teaching	8	A
female	36	BA of English teaching	12	A

3.3. Instruments

Voice recorder

The intertypes between teachers and students in the classes were recorded through voice recorder.

Wu's framework of scaffolding

The intertypes between teachers and students were transcribed and codified using Wu's framework. We used discourse analysis techniques in order to analyze our data to know which types of scaffolding are used less or more in the classroom in order to improve the process of teaching using Wu's framework. Teachers may use different types of scaffolding called context, cognitive, metacognitive, procedural and motivational scaffolding. Each scaffolding type contains some techniques, which are the means of that type of scaffolding. The techniques that teachers are likely to use are as below:

Context scaffolding techniques

1. Teacher explains the concepts using pictures
2. Teacher explains the concepts and the relationship between concepts using some charts and conceptual maps

3. Teacher uses PowerPoint to help students understand the concepts
4. Teacher explains when he is showing films to help students comprehend the concepts better
5. Teacher introduces appropriate resources to improve student' learning.

Metacognitive scaffolding techniques

1. Teacher helps students to set their goals for studying
2. Teacher guides students to use appropriate procedures for learning.
3. Teacher provides opportunities for students to ask some questions themselves about the text and concept.
4. Teacher helps to analyze the text in order to understand it.
5. Teacher provides a background and asks students to foresee the rest of the concept
6. Teacher provides opportunities to help students evaluate their learning

cognitive scaffolding techniques

1. Teacher uses some examples to help learning process
2. Teacher helps and guide students to relate the new knowledge to what they know
3. Teacher proposes some ways to students to help students understand the concepts
4. Teacher makes an introduction to activate students brain in order to comprehend the text before teaching the text
5. Teacher gives hints to the students in order to correct students errors while reading
6. Teacher says the differences and similarities of concepts to help students understand the text

procedural scaffolding techniques

1. Teacher proposes an order for reading in order to help students understand the text
2. Teacher guides and reacts while reading in order to increase students reading abilities
3. Teacher gives students some information while reading the texts in order to help students comprehend it
4. Teacher gives some solutions and proposes some ways to help students comprehend the texts
5. Teacher supports and helps students to use some procedures to read and understand the text
6. Teacher helps students to find the meaning of the word by dividing the words into understandable parts

motivational scaffolding techniques

1. Teacher tells some stories and interesting events to increase students interest in reading the

texts

2. Teacher persuades students continues to increase their motivation to read
3. Teacher helps and guides students to insure them that they can learn the concepts
4. Teacher is active and notices students while doing exercises to help them learn and understand the lesson

3.4. Data Collection Procedure

This study had two phases. In the first, a recording of the classes was conducted to identify the types of scaffolding. Eight EFL classes were recorded during a semester and were transcribed. Then, the recordings were analyzed to understand what types of scaffolding teachers have used in the class. We used discourse analysis techniques in order to analyze our data using Wu's framework.

3.5. Data Analysis

The discourse of the classes was recorded and transcribed, codified and investigated qualitatively in terms of the types and techniques of scaffolding teachers use. Discourse analysis technique was used in order to analyze the data and the function of words and phrases was identified in the context. In this study, we used Wu's (2010) theory of scaffolding. Poorjamshidi, Zanganeh and Momenirad (2014) made a questionnaire using Wu's model. In this study we made a list of types and techniques of scaffolding by the help of their questionnaire.

The time of scaffolding in each type was determined in different skills (reading, writing, listening and speaking). We obtained the time of scaffolding instead of number, because we wanted to obtain the percentage of scaffolding in 13500 minutes. Top notch 2 books have different parts as below:

- Preview
- Photostory
- Conversation model
- Now you can
- Vocabulary
- Grammar
- Listening

- Reading

The first part is preview, which aims to speak, work on vocabulary building, or reading. Sometimes it depends on the teacher to focus on each skill. According to the aims of the preview and focus of the teacher in each lesson, preview was placed in reading, or vocabulary part. Photostory was considered as reading part, although it relates to listening, but the focus of the book and teachers was on reading ability. The conversation model part and now you can part were placed in speaking skill category. Sometimes now you can part had another aim such as strengthening reading ability which was considered in the study. We had also grammar, reading and vocabulary parts. The reliability was obtained through inter-rater reliability. 2 researchers analyzed the data and validity was obtained through expert judgment. The types and techniques of scaffolding and the extent of scaffolding were obtained in EFL classes.

Descriptive statistics included the mean.

3.6. Summary

Eight EFL teachers (male and female) teaching TOP NOTCH 2 courses in Isfahan Jahad Daneshgahi academic institutes, were invited to take part in the study and their classes were recorded. The recordings were analyzed to understand what types and techniques of scaffolding teachers have used in the class. Time of scaffolding in each type was determined.

Chapter Four

Results

4.1. Overview:

In the present chapter, the results of the qualitative and quantitative analyses of the data of the study will be discussed. This chapter begins with the result of the types of scaffolding in EFL classrooms (the first question), then moves to the techniques of scaffolding used in the classrooms (the second question), and finally ends with the extent to which scaffolding was used in EFL classes (the third question).

4.2. What types of scaffolding are teachers likely to provide in EFL classes in Iran?

4.2.1. Quantitative analysis

In this part, we will mention quantitative results of the study in each classroom.

Table 4.1

Types of scaffolding in class A

Types of scaffolding	Time spent on scaffolding each Language skill						Total
	writing	grammar	listening	speaking	vocabulary	reading	
Cognitive	-	-	-	9	11	81	101
Metacognitive	-	-	140	110	-	71	321
Procedural	-	185	52	-	-	8	245
Context	-	-	-	-	-	-	-
Motivational	-	-	-	-	-	-	-

The whole time of the classroom A was 1530 minutes. As shown, in the table, the scaffolding used in class A included cognitive, metacognitive, and procedural scaffolding. The time that teacher spent on reading skill was 430 minutes. In reading skill, 81 minutes were spent on cognitive scaffolding; 71 minutes on metacognitive scaffolding, and 8 minutes on procedural scaffolding. The teacher didn't use context and motivational scaffolding in teaching the reading. One hundred and six minutes of the class were spent on vocabulary part. In the part of vocabulary, 11 minutes were spent on cognitive scaffolding. Metacognitive, procedural, context, and motivational scaffolding were not used by the teacher in teaching the reading skill. The teacher spent 215 minutes of the classroom on the speaking skill. In terms of speaking, 9 and 110 minutes were spent on cognitive scaffolding and metacognitive scaffolding, respectively. Procedural, context, and motivational scaffolding were not used by the teacher to teach speaking. The teacher spent 240 minutes on listening skill, out of which 140 minutes were spent on metacognitive scaffolding and 52 minutes on procedural scaffolding. Cognitive, procedural, context, and motivational scaffolding were not used by the teacher here. In terms of grammar, 185 minutes were spent on procedural scaffolding. Metacognitive, Cognitive, context, and motivational scaffolding were not used by the teacher in this skill. Unfortunately, in this class, the teacher did not work on students' writing ability.

Table 4.2

Types of scaffolding in class B

Types of scaffolding	Time spent on scaffolding each Language skill						Total
	writing	grammar	listening	speaking	vocabulary	reading	
Cognitive	-	-	2	11	48	57	118
Metacognitive	-	-	3	180	-	4	187
Procedural	-	165	19	-	-	7	191
Context	-	-	-	-	-	-	-
Motivational	-	-	-	-	-	-	-

The whole time of the class B was 1620 minutes. As indicated in the table, the scaffolding used in class B included cognitive, metacognitive, and procedural scaffolding. The teacher spent 370 minutes on the reading skill. Fifty-seven minutes were spent on cognitive scaffolding, 4 minutes on metacognitive scaffolding, and 7 minutes on procedural scaffolding. Context and motivational scaffolding were not used in teaching reading skill. The teacher spent 305 minutes of the classroom on vocabulary; 48 minutes were spent on cognitive scaffolding. Metacognitive, procedural, context, and motivational scaffolding were not used by the teacher in the vocabulary part. The teacher spent 328 minutes of the classroom on speaking skill. In speaking skill, 11 minutes were spent on cognitive scaffolding and 180 minutes on metacognitive scaffolding. Procedural, context and motivational scaffolding were not used by the teacher in teaching speaking skill. The teacher spent 256 minutes on Listening skill. In teaching listening skill, two minutes were spent on cognitive scaffolding. Three minutes were spent on metacognitive scaffolding and 19 minutes on procedural scaffolding. The context and motivational scaffolding were not used by the teacher in listening skill. In the part *grammar*, 165 minutes were spent on procedural scaffolding. Metacognitive, cognitive, context, and motivational scaffolding were not used by the teacher in teaching grammar. Unfortunately, in this class, teacher did not work on students' writing ability.

Table 4.3

Types of scaffolding in class C

Types of scaffolding	Time spent on scaffolding each Language skill						Total
	writing	grammar	listening	speaking	vocabulary	reading	
Cognitive	-	-	-	13	-	53	66
Metacognitive	-	-	-	240	-	-	240
Procedural	-	375	-	-	-	5	380
Context	-	-	-	-	-	-	-
Motivational	-	-	-	-	-	-	-

The whole time of the class C was 1980 minutes. As demonstrated in the table, the scaffolding used in the class C included cognitive, metacognitive, and procedural scaffolding. The teacher spent 402 minutes on the reading skill. Fifty-three minutes were spent on cognitive scaffolding, and five minutes on procedural scaffolding. Metacognitive, context, and motivational scaffolding were not used in reading skill. The teacher spent 185 minutes of the classroom on teaching vocabulary, but he did not use any kind of scaffolding during the vocabulary. The teacher spent 405 minutes of the classroom on the speaking skill. In speaking skill, 13 minutes were spent on cognitive scaffolding and 214 minutes on metacognitive scaffolding. Procedural, context, and motivational scaffolding were not used by the teacher in working on speaking skill. The teacher spent 365 minutes on Listening skill. In terms of listening skill, no scaffolding was used by the teacher. In the part *grammar*, 175 minutes were spent on procedural scaffolding. Metacognitive, Cognitive, context, and motivational scaffolding were not used by the teacher in this skill. Unfortunately, in this class, the teacher did not work on students' writing ability.

Table 4.4

Types of scaffolding in class D

Types of scaffolding	Time spent on scaffolding each Language skill						Total
	writing	grammar	listening	speaking	vocabulary	reading	
Cognitive	4.2	-	-	0.5	18.6	39	62.3
Metacognitive	-	-	-	40	3	84	127
Procedural	0.6	286	-	-	0.28	-	287
Context	-	-	-	-	-	-	-
Motivational	-	-	-	-	-	-	-

The whole time of the class D was 1980 minutes. As demonstrated in the table, the scaffolding used in class D included cognitive, metacognitive, and procedural scaffolding. The teacher spent 645 minutes on teaching reading skill. Thirty-nine

minutes were spent on cognitive scaffolding, and eighty four on metacognitive scaffolding. Procedural, Context, and motivational scaffolding were not used in reading skill. The teacher spent 165 minutes of the classroom on the part vocabulary; he spent 18.6 minutes on cognitive scaffolding, three minutes on metacognitive scaffolding, and 0.28 minutes on procedural scaffolding. The teacher spent 255 minutes of the classroom on speaking skill. In speaking skill, 0.5 minute was spent on cognitive scaffolding and 40 minutes on metacognitive scaffolding. Procedural, context and motivational scaffolding were not used by the teacher in teaching speaking skill. The teacher spent 230 minutes on Listening skill. In teaching listening skill, no scaffolding was used by the teacher. In part *grammar*, 286 minutes were spent on procedural scaffolding. Metacognitive, Cognitive, context and motivational scaffolding were not used by the teacher in this skill. The teacher spent 240 minutes on students' writing ability. 4.2 minutes was spent on cognitive scaffolding and 0.6 minute on procedural scaffolding.

Table 4.5

Types of scaffolding in class E

Types of scaffolding	Time spent on scaffolding each Language skill						Total
	writing	grammar	listening	speaking	vocabulary	reading	
Cognitive	-		30	20.36	40.93	64	155.29
Metacognitive	-	-	75	105	-	100	280
Procedural	-	150	110	0.91	0.4	5	266.37
Context	-	-	-	-	0.25	-	0.25
Motivational	-	-	-	-	-	-	-

As demonstrated in the table, the scaffolding used in class E included cognitive, metacognitive, procedural, and context scaffolding. The whole time of the class E was 1620 minutes. The teacher spent 576 minutes on the reading skill. Sixty four minutes were spent on the cognitive scaffolding, 100 minutes on the metacognitive scaffolding, and 5 minutes on the procedural scaffolding. Context and motivational scaffolding were not used in teaching reading skill. The teacher spent 160 minutes of the classroom on teaching vocabulary. He spent 40.93 minutes on cognitive scaffolding, 0.46 minutes on procedural scaffolding, and 0.25 minutes on context scaffolding. The teacher spent 380 minutes of the classroom on speaking skill. In teaching speaking, 20.36 minutes were spent on cognitive scaffolding, 105 minutes on metacognitive scaffolding, and 0.91 minutes on procedural scaffolding. Context and motivational scaffolding was not used by the teacher in speaking skill. The teacher spent 300 minutes on teaching listening. Here, 30 minutes were spent on cognitive scaffolding, 75 minutes on

metacognitive scaffolding, and 110 minutes on procedural scaffolding. Context and motivational scaffolding were not used by the teacher in this skill. In teaching grammar, 150 minutes were spent on procedural scaffolding. Metacognitive, cognitive, context and motivational scaffolding were not used by the teacher in this skill. Unfortunately, in this class, the teacher did not work on students' writing ability.

Table 4.6

Types of scaffolding in Class F

Types of scaffolding	Time spent on scaffolding each Language skill						Total
	writing	grammar	listening	speaking	vocabulary	reading	
Cognitive	-	-	-	25	42	42.3	109.3
Metacognitive	-	-	-	70	-	35	105
Procedural	-	290	-	-	6	3	299
Context	-	-	-	-	4	0.25	4.25
Motivational	-	-	-	-	-	-	-

The whole time of the class F was 1620 minutes. As indicated in the table, the scaffolding used in the class F included cognitive, metacognitive, procedural, and context scaffolding. The teacher spent 226 minutes on teaching reading skill. He spent 42.3 minutes on cognitive scaffolding, 35 minutes on metacognitive scaffolding, 3 minutes on procedural scaffolding, and 0.25 minutes on Context scaffolding. Motivational scaffolding wasn't used in teaching reading skill. The teacher spent 215 minutes of the classroom on the vocabulary skill. He spent 42 minutes on cognitive scaffolding, 6 minutes on procedural scaffolding, and 4 minutes on context scaffolding. He didn't use metacognitive and motivational scaffolding in part vocabulary. The teacher spent 273 minutes of the classroom on the speaking skill. In speaking skill, 25 minutes were spent on cognitive scaffolding, 70 minutes on metacognitive scaffolding. Procedural, context and motivational scaffolding were not used by the teacher in working on speaking skill. The teacher spent 150 minutes on Listening skill. In terms of listening skill, he used no scaffolding. In the part *grammar*, 290 minutes were spent on procedural scaffolding. Metacognitive, cognitive, context, and motivational scaffolding were not used by the teacher in this skill. Unfortunately in this class, the teacher didn't work on students' writing ability.

Table 4.7

Types of scaffolding in class G

Types of scaffolding	Time spent on scaffolding each Language skill						Total
	writing	grammar	listening	speaking	vocabulary	reading	
Cognitive	-	-	20.5	16	17	80.3	133.8
Metacognitive	-	-	12	69	-	65	146
Procedural	-	330	23	-	-	11	364
Context	-	-	-	-	-	-	-
Motivational	-	-	-	-	-	-	-

The whole time of the class G was 1620 minutes. As indicated in the table, the scaffolding used in class G included cognitive, metacognitive, and procedural scaffolding. The teacher spent 465 minutes on teaching reading skill. He spent 80.3 minutes on cognitive scaffolding, 65 minutes on metacognitive scaffolding, and 11 minutes on procedural scaffolding. Context and motivational scaffolding were not used in teaching reading skill. The teacher spent 270 minutes of the classroom on teaching vocabulary. He spent 17 minutes on cognitive scaffolding. Metacognitive, procedural, context, and motivational scaffolding were not used in this skill. The teacher spent 175 minutes of the classroom on speaking skill. In teaching speaking, 16 minutes were spent on cognitive scaffolding, and 69 minutes on metacognitive scaffolding. Procedural, context, and motivational scaffolding were not used by the teacher in speaking skill. The teacher spent 330 minutes on teaching listening. In listening skill, 20.5 minutes were spent on cognitive scaffolding, 12 minutes on metacognitive scaffolding, and 23 minutes on procedural scaffolding. Context and motivational scaffolding were not used by the teacher in this skill. In the part grammar, 330 minutes were spent on procedural scaffolding. Metacognitive, Cognitive, context, and motivational scaffolding were not used by the teacher in this skill. Unfortunately in this class, teacher didn't work on students' writing ability.

Table 4.8

Types of scaffolding in class H

Types of scaffolding	Time spent on scaffolding each Language skill						Total
	writing	grammar	listening	speaking	vocabulary	reading	
Cognitive	-	-	-	7.5	18	113	138.5
Metacognitive	-	-	-	173	-	3	176
Procedural	-	208	-	-	1.9	120	329.9
Context	-	-	-	-	-	-	-
Motivational	-	-	-	-	-	-	-

The whole time of the class H was 1530 minutes. As indicated in the table, the scaffolding used in the class H included cognitive, metacognitive, and procedural scaffolding. The teacher spent 430 minutes on the reading skill. He spent 113 minutes on cognitive scaffolding, three minutes on metacognitive scaffolding, and 120 minutes on procedural scaffolding. Context and motivational scaffolding were not used in teaching reading skill. The teacher spent 155 minutes of the classroom on the part vocabulary. He spent 18 minutes on cognitive scaffolding, and 1.9 minutes on procedural scaffolding. Metacognitive, context, and motivational scaffolding were not used in this skill. The teacher spent 245 minutes of the classroom on speaking skill. In speaking skill, 7.5 minutes was spent on cognitive scaffolding and 173 minutes on metacognitive scaffolding. Procedural, context, and motivational scaffolding were not used by the teacher in speaking skill. The teacher spent 270 minutes on teaching Listening. In listening skill, no scaffolding was used by the teacher. In the grammar, 208 minutes were spent on procedural scaffolding. Metacognitive, Cognitive, context, and motivational scaffolding were not used by the teacher in this skill. Unfortunately in this class, teacher didn't work on students' writing ability.

4.2.2. *Qualitative analysis*

In this part, we give some examples of different types of scaffolding used in the classes under investigation.

Extract 1

- 01 T: If there is no air conditioning, would you feel comfortable?
02 S: No but (.)
03 T: No sofa, do you feel comfortable? =
04 Ss: =No.
05 T: They help you feel comfortable (writing on the board). They. What are they?
06 S: Services
07 T: But a sofa isn't a service.
08 Ss: (1)
09 T: They are?
10 Ss :()
11 T: Amenities.

This extract is related to teaching vocabulary. Here, the teacher intended to teach students the word *amenities*, he used some examples for this purpose. We considered this action a

kind of cognitive scaffolding, because based on Wu's (2010) framework, support for helping individuals understand the content of learning materials is known as cognitive scaffolding, like giving examples, because it engages students' cognition

Extract 2

- 01 SA: I will (.) my err drop off (1). @
02 T: Again (.)
03 SB: I drop off=
04 T: =IT's (about present)
05 SB: (I'm) drop off=
06 T: = It's (about now)
07 SB: I'm
08 SC:[I'm]
09 SA:[I'm] dropping off my car.

This extract is related to the part *Now You Can*. In other words, it is related to the speaking ability, where the student practicing the conversation made a mistake. The teacher gave hints to the student when he made a mistake. In Wu's (2010) model of scaffolding, hints were considered as cognitive scaffolding, because they engage students' cognition to learn the concept, so the teacher used cognitive scaffolding to help student correct his mistake.

Extract 3

- 01 S: To communicated well with er other people in er with people in other country
02 we Er (1) must er learn to speak [well]
03 T: [Aha]
04 S: But er some experts er say er speaking er is just 30 percent .h important and er
05 30 percent important of communication. And er (3)
06 T: So what is the other (.) 70 percent? (.)
07 S: The experts say er just () and 30percent of er com er makes communication
08 with other people. We er can use the ges er gesture and verbal er we (.) er when
09 hh when we want to (.) to make conversation with other people and er=
10 T: = That's right (.) You mean gestures are more important than speaking (.) It's
11 the whole part. Thank you.

This extract is related to the reading skill. Teacher asked students to read the reading and summarize the reading. In fact, he gave them an opportunity to evaluate their learning. We considered it as metacognitive scaffolding, because in Wu's (2010) framework, metacognitive scaffolding was defined as support for helping individuals to develop both

the ability to recognize their knowledge and regulate their behaviors based on their reflection.

Extract 4

- 01 S: My family surprising me =
- 02 T: = No (.) why? Why we say surprising? (3)
- 03 S: Parents=
- 04 T: =Well the parents did that (.) Didn't they?
- 05 (.)
- 06 T: Is it right to say surprising? =
- 07 S: =No, surprised (.)
- 08 T: Why? =
- 09 S: =It's adjective (.)
- 10 T: It's a verb, not an adjective. Simple past. My parents surprised me.
- 11 I was surprised. Simple past.

This extract is related to the part vocabulary. The teacher asked students to make some sentences with new words, where the student made a mistake and the teacher asked students a question to think and evaluate their learning instead of correcting the mistake directly. So based on in Wu's (2010) framework, the teacher used metacognitive scaffolding.

Extract 5

- 01 S: More likely?
- 02 T: What is the meaning of likely?
- 03 (.)
- 04 Ss: Same?
- 05 T: Same. No. It's not the verb.
- 06 S: Adverb
- 07 T: Sure, it's adverb, but is it SHURELY or MAYBE?
- 08 (.)
- 09 T: Surly or maybe?
- 10 S: Surly
- 11 T: Likely here means certainly or surly

This extract is related to reading. In this example, teacher helped students to find the meaning of a word step by step. It's a kind of procedural scaffolding, because teacher considers a procedure for learning and in Wu's (2010) framework, it's called procedural

scaffolding. First a student asked the meaning of a word from teacher, but the teacher did not answer and asked question from students in order to think. A student stated a false meaning; the teacher guided her by mentioning that “it’s not the verb”. In the next step, in which students got closer to the answer; the teacher said: “is it SHURELY or MAYBE?” Finally students could find the answer by the help of the teacher.

Extract 6

- 01 T: Look at first sentence (.) I was watching TV from 7 to 8(.) What is the
02 meaning of this sentence?(1)
03 SA: I was watching TV from (.) during () time
04 T:Ok(1)
05 SB:I: (1) I watching(1)TV last(2) er last er
06 SA: Do something in the past between er exact time(1)
07 SC: I think it’s routine er rotten er work he or she did it
08 T:sometimes it can be routine but not .hh always(1) er: here(.) if you want to talk
09 about the time you say
10 Sf: its past continues.
11 T: sure its past continues .hh and it talks about finished activity

This example is related to teaching a grammar on past continues. The teacher had a procedure for teaching the grammar, where step by step, he led students toward the new points. We considered this as procedural scaffolding based on Wu’s (2010) framework. This extract started with an example and continued by asking students to think about the meaning. Then, the teacher told the students the grammatical rules and, by engaging the students, she helped them learn negative and question forms in the next steps.

Extract 7

- 01 T: This word is the synonym for gas pedal (1)(Teacher plays the dictionary)
02 T: Accelerate (.)Accelerate synonym for gas pedal
03 S :()
04 T: Accelerator? This one (1) (Teacher plays the dictionary)
05 T: Accelerate is the verb and accelerator is the noun. It means the part of car ()
06 gas pedal

This extract is related to part vocabulary. The teacher used dictionary as a resource to introduce a new word to the students. We count this as context scaffolding.

Extract 8

- 01 S: The hotel er is a rea a real winner er (1) Suites with er sofa(.) Macrowave (.)

02 Mini-Fridge (.)

03 T: (plays the dictionary) So you can say the rooms are: furnished(.) Because it

04 said there is a macrowa:ve (.) yes? Mini-fridge (.)h and Sofa(.) Furnished with

05 ed.

This extract is related to the reading. The teacher asked students to read the reading and summarize it. When giving a summary, the teacher used a dictionary as a resource to introduce the new word to the students. We consider this the context scaffolding, because based on Wu's (2010) Framework, context scaffolding was defined as support for helping individuals to maneuver through a learning environment and to operate tools and resources embedded in the learning environment.

4.3. What techniques are teachers likely to provide in regards to each type of scaffolding in EFL classes in Iran?

4.3.1. Quantitative analysis

In this part, we will mention the quantitative analysis results of the study.

Table 4.9

Techniques of cognitive scaffolding in class A

Type of cognitive scaffolding technique used in all language skills	Spent time
Teacher made an introduction to activate students' mind in order to comprehend the material before teaching.	97
Teacher gave hints to the students in order to correct students' errors.	1
Teacher used some examples to help learning process.	3
Total	101

The whole time of the class A was 1530 minutes. As demonstrated in the table, the teacher made an introduction to activate students' mind in order to comprehend the material before teaching for 97 minutes. The teacher gave students hints in order to correct students' errors for 1 minute, and used some examples to help learning process for three minutes.

Table 4.10

Techniques of metacognitive scaffolding in class A

Techniques of metacognitive scaffolding used in all language skills	Spent time
Teacher provided opportunities to help students evaluate their learning	321

As indicated in the class A, the teacher provided opportunities to help students evaluate their learning for 321 minutes.

Table 4.11

Techniques of procedural scaffolding in class A

Technique of procedural scaffolding used in all language skills	Spent time
Teacher considered an order for teaching in order to help students understand the material	245

As shown in the table, the teacher considered an order for teaching in order to help students understand the material for 245 minutes.

Techniques of scaffolding in class B

Table 4.12

Techniques of cognitive scaffolding in class B

Techniques of cognitive scaffolding used in all language skills	Spent time
Teacher made an introduction to activate students' mind in order to comprehend the material before teaching the material	94
Teacher used some examples to help learning process	24
Total	118

The whole time of the class B was 1620 minutes. As shown in the table, in the class B, the teacher made an introduction to activate students' mind in order to comprehend the material before teaching in 94 minutes. The teacher also used a number of examples to help learning process for 24 minutes.

Table 4.13

Techniques of metacognitive scaffolding in class B

Techniques of metacognitive scaffolding used in all language skills	Spent time
Teacher provided opportunities to help students evaluate their learning	334

As indicated in the table, the teacher provided opportunities to help students evaluate their learning for 334 minutes in the class B.

Table 4.14

Techniques of procedural scaffolding in class B

Technique of procedural scaffolding in all language skills	Spent time
Teacher considered an order for teaching in order to help students understand the material	191

As demonstrated in the table, the teacher considered an order for teaching in order to help students understand the material for 191 minutes.

Techniques of scaffolding in class C

Table 4.15

Techniques of cognitive scaffolding in class C

Techniques of cognitive scaffolding used in all language skills	Spent time
Teacher made an introduction to activate students' mind in order to comprehend the material before teaching it	58
Teacher gave hints to the students in order to correct students' errors	6
Teacher used some examples to help learning process	2
Total	66

The whole time of the class C was 1980 minutes. In the classroom C, the teacher made an introduction to activate students' mind in order to comprehend the material before teaching for 58 minutes. The teacher gave hints to the students in order to correct students' errors for 6 minutes and used a number of examples to help learning process for 2 minutes.

Table 4.16

Techniques of metacognitive scaffolding in class C

Techniques of metacognitive scaffolding used in all language skills	Spent time
Teacher provided opportunities to help students evaluate their learning	240

As shown in the table, Teacher provided opportunities to help students evaluate their learning for 240 minutes in the classroom C.

Table 4.17

Techniques of procedural scaffolding in class C

Technique of procedural scaffolding used in all language skills	Spent time
Teacher considered an order for teaching in order to help students understand the material	380

As demonstrated in the table, the teacher considered an order for teaching in order to help students understand the material for 380 minutes in the classroom C.

Techniques of scaffolding in class D

Table 4.18

Techniques of cognitive scaffolding in class D

Techniques of cognitive scaffolding used in all language skills	Spent time
Teacher made an introduction to activate students' mind in order to comprehend the material before teaching	54
Teacher gave hints to the students in order to correct students' errors	6.1
Teacher used some examples to help learning process	2.2
Total	62.3

The whole time of the class D was 1980 minutes. As indicated in the table, the teacher made an introduction to activate students' mind in order to comprehend the material before teaching for 54 minutes, warned students in order to correct students' errors for 6.1 minutes, and used some examples to help learning process for 2.2 minutes.

Table 4.19

Techniques of metacognitive scaffolding in class D

Techniques of metacognitive scaffolding used in all language skills	Spent time
Teacher provided opportunities to help students evaluate their learning	127

As shown in the table, the teacher provided opportunities to help students evaluate their learning for 127 minutes.

Table 4.20

Techniques of procedural scaffolding in class D

Technique of procedural scaffolding used in all language skills	Spent time
Teacher considered an order for teaching in order to help students understand the material	286.7
Teacher helped students find the meaning of words by dividing them into understandable parts.	0.28

As demonstrated in the table, the teacher considered an order for teaching in order to help students understand the material for 286.7 minutes and helped students find the meaning of words by dividing them into understandable parts for 0.28 minutes.

Techniques of scaffolding in class E

Table 4.21

Techniques of cognitive scaffolding in class E

Techniques of cognitive scaffolding used in all language skills	Spent time
Teacher made an introduction to activate students' mind in order to comprehend the material before teaching	145
Teacher gave hints to the students in order to correct students errors	4.79
Teacher used some examples to help learning process	6
total	155.7

The whole time of the class E was 1620 minutes. As indicated in the table, in the classroom E, 145 minutes were spent on providing an introduction to activate students' mind in order to comprehend the material before teaching. The teacher gave hints to the students in order to correct students' errors in 4.79 minutes and 6 minutes were spent on giving some examples to help learning process.

Table 4.22

Techniques of metacognitive scaffolding in class E

Techniques of metacognitive scaffolding used in all language skills	Spent time
Teacher provided opportunities to help students evaluate their learning	280

As shown in the table, in the classroom E, the teacher provided opportunities to help students evaluate their learning for 280 minutes.

Table 4.23

Techniques of procedural scaffolding in class E

Technique of procedural scaffolding used in all language skills	Spent time
Teacher considered an order for teaching in order to help students understand the material	266

As demonstrated in the table, the teacher considered an order for teaching in order to help students understand the material for 266 minutes.

Table 4.24

Techniques of context scaffolding in class E

Technique of context scaffolding used in all language skills	Spent time
Teacher introduced appropriate resources to increase students' ability	0.25

As indicated in the table, 0.25 minute was spent on introducing appropriate resources to increase students' ability.

Techniques of scaffolding in class F

Table 4.25

Techniques of cognitive scaffolding in class F

Techniques of cognitive scaffolding used in all language skills	Spent time
Teacher made an introduction to activate students' brain in order to comprehend the text before teaching the text	104
Teacher used some examples to help learning process	5.3
Total	109.3

The whole time of the class F was 620 minutes. As shown in the table, the teacher made an introduction to activate students' brain in order to comprehend the material before teaching for 104 minutes. 5.3 minutes were n spent on giving examples to help learning process.

Table 4.26

Techniques of metacognitive scaffolding in class F

Techniques of metacognitive scaffolding used in all language skills	Spent time
Teacher provided opportunities to help students evaluate their learning	105

As indicated in the table, teacher spent 105 minutes on providing opportunities to help students evaluate their learning.

Table 4.27

Techniques of procedural scaffolding in class F

Technique of procedural scaffolding used in all language skills	Spent time
Teacher considered an order for teaching in order to help students understand the material	299

As shown in the table, the teacher considered an order for teaching in order to help students understand the material for 299 minutes.

Table 4.28

Techniques of context scaffolding in class F

Technique of context scaffolding used in all language skills	Spent time
Teacher explained the concept using pictures	1.2
Teacher introduced resources in order to increase student's abilities	3

As shown in the table, the teacher explained the concept by a picture for 1.2 minute and introduced resources in order to increase student's abilities for 3 minutes.

Techniques of scaffolding in class G

Table 4.29

Techniques of cognitive scaffolding in class G

Techniques of cognitive scaffolding used in all language skills	Spent time
Teacher made an introduction to activate students' brain in order to comprehend the material before teaching	129
Teacher used some examples to help learning process	4
Teacher helped and guided students to relate the vocabularies to what they know	0.3
Teacher gave hints to the students in order to correct students' errors	0.5
Total	133.8

The whole time of the class was 1620 minutes. As demonstrated in the table, the teacher made an introduction to activate students' brain in order to comprehend the material before teaching for 129 minutes. He used a number of examples to help learning process for 4 minutes, helped and guided students to relate the vocabularies

to what they knew for 0.3 minute, and gave hints to the students in order to correct students' errors.

Table 4.30

Techniques of metacognitive scaffolding in class G

Techniques of metacognitive scaffolding used in all language skills	Spent time
Teacher provided opportunities to help students evaluate their learning	146

As shown in the table, the teacher provided opportunities to help students evaluate their learning for 146 minutes.

Table 4.31

Techniques of procedural scaffolding in class G

Technique of procedural scaffolding used in all language skills	Spent time
Teacher considered an order for teaching in order to help students understand the material	364

As demonstrated in the table, the teacher considered an order for teaching in order to help students understand the material for 364 minutes.

Techniques of scaffolding in class H

Table 4.32

Techniques of cognitive scaffolding in class H

Techniques of cognitive scaffolding used in all language skills	Spent time
Teacher made an introduction to activate students' mind in order to comprehend the material before teaching	122
Teacher used some examples to help learning process	13
Teacher helped and guided students to relate the new knowledge to what they know	1
Teacher gave hints to the students in order to correct students errors	1.5
Total	137.5

The whole time of the class H was 1530 minutes. As shown in the table, the teacher spent 122 minutes on making an introduction to activate students' mind in order to comprehend the material before teaching the text. The teacher also used a number of examples to help learning process for 13 minutes.

The teacher helped and guided students to relate the new knowledge to what they knew for 1 minutes and gave hints to the students in order to correct students' errors for 1.5 minutes.

Table 4.33

Techniques of metacognitive scaffolding in class H

Techniques of metacognitive scaffolding used in all language skills	Spent time
Teacher provided opportunities to help students evaluate their learning	176

As demonstrated in the table, Teacher provides opportunities to help students evaluate their learning for 176 minutes.

Table 4.34

Techniques of procedural scaffolding in class H

Technique of procedural scaffolding used in all language skills	Spent time
Teacher considered an order for teaching in order to help students understand the material	330

As demonstrated in the table, the teacher considered an order for teaching in order to help students understand the material for 330 minutes.

4.3.2: *qualitative scaffolding:*

In this part, we give some examples of scaffolding in different techniques:

Extract 9

- 01 T:What is extension?
- 02 SA: Added?(.) Additional?=
03 T:= For example you call to the hospital (.) One extension is fo:r (.) heart one
04 extension is for eyes one extension .h When you call to a big company there
05 are 10 [extension]
- 06 SA: [Partition]?
- 07 T: .hh By telephone (.) extension 1 extention2 (.)
- 08 SB: داخلي؟
- 09 T: Very good.

This extract is related to the listening. The teacher played the tape and made a pause and students could not repeat the word. He again played the tape and students repeated it with hesitation and a mistake. The teacher, who wanted to introduce the meaning of the new word, used a cognitive technique. He gave some examples to help learning process.

Extract 10

- 01 T: Most of the hotels have a shuttle (.) For people to go on a tour of a city(1) or

- 02 for people to go to the airport(1)or (4) that's about it(.) Usually for city tours (.)
 03 and(.) to take passengers back to the airport(.) Ok? There is a shuttle(.)
 04 ((coughs))
 05 T: What is shuttle? What kind of vehicle is it?
 06 (.)
 07 T: Is it a small car and a taxi?
 08 SS: No, it's [a van]
 09 S: [Van] =
 10 T:=A van? Or?
 11 S: A van or a bus
 12 T: A bus. or a minibus (.)Ok?

This example is related to a photo-story. Teacher wanted to introduce the meaning of the word shuttle, so he gave some examples to help learning process.

Extract 11

- 01 T: So (1) no air conditioning (.)Would you feel comfortable?
 02 S: No. but ()
 03 T: No sofa (.) do you feel comfortable? =
 04 Ss: =No.
 05 T: They (1) help you (3) feel (5) comfortable (writes on the board). They (.)What
 06 are they?
 07 Ss: Equipment? (1)
 08 T: Equipme::nt (1) some of them are equipment (.) But for example a sofa isn't
 09 equipment (.) It's a piece of furniture.
 10 (2)
 11 T: They are?
 12 Ss :()
 13 T: Amenities.

This extract is related to the part vocabulary. The teacher asked students what made a hotel comfortable and students named some. Then the teacher, who wanted to introduce the new word *amenities*, used the examples that students named to help them learn the meaning of the new word.

Extract 12

- 01 S: my door was scratched.

02 T: but it's easier to say I scratched my door (.) Like in Farsi (.) In English you
03 say I broke my arm (.) But in Farsi you say my arm was broken.

This extract is related to speaking ability. The student was making a conversation. Teacher used the background knowledge of students in order to teach them a special structure. He helped students to relate the structure to the Persian structure that they knew.

Extract 13

01 T: What does it mean? Common introduction?

02 S: Usual?

03 T: Usual what?

04 S :()

05 T: Common introduction (.) for example. =

06 S: = Join?

07 T: Do you know introduce?

08 S: Yes

09 T: Introduction comes from introduce (.) Aha?

10 I'm (.) My last name is (.)

In this example, the teacher helped and guided students to relate the un-known vocabulary vocabularies with what they knew. The students knew the meaning of “introduce”, and the teacher used their knowledge to introduce the word introduction.

Extract 14

01 T: What item is important in selecting a hotel? (.)

02 S: Facility of er hotel (.)

03 T: So you mean you searcher all of the facilities about the hotel?(.) Does it

04 have a sona? Does it have a pool? =

05 S: = Not always. Not all of the facility. Just er just (1) some of them are

06 important for me.

This extract is related to the reading. The reading was about the hotels and the teacher tried to activate students 'mind before teaching the reading.

Extract 15

01 T: What do you see in this picture?(1)

02 S: A massage saloon (1)

03 T: There is a massage salon (.) and what kind of service does she need?

04 S: I think she wants shampoo (.)

05 T: Ok. She wants some shampoo.

In this extract, which is related to the conversation, the teacher used a cognitive scaffolding technique and tried to activate students' mind in order to comprehend the conversation before teaching it.

Extract 16

01 S: Did you see a good movie?

02 (2)

03 S: Did you see? (.)

04 T: Hmm. Did you see?

05 S: No have you seen.

This example is related to the listening. The student was answering the questions of listening and made a mistake. The teacher used cognitive scaffolding technique and gave the student hint in order to correct her errors.

Extract 17

01 S: Someone are er someone are agree with this reason (.)

02 T: Someone ARE agree?

03 S: Someone is=

04 T: =Someone IS agree?

05 S: Someone agree (.)

06 T: That's right (.) Agree is a verb. You shouldn't use am, is, are. Some of the

07 people agree.

This example is related to the writing. The student made a mistake and the teacher gave hints to correct her mistake instead of correcting the mistake directly in order to engage student cognitively and help him become autonomous.

Extract 18

01 S: Where. Where have you (were) in Isfahan?

02 T: Is it true?

03 S: No

04 T: So () what you say?

05 S: Where did you go.

06 T: Where did you go what?

07 S: Where did you go yesterday?

08 T: You say?

09 S: Aha. Gone. Where have you gone.

As seen in this extract, which is related to speaking, the teacher used a cognitive scaffolding technique and gave hints to the student to correct the mistake.

Extract 19

01 S: Er it's er about horror movie [and]

02 T: [Aha]

03 S: Er she look at the newspaper and er this movie is ()

04 T: Yeah. Ok.

05 S: And he hate er horror movie

06 T: Because?

07 S: Er because er he scared about. Aha. Er he'll be up all the night (.)

08 T: Yes, he'll be up all the night (.) means he can't fall asleep.

This extract is related to the listening. After playing listening, the teacher asked students to summarize it in order to provide opportunities to help students evaluate their learning. We considered it a kind of metacognitive scaffolding technique. Because in Wu's (2010) framework, metacognitive scaffolding is defined as support for helping individuals to develop both the ability to recognize their knowledge and regulate their behaviors based on their reflection. For example, teachers may use question prompts to ask students to reflect upon their strengths and weaknesses.

Extract 20

01 SA: Er hi er what would you rather see? Er a drama or comedy? (.)

02 SB: I prefer er I prefer to watch a comedy (.)

03 SA: Actually, I er can't stand (.) comedies (2)

04 SB: Would you like to .hh see a drama? (.)

05 SA: Yes (.) of course er I'd like to see it (1)

06 SB: Ok there are er lots of movies at er cinema Africa tonight (1)

07 SA: Er I'm sorry er I can't er come at that time and er can you come (.) a little
08 late?

09 SB: Yes, four eight o'clock er there are (lots of) movies (2)

10 SA: Ok er so what about tickets? Can you take it?

11 SB: Yes it's my turn (.)

12 SA: Ok, I'll see you

This extract is related to the speaking ability. After teaching conversation, teacher gave students time to practice conversation and changed some parts in order to provide opportunities to help students evaluate their learning.

Extract 21

- 01 Some nouns were none counts and some were counts (.) Could you say some
02 counts? Like?
03 (.)
04 T: Razor (.) is it count or none count?
05 Ss: Count (.)
06 T: Count (.) You can say the number a razor or? =
07 Ss:=Two razors(1)
08 T: Now (.)We want to learn how to talk about these products (.) how to:: ask
09 questions (.) How to say (.) Ha?
10 We say. You go to the store. To a pharmacy a drugstore. You go to the
11 receptionist or clerk. You say?
12 Ss: I want a razor
13 T:(writes on the board). Look at here. You go to a drugstore. You want to buy
14 razor. And you say to the clerk: I need some razors. Look at here. Some. Do I say
15 the number?
16 Ss: No

This extract is related to the grammar. As seen in the extract, the teacher taught grammar in different steps. First, he helped students remember count and none-counts; he made examples and tried to teach the grammar step by step.

Extract 22

- 01 S: hh what's the meaning of er the plaza is as near as it gets to the best
02 shopping?=
03 =T: Ok. Look at line five (2) Read this part and say the meaning (.) The plaza is
04 as near as it gets to the best shopping (2)
05 S: Very close to the er best shopping(1)
06 T: By the location it's very near? It's very close?(.)
07 S: No, available
08 Ss: It's about location (1)
09 T: So you mean this hotel is close to the shopping center=
10 S= Yes (.)

- 11 T: So why it says “the plaza is as near as it gets to the best shopping”? =
 12 S: =Very similar to best shopping? (.)
 13 T: The others? (2)
 14 Ss: You can get er you can get anything? (1)
 15 T: Here it says the shopping in this street is very famous .h and this hotel is being
 16 famous step by step.

This extract is related to reading. One of the students had problem in translating the reading. The teacher helped the students understand the meaning of the sentence step by step. She used procedural scaffolding technique

Extract 23

- 01 What kind of movies do they like to see?
 02 SA: A [drama]?
 03 SB: [A] classic? (1)
 04 SC: just classic

This extract is related to the photo-story, which was considered a part of reading skill. The teacher had a procedure to teach the photo-story. He asked students some questions after playing the photo-story, and then played the photo-story again, letting students to repeat the sentences.

Extract 24

- 01 T: What is the meaning of ill-fated?
 02 (4)
 03 T: Doesn't have a meaning.
 05 (11)
 06 T: What is the meaning of fate?
 07 (3)
 08 T: Fate means سرنوشت (1) ill-fated means با سرنوشت شوم

This extract is related to the reading. The teacher read the reading and asked the meaning of a new word from the students. They did not know the meaning; thus, he tried to introduce the meaning of a new word by dividing the word to its parts .We considered this a kind of procedural scaffolding.

Extract 25

- 01 T: Attentive?
 02 (.)
 03 T: What's the noun?

- 04 S: Attention
 05 T: Attention (.) ok (.) So attentive means?
 06 S: (Notice)?
 07 T: Ok. Being noticed, careful

This extract is related to the reading. The teacher helped students to understand the meaning of the word *attentive* by dividing it to its parts. The teacher asked students what the noun was and helped them divide the word to its parts.

Extract 26

- 01 S: What is the meaning of edge? (5)
 02 T: (draws a picture of a desk and points to its edge). This is the edge.

This extract is related to the reading .In this example, the teacher explained the concept by a picture to help students learn the meaning of a word. We considered this context scaffolding.

Extract27

- 01 Ss: Baldy? (.)
 02 T: A person who is bald
 03 S: Bald? (6)
 04 T: (Draws a man on the board)
 05 نقاشيم خوب نيست اخه
 06 @
 07 T: Ok. Look at here. He is a bald man

This extract is related to the reading .In this example, students didn't know the meaning of the word baldy and the teacher explained the concept by a picture to help students learn the meaning. We considered this context scaffolding technique.

Extract 28

- 01 s: Er teacher what is the meaning of er گلگیر?
 02 T: Where is it? (2)
 03 S: Er () back of car (.)
 04 T: Bumper
 05 S: No er in back tire (3)
 06 T: I don't know (4)
 07 T: (teacher plays the dictionary). The side part of car that covers the wheel (.) it's
 08 fender.

In this extract, the teacher had taught the vocabularies about the parts of a car, and then she intended to teach the listening. He asked some questions from students to prepare for the listening. Here, the student had a problem finding the meaning of a word not included in the book. In this example, the teacher used the dictionary as a resource to help students learn the meaning of the word. We considered this as context scaffolding technique.

Extract 29

1. T: At what age do you think it's safe to let children watch violent movies on TV
2. show?
3. (4)
4. T: What's the appropriate age for watching violent shows?(2)
5. S: It depends on the age of ()
6. T: Aha (.) yeah (1). Ok (2) You mean it depends on being mature (.) Sometimes
7. The child is 11 .h but he behave like an old person (2) (teacher plays the
8. dictionary). It means the quality of behaving in sensible way.

This example is related to a reading. Before teaching the reading, the teacher asked students a question to activate their minds. One of the students who was answering the question, was unable to find a word to mention her idea. In this example, the teacher used the dictionary as a resource to help students learn the meaning of a new word. We considered this as context scaffolding technique.

4.4. To what extent is scaffolding provided in EFL classes in Iran?

In order to answer this question, we determined the time spent on each type of scaffolding in the classrooms and obtained the percentage of each scaffolding type.

Table 4.35

The time of scaffolding techniques used in EFL classrooms

Types of scaffolding	Class A	Class B	Class C	Class D	Class E	Class F	Class G	Class H	Total
Cognitive	101	118	66	62.3	155.79	109.3	133.8	138.5	884.69
Metacognitive	321	187	240	127	280	105	146	176	1582
Procedural	245	191	380	287	266.3	299	364	330	2362
Context	0	0	0	0	0.25	4.25	0	0	4.5
Motivational	0	0	0	0	0	0	0	0	0
Total	667	496	686	476.3	702.34	517.55	643.8	644.5	4833

As demonstrated in the table, 884.69 minutes of the classes were spent on cognitive scaffolding, 1582 minutes on metacognitive scaffolding, 2362 minutes on

procedural scaffolding, 4.5 minutes on context scaffolding and 0 minutes on motivational scaffolding.

Table 4.36

The total time of EFL classrooms

Classes	Class A	Class B	Class C	Class D	Class E	Class F	Class G	Class H	Total
Time	1530	1620	1980	1980	1620	1620	1620	1530	13500

As demonstrated in the table, the total time of the classes was 13500 minutes. The total percentage of scaffolding was 35.8 %.

Table 4.37

The extent of scaffolding in EFL classrooms

Types of scaffolding	Percentage
Cognitive	6.55%
Metacognitive	11.71%
Procedural	17.4%
Context	0.03%
Motivational	0

As indicated in the table, 6.55% of the classes was spent on cognitive scaffolding, 11.71% of the classes were spent on metacognitive scaffolding, 17.4 % of the classes on procedural scaffolding, 0.03% on context scaffolding and 0 % on motivational scaffolding.

4.5. Summary

This chapter discussed quantitative and qualitative results of the study. As mentioned, the types of scaffolding that were used in the classrooms included cognitive, metacognitive, procedural, and context scaffolding. the techniques that were used by teachers included providing introduction to activate students' mind before teaching, relating new material with students' background knowledge, giving hints, providing some opportunities to help students evaluate their learning (i.e. summarizing and questioning), proposing a number of steps for teaching, dividing vocabularies to its parts, relating the concepts to pictures, and referring students to the resources. The extent to which scaffolding was used in EFL classes equaled 35.8 %, of which 6.55, 11.71, 17.4, and 0.03 % were devoted to cognitive, metacognitive, procedural, and context scaffolding, respectively.

Chapter Five

Discussion, conclusion, and implications

5.1. Overview

The aim of this study was to investigate the extent to which various scaffolding types were provided in EFL classes. It was also to delineate the types and techniques of scaffolding used in the classes. In the present chapter, the major findings of the study, implications of the study, some limitations of the study and, finally, suggestions for further research will be discussed.

5.2. Restatement of the problem

Scaffolding helps novice learners improve their learning and be independent learners in the future (Hyland, 2009). The learner can do the tasks that he cannot do alone by the help of the teacher or a knowledgeable peer. Scaffolding is used in the instruction too. Students who learn a new language confront a lot of problems. Teachers can help students to solve these problems using scaffolding (Walqui, 2006). Scaffolding can be used in EL instruction in order to help students improve their abilities, understand difficult materials, and achieve their goal of learning (Cloud, Genesee & Hayaman, 2009). Scaffolding is related to ZPD. In fact, scaffolding is in the heart of ZPD. In ZPD, a teacher

or a peer helps the novice student to do the tasks that is higher than his/her abilities (Walqui, 2006). Thus, in ZPD, individuals and teachers together make meaning (Santoso, 2010). In fact, teachers help students to increase their cognitive abilities through scaffolding (Wu, 2010).

Scaffolding is dependent on the needs of the students, and the teacher can choose the type of scaffolding according to the situation (Wolf, 2016). In fact, the teacher should know that an ongoing diagnose of students' needs in ZPD is vital because the needs may change over the time; then she/he can decide how to scaffold students (Wu, 2010). Teachers must pay attention to the students' development and proficiency and decrease the amount of help over the time. Accordingly, the responsibility of learning is taken by students and they become autonomous in the process of learning (Van de Pol , Volman & Beishuizen)

The role of teacher is very important in the process of scaffolding. Teachers should provide appropriate scaffolding in the classroom and direct students toward the goals of learning (Birjandi & Jazebi, 2014). They should pay attention to different strategies of scaffolding, including cognitive and metecognitive strategies. Cognitive scaffolding is related to the content of the lesson and metacognitive scaffolding is related to the process of monitoring or choosing some tasks to solve learning problems (Safein Salem, 2017). Scaffolding can reduce the complexity level of a task. It also helps to keep students interested in the tasks and motivate them for learning (Birjandi & Jazebi, 2014).

Due to the important role of scaffolding in learning, some studies have been done in Iran. Few studies, however, have identified the types of scaffolding used in English language classes. This study aimed to investigate the extent to which various scaffolding types were provided in EFL classes in Iran. It was also to delineate the types and techniques of scaffolding used in the classes.

5.3. Discussion

In this section, results obtained in the study, presented in the previous chapter, are discussed and further elaborated commensurate with the theoretical and practical exigencies of the situation and the concerns already proposed in the first chapter of the dissertation.

5.3.1. What types of scaffolding are teachers likely to provide in EFL classes in Iran?

The types of scaffolding that teachers used in this study were cognitive, metacognitive, procedural and context scaffolding. These results were in line with the

results of the study done by Rahimidoost, Noruzy, Fardanesh and Amirteimoori (2013), indicating that instructional scaffolding needed metacognitive and cognitive scaffolding. In this study, teachers used cognitive scaffolding in different ways to improve students' reading comprehension, Since Reading comprehension needs the knowledge more than vocabulary and syntax; students need to know what happens between the lines of reading. It is a skill that needs cognitive strategies in order to comprehend the text (Safein Salem 2017), so they used warm-up to activate students' mind in order to comprehend the text before teaching the text and this increased the cognitive scaffolding time in the study. Occasionally, teachers made some examples to help learning which were considered as cognitive scaffolding. Metacognitive scaffolding in reading skill included the opportunities that teachers provided to help students evaluate their learning. The teacher asked students to summarize reading or sometimes asked some questions from reading parts. Teachers used metacognitive scaffolding because Metacognition leads to high learning outcomes and has a great effect on language learning, specially writing and reading (Safein Salem 2017). It helps the students to regulate their learning behaviors and is helpful scaffolding for making the students autonomous. The time devoted to procedural scaffolding was higher because in photo story, teacher played the tape, asked some questions, then played the tape again, and asked students to repeat after the tape. In fact, teachers considered an order for teaching in order to help students understand the material. Although some studies have been done on scaffolding in reading skill in Iran, none of these studies identified the types of scaffolding that teachers use in their classes. We tried to fill this gap in this study. For example, Khosravi (2017) studied the effect of scaffolding on advance students' reading comprehension. She revealed that scaffolding through interaction affected students' performance in reading comprehension.

In this study, teachers used different types of scaffolding to improve listening comprehension. Metacognitive scaffolding in listening skill included the opportunities that teachers provided to help students evaluate their learning. The teacher asked students to summarize listening or sometimes asked some questions from listening. The time of metacognitive scaffolding was more than other types of scaffolding in the listening skill. The reason is that students must learn to listen, and the best way is to help them know their weakness. The students should know what problems have while listening to the tape. Using metacognitive scaffolding, students discover the problems by their listening and they try to find strategies that would help them improve their listening. The time of procedural scaffolding increased because in listening, the teacher considered an order for

teaching in order to help students understand the material. He/ she played the tape and asked some questions that if students didn't know the answer, he replayed the tape. Some teachers used cognitive scaffolding for listening too. For example, they made introduction for listening or gave examples to introduce the meaning of new words in listening. Although some studies have been done on scaffolding in listening skill in Iran, none of these studies identified the types of scaffolding that teachers use in their classes. They just studied the impact of scaffolding on listening ability. Shabani and Malekdar (2016) studied the impact of scaffolding on Iranian EFL learners' listening comprehension. They showed that collaborative scaffolding strategies improved listening comprehension.

In this study, teachers used different types of scaffolding to improve speaking. They used cognitive scaffolding in different ways. They used warm-up to activate students' mind in order to comprehend the conversation before teaching. Metacognitive scaffolding in speaking skill was more than other types of scaffolding and included the opportunities that teachers provided to help students evaluate their learning. For example, teachers asked students to practice the conversation after teaching and changed some parts. Cognitive scaffolding in speaking included the introductions which the teacher provided before teaching conversations. In grammar part, teachers had a special procedure. They considered an order for teaching in order to help students understand the material. This was considered as procedural scaffolding.

Although some studies have been done on scaffolding in speaking skill in Iran, none of these studies identified the types of scaffolding. They just studied the effect of scaffolding on speaking skill. For example, Mirahmadi and Alavi (2016) studied the effect of scaffolding on Iranian EFL learners speaking ability and their fluency, lexicon, grammar, and pronunciation. They showed that hard, soft, reciprocal, and virtual scaffolding improved Iranian EFL students' post-test of speaking and their fluency, grammar, lexicon, and pronunciation.

In this study, just one of the teachers asked students to write some writing at home, while others did not work on writing. Teachers used cognitive scaffolding such as hints to correct students' errors. The results of this study was in line with the results of the study done by Kamil (2017) who investigated teacher's scaffolding in teaching writing in seventh grade students in Indonesia. He revealed that teacher scaffolded teaching using cognitive scaffolding (reading text model, providing supportive and corrective feedback, explaining grammar and text structure, asking previous lessons, providing) illustration, and engaging students in the learning process).

We considered vocabulary and preview in the category of vocabulary. In the part vocabulary, teachers used warm-up to make an introduction to activate students' mind in order to comprehend the vocabularies before teaching it based on their experience of teaching (cognitive scaffolding). Some teachers helped students find the meaning of words by dividing them into understandable parts (procedural scaffolding). For introducing some new vocabularies, teacher used cognitive scaffolding and made some examples. For some of them, teacher helped and guided students to relate the vocabularies to what they knew. Teachers used context or technical scaffolding rarely in order to improve students' vocabulary.

Some studies have been done on scaffolding vocabulary part in Iran, but none of these studies identified the types of scaffolding that teachers use in their classes. They just studied the influence of scaffolding on vocabulary learning. For example, Taghizadeh, Langari, Zeinali Gorizi and Rezaie (2017) studied the influence of computer scaffolding, and teacher scaffolding on vocabulary learning. 108 Iranian high school students participated in the study and were divided into three groups: (a) no-scaffolding group (b) teacher scaffolding group, and (c) computer scaffolding group. The results showed that the second and third groups were more successful than the first one. In both immediate and delayed post-tests, the teacher-scaffolding group outperformed the computer-scaffolding group.

In this study, no motivational scaffolding was found in EFL classes. Wu (2010) believed that teachers thought learners used metacognitive approaches to build appropriate thinking and activities. However, in order to help students be autonomous, scaffolding should support students' motivation too.

Teachers used procedural, metacognitive and cognitive scaffolding more than context and motivational scaffolding. Sometimes teachers use some types of scaffolding without being aware of what they are doing is a type of scaffolding, because all of them just follow a special guideline in their institute. Some of them, however, might have this knowledge, but they might don't know what type of scaffolding should be used in a special skill or situation. Of course cognitive and metacognitive scaffolding are necessary for making students autonomous, but context scaffolding has an important effect on learning and the process of information transmission will be easier and faster using context scaffolding (Rahimidoost, Noruzy, Fardanesh & Amirteimoori, 2013). The structure of the book effects on the scaffolding. In addition, context scaffolding requires special tools which didn't exist in the classes and the teachers didn't try to provide them for teaching. Maybe

some teachers didn't have enough motivation to teach or they were dependent on the book. In addition, teachers are not allowed to use creativity in their classroom in most language institutes. Motivation can affect largely on students' performance, but teachers didn't use motivational scaffolding in their classroom because they didn't receive instruction how to use that and they are expected to perform special acts in the process of teaching. Maybe teachers didn't use motivational scaffolding because the time of the class was limited and they thought spending time on motivational scaffolding would decrease the time of involvement of students in the activities, however, the outcome of using this type of scaffolding would be surprising. A factor that teachers should pay attention in making motivational and cognitive scaffolding is the level of students; for example, for more advanced students, more cognitive scaffolding can be used (Kim & Cho, 2016), but teachers didn't consider this fact in the process of scaffolding. It seems that it would be necessary to instruct teachers in this regard.

5.3.2. What techniques are teachers likely to provide in regards to each type of scaffolding in EFL classes in Iran?

The techniques that teachers used to increase students' understanding are as below:

Context scaffolding techniques

1. Teacher explained the concepts using pictures
2. Teacher introduced appropriate resources to improve student' learning

Metacognitive scaffolding techniques

1. Teacher provided opportunities to help students evaluate their learning. (Teachers asked students to summarize the texts or listening or asked students comprehension questions from listening or reading)

Cognitive scaffolding techniques

1. Teacher used some examples to help learning process.
2. Teacher helped and guided students to relate the new knowledge to what they know.
3. Teacher made an introduction to activate students' mind in order to comprehend the material before teaching.
4. Teacher gave hints to the students in order to correct students' errors.

Procedural scaffolding techniques

1. Teacher proposed an order for teaching in order to help students understand the material.

2. Teacher helped students find the meaning of the word by dividing the words into understandable parts.

Teachers used pictures and introduced resources in order to teach vocabulary and reading parts. Metacognitive scaffolding techniques were used in all language skill.

Teachers used examples for teaching reading skill, writing skill, speaking skill and vocabulary part. They also helped students relate their knowledge to background knowledge in reading part and vocabulary part. Making an introduction to activate students' mind also was used in teaching all of language skills except writing. Teachers used hints for teaching speaking, writing and vocabulary part.

Teachers used procedural scaffolding techniques in all language skills. In vocabulary part, they helped the students find the meaning of the words by dividing them into understandable parts.

Teachers could use films or power point to scaffold students, but they did not largely use context scaffolding. Teachers tended to use metacognitive and cognitive techniques more than context scaffolding, because they think that these techniques are more effective for learning. However, context scaffolding techniques can make the concepts more visible and students can understand the concepts better. Films and PowerPoint files are interesting for the students and increase their motivation. Students can guess the concepts during the story of the film and it helps their learning. Preparing a PowerPoint also takes teacher's time before the classroom and maybe teachers didn't have enough time to prepare it for the students. The time of the class was also a matter. Teachers had a limited time to teach the book and they don't have enough time to use films. The timing of the teacher is also important. Some teachers spent the time on unimportant issues. In terms of metacognitive techniques, teachers could use other techniques, including analyzing the text in order to facilitate comprehension or providing a background and asking students to foresee the rest of the concept. However, they used just a special technique according to the procedure of the institute. The reason could be the lack of education in this regard. EFL teachers were chosen from different majors. English translation, English literature, English teaching, and even none English major. Not only teachers majored in English translation and English literature, but also teachers majored in English teaching didn't receive the needed instruction for using teaching techniques. In cognitive scaffolding, teachers greatly made an introduction to activate students' mind in order to comprehend the text before teaching the text.

However, other techniques were seldom used by them. Teacher highly proposed an order for teaching in order to help students understand the material and occasionally helped students to find the meaning of the word by dividing the words into understandable parts. This is because teachers follow the steps in teacher's book. They haven't been taught to use creativity and they don't have enough information about techniques of scaffolding.

The results of this study was in line with the results of the study carried out by Many and Aoulou (2014) who studied the scaffolding of four literacy teachers using observation, interview and document analysis. The results showed that teachers used scaffolding techniques, such as modeling, feedback, discussions, and reflective pieces.

5.3.3. To what extent is scaffolding provided in EFL classes in Iran?

In this study the total time of the classes was 13500 minutes, and the total percentage of scaffolding was 35.8 %. 6.55% of the time of the classes was spent on cognitive scaffolding, 11.71% of the time of the classes was spent on metacognitive scaffolding, 17.4% of the time of the classes on procedural scaffolding, 0.03% of the time on context scaffolding, and 0 minutes on motivational scaffolding.

Teachers mostly used procedural scaffolding because they followed the steps in the book. Therefore the book had an important role in the scaffolding that teachers used. Cognition and emotion are hand in hand and the growth of cognition depends on the growth on emotion in the classroom (Rosiek, 2003).The percentage of cognitive scaffolding was less than metacognitive and procedural scaffolding in the EFL classes and the reason was the integration of cognition and emotion. Teachers didn't pay attention to students' motivational scaffolding, thus the rate of cognitive scaffolding decreased.

The results of this study was in line with the results of the study done by Safein Salem (2017) who Showed that most teachers used scaffolding for teaching reading skill. He showed that metacognitive scaffolding (74%) was used more than cognitive scaffolding (52%) by teachers.

5.4. Conclusion

The aim of this study was to investigate the extent to which various scaffolding types were provided in EFL classes for all four skills. It was also to delineate the types and techniques (forms) used in the classes. The population of this study comprised of 8 EFL teachers who taught Top Notch 2 Using availability sampling technique. The classes were recorded during the semester and were transcribed. Then, the recordings were analyzed to understand what types of scaffolding the teachers used in the class. The types of

scaffolding examined in the classroom were cognitive, metacognitive, procedural, and context scaffolding. Motivational scaffolding was not used in the classes, because all of the teachers followed a special guideline for teaching in language institute and asking teachers to follow the guidelines and not permitting them to use creativity in teaching makes this kind of problem. Maybe teachers don't pay attention to the motivation in teaching. The techniques that teachers used were cognitive techniques (activating students' mind by giving an introduction, giving examples, relating the new knowledge to background knowledge and hints). Metacognitive techniques (helping students evaluate their learning by asking them to summarize reading or listening or asking some questions from listening or reading), procedural scaffolding techniques (dividing the word to its parts or proposing an order for teaching) and context scaffolding techniques (explaining the meaning of the concepts using pictures and introducing resources to improve learning).

Totally, 35.8 % time of the classes was spent on scaffolding. 6.55% time of the classes was spent on cognitive scaffolding, 11.71% time of the classes were spent on metacognitive scaffolding, 17.4 % time of the classes on procedural scaffolding, 0.03% time on context scaffolding, and 0 minutes on motivational scaffolding. Context scaffolding was used in few classes although it can transmit information very fast and the information would remain in students' mind for a long time. Teachers should increase the use of context and motivational scaffolding, provide facilities and regulate the time of the class so that each type of scaffolding can be used when needed.

5.5. Implication of the study

EFL teachers need to be competent enough in order to teach their students. They must be taught how to teach. In this study, we tried to identify the types of scaffolding teachers might use in their classes in order to improve the educational achievement. We hope this study could help universities to prepare professional EFL teachers for the language institutes and to help language institutes choose the best teachers. Universities can instruct students to use the right amount and type of scaffolding strategies in the classroom based on the language skills and level of the students. Language institutes also teach scaffolding concept to English teachers before starting to teach. Language institutes should have the best criteria to choose proficient teachers for instruction purpose. They also should provide the tools and facilities that are needed for the best instruction.

In addition, this study could help material developers to prepare the best material based on scaffolding strategies in order to assist teachers in the process of scaffolding. Books should maintain some parts that require teachers and students to do some activities

to engage their cognition, motivate their learning and also require them to prepare some tools and facilities to improve learning. This might help language learners to acquire English well and increase their level of satisfaction.

5.6. Limitations of the study

Unfortunately, a few teachers participated in this study because they were not inclined to record their voice. Hence, it wasn't possible to examine the relationship between teachers' age, gender, teaching experience, level of education and scaffolding. It would be helpful to study different language institutes to achieve the best results, but other language institutes were not inclined to participate in this study. This study was a qualitative study and the lengths of the classes were not the same and Factors such as attrition will definitely affect validity of the results. No factor was controlled in this study. Unfortunately, the quality of the voices was not good and because of the high expense of the voice recorders, it wasn't possible to prepare high-quality voice recorder for the teachers. It wasn't possible to observe the classes because of limitation of time. However, observation could make more exact results, and because of limitation of time, and the changes in the class members, it was not possible to continue examining students in next terms in order to study scaffolding with more details. For example, one of the features of scaffolding is gradually decreasing help as students become stronger, and this cannot occur just in one term.

5.7. Suggestions for future research

In line with the limitations of the study, some studies need to be done as following: Further research can be done using a larger sample in order to examine the accuracy of the present findings. A need is also felt to study the features of scaffolding in EFL classes several terms of instruction to identify scaffolding techniques better. Further studies can focus on identifying the effect of scaffolding on students' performance. Further studies need to be done on identifying the relationship between the types and amount of scaffolding and teachers' age group, the relationship between the types and amount of scaffolding and teachers' educational background and teaching experience, and the relationship between the types and amount of scaffolding and teachers' gender.

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چکیده فارسی:

تکیه گاه سازی به دانش آموزان کمک می‌کند توانایی‌های خود را افزایش دهند و بر مباحث مشکل غلبه کنند. هرچند تعدادی مطالعه در مورد تکیه گاه سازی در ایران صورت گرفته، اما هیچ یک از این مطالعات انواع و تکنیک‌های تکیه گاه سازی استفاده شده در کلاس را مشخص نکرده اند. به توجه به اهمیت تکیه‌گاه‌سازی در فرآیند آموزش، هدف این مطالعه بررسی میزان تکیه‌گاه‌سازی در موسسات آموزش زبان انگلیسی به عنوان زبان خارجی بود. همچنین بررسی انواع و تکنیک‌های تکیه‌گاه‌سازی در موسسات آموزش زبان انگلیسی به عنوان زبان خارجی مورد بررسی قرار گرفت. از طریق تکنیک نمونه‌گیری هدفمند، هشت معلم زبان انگلیسی که در سطح تاپ ناچ دو در موسسات جهاد دانشگاهی اصفهان تدریس می‌کردند، انتخاب شدند. برای بررسی تکیه‌گاه‌سازی، کلاس‌ها ضبط و کدهای شده، سپس با استفاده از مدل تکیه‌گاه‌سازی (Wu (2010) داده‌ها تحلیل شدند. نتایج مطالعه نشان داد که انواع تکیه گاه سازی‌های استفاده شده توسط آموزگاران شامل تکیه‌گاه سازی شناختی، فراشناختی، رویه‌ای و بافتی بود. تکیه‌گاه سازی انگیزشی در هیچ یک از کلاس‌ها استفاده نشد. تکنیک‌هایی که آموزگاران برای بهبود یادگیری استفاده کردند شامل استفاده از نمونه‌ها، فراهم کردن مقدمه‌ای قبل از تدریس برای فعال کردن ذهن دانش آموزان، ربط دادن موارد آموزشی جدید به دانسته‌های قبلی، هشدار دادن، فراهم کردن فرصت‌هایی برای کمک به دانش آموزان برای ارزیابی خود (مثل خلاصه‌گفتن و سوال پرسیدن)، تقسیم کلمات به بخش‌های قابل فهم، پیشنهاد مراحل برای تدریس، ارتباط دادن مفاهیم جدید به تصاویر، و ارجاع دانش آموزان به منابع بود. میزان تکیه‌گاه سازی در کلاس‌های آموزش زبان به عنوان زبان خارجی ۳۵.۸٪ بود که ۶.۵۵٪ شناختی، ۱۱.۷۱٪ فراشناختی، ۱۷.۴٪ رویه‌ای و ۵.۱۴٪ بافتی بود. نتایج این مطالعه به دانشگاه‌ها و موسسات آموزش زبان کمک می‌کند تا بهترین آموزگاران را آموزش دهند و انتخاب کنند و به تدوین کننده‌های کتابهای آموزشی کمک می‌کند تا بهترین مقتضیات تدریس را فراهم آورند.

کلیدواژه‌ها: تکیه گاه سازی، تکیه گاه سازی بافتی، تکیه گاه سازی شناختی، تکیه گاه سازی فراشناختی، تکیه گاه سازی رویه‌ای، تکیه گاه سازی انگیزشی، ZPD



دانشگاه صنعتی اصفهان

مرکز زبان

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زبان در اصفهان

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دی ماه ۱۳۹۷

کلیه حقوق مالکیت مادی و معنوی مربوط به این پایان نامه متعلق به دانشگاه صنعتی اصفهان و پدیدآورندگان است. این حقوق توسط دانشگاه صنعتی اصفهان و بر اساس خط مشی مالکیت فکری این دانشگاه، ارزش گذاری و سهم بندی خواهد شد. هر گونه بهره برداری از محتوا، نتایج یا اقدام برای تجاری سازی دستاوردهای این پایان نامه تنها با مجوز کتبی دانشگاه صنعتی اصفهان امکان پذیر است.