Developing Strategic Competence through Task-Based Language Teaching: A Comparison of Implicit and Explicit Instruction

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Abstract

Speakers, native and non-native alike, frequently encounter difficulties expressing their intended meaning or attaining a desired communicative goal. To overcome such communication difficulties and achieve the desired communicative goal, speakers employ a variety of Communication Strategies (CSs). For example, circumlocution, clarification requests, gestures, conversation gambits and hesitation devices. Learners who successfully achieve their communication goals through the use of CSs are said to be strategically competent.

Research has established that CSs can be effectively taught through explicit instruction. However, the impact of implicit instruction on the development of CSs has not been investigated to date. It is believed that implicit instruction may outperform explicit instruction in enabling learners to acquire the procedural knowledge which is the final step on the learning continuum. The acquired implicit knowledge can be accessed in time pressure situations, stored in mind, retained for longer periods and used more automatically.

This study set out to assess the differential impact of explicit and implicit instruction on the use of CSs among pre-intermediate Arabic learners of English as a second language. The total number of learners was fifty-two learners enrolled in two English language centres in the United Kingdom. The learners in each centre were randomly assigned to one of three experimental conditions: implicit instruction (n=18), explicit instruction (n=18), and no instruction (n=16). Both implicit and explicit conditions received strategy instruction in a TBLT format. In the implicit condition, learners were exposed to video examples of two speakers doing similar tasks but no instruction focusing on CSs was provided. In explicit instruction, learners were exposed to the same video examples and instruction focusing on CSs was provided. The third condition served as a control group which was only exposed to pre- and post-tests. Development of CSs was measured through observation of task completion, followed by stimulated recall interviews and completion of a self-report questionnaire.

The results suggest that both explicit and implicit strategy instruction has a positive impact on developing participants' use of CSs and on supporting task completion. The results showed that explicit instruction was beneficial for developing meaning-negotiation, positive self-solving, non-verbal and time-gaining CSs, whereas implicit instruction showed to be effective for developing positive self-solving and time-gaining CSs. Further, learners who received implicit instruction made greater gains in the use of meaning-negotiation strategies from pre-test to delayed post-test than learners who received explicit instruction.

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Dedication

This thesis is dedicated to my beloved parents and lovely wife, for their endless love, support and encouragement.

Author’s declaration

I hereby declare that this thesis is the result of my own work and I am the sole author. The work referred to in this thesis has not been previously submitted by the author for an award at this, or any other, university or institution. All sources are acknowledged as References.

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1 Chapter 1: Introduction

1.1 Rationale of the study

It is widely accepted that one of the ultimate goals of English language teaching nowadays is to develop the learners' communicative competence, which will enable them to communicate effectively in the target language (Lightbown & Spada, 2013). Communicative competence (CC) has been described as a learner's ability to use a target language to successfully achieve their communication goals in a variety of real-life situations (Larsen-Freeman, 2011; Savignon, 2002). According to Canale and Swain's (1980) model, CC is composed of grammatical competence, sociocultural competence, discourse competence and strategic competence. As one of the main components of CC, strategic competence refers to a learner's ability to use verbal and nonverbal communication strategies to compensate for communication breakdowns caused by a lack of knowledge of one or more of the other components of CC (Canale & Swain, 1980, p. 30). Communication strategies (henceforth CSs) are considered the essence of strategic competence (Tarone, 2005). Thus, one way to improve the second language learners' CC could be by developing their use of CSs.

Although the teachability of CSs is considered somewhat controversial, research has established that CSs can be effectively taught through explicit instruction (Alibakhshi & Padiz, 2011; Bataineh, Al-Bzour, & Baniabdelrahman, 2017; Dobao & Martínez, 2007; Kongsom, 2009; Lam, 2006, 2010; Maleki, 2007; Nakatani, 2005; Raba'ah, 2016; Rost & Ross, 1991; Tavakoli, Dastjerdi & Esteki, 2011; Willems, 1987). Findings of previous studies suggest that explicit instruction of CSs is typically effective in developing learners' CSs and could contribute to the development of stronger oral performance (Nakatani, 2005; Rabab'ah, 2016).

However, little or no research has investigated the impact of implicit instruction on developing learners' use of CSs. Implicit instruction merits investigation because findings of previous research have shown that implicit instruction might lead to the development of implicit knowledge (Andringa, De Glopper, & Haquebord, 2011; De Jong, 2005; Godfroid, 2016; Rebuschat & Williams, 2012; Soleimani, Jahangiri, & Gohar, 2015), which is thought to be more accessible in time pressure situations and more durable than explicit knowledge (See section 2.8.3for more details about implicit

and explicit knowledge) (Collins & Marsden, 2016; Ellis, 2009; Long, 2017). Implicit knowledge is defined as linguistic knowledge without awareness (DeKeyser, 2003; Hulstijn, 2005; Suzuki & DeKeyser, 2017; Williams, 2009). That is, it refers to knowledge that a learner receives intuitively without being aware of its content and that it is accessed via automatic processing (Hulstijn, 2005; Roehr, 2015). Implicit knowledge allows a language learner to use a target language appropriately in spontaneous situations (Andringa, De Glopper, & Hacquebord, 2011; Hulstijn, 2005; Kim & Nam, 2017). Assessment of implicit knowledge, however, is beyond the scope of this study, as it requires rigorous, valid and fine-grained measurements that involve lower awareness of linguistic features (Ellis, 2005; Suzuki & DeKeyser, 2015; 2017). Such type of tests like, for example, timed grammatically judgment tests, oral elicited imitation tests, as well as measures that employ reaction time and eye-movement data (Andringa & Curcic, 2015; Ellis, 2005; Godfroid, 2016; Rebuschat & Williams, 2012; Suzuki & DeKeyser, 2017). This study, therefore, has been conducted to just examine the effect of implicit and explicit instruction on developing the types of CSs rather than on developing implicit and/or explicit knowledge.

Accordingly, the current study has the following aims: first, to investigate whether teaching CSs through implicit instruction is possible for developing learners' SC and supporting their task completion. Second, to verify the findings of previous explicit strategy instruction studies which found that explicit instruction is effective for developing learners' use of CSs. And third, to assess which type of instruction (i.e. implicit vs explicit) is more effective for developing a range of CSs at immediate post-tests, and which is superior in helping learners retain the developed CSs after 4 weeks i.e. at the delayed post-test.

1.2 Aims and research questions

This thesis aimed to investigate the impact of explicit and implicit instruction through the framework of Task-Based Language Teaching on developing strategic competence and supporting task completion. More specifically, it aims to assess empirically the differential impact of implicit and explicit instruction on the use of CSs among pre-intermediate Arab learners of English and supporting task completion. To achieve the main overarching aim, the following contributing questions were proposed:

RQ1: To what extent are explicit and implicit instruction effective in supporting task completion?

RQ2: To what extent are explicit and implicit instruction effective in developing learners' use of communication strategies?

RQ3: Which types of communication strategies does implicit instruction develop?

RQ4: Which types of communication strategies does explicit instruction develop?

1.3 Structure of the thesis

The thesis has been organized into six chapters. The remainder of this thesis is organised as follows.

Chapter 2 presents a review and critique of the relevant research literature. It starts by considering different definitions of SC as part of communicative competence. Section (1.3) presents the communicative approach along with its two main forms: weak form and strong form represented by Task-Based Language Teaching. Section (1.4) discusses the theoretical assumptions underpinning Task-Based Language Teaching. After that, in section (1.5) CSs will be introduced together with the two main perspectives from which they have been investigated. Section (1.6) addresses the teachability of CSs and approaches to teaching CSs. Finally, implicit instruction and explicit instruction, along with findings of previous studies, are presented in section (1.7) to identify the gap in this field.

Chapter 3 presents the research methodology employed to answer the research questions to achieve the aim of the research. It starts by discussing research strategy adopted in the current study and justification for using a mixed methods approach for eliciting strategic behaviour (section 3.2). Participants and the context of the study are presented in (section 3.3). The design of the study (i.e. split class design) and the rationale for it are highlighted (section 3.4). The training materials as well as the testing materials (pre-tests, post-tests and delayed post-tests) are explained (section 3.5). The procedures followed in implementing the implicit and explicit instructions inside the classes are discussed (section 3.6). Data analysis and pre-analysis procedures are addressed in analysing the data collected from the questionnaire, interaction tasks and stimulated recall interviews are discussed (section 3.7). Ethical considerations are considered (section 3.8). Finally, the pilot study is presented (section 3.9).

Chapter 4 presents results of the participants' performance on each of the outcome measures employed in the study. It is divided into three main sections. The first main section (4.2) provides task completion results. The second section (4.3) presents the

results of the questionnaire. The third main section (4.4) deals with the results of the interaction tasks and stimulated recall interviews.

Chapter 5 discusses the main findings presented in Chapter 4 in relation to the research questions and previously reviewed studies. The key findings of the current study and their explanations are presented in section 5.2. Then, the methodological contributions of the study are discussed in section 5.3. The limitations of this study are presented in section 5.4. Finally, a summary of the discussion chapter is presented in section 5.5.

Finally, Chapter 6 summarizes the main findings and highlights the methodological and theoretical contributions of the study. In conclusion, the implications and contributions of the study to language learning research are considered

2 Chapter 2: Review of Literature

2.1 Overview

Speakers, native and non-native alike, frequently encounter difficulties expressing their intended meaning or attaining the desired communicative goal. For non-native speakers, the source of their communication difficulties could be attributed to a range of factors, including: linguistic (lack of the necessary knowledge of the language), cultural (lack knowledge of cultural demands of the situation), or contextual (someone or something that makes the conversation difficult to follow); (Faucette, 2001; Mariani, 2010; Pawlak, 2015). In order to overcome such communication difficulties and to facilitate achieving the desired communicative goal, speakers employ a variety of strategies such as circumlocution, approximation, non-verbal, and appeals for help (Dörnyei & Scott, 1997; Tarone, 2005). Examples of some such strategies are illustrated in Table 2.1 below. Extracts are taken from the pilot study conducted in this research.

Table 2.1: Examples of communication strategies

Strategy	Example	Intended meaning
Circumlocution	In the left, there is small bed for baby.	Cot
Approximation	Draw big box in the middle please.	Rectangle
Self-correction	Draw lone… line at the top of this square.	Draw line at the top of this square.
All-purpose words	There are two animals in the lower shelf.	Rhino and horse
Appeal for help	S: umm, I don't know what is name for this line. I: Arrow S: Yeah, that's it.	Arrow
Word coinage	children bear	Teddy bear
Clarification Request	What do you mean by water cooler?	
Comprehension Check	You draw in the middle square, big square ok?	
Fillers, topic avoidance, and gestures.	I: You mean three lines without any columns? S: Umm,umm, after that draw lines like this cross lines cross lines(uses hand).	
Asking for confirmation	I: I don't have these books. S: You don't have these books?	

These strategies are known as communication strategies (henceforth CSs). Learners who successfully achieve their communication goals through the use of CSs are said to be strategically competent (Barkaoui, Brooks, Swain, & Lapkin, 2012; Mariani, 2010; Yule & Tarone, 1990), and considered to have developed their strategic competence.

Strategic competence, as one of the sub-components of communicative competence, has been defined in a number of different ways. Therefore, it is appropriate to consider these different conceptualizations in detail (see section 2.2). Since strategic competence is part of communicative competence, communicative approaches may be the most appropriate for developing it. Section (2.3) will be devoted to the discussion of the communicative approach along with its two main forms, namely the weak form represented by the Presentation, Practice, Production (PPP) and the strong form represented by Task-Based Language Teaching in section (TBLT). Moreover, since the aim of the current study is to investigate the impact of Task-Based Language Teaching on developing strategic competence of Arabic learners of English as a second language, it is necessary to understand hypotheses that drive Task-Based Language Teaching. Section (2.4) discusses the theoretical assumptions underpinning Task-Based Language Teaching, particularly the interactionist model of SLA. After that, in section (2.5) CSs will be introduced together with the two main perspectives from which they have been investigated namely: the interactional perspective (Tarone, 1981) and the psycholinguistic perspective (Færch & Kasper, 1983). Section (2.6) discusses the classifications of CSs. Section (2.7) addresses the teachability of CSs and approaches to teaching CSs. Finally, implicit instruction and explicit instruction, along with findings of previous studies, are presented in section (2.8) to identify the gap in this field.

2.2 Strategic Competence: Definitions

2.2.1 Scope

The term SC has been variously interpreted and defined according to its function and scope in the field of language acquisition and use (Byram & Hu, 2012). It was first introduced in Canale and Swain's (1980) model of communicative competence as one of the main components besides grammatical and sociolinguistic competencies. In this model, strategic competence is referred to as knowledge of "verbal and non-verbal communication strategies that may be called into action to compensate for breakdowns

in communication due to performance variables or to insufficient competence" (Canale & Swain, 1980, p. 30). In other words, a principal function of strategic competence is to repair communication breakdowns i.e. it is problem-oriented. However, this conceptualization of strategic competence seems to ignore the other types of problem solving tools, such as negotiation of meaning and repair mechanisms (Dörnyei & Scott, 1997).

Since then, other definitions have been put forward which have expanded the view of SC (Bachman, 1990; Canale, 1983; Celce-Murcia, Dörnyei, & Thurrell, 1995; Dörnyei, 1995; Tarone, 1981). Canale (1983) broadened the scope of SC to cover not only compensating for communication breakdowns but also enhancing the effectiveness of communication by "deliberately [using] slow and soft speech for rhetorical effects" (Canale, 1983, p. 11). In other words, by knowing how to use CSs, language learners would achieve two aims: first, to compensate for their breakdowns, especially when problems arise in the communication process and second to enhance their communication processes (Dörnyei & Thurrell, 1991; Kasper & Kellerman, 1997).

Following Canale's (1983) extended view of SC and drawing on the interactional perspective of CSs, Tarone and Yule (1989) have proposed two broad areas related to strategic competence SC. The first concerns a learner's overall skill in conveying his message successfully to a listener or interpreting the received information. The second is the use of CSs by both interlocutors when communication problems arise during the course of interaction. According to the interactional perspective, "CSs are seen as tools used in a joint negotiation of meaning where both interlocutors are attempting to agree as to a communicative goal" (Tarone, 1980, p. 420). This conceptualization of strategic competence is potentially broader than the preceding definitions, as it would allow for the inclusion of different CSs, such as repair mechanisms and meaning negotiation. However, this extension did not appear in Tarone's (1977) taxonomy of CSs. Consequently, Yule and Tarone (1990) define SC as an ability to use CSs effectively in order to solve communication problems that may appear during the process of communicating an intended meaning. They further describe that a strategically competent speaker is one who has the ability to select an effective means of performing communicative acts in a way that enables their interlocutors to identify the intended referents easily and comprehensibly.

Another extension of the function of strategic competence has been proposed by Celce-Murcia, et al. (1995). In their model of communicative competence, they argued that strategic competence should include time-gaining strategies beside problem-solving and interactional strategies. Therefore, three functions of strategic competence have been highlighted in their model: compensation function, interactional function, and time-gaining function.

2.2.2 Strategic competence: Knowledge or skill

Although Canale and Swain's (1980) definition of SC has been extremely influential in broadening the scope of language teaching and testing, it has been criticized on many occasions. McNamara (1996), for instance, criticizes their definition of SC and states that it is hard to think that SC is simply knowledge rather than a skill or an ability to be mastered. This criticism seems to be acceptable and justifiable since, practically speaking, there is a difference between knowledge and a skill or an ability (Good, 1973; Gorden & Lawton, 2003; McCulloch & Crook, 2008). While knowledge is "the accumulated facts, and information to which the human mind has access" (Good, 1973, p. 308), an ability, on the other hand, refers to "the possession of skills and competence required to perform a particular task or activity" (McCulloch & Crook, 2008, p. 2). A skill is defined as "anything that the individual has learned to do with ease and precision" (Good, 1973, p. 503). Thus, language learners could demonstrate their knowledge of CSs, but does not necessarily mean that they are able to employ and use it accurately and precisely in actual communication. This conforms to the information processing mechanism and Skill Acquisition Theory as their adherents argue that human learning is upheld by two kinds of knowledge: declarative and procedural knowledge (Mitchell, Myles& Marsden, 2013). As such, language learners' performances and their communicative language skills are directly affected by a type of knowledge they are exposed to. While declarative knowledge sometimes appears to be equivalent to conscious or explicit knowledge, which means knowing THAT something is the case, for example "an *-s* is required on a verb after a third person subject", procedural knowledge, also known as implicit knowledge, on the other hand, refers to the knowledge of HOW to do something successfully or reliably, for example applying the rules of language in real situations (Mitchell, et al., 2013, p. 130).

Although there is ongoing debate regarding the interface between explicit knowledge and implicit knowledge (See Ellis, 2009), there is an agreement that the target of

research should be development of implicit knowledge (Long, 2017; Whong, Gil, and Marsden, 2014). The implicit knowledge represents the final step on the learning continuum because it can be accessed in time pressure situations, stored in mind, retained for longer periods and used without conscious awareness (Hulstijn, 2015; N. Ellis, 2015). It has been assumed that acquiring implicit knowledge of new language features (i.e. CSs) can be better developed through employing implicit instruction (DeKeyser, 1995; 2003). According to Ellis (2009), implicit instruction involves creating a learning condition that is enriched with the target language features, and it is achieved through implementing Task-Based Language Teaching (Implicit and explicit instruction will be further discussed in Section 2.8). In this study, the aim is to examine the impact of explicit and implicit instructions on the use of communication strategies among pre-intermediate Arabic learners of English at short term and long term memory. That is, it tries to investigate whether implicit or explicit instruction is better for helping learners develop an implicit knowledge of CSs.

2.2.3 Strategic competence: General or language specific

Unlike Canale and Swain's (1980) and Celce-Murcia, et al. (1995) classifications of strategic competence as one of the main components of CC, Bachman (1990) separates strategic competence from other language components. He states that SC is "the capacity that relates language competence, or knowledge of language, to the language user's knowledge structures and the features of the context in which communication takes place" (p. 107). He notes that although the definitions of strategic competence provided by Canale and Swain (1980) and Canale (1983) indicate the function of the strategic competence in facilitating communication, they do not, however, describe the mechanism by which strategic competence operates. Thus, following the psychological view of SC, Bachman (1990) argues that SC should be seen as a more general cognitive capacity that underpins all problem-solving behaviour. For him strategic competence involves the ability to assess, plan, and execute the most effective means of achieving a communicative task. He defines it as "a general ability, which enables an individual to make the most effective use of available abilities in carrying out a given task" (p. 106). One major problem with this definition, however, is that it considers strategic competence as a general ability. Moreover, it seems to put much emphasis on problem-solving strategies only and thus overlooked other strategies. In addition, the scope of the definition of strategic competence is rather broad as it covers

all problem-solving strategies, such as assessing, planning, and executing, which are difficult to be taught and beyond the scope of the current study.

Based on the discussion above, we can conclude that:

- Strategic competence is a crucial component of communicative competence in most models of communicative competence;
- Strategic competence enables speakers to manipulate the language, by utilizing different CSs, to meet their communication goals, and to get their messages across;
- The scope and function of strategic competence seem to be varied from one definition to another;
- Some definitions have restricted the scope of strategic competence to serve only as a compensatory role of communication breakdowns through the use of verbal and non-verbal CSs (Canale & Swain, 1980);
- Other definitions have expanded the role of strategic competence to cover compensatory function, repair mechanism, time-stalling, and interactional functions (Canale, 1983; Celce-Murcia et al., 1995; Tarone, 1980);
- Other scholars argue that SC should be seen as a more general cognitive capacity that underpins all problem-solving behaviour (Bachman, 1990).
- It can be assumed that developing learner's implicit knowledge of CSs can be better developed through employing implicit instruction.

The current study followed Celce-Murcia et al. (1995) conceptualization of strategic competence as it would serve three functions of strategic competence: compensation (self-solving), interactional (negotiation of meaning), and time-stalling (time-gaining). Moreover, since the current study adopted the interactional perspective of CSs, Yule and Tarone's (1990) definition of strategic competence will be adapted in this study. Thus, in this study SC will be defined as:

The ability to use self-solving, interactional, non-verbal and time-gaining strategies effectively in order to solve communication problems that may appear during the process of communicating the intended meaning.

The implicit instruction and explicit instruction of CSs in this study is presented in the framework of TBLT. Therefore, it is necessary to discuss TBLT, as offshoot of communicative approach, and understand the hypotheses underpinning it. The next section is devoted to discussing communicative approach and TBLT.

2.3 Communicative Approach (CA)

The communicative approach (CA) was developed in the 1970s to expand the view of second language learning and teaching to cover the functions and purposes that a language serves in real-life situation. It is based on the assumption that learning a language should involve not only knowledge of structures and forms, but also the ability to use that language successfully in various communication settings (Harmer, 2008; Lightbown & Spada, 2013; Nunan, 2004).

The CA to language teaching focuses on two aspects: what to teach and how to teach (Harmer, 2008). The former prioritizes the function of a language to its structure. The latter deals with how language should be taught. The CA to language teaching emphasises that language is best taught through communication and that the teacher's role is to "provide learners with ample opportunities to use the language themselves for communicative purposes" (Littlewood, 2007, p. xi). That is, the goal of CA is to develop learners' communicative competence through interaction and communication.

The CA to second language teaching takes many forms, including a weak form and a strong form. The following sections discuss these forms in detail.

2.3.1 Weak form and strong form of CA

Littlewood (2007) asserts that there are two main versions of CA: the weak version and the strong version. Although both versions share the same goal, developing learners' communicative competence, they differ in the manner of doing so. While the weak version could be described as "learning to use English", the strong version entails "using English to learn it" (Howatt, 1984, p. 279; Larsen-Freeman, 2011, p. 172).

The weak version is based on the assumption that the elements of CC could be identified and taught separately as discrete parts (Howatt, 1984, 2004). This version focuses on providing learners with opportunities to practice the language for communicative purposes (Larsen-Freeman, 2011). That is, learners first learn a target language as a structural system and then practice how to use this system in communication. The focus of learning in this version is on both form and meaning (Spada, 2007). This view, however, is aligned with traditional methods of teaching because it is "still interventionist and analytic" (Ellis, 2003, p. 28).

In brief, the weak version of the CA recommends that students of ESL learn a language, and then employ it in realistic communicative situations. This standpoint includes employing both structured and communicative activities in a controlled way inside the classroom so that learners can progressively apply their learning in more natural settings.

The strong version, on the other hand, goes beyond providing learners with opportunities to practice communication. It is based on the assumption that communicative competence could be better developed through communication (Howatt, 1984; Larsen-Freeman, 2011; Thornbury, 2016). That is to say, instead of starting with learning a structural system of a language and then learning how to use it in communication, it would be better for learners to discover the system itself while they are communicating. Thus, the strong version provides opportunities for learners to experience how language is used in communication.

Accordingly, the strong version of the CA has been considered as the foundation of TBLT (Carless, 2007; Spada, 2007; Thornbury, 2016; Van den Branden, 2016) since the learning activities used in TBLT are exclusively meaning-based which emphasises communication of meaning over the study of predetermined linguistic content. That is, “teaching through communication rather than for it” (Larsen-Freeman, 2011, p. 172). The next section examines TBLT in detail.

2.3.2 Task-Based Language Teaching

TBLT has been the subject of much research and writing over the last 30 years and today is considered one of the predominant methods in the field of English language learning and teaching. TBLT is defined as an approach to language pedagogy that

places the use of communicative and interactive tasks as the central units for the planning and delivery of instruction (Bygate, 2016; Nunan, 2004; Long, 2015; Van den Branden, 2016). In TBLT, students are provided with functional tasks that require them to concentrate primarily on meaning exchange and to use language for real-world, non-linguistic purposes (Branden, 2006). TBLT is based on the assumption that since language is a means of communication it is best learnt through exposure and negotiation of meanings that take place during task performance (Ur, 2013). It is believed that if learners are focused on achieving the task outcome, they would learn better than if they were focusing on language forms. That is, instead of teaching language forms and functions, learners are given a communicative task to achieve or a problem to solve (Ellis, 2003; Harmer, 2008). Thus, communicative tasks are considered core units in TBLT syllabus design (Long, 2015; Nunan, 2004). A task is defined as "an activity in which: meaning is primary; there is some sort of relationship to the real world; task completion has some priority; and the assessment of task performance is in terms of task outcome" (Skehan, 1998, p. 95).

The rationale for the use of tasks in TBLT is related to their ability to, firstly, challenge students cognitively and keep them engaged and motivated in authentic language use (Prabhu, 1987; Robinson & Gilabert, 2007; Robinson, 2011). Secondly, tasks are suitable for addressing and specifying students' language needs (Long, 2015). Thirdly, tasks can enable learners to grasp how aspects of the language work and incorporate the new language into their active communicative (Bygate, 2016). Finally but most importantly, communicative tasks are compatible with processes thought to be involved in SLA (e.g. those relating to incidental and implicit learning) (Andon & Eckerth, 2009; Ellis, 2003; Long, 2015).

Within TBLT, a distinction has been made between "real-world" tasks and "pedagogic tasks" (Bygate, 2016; Ellis, 2003; Nunan, 2004). Although, in a sense, any task performed by the students in a classroom ends up being "pedagogic", the distinction is important as it contains two types of authenticity: situational authenticity and interactional authenticity (Ellis, 2017; Nunan, 2004).

Real-world tasks, as the name indicates, refer to uses of language in the world outside the classroom. They are "taken from the outside world which learners will have to be able to accomplish after completing the course" (Bygate, 2016, p. 381). Real-world tasks aim at situational authenticity because they are based on the target tasks

achieved in outside, real-life situations (Ellis, 2017). Examples of real-world tasks include asking students to tell a story, give directions, book a room at a hotel, make an airline reservation, and so forth (Ahmadian, 2016; Ellis, 2003; Long, 2015). The language used by the students while they are engaged in performing the real-world tasks reflects the language used in everyday conversation.

A pedagogical task, in contrast, refers to a task that occurs in the classroom. Pedagogical tasks lack situational authenticity; however, they include interactional authenticity. In other words, the kind of language used while doing a task is similar to "a kind of natural language found in communication outside the classroom" (Ellis, 2017, p. 508). Examples of pedagogical tasks are Spot-the-Differences, the map game, the Island Survival etc. In Spot-the-Differences tasks, it is improbable that people in real life would engage in conversation targeted at identifying the differences between two pictures. However, this task can result in patterns of turn taking and negotiations of meaning that are reminiscent of everyday conversation. Therefore, they achieve interactional authenticity (Ellis, 2017; Bygate, 2016; Long, 2015; Nunan, 2004).

As relevant to the current study, all tasks used represented "pedagogic tasks" and included interactional authenticity (See Appendix C).

2.3.2.1 TBLT and TSLT

Parallel to the distinction between the weak and strong versions of CA, advocates of TBLT have distinguished between task-supported language teaching (henceforth TSLT) and TBLT (For example, Bygate, 2016; DeKeyser, 1998; Ellis, 2003, 2017; Long, 2015; Shehadeh, 2005). While TSLT is aligned with the weak version of CA, TBLT is compatible with the strong version. In both TBLT and TSLT communicative tasks are used for teaching a language and to ground learning in the students' use of a target language (Bygate, 2016). However, the difference between TSLT and TBLT is that in the former tasks do not constitute the fundamental structure of the curriculum, whereas in the latter tasks constitute the defining unit of the curriculum. In addition, in TBLT, no prior explicit instruction of a language is provided, whereas in TSLT it is (Li, Ellis & Zhu, 2016).

In TSLT, students are given explicit instruction on the target features of a language before doing a task (Ellis, 2017). In contrast, in TBLT, students are only provided a task to perform without any prior instruction. TSLT can be also employed to support

or complement the other existing approaches (Bygate, 2016). That is, in TSLT, tasks do not serve as a unit for designing courses but only as a means for implementing a methodological procedure, i.e. 'free production'. In such teaching some other units, for example, 'structures' are used to design the course. That is, TSLT employs communicative tasks to provide a free practice stage for the learners to use specific language patterns that they have been previously exposed to and have practiced (Ellis, 2003). Likewise, Willis (1996b) claims that the weak version of TBLT, which is TSLT, could be compatible with a traditional PPP paradigm. This is because tasks are demoted to a minor supporting role to provide students with an opportunity to use the language 'taught and practised' in the first two stages. TSLT is supported by skill-learning theory that claims practice enables learners to proceduralise their declarative knowledge (DeKeyser, 1998; Ellis, 2017). However, this claim has been rejected by Long (2015) on the grounds that it constitutes a return to the traditional focus on forms.

The strong form of TBLT, on the other side, argues that tasks should be the unit of a language teaching course, and that everything else is less important (Skehan, 1996a). TBLT goes further in that "the programme is created in terms of a sequence of tasks with the central learning and teaching processes for all the units deriving directly from the tasks themselves, rather than by initial selection of language priorities" (Bygate, 2016, p. 387). That is, TBLT uses tasks to provide a cornerstone for a course or curriculum; in this view, the rationale for tasks is that they offer all the opportunities needed for learners to develop their proficiency in the language.

Although TSLT can be considered the most practical stepwise introduction of TBLT, some advocates of TBLT refuse the idea of supplying learners with explicit instruction before conducting a task. Long (2015), for instance, acknowledges that TSLT, which includes explicit instruction, could serve as a bridge between traditional synthetic syllabi and pure Task-based approaches, yet rejects any role for explicit instruction in TBLT. He believes that explicit instruction followed by students performing a task can only result in automatized declarative knowledge, not pure implicit knowledge. Long argues that the optimal way to attract learners' attention to linguistic features would occur online while they are performing the task. That is, he argued that reactive focus on form is better than proactive (Li, et al., 2016).

Based on the above discussion, we can conclude that in both TBLT and TSLT tasks are used to facilitate learning process for learners. In TBLT, tasks represent a basic

unit in syllabus design, and there is no room for explicit instruction preceding a task performance (Ellis, 2017; Long, 2015). In TSLT, tasks do not constitute a fundamental unit of the course design. They are used to support or complement the existing approaches. In TSLT, explicit instruction of the target language patterns is used in advance of task performance (Ahmadian, 2016; Bygate, 2016; Ellis, 2017; Li, et al., 2016).

As for the current study, the two versions of TBLT were employed: the strong version, achieved by employing pure TBLT, and the weak version, represented by TSLT. That is, the implicit instruction group learners received TBLT, which is only aligned with a strong form of TBLT. The explicit instruction group received explicit instruction of CSs followed by task performance, which is aligned with TSLT.With regard to the development of learners' SC, Stern (1978) suggests that SC is most likely to be acquired through meaningful communication activities that are similar to real-life communication situations. TBLT could provide this situation as it mainly concentrates on meaning rather than form and can create conditions for learners to use the language, similar to those that occur in daily-life situations (Leaver & Willis, 2004). Furthermore, the basic elements of TBLT are purposeful activities that emphasize communication and interaction. So, when carrying out a group of communicative tasks, learners' have ample opportunities to exchange and understand their meanings. Ellis (1985) notes that when the learners interact between themselves, due to a lack of sufficient language resources, they may face difficulties in either understanding the interlocutor's utterances or making their messages understood. Thus, to make it more accessible to their partners, learners adjust and/or modify their speech by utilizing several strategies such as: "elaboration, slow[ing] speech rate, gesture, or the provision of additional contextual cues" (Lightbown & Spada, 2004, p. 43). The use of these strategies is regarded as the essence of SC (Tarone, 2005).

Based on the discussion above, we could claim that learners in the current study may acquire the target CSs and develop their SC through implicit instruction in the framework of the strong form of TBLT.

2.3.2.2 Criticisms of TBLT

Despite all the support that TBLT has received from teachers, educators and SLA researchers (e.g. Ellis, 2003; Long, 2014; Skehan, 2011), it has been subjected to

considerable criticism. A few scholars have questioned the practicality and feasibility of TBLT in the classroom (e.g. Carless, 2007; Ellis, 2003; Littlewood, 2004; Seedhouse, 1999; Swan, 2005).

It has been claimed that TBLT is not suited to beginner-level learners and is only suitable for intermediate-level learners and beyond (Carless, 2007; Littlewood, 2007). This claim is based on the assumption that learners need to be taught some language before they can participate successfully in a task. Moreover, Ellis (2003) suggests that the strong version of TBLT may be theoretically pleasing, whereas task-supported language teaching is more likely to be acceptable.

Swan (2005) argues that there is no empirical evidence to suggest that TBLT is more effective than more traditional approaches such as, Presentation, Practice, Production. He further explains that adherents of TBLT have based their arguments on some untested theoretical premises. Therefore, he emphasizes the need for further research to compare the relative effectiveness of TBLT with more established methods of second/foreign language teaching.

It has also been highlighted that learners may successfully achieve the task outcome without stretching their linguistic resources and/or attending to their actual use of the second language (Seedhouse, 1999).

For all the reasons mentioned above, TBLT were firstly tried to check their feasibility and suitability for the participants of the current study (See section 3.9 for more detail on this process). It was found that the strong form of TBLT is feasible and suitable for the participants of this study.

After having discussed what is meant by TBLT, it is also important to understand the hypotheses driving it. Although several theories have been found to be underpinning TBLT, the interactionist model of SLA will be discussed, since it is adopted in this study.

2.4 Theoretical Assumptions of TBLT: Interactionist Model of SLA

Built on the Input Hypothesis (Krashen, 1985), which holds that comprehensible input is a crucial element in the acquisition of a second language, Long (1983) developed his hypothesis known as the Interaction Hypothesis for second language acquisition in which he accepts that comprehensible input is very important for the learning to take

place. However, he believes that interactive input (i.e. two-way interaction) is more effective than non-interactive input (i.e. one-way). Therefore, he argues that the input becomes more comprehensible through learners' interaction.

The Interaction Hypothesis (Long, 1983; 1996) is based on the assumption that learner-to-learner interaction facilitates language acquisition. The process of learners' interaction between themselves is known as negotiation of meaning. Meaning negotiation has two functions; the first function is to bring gaps to a learner's attention and the second is metalinguistic awareness (Gass, 1997; Gass & Varonis, 1994).

The Interactional Hypothesis has received considerable theoretical and empirical support in the literature (e.g. Long, 1996; Mackey, 1999; Pica & Doughty, 1985; Pica, Holliday, Lewis, & Morgenthaler, 1989; Swain, 1985; Varonis & Gas, 1985). Findings of previous studies suggest that interactional strategies for meaning negotiation between learners and their interlocutors could facilitate second language acquisition (Gass & Varonis, 1994; Long, 1983; Mackey, 1999; Shehadeh, 2005). Negotiation of meaning strategies such as comprehension checks, confirmation checks, and clarification requests are believed to create an ideal environment for second language learners to receive comprehensible input by ascertaining whether their messages have been understood or not, to evaluate their own understanding of what has been said, or they may ask for more clarification if something is ambiguous to them (Long, 1983). Likewise, Shehadeh (2005) states that meaning negotiation "provides learners with opportunities for both the provision of comprehensible input and the production of modified output" (p. 21). In this connection, Nakatani and Goh (2007) conclude that the use of CSs for meaning negotiation can have a positive effect on language learning since they are promoting the learners' attention to the complex relationship of second language form and meaning, which they have not fully mastered and acquired.

As far as TBLT is concerned, Gass (1997) asserts that the task could be the panacea if the goal of negotiation is to let learners to notice the gap in their linguistic knowledge. Again, Robinson (2001) demonstrates that tasks provide opportunities for learners to notice the gap between their production and the provided output. Furthermore, in his experimental study, Poupore (2005) asserts that problem solving tasks stimulate negotiation of meaning, and give learners more freedom to use a wider variety of language. In their studies, both Pica & Doughty (1988) and Long & Porter

(1985) found out that task-based lessons provide more opportunities for negotiated interaction (i.e. clarification requests, confirmation and comprehension checks) than teacher-dominated lessons.

Concerning the development of SC, Tarone and Yule (1989) argue that communicative tasks are the best means for fostering learners' SC. Similarly, Yule and Tarone (1990) believe that communicative tasks can provide second language learners with sufficient opportunities to produce spoken discourse in the target language. While performing tasks, learners will be forced to organize a message, focus on content, and communicate it to a listener. This process has much in common with what is expected in everyday communicative behaviour. Little (1996) also asserts that the most appropriate way for developing learners' SC is by utilizing TBLT in which they can perform communicative tasks that require an immediate response.

2.5 Communication strategies

Before delving into the discussion about CSs, it is important to explain the relationship between CSs and second language learner strategies. The latter consists of second language learning strategies and language use strategies. Second language learning strategies refer to intentional, goal-oriented attempts taken by learners to improve their knowledge and understanding of the target language (Cohen et al., 1998; Oxford, 2011). Language use strategies, on the other hand, focus primarily on "employing the language that learners have in their current interlanguage" (Cohen et al., 1998, p. 3). They include retrieval, rehearsal, cover, and communication strategies. CSs are subsumed under language use strategies (Cohen, 1998). CSs refer to those strategies that second language learners use to compensate for the gap between what they wish to communicate and their immediate available linguistic resources (Faucette, 2001; Pawlak, 2015).

Although the ultimate goal behind using CSs is to "overcome obstacles in communication by providing the speaker with an alternative form of expression for the intended meaning" (Bialystok, 1990, p. 35), they have been defined in a number of different ways (See Rababah, 2002 for a review). While some researchers believe that CSs are self-solution processes, limited to those strategies that speakers use when they face difficulties in verbalizing a mental plan for lack of linguistic resources (Canale & Swain, 1980; Bialystok, 1983; Poulisse, 1993), others (Canale, 1983; Dornyei and Scott, 1995; Rost and Ross, 1991; Yule & Tarone, 1991) argue that CSs should also

include interactive strategies, for instance negotiation of meaning and repair mechanisms. The variation in definition could be attributed to the different perspectives from which CSs have been investigated, namely the interactionist perspective, sometimes also referred to as sociolinguistic and psycholinguistic perspective, often described as cognitive view (Ellis, 1994: Færch & Kasper, 1983; Kasper and Kellerman, 1997; Nakatani and Goh, 2007; Pawlak, 2015; Tarone, 1981). This section will discuss the definitions of CSs according to these views, and will adopt one of them for the purposes of the current study.

2.5.1 Psycholinguistic Perspective

The psycholinguistic perspective, or a cognitive view of CSs, addresses mental processes that underlie second language speakers' behaviour when they experience lexical and discourse difficulties (Nakatani & Goh, 2007; Pawlak, 2015; Poulisse, 1997). It focuses on the cognitive and internal processes underpinning speech production, comprehension, and the processes underlying the use of CSs. According to this view, CSs are described in terms of resorting to an alternative speech plan when the original cannot be delivered successfully (Pawlak, 2015).

Drawing on their psycholinguistic model of speech production, Færch and Kasper (1983) define CSs as "plans for solving what to an individual presents itself as a problem in reaching a particular communicative goal" (p. 36). They categorized CSs into two main types: achievement strategies and reduction strategies. Achievement strategies enable learners to find an alternative plan by means of whatever resources are available to reach the original goal. That is, they involve substituting the original plan with a strategic one, for instance, paraphrasing, generalization, code switching, word coinage, and nonlinguistic strategies.

Reduction strategies, on the other hand, enable learners to avoid solving a communication problem by abandoning the original goal of the message. In other words, a learner may alter the message in order to keep out of trouble or to make it more manageable. They can be classified into two types: formal reduction and functional reduction strategies. Formal reduction involves avoidance of producing non-fluent utterances or incorrect target language forms, whereas functional reduction involves avoidance of topics or speech acts. (Færch & Kasper, 1983; Nakatani & Goh, 2007; Nakatani, 2010).

This classification has been criticized for being too narrow as it describes CSs as only lexical-compensatory devices that allow learners to overcome their deficiencies in vocabulary knowledge when they engage in different communication tasks (Nakatani & Goh, 2007; Oxford, 2011). Moreover, the psycholinguistic view of CSs addresses learners' language production problems at the planning phase only with less attention to other types of problem-solving devices that surface during the communication such as meaning-negotiation and repair mechanism i.e. at the execution phase (Dörnyei & Scott, 1997).

2.5.2 Interactionist Perspective

The interactional perspective adopted here focuses on the external and interactive processes in which second language speakers engage when they experience difficulty in achieving their communicative goal. Proponents of the interaction perspective believe that CSs strategies should be seen not only as problem-solving devices but also as techniques to make communication more effective (Dörnyei & Scott, 1997; Nakatani, 2010).

Unlike the psycholinguistic view, the interactional view describes CSs in terms of negotiation of meaning between learners and their interlocutors during the interaction process (Nakatani, 2005; Rost & Rose, 1991; Tarone, 1981). Accordingly, CSs can be used to deal with difficulties involved at both production and comprehension levels through the use of negotiation of meaning (Nakatani & Goh, 2007). This view seems to be more acceptable since speaking has different functions; one such function is interactional function which refers to an interactive process between two or more speakers to establish and maintain social relations (Richards, 2008).

As a first researcher investigating CSs form the interactional perspectives, Tarone (1981) describes CSs as a mutual interaction between speaker and listener. For her, CSs are defined as "a mutual attempt of two interlocutors to agree on a meaning in situations where requisite meaning structures do not seem to be shared" (p. 288). The main feature of this definition is the negotiation of meaning between the two interlocutors to reach an agreement on a given topic. According to this definition, CSs are seen as attempts to bridge the communication gap between second language learners and their interlocutors (including native speakers) in real communication situations. That is to say, additional efforts may be required from both parties if a

misunderstanding occurs in transmitting or receiving the message. This definition grants CSs an additional function as they can also be used as means for keeping the channel of conversation open (Dornyei, 1995; Pichon, Swart, Vorstman, Bergh, 2010). In her earlier work on describing the CSs used by foreign language learners of English, Tarone (1977) identified five types of CSs: (a) avoidance: including topic avoidance and message avoidance; (b) paraphrase: including approximation, word coinage, and circumlocution; (c) conscious transfer: including literal translation and switch to another language; (d) appeal for assistance: e.g. when the second language learner asks the teacher, any native speaker, for the correct term or word, or use a dictionary; (e) mime: i.e. the use of gestures.

In sum, it has been established that CSs have been studied and tackled from two standpoints: interactional and psycholinguistic perspectives. The interactional view of CSs appears to be broader than the psycholinguistic view as it deals with solving communication difficulties involved at both production and comprehension levels, rather than just at the production and/or planning stage. The interactional perspective of CSs suites the aims of the current study, therefore, it was adopted.

2.6 Classifications of communication strategies

One of the main obstacles that CSs research faces lies in the classification of CSs as they vary considerably among taxonomies (See Table 2.2). For example, strategies such as 'topic avoidance' and 'message abandonment' are labelled under avoidance strategies in Tarone's (1977) taxonomy, while they are classified under reduction strategies in Færch and Kasper (1983). While topic avoidance has been explained to occur when "the learner simply tries not to talk about concepts for which the TL item or structure is not known", and message abandonment happens when "the learner begins to talk about the concept but is unable to continue and stops in mid-utterance" in Tarone's (1977, p. 63) taxonomy. Færch and Kasper (1983) classify them, however, under the umbrella of reduction strategies. According to them, the reduction strategies take place when learners avoid solving a communication problem by abandoning the original goal of the message.

In addition, not all taxonomies share the same strategies. That is to say, strategies that appear in one taxonomy may not appear in others. Furthermore, the number and to some extent the name of a strategy varies considerably from one taxonomy to another which leads to overlapping. That is to say, a single utterance

could betray the presence of several strategies, and this may lead to classification problems (Bialystok, 1990; Duff, 1997; Rabab'ah, 2002). The following example taken from Rabab'ah's (2001) study may illustrate this issue. To identify an escalator, one of the participants conveyed "these machine used to carry people from one floor to another floor, floor er like in,…,…, airport or in any (uninstall word)"(p. 33). For classifying this utterance, the researcher used *repetition strategy* for the word 'floor' as it was said twice. *Circumlocution strategy* was used as the participant described the use and the function of the escalator. *Mumbling* was also identified as a third strategy. Although the first two classifications of CSs are quite acceptable, the third looks controversial.

Table 2.2: Taxonomies of Communication Strategies

Tarone (1977)	Færch & Kasper (1983)	Bialystok (1983)	Paribakht (1985)	Willems (1987)	Nijmegen Group (1987)
Avoidance Topic avoidance Message abandonment **Paraphrase** Approximation Word coinage Circumlocution **Conscoius transfer** Literal translation Language switch **Appeal for assistance** **Mime**	**Formal reduction** Phonological Morphological Syntactic Lexical **Functional reduction** Actional red. Modal red. Reduction of prepositional content -Topic avoidance -Message abandonment -Meaning replacement **Achievement strategies** **Compensatory strategies** -Code switching -Interlingual transfer -Intralingual transfer **IL-based strategies** Generalization Paraphrase Word coinage Restructuring -Cooperative strategies -Non-linguistic strategies Retrieval strategies	**L1- based strategies** Language switch Foreignizing Transliteration **L2-based strategies** Semantic continguity Description Word coinage **Non-linguistic strategies**	**1-Linguistic approach** Semantic contiguity **-Subordinate** **-Comparison** Positive comparison Analogy Synonymy Negative comparison Contrast and opposite Antonymy Circumlocution **-Physical description** Size,Shape,Colour Material Constituent features Elaborated features -Locational property -Historical property -Other features -Functional description Metalinguistic clues **2-Contextual approach** Linguistic context Use of L2 idioms and proverbs Transliteration of L1 language Idioms and proverbs Idiomatic transfer **3-Conceptual approach** Demonstration Exemplification Metonymy Mime Replacing verbal output Accompanying verbal output	**Reduction strategies** **Formal reduction** -Phonological -Morphological -Syntactic -Lexical **Functional reduction** -Message abandonment -Meaning replacement -Topic avoidance **Achievement strategies** **Paralinguistic strategies** **Interlingual strategies** -Borrowing/code switching -Literal translation -Foreignizing Intralingual strategies -Approximation -Word coinage -Paraphrase Description Circumlocution Exemplification -Smurfing -Self-repair -Appeals for assistance Explicit Implicit Checking questions -Initiating repair	**Conceptual strategies** Analytic Holistic **Linguistic/ Code strategies** Morphological creativity transfer

Table 2.2 (continued): Taxonomies of Communication Strategies

Bialystok (1990)	Poulisse (1993)	Dornyei & Scott (1995a, 1995b)	Rababah (2001)	Dobao and Martínez'(2007)	Mariani (2010)
Analysis-based strategies -Circumlocution -Paraphrase -Transliteration -Word coinage -Mime **Control-based strategies** -Language switch -Ostensive definition -Appeal for help -Mime	Substitution strategies Substitution plus strategies Reconceptualization strategies	**Direct Strategies** **Resource deficit-related strategies** -Message abandonment -Message reduction -Message replacement -Circumlocution -Approximation -Use of all-purpose words -Word-coinage -Restructuring -Literal translation -Foreignizing -Code switching -Use of similar sounding words -Mumbling -Omission -Retrieval -Mime **Own-performance problem-related strategies** -Self-rephrasing -Self-repair **Other-performance problem-related strategies** -Other repair **Interactional strategies** **Resource deficit-related strategies** -Appeals for help **Own-performance problem-related strategies** -Comprehension check -Own-accuracy check Other-performance problem-related strategies -Asking for repetition -Asking for clarification -Asking for confirmation -Guessing -Expressing non understanding -Interpretive summary -Responses Indirect Strategies Processing time pressure-related strategies -Use of fillers -Repetitions Own-performance problem-related strategies -Verbal strategy markers Other-performance problem-related strategies -Feigning understanding	**A. L1-Based Strategies** 1. Literal translation 2. Language Switch a. L1 slips and immediate insertion b. L1 appeal for help c. L1 -optimal meaning strategy d. Ll- retrieval strategies e. L1 ignorance acknowledgement strategy **B.L2-Based Strategies** 1.Avoidance Strategies a. Message abandonment b. Topic Avoidance 2. Word Coinage 3. Circumlocution 4. Self -correction/Restructuring 5. Approximation 6. Mumbling 7. L2 appeal for help 8. Self-repetition 9. Use of similar-sounding words 10. Use of all-purpose words 11. Ignorance Acknowledgement	**Avoidance Strategies** a) Topic avoidance b) Message abandonment c) Semantic avoidance d) Message reduction **Achievement Strategies** **1-Paraphrase** a) Approximation b) Word coinage c) Circumlocution **2- Conscious transfer** a) Borrowing b) Language switch **3 Appeal for assistance** **4 Mime**	**A-Meaning-Expression Strategies** 1-using an all-purpose word 2-using a more general word 3-using a synonym or an antonym 4-using examples instead of general category 5-using definitions or descriptions 6-using approximations 7- paraphrasing 8-self-correcting, rephrasing, repairing **B-Meaning-Negotiation Strategies** 9- asking for help 10-giving help **C-Conversation Management Strategies** 11-opening and closing a conversation 12-trying to the conversation open 13-managing turn-taking 14-avoiding or changing a topic 15-sing tactics to gain time **D-Para-and extra-linguistic strategies** 16-using intonation patterns, and sounds 17-using non-verbal language

To overcome such confusion in describing and classifying learners' strategic behaviour, the current study provided a full definition and description for each of the CSs under study. The aim was to help raters/assessors evaluate and gauge participants' use of CSs easily and systematically. Moreover, the proposed strategies selected to be developed in the present study were chosen according to specific characteristics, as research has not suggested that all CSs that appear in all taxonomies are worth teaching. For instructional purposes, Russell and Loschky (1998) have classified CSs into recommended strategies and non-recommended strategies. They assert that teachers should focus only on teaching L2-based strategies such as: approximation, word coinage, description, and appeal to interlocutors. They argue that by encouraging learners to use L2-based strategies for solving communication problems, they could develop their communication skills since an L2 develops through use. Similarly, Rabab'ah (2004) stresses that L2-based strategies "should be encouraged the most, because they are most likely lead to successful communications" (p. 156). Moreover, the targeted strategies should also be within the level of the learners and not too complex for them, as the choice of a particular strategy is strongly affected by the proficiency level of the speaker (Bialystok, 1990; Mariani, 2010; Rabab'ah, 2004; Willems, 1987).

Considering the above points, and based on a revision of the most recent intervention studies on SC and CSs (Dobao and Martínez, 2007; Houston, 2006; Lam, 2006, 2010; Nakatani, 2005; Rababah, 2004; Rossiter, 2003; Tavakoli, Dastjerdi & Esteki, 2011), the current study did not depend on adopting one unique taxonomy but rather it focused on identifying CSs that research has suggested be taught in second language classrooms. Moreover, these strategies were found in various taxonomies for describing speakers' strategy use (Bialystok, 1990; Dornyei & Scott, 1995; Dobao & Martinez, 2007; Færch & Kasper, 1983; Kongsom, 2009; Mariani, 2010; Tarone, 1977; Willems, 1987). Thus, the proposed taxonomy classified CSs into five main categories. These dimensions were divided into a variety of subtypes as shown in Table 2.3 below.

Table 2.3: A proposed taxonomy of communication strategies

Factors	No	Target Strategies
Interactional strategies Meaning-negotiation CSs	1	Asking for confirmation
	2	Comprehension check
	3	Clarification request
	4	Asking for repetition
	5	Appeal for help
Positive self-solving CSs	6	Self-correction
	7	Use of all-purpose words
	8	Approximation
	9	Circumlocution
Time-gaining CSs	10	Conversation gambits & hesitation devices
	11	Self- repetition
Non-verbal CSs	12	Facial expressions
	13	Gestures as communication strategies
Non-taught CSs	14	Topic avoidance
	15	Message abandonment
	16	codeswitching
	17	foreignizing
	18	word-coinage

Interactional communication strategies

The first category is interactional CSs, which involved five strategies. This group of strategies, as the name indicates, required both the speaker and listener to cooperate in order to solve the communication problem. The interactional strategies were comprehension checks, clarification request, asking for confirmation, appeals for help and asking for repetition. The first three strategies namely, comprehension checks, clarification request, asking for confirmation, are known as negotiation of meaning (Foster & Otha, 2005) or modified interaction strategies (Nakatani, 2005) whereby a learner sends messages to a partner for negotiation in order to overcome any difficulty that may arise during the communication process. Appeal for help is used when a learner seeks assistance from the interlocutor. Asking for repetition is when the learner did not understand or hear what their partner has just said. In this study, they are all grouped under the category of interactional strategies, as suggested by Dornyei and Scott (1995).

Positive Self-solving strategies

The second category is positive self-solving CSs**,** which involved four strategies: circumlocution, approximation, self-correction, and use of all-purpose words. Positive self-solving strategies refer to the CSs that a learner uses to solve the problems that they may face during communication, due to their insufficient knowledge of the English language, without seeking a help from their interlocutor.

Circumlocution strategy is considered the most important achievement strategy and one of the main components of strategic competence (Canale & Swain, 1980). Circumlocution is defined as an indirect way of speaking (Tavakoli et al., 2011), thus it "compensates for gaps in a language learner's knowledge" (Salomon & Marsal, 1997, p. 473). Approximation strategy is also another useful strategy employed by learners to enable them to use alternative words that express the meaning of the target word as closely as possible. This strategy helped learners in the current study to overcome the communication problems that may arise due to their vocabulary limitations.

The self-correction strategy is used by the learners to enable them make self-initiated corrections in their own utterance once realizing that they have committed a mistake in pronunciation, grammar or choice of words. It has been argued that making learners aware of using the self-correction strategy is useful and desirable, as it assists them to take risks and correct their own speaking mistakes with more confidence (Kongsom, 2009). The all-purpose words strategy (e.g., something, stuff, thing) enables learners to use a more general concept when the specific term might be unknown or cannot be recalled at the time of communication (Dornyei & Thurrell, 1992).

Time-gaining strategies

The third category is time-gaining CSs, also known as stalling strategies (Dörnyei & Scott, 1997), and involved two strategies: conversation gambits and hesitation devices, and self-repetition.

Time-gaining strategies differ from the other types of strategies in terms of their function during the course of communication. While the other strategies are used to compensate for any linguistic deficiencies, time-gaining CSs enable learners to gain time and keep the channel of communication open at the time of difficulty (Dörnyei, 1995, p. 57). It is worth noting that the present study focused on developing learner's use of lexicalized fillers such as "well ", "you know", "let me see", "I see what you

mean", rather than non-lexicalized fillers like "umm", "urr", "hmm". The reason for excluding the non-lexicalized fillers is that they were already profusely used by all participants in the pilot study (See section 3.9.3). The self-repetition strategy is employed by learners to enable them to repeat what they have just said to gain time to think of what to say next or how to say it (Lam, 2006).

Non-verbal communication strategies

The fourth category of CSs is non-verbal strategies, which involved gestures and facial expressions. Non-verbal strategies are used by the learners to enable them to employ gestures and facial expressions in place of a lexical items or actions.

Non-taught communication strategies

The last category is the non-taught CSs, which included the following five CSs: Reduction strategies (i.e. topic avoidance and message abandonment), code-switching, foreignizing, and word coinage. Foreignizing and word coinage strategies were not used by the leaners in the pilot study (See section 3.9.3) and at pre-test. For this reason they were excluded from the proposed taxonomy. The reduction (i.e. topic avoidance and message abandonment) and code-switching strategies were not included in the instructional design of the current study. However, the aim for including them was to observe whether their usage will be decreased or not after the intervention. The reduction strategies are regarded as the second option for learners in case they face communication problems. While achievement strategies enable the learners to take the risk and solve the communication problem they may face through using one of the achievement strategies, reduction strategies enable learners to avoid solving the problem by giving up and avoiding talking about it (Farch & Kasper, 1983).

Regarding the code-switching strategy also known as language switch (Alibakhshi & Padiz, 2011), it is worth noting that although it has been suggested that ESL leaners using code-switching could benefit in sustaining task engagement as well as for raising their awareness and understanding (Tognini, Philp, & Oliver, 2010), an overuse of the first language can also have negative results (Freiermuth & Jarrel, 2006). Particularly, when “the learners avoid using the target language to resolve [communication] difficulties, they miss the potential benefits of negotiating form and meaning” (Philip et al., 2010, p. 274). Therefore, since the aim of this study is to develop learners’ use of CSs, code-switching was put within the non-taught CSs category in order to train the learners to focus on the L2-based CSs.

13 out of 18 strategies were taught and introduced to the participants of the current study. These strategies were circumlocution, approximation, using an all-purpose word, self-correction, clarification request, confirmation check, comprehension check, appeal for help, time-gaining strategies (including: conversational gambits, fillers, chunks and hesitation devices and self-repetition), and paralinguistic strategies (including: facial expressions and gestures). The rationale for including only these strategies in the instructional design of the current study was threefold: firstly, they represent learners' active strategic behaviour in repairing and maintaining interaction (Nakatani, 2005). In other words, they encourage learners to keep talking in the target language to successfully achieve their communicative aims. Secondly, research has recommended them to be taught in foreign language classes since they are regarded as L2 based communication strategies (Russell & Loschky, 1998). Thirdly, teaching and raising learners' awareness towards using such types of strategies would certainly be aligned with the orientation of TBLT and the interactionist perspective adopted in this study (Branden, Bygate, & Norris, 2009; Long, 2014; Nunan, 2004). In addition, results from previous studies suggest that these strategies are beneficial in helping language speakers' in general and learners in particular cope with their communication breakdowns (Dornyei, 1995; Kongsom, 2009; Lam, 2004; Nakatani, 2005).

Reduction strategies and code-switching were not included in the instructional design. The reason of excluding them is that they do not contribute to the development of a second language. However, we can utilize them in comparing participants' performance in both pre and post-tests.

2.7 Teaching communication strategies

One of the major issues that has been widely investigated by many scholars and researchers is whether CSs can be taught or not. Resultantly, two contrary views about the teachability of CSs have been recognized. The first view rejects the idea of teaching CSs (Bialystok, 1990; Bongaerts & Poulisse, 1989; Kellerman, 1991; Poulisse, 1990). The second argues that direct instruction of CSs is possible, desirable, and could be beneficial to the development of learners' SC in particular and enhance their oral communication skills in general (Ellis, 1985; Maleki, 2007; Mariani, 2010; Rabab'ah, 2002). The following sections will be devoted to the discussion of these different views, in detail.

2.7.1 Teachability of communication strategies

As mentioned above that there are two contrary views about the teachability of CSs that have been recognized. The first view, espoused by the Nijmegen group, is based on the assumption that SC could be automatically transferable from a speakers' first language to their second language. Therefore, the idea of teaching CSs has been rejected as second language learners could recall their first language CSs, which they have already been equipped with, if they encountered difficulties in communicating their messages (Bialystok, 1990; Bongaerts & Poulisse, 1989; Kellerman, 1991; Poulisse, 1990). Moreover, adherents of this view assert that CSs are deemed to be reflections of underlying psychological processes, and for that reason it is unlikely to enhance learners' communication strategy use by concentrating only on surface structures (Bialystok, 1990). Instead, teachers should only focus on teaching the language, and "let the strategies look after themselves" (Kellerman, 1991, p. 158). Similarly, Bialystok (1990) adds that "What one must teach students of a language is not strategy, but language" (p. 147), because the more language a learner knows, the more possibilities will be available for them to meet their demands.

Although all of these assumptions might be true theoretically, they have not been confirmed empirically. That is to say, no experimental studies have been found so far to prove that teaching CSs is fruitless and does not contribute to the development of learners' strategic competence. In addition, this view may have overlooked that fact that first language communication difficulties differ to a great extent from those of the second language to assume transfer. That is, second language speakers do not necessarily encounter the same communication difficulties as in their first language. Moreover, first language speakers might be considered experts in their native language, at least in oral communication skills. Therefore, compared to beginners and pre-intermediate second language learners who are considered novice speakers, native speakers can easily solve any communication problems they might face during the course of interaction. However, some CSs might be transferable from the first language such as fillers, gestures, and self-correction strategies. Nevertheless, there are many second language based CSs that might not be transferable and thus need to be taught, such as paraphrasing, conversational gambits, and approximation (Dornyei, 1995; Lam, 2006; Rossiter, 2003; Russell & Loschky, 1998).

Therefore, the second view that is based on findings of empirical studies, argues that direct instruction of CSs is conductive to promoting leaners' SC, and accordingly is beneficial for enhancing their communication skills (Dornyei, 1995; Faucette, 2001; Houston, 2006; Lam, 2006, 2010; Rabab'ah, 2001, 2005; Rost and Ross, 1991). Moreover, Rabab'ah's (2001) findings suggest that by employing CSs, learners not only solve their communication problems and achieve their communicative goals, but also their attempts in describing objects, telling a story, and role playing were comprehensible and successful. Likewise, Dornyei (1995) found that it is possible for CSs to be developed through focused instruction and, in addition, he proposed some useful procedures for strategy training. The next section will discuss the approaches and methods that have been investigated so far for developing communication strategies in order to find the gap in research.

2.7.2 Approaches to teaching communication strategies

Within the field of second language acquisition and applied linguistic, there have been few studies conducted to assess the value of teaching CSs. The table 2.4 below summarises the recent intervention studies that have been carried out to investigate the effects of teaching CSs on developing learners' strategy use and/or on promoting their oral performance. This table is followed by a detailed discussion of each study to find the type of instructional methods employed, the aim of the study, participants and number of groups recruited, the targeted CSs, data collection methods, and the main findings.

Table 2.4: Previous studies on communication strategies

Researcher	Aims	Participants & design	Taught CSs	Data collection methods	Findings
Dörnyei (1995)	To investigate the effect of teaching CSs on -uses of CS -Students' attitudes towards the CS training	109 EFL students in Hungary. -One treatment group -Two control groups -Quasi experimental design	-topic avoidance - circumlocution, -fillers	Pre- and post-tests -a Written test (TOEIC and the C-test) -an oral test (topic description, cartoon description, and definition formulation)	-posttests showed improvement in strategy use both qualitatively and quantitatively. The learners increased their use of fillers and quality of using circumlocution. - Learners developed positive attitudes towards strategy training.
Salomone and Marsal (1997)	To investigate the impact of teaching circumlocution strategy on their ability to circumlocute.	24 intermediate French undergraduate learners. -treatment group - control groups	- circumlocution	Pre- and post-tests -a written circumlocution test: 11 concrete nouns, five	The two groups showed significant developments overtime. However, no significant differences between the two groups in the post-test

		- Two intact classes		abstract nouns, and four shapes.	
Scullen and Jourdain (2000)	To explore the impact of the explicit teaching of oral circumlocution on undergraduate learners studying French as a foreign language in an American university	Two classes -experimental group (n=17) and -comparison group (n=8). - Two sections of fourth-semester French students.	- circumlocution (superordinate terms, analogy, function, and description)	Pre- and post-tests - role play -picture description	Both groups made significant gains over time. However, the between-group difference on the post-test was not significant
Rossiter (2003)	To study on the effect of teaching communication strategy on -second language performance -strategy use -task completion	30 adult intermediate ESL learners in Canada. -treatment group -comparison group -Two sections	Paraphrasing -approximation - circumlocution -subordination -analogy -use of all-purpose words	Pre- and post- and delayed post-tests -picture story narratives -object descriptions	-results of post-test suggest a direct impact on a number of strategies employed in the object description task in favour of the treatment group -results showed that strategy training has no impact on learners in terms of task completion on either the narrative or the object description tasks. -results also suggest no difference on gain scores between groups in message abandonment.
Nakatani (2005)	investigated the effect of using explicit instruction of CSs on the development of speaking proficiency -speech rate and use of CSs -awareness of CSs use	65 Japanese female EFL learners -strategy training group -control group - Two intact classes	-appeal for help - clarification request - comprehension checks -maintenance -asking for repetition -using fillers -offering assistance	Pre- and post-tests -role plays -retrospective verbal protocol	-participants in the strategy training group improved their oral proficiency tests significantly more than those in the control group. - the participants' oral performance improvement was attributed to the strategy training that increased the participants' awareness of oral communication strategies in general, and how to use specific strategies, to solve interactional difficulties.
Lam (2006)	To examine the effect of teaching CSs on -strategy use -oral performance	40 EFL Chines secondary school students -experiment group -control group - Two intact classes	-paraphrasing -resourcing -self-repetition -self-correction -fillers -clarification request -asking for repetition -asking for confirmation	Pre- and post-tests -discussion tasks -a questionnaire -stimulated recall interviews -observation of CSs use	The participants of the treatment group generally outperformed the control group on discussion tasks and self-efficacy, whereas no statistically significant differences have been found between the two groups in their oral performance.
Maleki (2007)	To examine the teachability of CSs and the feasibility of incorporating them into school syllabi.	60 intermediate Iranian EFL learners -strategy training class -control class -Two intact classes	-approximation - circumlocution -word coinage -appeal for help -foreignizing -time stalling devices	Pre- and post-tests -Cambridge ESOL speaking test - achievement written test	The results showed that strategy instruction class gained higher scores than the class without strategy instruction on both the Cambridge ESOL test and achievement test.

Kongsom (2009)	To investigate the effects of teaching CSs on -strategy use -speaking skill	62 Thai EFL learners -one group only	-word-coinage -circumlocution -approximation -appeal for help -self-repair -confirmation check -comprehension check -clarification request -pause fillers -hesitation devices.	Pre- and post-tests -speaking tasks -strategy questionnaire -attitudinal questionnaire -retrospective protocols	-explicit instruction of CSs raised students' awareness of strategy use and promoted the greater use of targeted CSs -The results of the retrospective reports suggested that the participants tended to be more aware of the taught CSs after intervention - participants showed a positive feelings and attitudes towards the CSs teaching
Alibakhshi and Padiz (2011)	To investigate the impact of explicit instruction of specific CSs on speaking performance	60 Iranian EFL learners -experimental group -control group	-avoidance -approximation -restructuring -language switch -word coinage -appeal for assistance -circumlocution -self-repetition -self-repair	Pre-, post and delayed post-tests Three oral tasks: -group discussion -story retelling, -picture description.	-Teaching CSs might have a positive effect on enhancing learners' oral performance. -the immediate posttest showed that experimental group outperformed the control group in seven out of nine CSs. -the results of the delayed posttest showed a stable effect of teaching CSs for only three strategies after a long interval.
Tavakoli et. al (2011)	To investigate the effect of explicit strategy training on learners' oral production in terms of complexity, accuracy, and fluency.	40homogenous intermediate EFL learners -experimental group -control group	-circumlocution -approximation -all-purpose words -lexicalized fillers	Pre- and post-tests -oral interview	-strategy training is beneficial for promoting oral performance and the experimental group learners developed a greater level of complexity, accuracy, and fluency - the results showed that enhancing communication strategies may have a positive impact on second language learners' strategic competence

In a study, Dornyei (1995) carried out a six week strategy training course to investigate the teachability of CSs for 109 Hungarian learners of English. The focus of the study was on teaching three CSs, namely, topic avoidance and replacement, circumlocution, and fillers and hesitation devices. A quasi-experimental design with pre-tests and post-tests was employed. The design included one treatment group and two control groups. The first control croup received no treatment but followed their regular EFL course. The second control group received speaking training without focusing on any specific strategies. In contrast, the treatment group received explicit instruction of the targeted CSs. Written and oral tests were used for data collections. The results showed a significant improvement for the treatment group in strategy use, both qualitatively and

quantitatively. That is, the results revealed that the treatment group learners increased their use of fillers and quality of using circumlocution. In addition, the learners' overall speech performance was improved and they developed highly positive attitudes towards the training as well. The result also showed that teaching CSs could contribute second language improvement. Dornyei's (1995) study provides some evidence that SC may be teachable and that learner's strategic behaviour may be affected by direct training. However, it was limited in examining only three types of CSs.

Salamone and Marsal (1997) also conducted an experimental study on 24 intermediate French undergraduate learners to investigate the impact of teaching circumlocution strategies on their ability to circumlocute. Learners were randomly divided into an experimental group and control group. Both groups were pre-and post-tested to elicit explanations of concrete nouns, abstract nouns, and shapes in French. The experimental group learners received direct instruction on a circumlocution strategy to cope with lexical difficulties, whereas the control group learners had their normal class without strategy training. The findings revealed that the two groups showed significant developments overtime. However, there were no significant differences between the two groups in the post-test. It is worth noting that the tests administered in this study were written rather than oral. The validity of employing written tests to gauge the effect of strategy training for oral communication is undoubtedly questionable.

Scullen and Jourdain (2000) explored the impact of the explicit teaching of oral circumlocution on undergraduate learners studying French as a foreign language in an American university. Two classes of fourth-semester French students were chosen to participate in this study. They were assigned to an experimental group (n=17) and comparison group (n=8). Both the experimental group and the comparison group completed a pre-test, three practice sessions, and a post-test. The experimental group received, in addition, explicit training on four specific strategies for successful circumlocution (superordinate terms, analogy, function, and description). The results showed that both the experimental and control groups made significant gains in successful identification over time. However, the between-group difference on the post-test was not significant. The researchers attributed this to the small number of students participated in the study, and their unequal distribution between the treatment and the control group (17 students vs 8 participants, respectively) as this compromised the ability to make a comparison between the two groups.

Rossiter (2003) carried out an experimental study on the effect of teaching communication strategies on second language performance (task completion, speech rate, message abandonment) and on strategy use. Two classes (15 participants each) of adult immigrants at intermediate levels in Canada took part in this study. The first class received 12 hours of explicit strategy instruction on approximation, circumlocution, subordination, analogy and use of all-purpose words strategies. The other class served as a comparison group. Both groups were given two oral tasks (picture story narratives and object descriptions) in Week 1 as pre-test, Week 5 immediate post-test, and Week 10 delayed post-test. Results of the post-test suggest a direct impact on a number of strategies employed in the object description task in favour of the treatment group, which was more effective for eliciting communication strategies than the picture story narratives. Results showed that strategy training has no impact on learners in terms of task completion on either the narrative or the object description tasks. Results also suggest no difference on gain scores between groups in message abandonment.

Nakatani (2005) investigated to what degree CSs can be explicitly taught, and the extent to which strategy use can lead to improvements in oral communication abilities. 65 Japanese female EFL learners at a private school in Japan participated in this study. They were divided into two groups: strategy training group (n=28) and control group (n=32). The strategy training group received 12 weeks of explicit strategy training, whereas the control group received only normal lessons, with no explicit focus on CSs. Both groups were taught according to a basic communicative approach. The types of CSs selected to be taught to the strategy training group were paraphrasing, help-seeking, modified interaction, modified output, time-gaining and maintenance strategies. The data were collected through three methods: pre- and post-course oral communication test scores, transcription data from the tests, and retrospective verbal protocol for their task performance. The findings showed that participants in the strategy training group improved their oral proficiency scores significantly more than those in the control group. The finding also showed that the strategy training increased the participants' awareness of oral communication strategies in general, and how to use specific strategies, such as maintenance of fluency and meaning negotiation to solve interactional difficulties. However, this study suffers from some limitations. Firstly, the participants were not randomly assigned to experimental and control groups. Secondly, the researcher relied only on the pre-test

to assure that both groups were equal without matching them with other important variables, such as age, language proficiency, and IQ. Finally, the participants of the study were private college students so it is difficult to generalize the findings to a wider population.

Lam (2006) examined whether teaching CSs to EFL secondary school students has an impact on developing their strategy use and oral performance as well. Two groups were selected randomly to participate in this study. They were assigned to treatment and control groups. The treatment group received 8 lessons of explicit strategy training. That is, learners in the treatment group were informed of the rationale and the value of strategy instruction, given names and examples of the eight target strategies to model. The control group learners, on the other hand, received group discussion activities only (i.e. without the introduction of CSs). The taught CSs were paraphrasing, resourcing, self-repetition, self-correction, fillers, clarification request, asking for repetition and asking for confirmation. A multi-method approach was used for data collection, including: self-report questionnaires, observations, and stimulated recall interviews. The findings suggest that participants of the treatment group generally outperformed the control group on discussion tasks and self-efficacy, whereas no statistically significant differences were found between the two groups in their oral performance. Findings of this study suggest that explicit instruction of CSs does not lead to the enhancement of learners' oral proficiency skills. However, the main weakness of the study was that the researcher has failed to control the teacher variable, since the two groups were taught by two different teachers. Another weakness was that in order to reduce the workloads of the raters, group performance, rather than individual performance, was assessed. This could have "affected the findings regarding English proficiency as it is best tracked on an individual basis" (Lam, 2006, p. 152). Finally, the study does not mention the gender of the participants.

Maleki (2007) conducted an experimental study to examine the teachability of CSs and the feasibility of incorporating them into school syllabi. 60 intermediate Iranian learners of English as a foreign language (EFL) participated in this study. The participants were randomly divided into two equal groups of 30 students, and each group was randomly assigned to classes A and B. Then, two different EFL textbooks were randomly selected to be taught over four months in the classes: one with specific CSs in class B and the other without in class A. The selected CSs to be taught for class B were approximation, circumlocution, word coinage, appeal for help, foreignizing

and time stalling devices. Two instruments were employed to assess the teachability and effectiveness of CSs at the end of the course: the Cambridge ESOL speaking test and an achievement written test. The results showed that participants in class B, who received communication strategy instruction, earned higher scores than the class without strategy instruction on both the Cambridge ESOL test and achievement test. The findings suggested that teaching CSs is fruitful, pedagogically effective and can facilitate language learning. The results also found that among a range of the targeted CSs, the appeal for help strategy was used effectively and extensively by class B leaners. The study concluded that meaning negotiation strategies enhance learners' comprehension. That is, learners' can learn new vocabulary while asking for help or asking for more clarification from the interlocutor, and this could lead to improving their language acquisition.

Kongsom (2009) investigated the effects of teaching communication strategies on 62 Thai learners of English. In total 9 CSs were examined and introduced to the learners, namely: word-coinage, circumlocution, approximation, appeal for help, self-repair, confirmation check, comprehension check, clarification request, and pause fillers and hesitation devices. The study was designed as an interventionist study by using one group of undergraduate students, without a control group. The students were exposed to pre-tests, 12-weeks of explicit strategy training, and post-tests. Both qualitative and quantitative data were collected in this study. Four research instruments were adopted for data collection: speaking tasks, a strategy questionnaire, an attitudinal questionnaire and retrospective verbal protocols. The findings suggested that explicit instruction of CSs raised students' awareness of strategy use and promoted the greater use of targeted CSs by the participants. The results of the retrospective reports suggested that the participants tended to be more aware of the taught CSs after intervention and they used some of the taught CSs in speaking post-test intentionally when they faced difficulties. The findings also revealed that the participants showed positive feelings and attitudes towards CSs teaching as they found that communication strategy teaching is useful for them.

In their attempt to study the stability of teaching CSs, Alibakhshi and Padiz (2011) investigated the impact of the explicit instruction of specific CSs on the speaking performance of Iranian language learners of English. In total, 60 male and female learners participated in this study with an age range of 18-20. They were randomly divided in two groups (30 participants each), and randomly assigned into

experimental and control groups. The experimental group learners received a 10-week-treatment on some of CSs, namely, avoidance, approximation, restructuring, language switch, word coinage, appeal for assistance, circumlocution, self-repetition, and self-repair. The ultimate goal of strategy instruction was to help the participants decrease their use of avoidance and language switch strategies but to increase the use of the other seven strategies. Both groups were exposed to pretest and posttest. Only the experimental group was exposed to a delayed post-test to examine whether the explicit teaching of CSs has a long lasting effect or not. The pre-, post and delayed post-tests consisted of three oral tasks: (a) group discussion (b) story retelling, and (c) picture description. The findings of the study suggested that teaching CSs might have a positive effect on enhancing learners' performance. The results of the immediate post-test showed that the experimental group outperformed the control group in seven out of nine CSs: approximations, language switch, appeals for assistance, circumlocution, self-repair self-repetition and avoidance. However, the results of the delayed post-test showed a stable effect of teaching CSs for only three strategies after a long interval. These CSs were circumlocution, self-repair and avoidance.

Tavakoli et. al (2011) investigated the potential effect of explicit strategy training on Iranian EFL learners' oral production in terms of complexity, accuracy, and fluency. In this study, 40 homogenous intermediate EFL learners were randomly assigned to experimental and control groups (20 participants each). The experimental group received 8 lessons of training in the use of circumlocution, approximation, all-purpose words, and lexicalized fillers. In contrast, the control group served as a comparison, and learners went through their normal lessons without any strategy instruction. A between-participant with a pre-test, treatment, post-test design was used in this study. To measure the learners' use of communication strategies, both groups took an oral interview about different personal questions. The recorded data were transcribed and then rated according to the measures selected for complexity, accuracy, and fluency. The findings suggest that strategy training is beneficial for promoting oral performance and the experimental group learners developed a greater level of complexity, accuracy, and fluency. As for learners' strategic performance, the results showed that enhancing communication strategies may have a positive impact on second language learners' strategic competence. The study, however, did not show which type of the targeted communication strategies has developed the most. In addition, interview questions were not significantly difficult to push learners to use a

wide range of communication strategies, particularly circumlocution and approximation.

The review of the above related studies has revealed several points. First, some of the reviewed studies aimed to investigate the value of using explicit strategy training on developing learners' oral performance and strategy use (Alibakhshi & Padiz, 2011; Dornyei ,1995; Lam, 2006; Maleki, 2007; Nakatani, 2005; Tavakoli et. al, 2011). Only Rossiter's (2003) study examined the effect of using explicit strategy training on task completion, language performance and strategy use as well. The current study differs from the above studies in that it aims to investigate the effect of explicit and implicit strategy training on learners' strategic competence and task completion. Second, the participants' level of English language proficiency and the number of groups recruited in previous studies seems to be varied from one study to another. Most of the studies employed two groups, one as a treatment and the other as a comparison group. Only Dornyei's (1995) study used two control groups in addition to a treatment group, and Kongsom (2009), recruited one experimental group. The current study, in contrast, recruited 52 participants distributed randomly into three groups: two experimental groups and one control group. Third, there are also several limitations and shortcomings in the data collection methods employed in the previous studies for gauging participants' use of CSs. For instance, Salamone and Marsal (1997) used written tests to assess participants' use of oral circumlocution strategies. In addition, some studies conducted their experiments on a very limited number of CSs. For instance, both Scullen and Jourdain's (2000) and Salamone and Marsal's (1997) studies were limited to only the circumlocution strategy. Dörnyei's (1995) study focused on three CSs i.e. 'avoidance and replacement', 'circumlocution', and 'fillers and hesitation devices'.

Although some of previous studies covered a range of CSs, only Kongsom's (2009) and Nakatani's (2005) studies investigated negotiation of meaning strategies, and no study has been found to cover non-verbal strategies like gestures and facial expressions. The current study differs from the above studies in that it uses a mixed-methods approach for data collection. That is, it uses more appropriate instruments for eliciting CSs like oral tasks, questionnaire and stimulated recall interviews. The rationale for adopting a mixed methods approach is to gain a valid and accurate description of learners' strategic behaviour since each method has its inherent biases and limitations (Cohen et al., 2008; Greene, Caracelli, & Graham, 1989; Torrance,

2012). Employing a single method "will inevitably yield biased and limited results" (Greene et al., 1989, p. 256). Thus, the use of data triangulation for assessing the participants' use of CSs can be systematically justified as each method complements the limitation of the other. Moreover, the current study explores the effect of explicit instruction and implicit instruction on a wide range of CSs such as: meaning-negotiation, positive self-solving, time-gaining, non-verbal CSs and reduction strategies. Finally, almost all of the previous studies employed pre- and post-tests to examine the impact of strategy training over time and to compare the results of post-tests between the groups as well. The current study differs in that it employs pre-, post- and delayed post-tests to measure participants' retained knowledge of communication strategy use.

Based on the discussion above, it can be clearly seen that there are research gaps in the field of strategic competence and CSs left by previous literature. Therefore, the aim of the current study is to address these gaps and to contribute to the existing body of knowledge by comparing two types of strategy instruction namely, implicit and explicit, on developing intermediate Arab ESL learners' strategic competence and task completion. The following section will discuss implicit and explicit instruction and the distinction between them.

2.8 Implicit and explicit instruction, learning and knowledge

The dichotomies of explicit/implicit instruction, explicit/implicit learning and explicit/implicit knowledge have consistently attracted the attention of researchers in the fields of second language acquisition and applied linguistics, more generally (Hulstijn, 2005; Roehr, 2008; Suzuki & DeKeyser, 2017). To a large degree, this attention can be traced back to Krashen's (1981) proposal that second language learners possess two distinct ways of developing knowledge: language acquisition and language learning (Andringa & Rebuschat, 2015; Ellis, 2016; Rebuschat & Williams, 2012). According to Krashen (1981), language acquisition is an incidental process that takes place subconsciously and results in implicit linguistic knowledge, whereas language learning is an intentional process that results in conscious, metalinguistic knowledge i.e. explicit knowledge of language grammatical rules and patterns (Andringa & Rebuschat, 2015; Ellis, 2009; Rebuschat & Williams, 2012). It is believed that second language speech production and comprehension are largely dependent on acquired or implicit knowledge (Long, 2017; Rebuschat & Williams, 2012) rather than learnt or explicit knowledge (Andringa & Rebuschat, 2015; Krashen,

1981). This is because implicit knowledge is "thought to be more readily available under communicative pressure and more durable than explicit knowledge" (Collins & Marsden, 2016, p. 281). Subsequently, SLA research has been interested in the products of these two independent learning mechanisms (i.e. acquisition and learning) and how they result in explicit and/or implicit knowledge (Suzuki and DeKeyser, 2015). SLA researchers have been concerned with the potential effect of implicit and explicit instruction on the implicit and explicit knowledge systems and learning process (see for example, Goo et al., 2015; Spada & Tomita, 2010; Norris & Ortega, 2000). They have also concentrated on attempting to identify the processes involved in implicit and explicit learning, how they interact with one another and how they can be manipulated through instruction (Andringa & Rebuschat, 2015; Ellis, 2009; Hulstijn, 2005; Suzuki & DeKeyser, 2017).

This study has been conducted to examine the effect of implicit and explicit instruction on developing specific types of CSs, rather than on developing implicit and/or explicit knowledge. That is, as mentioned in the introduction of this thesis in Section 1.1, the aim of this study was not to examine the impact of explicit and implicit instruction on the types of knowledge developed, but to investigate the differential impact of explicit and implicit instruction on the development of certain types of CSs. The following sections discuss in detail the dichotomies of implicit/explicit instruction, learning and knowledge and seek to clarify the relationship between them.

2.8.1 Implicit versus explicit instruction

Instruction refers to any attempt to intervene in the process of language development. Like knowledge and learning, it can be either implicit or explicit (Ellis, 2009; Godfroid, 2015). Instruction is considered implicit when it enables learners to infer language patterns/rules without drawing their attention to them. That is, implicit instruction "seeks to provide learners with experience of specific exemplars of a rule or pattern while they are not attempting to learn it" (Ellis, 2009, p. 16). For instance, when learners' attention is focused entirely on meaning rather than on language forms. Under these circumstances, learners could internalize the underlying rules/patterns without focusing their attention explicitly on them. Implicit instruction is associated with Communication-Focused Instruction (CFI) as this includes "the use of tasks that focus learners' attention on meaning" (Ellis, 2008, p. 437). This indicates that CFI involves implicit instruction. As far as second language acquisition is concerned,

implicit instruction can be done through several teaching methods, such as the Natural Approach, Communicative Language Teaching, and TBLT "where any attention to linguistic form arises naturally out of the way the tasks are performed" (Ellis, 2009, p. 17). Housen and Pierrard (2006) also highlighted several criteria by which we can evaluate whether any given instructional method involves implicit instruction or not, as follows.

A teaching method is implicit if it:

- infers the rules from the exemplars provided
- is delivered *spontaneously* (e.g., in an otherwise communication-oriented activity)
- is unobtrusive (minimal interruption of communication of meaning)
- presents target forms in context
- makes no use of metalanguage
- encourages free use of the target form (Housen & Pierrard, 2006, p. 10)

In sum, implicit instruction can be achieved by creating a learning condition that is enriched with the language features in which learners can infer those features, but without drawing their explicit attention to them. Furthermore, CFI is a meaning-based method in which learners' attention is drawn to meaning rather than form while they are communicating to achieve the goal of a communicative task. Therefore, implicit instruction could be achieved by applying the strong form of TBLT.

The distinguishing criterion between explicit and implicit instruction is that in the case of explicit instruction learners receive information concerning rules underlying input while in implicit instruction they do not (Hulstijn, 2005; Norris & Ortega, 2000). In other words, in explicit instruction, instructors may either explain, in advance, the language rules/patterns to the learners deductively, or they may provide examples and have learners discover the language forms/patterns themselves inductively. As such, both deductive and inductive approaches belong to explicit instruction, since the correct language rules/patterns will be given at some point during the learning process (Hulstijn, 2005). In this connection, it has been claimed that most form-focused instruction methods involve explicit instruction (Ellis 2008). Therefore, explicit instruction is considered to be language focused instruction since it provides learners with the target language forms. Furthermore, several features of explicit instruction

have been highlighted by Housen and Pierrard (2006). They state that an instructional method is considered to be explicit if it:

- directs attention to target form
- is *predetermined* and *planned* (e.g., as the main focus and goal of a teaching activity)
- is obtrusive (interruption of communicative meaning)
- presents target forms in isolation
- uses metalinguistic terminology (e.g., rule explanation)
- involves controlled practice of the target form (Housen & Pierrard, 2006, p. 10)

According to these characteristics of explicit instruction, it can be concluded that the explicit instruction was achieved in this study since the target CSs were introduced to the learners at the pre-task phase. That is, in the current study, the explicit instruction group learners were explicitly taught the types of CSs, introduced to examples of CSs and how to use them appropriately in times of communication difficulties (See section 3.6.2 for more detail on the implementation of explicit strategy instruction and Appendix S for lesson plans).

2.8.2 Implicit versus explicit learning

Learning is frequently defined in connection with the nature of the knowledge learned. Therefore, implicit and explicit learning can be referred to as the learning of implicit and explicit knowledge, respectively (Hulstijn, 2005).

Implicit learning was first employed as a term by Reber (1967) to refer to a learning process by which experimental group participants acquire knowledge about the rule-governed complexities of the stimulus environment without intending to and without becoming aware of the knowledge they have acquired (Rebuschat & Williams, 2012). Implicit learning can be defined as a learning process that takes place without the intention to learn and "without awareness of what is being learned" (DeKeyser, 2003, p. 314). That is, learners are unaware of having acquired knowledge (Rebuschat, 2013).

In contrast, explicit learning is "input processing with the conscious intention to find out whether the input information contains regularities and, if so, to work out the concepts and rules with which these regularities can be captured" (Hulstijn, 2005, p.

131). That is, explicit learning refers to a learning process during which learners intentionally look for language patterns in order to develop conscious knowledge about these patterns (Rebuschat, 2013).

The distinguishing criterion between explicit and implicit learning is that the former proceeds consciously while the latter does not. That is to say, in the case of implicit learning, learners acquire and absorb information without being aware of either the process or the products of learning. Conversely, in explicit learning, learners are aware that they have learned something and can verbalize it regardless of their level of competence (Rebuschat, 2013).

It is worth noting that one of the central issues to the discussion of implicit and explicit learning is the extent to which a language can be learned without awareness of learning (Andringa & Rebuschat, 2015; Collins & Marsden, 2016; Suzuki & DeKeyser, 2015). Two types of awareness have been distinguished by Schmidt (2001): awareness at the level of noticing and awareness at the level of understanding (i.e., metalinguistic awareness) (See DeKeyser, 2003; Williams, 2009 for reviews).

2.8.3 Implicit versus explicit knowledge

Recent theories of second language acquisition have distinguished between two types of knowledge: implicit knowledge and explicit knowledge (Ellis, 2005). Implicit knowledge (also known as procedural knowledge), knowing how, refers to knowledge that a learner is not conscious of and is accessed via automatic processing (Hulstijn, 2005; Roehr, 2015). It is characterized as unconscious knowledge that lies outside the learners' awareness, and it can only be deduced from the learner's behaviour (DeKeyser, 2009; Dornyei, 2009; Rogers, Revesz, & Rebuschat, 2016).

Explicit knowledge, knowing that, also sometimes referred to declarative knowledge (DeKeyser & Criado, 2012) or learned knowledge (Krashen, 1982), applies to knowledge that "learners are consciously aware of and that is typically only available through controlled processing" (Ellis et al., 2006, p. 340). That is, explicit knowledge lies within awareness as learners are aware of the formal properties of the target language, and are often, though not always, able to verbalize it in non-time-pressured situations (DeKeyser, 2009; Roehr, 2008; Rogers et al., 2016; Williams, 2009). Learners can talk about what they know explicitly. For example, a learner can report that most English regular verbs take –d or –ed endings in the past tense.

Ellis (2015) has summarized the main differences between implicit and explicit second language knowledge as shown in Table 2.5 below:

Table 2.5: Implicit and explicit knowledge (from Ellis, 2015)		
Characteristics	Implicit knowledge	Explicit knowledge
Consciousness	We are not conscious of what we know implicitly; implicit knowledge is only evident in communicative language behaviour.	We have conscious knowledge about the "facts" of language (e.g. the meanings of words and grammatical rules).
Accessibility	Implicit knowledge can be accessed effortlessly and rapidly; it is available for automatic processing.	Explicit knowledge requires controlled processing and thus can typically only be accessed slowly and applied with difficulty.
Verbalization	Implicit knowledge cannot be verbalized unless it is made explicit; learners cannot tell what they know implicitly.	Explicit knowledge is often verbalizable; learners can report what they know. This calls for knowledge of the metalanguage needed to talk about language.
Orientation	Implicit knowledge is called upon when learners are oriented towards encoding or decoding the meaning of messages in communication.	Explicit knowledge is called upon when learners are formulating and monitoring sentences to ensure they conform to target language norms or because they lack implicit knowledge.

It should be highlighted that both implicit and explicit knowledge are required in second/foreign language learning. However, implicit knowledge is more important as effective use of a language for communicative purposes requires access to implicit knowledge (Ellis, 2009, 2015; Long, 2015).

2.8.4 The relationship between instruction, learning and knowledge

As stated earlier, all these terms are interrelated and it is important to clarify the relationship between them. The concepts implicit and explicit knowledge refer to the products of learning (Rogers et al., 2016), whereas the terms implicit and explicit learning refer to the processes of learning (N. Ellis, 2015). Implicit and explicit instruction, on the other hand, could refer to the conditions or the means of learning.

The constructs of implicit/explicit instruction should be distinguished from implicit/explicit learning as the former refers to the teacher's or course designer's perspective, and the latter refers to the learners' perspective. It does not necessary mean that these two dichotomies are correlated with each other (Batstone, 2002). That is, it does not follow that explicit instruction generates explicit learning or that implicit

learning takes place as a result of implicit instruction (Ellis, 2005; Schmidt, 1994). Explicit instruction can result in implicit learning as a result of the incidental noticing of a number of language patterns/CSs provided by the teacher. Equally, in implicit instruction, students may realize what the focus of instruction is and try to make their understanding of it explicit (Ellis, 2009). Thus, explicit instruction does not always lead to explicit learning and implicit instruction does not necessarily result in implicit learning.

It is worth mentioning that implicit instruction (See section 2.8.1 for further detail) does not imply that learners in the implicit instruction group will learn CSs implicitly, that is, develop implicit knowledge. This is because despite the interaction tasks, employed in the current study, which are supposed to be a kind of incidental learning, learners might use CSs intentionally.

Regarding the relationship between knowledge and learning, it has been assumed that both implicit/explicit knowledge and implicit/explicit learning are "related but distinct concepts that need to be separated" (Schmidt, 1994, p. 20). As mentioned above, implicit/explicit knowledge refers to the products of learning and implicit/explicit learning concerns the processes involved in learning (Ellis, 2009). It is possible that implicit learning could lead to explicit knowledge. For instance, a learner could develop explicit knowledge by reflecting on knowledge that they have acquired implicitly, that is, without metalinguistic awareness (Bialystok, 1994). At the same time, explicit learning directed at one specific linguistic feature may result in the incidental implicit learning of some other linguistic features. This is because the content of implicit knowledge is usually acquired incidentally while focusing on something other than what is internalized (Ellis, 2008, 2009; Hulstijn, 2005). It is also found that explicit knowledge, which develops through explicit learning, may have a positive impact on the acquisition of implicit knowledge (Suzuki & DeKeyser, 2017).

As for the relationship between explicit and implicit knowledge, it can be discussed, in terms of the interface between them, from three different positions: the non-interface position, the strong interface position, and the weak interface position. Proponents of the non-interface position argue that implicit and explicit knowledge are the product of two completely distinct language acquisition systems (Hulstijn, 2002; Krashen, 1982). Therefore, this position posits that it is not possible for explicit knowledge to transform directly into implicit knowledge (Ellis, 2005; Hulstijn, 2002; Krashen,

1982). Explicit knowledge can be only used to serve as a monitor to help learners edit their utterances and/or correct their mistakes (Krashen, 1982).

The strong interface position, in contrast, includes a strong relationship between explicit and implicit knowledge: "they are typically seen as the extremes of one continuum" (Andringa, 2005, p. 11). Consequently, two variants of the strong interface position can be distinguished. The first variant posits that it is possible for implicit knowledge to become explicit through conscious reflection on and analysis of output which was generated by a learners' implicit knowledge (Bialystok, 1994; Ellis, 2005). That is, when a learner becomes more proficient. The second variant holds that explicit knowledge can be transformed into implicit knowledge if sufficient practice is provided for the former to be automatized (Anderson, 1992; DeKeyser, 1998; DeKeyser & Criado, 2012; Godfroid, 2015; Williams, 2009). For example, a learner can start by learning a rule as a declarative fact. Then, through extensive communicative practice, this rule can be converted into implicit representation (DeKeyser, 1998; Ellis, 2009).

The weak interface position has been advanced by Ellis (1994). He, too, considers that explicit and implicit knowledge are two separately organised knowledge systems (Andringa, 2005; N. Ellis, 2005). Nevertheless, proponents of the weak interface position state that explicit knowledge and instruction play an important role in the development of implicit knowledge. Three versions of the weak interface position exist. The first version posits explicit knowledge can become implicit knowledge through practice, but only when the learner is in a particular stage of development, and s/he is ready to acquire the relevant linguist feature (Ellis, 2005). The second version posits that explicit knowledge can indirectly facilitate the acquisition of implicit knowledge through drawing the learners' attention to the linguistic features in the input (Schmidt, 1994; VanPatten, 2002). The third version holds that explicit knowledge can be used to produce output that then serves as "auto-input" to the learners' implicit learning mechanisms (Ellis, 2009; Schmidt & Frota, 1986).

2.9 Summary

In this chapter, it has been established that SC is one of the main components of CC in most models of CC (e.g., Canale & Swain, 1980; Canale, 1983; Celce-Murcia, et al., 1995). Concerning the definition of SC, it is found that the scope and function of SC seem to be varied from one definition to another. While some definitions restrict the

role of SC to a compensatory function of communication breakdowns (Canale & Swain, 1980), others expand the role to cover compensatory, repair mechanism, time-stalling, and interactional functions (Canale, 1983; Celce-Murcia, et al., 1995; Tarone, 1980). Moreover, other scholars like Bachman (1990) argue that SC should be seen as a more general cognitive capacity that underpins all problem-solving behaviour.

It has been established that TBLT constitutes an offshoot of CLT or as its logical development (Willis, 1996a). In addition, TBLT represents the strong form of CLT since it is based entirely on using tasks as central units in syllabus design. In addition, one of the theoretical bases underpinning TBLT is the Interactionist Hypothesis introduced by Long (1983), which states that learners can learn and acquire a language through interaction. The Interactional Hypothesis has received considerable theoretical and empirical support in the literature. Furthermore, research has suggested that interactional strategies for meaning negotiation between learners and their interlocutors could facilitate second language acquisition. It has been also established that TBLT provides more opportunities for negotiated interaction (i.e. clarification requests, confirmation and comprehension checks) than the teacher-dominated ones.

It has been established that CSs have been studied and tackled from two standpoints: The interactional and psycholinguistic perspectives. The psycholinguistic view addresses mental processes that underlie second language speakers' behaviour when they experience lexical and discourse difficulties. It describes CSs as lexical-compensatory devices that aid learners to overcome their deficiencies in vocabulary knowledge. On the other hand, the interactional view describes CSs in terms of negotiation of meaning between learners and their interlocutors during the interaction process. The interactional view of CSs appears to be broader than the psycholinguistic view as it deals with difficulties involved at both the production and comprehension levels.

As for the teachability of CSs, two contrary views about this issue have been recognized. The first rejects the idea of teaching CSs as it assumes that CSs could be automatically transferable from the speakers' first language to their second language. The second view, instead, argues that direct instruction of CSs is possible, desirable, and could be beneficial to the development of learners' SC, in particular and enhancing their oral communication skills.

It has been found that CSs can be effectively taught. Findings of previous studies suggest that explicit instruction of CSs is typically effective in developing learners' oral proficiency skills. However, no research has been conducted so far to compare between implicit and explicit instruction of CSs on developing learners' SC. The current study addresses this gap by comparing explicit and implicit instructions to examine their impact on the use of communication strategies as well as task completion among pre-intermediate Arabic learners of English. The following research questions have been posed:

RQ1: To what extent are explicit and implicit instruction effective in supporting task completion?

RQ2: To what extent are explicit and implicit instruction effective in developing learners' use of communication strategies?

RQ3: Which types of communication strategies does implicit instruction develop?

RQ4: Which types of communication strategies does explicit instruction develop?

3 Chapter 3: Methodology and Methods

3.1 Overview

As mentioned in the previous chapter that the main aim of the present study is to investigate the differential impact of explicit and implicit instruction on the use of communication strategies among pre-intermediate Arabic learners of English. To achieve this aim, the following questions have been posed:

RQ1: To what extent are explicit and implicit instruction effective in supporting task completion?

RQ2: To what extent are explicit and implicit instruction effective in developing learners' use of communication strategies?

RQ3: Which types of communication strategies does implicit instruction develop?

RQ4: Which types of communication strategies does explicit instruction develop?

This chapter discusses, in detail, the methodology, describing the methods employed in the current study in order to answer the above research questions to achieve the aim of the research. To investigate the impact of implicit and explicit instructions on learners' use of CSs as well as on supporting task completion, a research strategy adopted in the current study and justification for using a mixed methods approach for eliciting strategic behaviour are provided (section 3.2). Participants and the context of the study are presented (section 3.3). The design of the study (i.e. split class design) and the rationale for it are highlighted (section 3.4). The training materials as well as the testing materials (pre-tests, post-tests and delayed post-tests) are explained (section 3.5). The procedures followed in implementing the implicit and explicit instructions inside the classes are discussed (section 3.6). Data analysis and pre-analysis procedures are addressed in analysing the data collected from the questionnaire, interaction tasks and stimulated recall interviews are discussed (section 3.7). Ethical considerations are considered (section 3.8). Finally, the pilot study is presented (section 3.9).

3.2 Research strategy

Different research methods have been used for investigating learners' SC and CSs. The main methods employed comprise communicative tasks (Aliakhshi & Padis, 2011; Dörnyei, 1995; Tavakoli et al., 2011; Maleki, 2007; Raba'ah, 2016; Yule & Tarone, 1990), questionnaire (Cohen, Weaver & Li, 1998; Dörnyei, 1995; Lam, 2006; Nakatani, 2005), thinking aloud (Cohen et al., 1998), observation (Rost & Ross, 1991; Dorney, 1995), and stimulated recall interviews (Kongsom, 2009; Lam, 2006). While some studies have employed quantitative methods only (Dörnyei, 1995; Nakatani, 2005; Raba'ah, 2016; Rost & Ross, 199), others have used a combination of qualitative and quantitative methods for data collection (Cohen et al., 1998; Kongsom, 2009; Lam, 2006).

In this study, a mixed method approach was used for data collection. That is, quantitative (interaction tasks and questionnaire) and qualitative (stimulated recall interviews) methods were employed for measuring participants' use of communication strategies. The rationale for adopting a mixed methods approach was to gain a valid and accurate description of learners' strategic behaviour, since each method has its inherent biases and limitations (Cohen et al., 2008; Greene, Caracelli, & Graham, 1989; Torrance, 2012). Employing a single method "will inevitably yield biased and limited results" (Greene et al., 1989, p. 256). Thus, the use of data triangulation for assessing the participants' use of CSs can be systematically justified as each method complements the limitations of the other.

By way of explanation, direct observation of learners' performance during interaction tasks could be appropriate for assessing learners' actual use of readily identified strategies. However, communication strategies sometimes cannot be easily identified through direct observation (Khan, 2010; Lam, 2006; Oxford, 1996). This is because the strategic behaviour of language speakers encompasses not only strategies that appear on the surface during speech production, but also strategies that underlie thought processes (Chamot, 2005; Gass & Mackey, 2000). For example, appeals for help, negotiation of meaning, and nonverbal strategies, such as using gestures and body movements, can be easily observed. On the contrary, approximation strategies, such as using synonyms or using a more general word when a specific word is unknown, are difficult to be observed. For instance, truck instead of car, or bird instead

of woodpecker. Therefore, in order to interpret the participants' actual strategic behaviour and to cross-check the validity of data collected by observation tasks, it is necessary to tap into participants' underlying thought processes through employing stimulated recall interviews. Yet, although both observation tasks and stimulated recall interviews can provide evidence about the participants' actual strategic behaviour when engaging in pre-and post-test tasks, they cannot elicit all CSs developed over the intervention period. Consequently, a self-report questionnaire is utilised to compensate for the limitations of the preceding methods and to provide a general overview about the participants' use of CSs. Through a questionnaire, it is feasible to assess more broadly a range of CSs developed. Furthermore, it can provide generalisation to the collected data (Lam, 2006; Oxford, 1996).

3.3 Participants

Initially, it was intended for the study to be conducted at the University of Mosul in the Department of English of the College of Education. However, due to the given situation in Iraq in general and in Mosul in particular, it was determined to be impossible to do any experimental work there. Therefore, the decision was made to recruit Arab ESL learners from English language centres in the UK.

Subsequently, the researcher contacted two language centres in the UK about the possibility of conducting the experiment with their learners. The first English language centre approved that their students could participate voluntarily and were able to allocate a classroom to deliver the lessons after 4 pm. That is, after students finish their normal everyday sessions which run from 9:00 am until 4:00 pm.

As for the second English language centre, they replied that they could not provide a classroom to deliver the lessons, due to several reasons. Therefore, I again contacted the academic manager of the first English language centre. I explained my situation and requested them to allocate a classroom for me to deliver lessons for the participants of the second English language Centre, and they agreed. The total number of participants was sixty. Eight of them have dropped out of this study for various reasons, leaving fifty-two final participants. All participants were pre-intermediate adult ESL learners and share the same first language (Arabic). The majority of them were in the age group of eighteen to twenty-five years. And most had less than six months experience studying English in the UK. All were males, except for three females.

Demographic information of all participants involved in the study is shown in Figure 3.1.

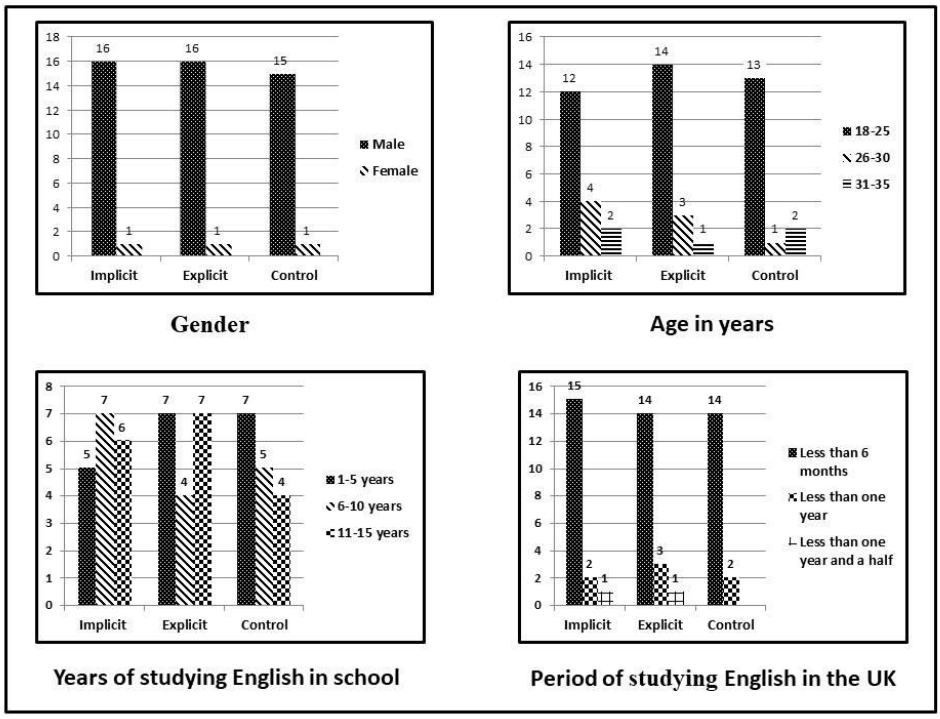


Figure 3.1: Demographic detail of the participants

3.4 Design

The present study employed a between participant design with a pre-test, treatment, immediate post-test and a delayed post-test. It involved three groups of pre-intermediate Arab ESL learners enrolled at two English language centres in the UK. They were selected on the basis of their agreement to participate voluntarily in the experiment. The total number of learners was fifty-two. The learners in each centre were randomly[1] allocated to one of three experimental conditions. The first condition (n=18) was TBLT with explicit instruction of CSs (i.e. as rules). The second (n=18) was implicit instruction which was achieved in the framework of TBLT (i.e. without introduction of CSs). The third (n-16) was a control group which was just exposed to the pre- and post-tests.

This design is called a split-class design (Carver, 2006, p. 2012; Marsden, 2007), in which half of each group was randomly allocated to each experimental condition (See

[1] An online research randomizer was used for assigning participants to the three experimental conditions.

Figure 3.2). The rationale for using such design was to help in countering sample bias due to the "cluster effect" or "inter-group correlation" (Torgerson & Torgerson 2003, p. 73; Marsden, 2007, p. 568; Moore et al., 2003, p. 679-80). That is, learners within the first English language centre tend to be more similar to each other with respect to their learning and teaching patterns than those learners in the second language centre. Moreover, by having each group split, rather than assigning one group to implicit instruction and the other to explicit instruction, many potential confoundings, such as class composition, setting, learning histories, and regulations, can also be controlled (Carver, 2006, Marsden, 2007).

The key dependent variable in the design of this study was the use of CSs. Development of CSs was measured through observation of task completion and follow-up stimulated recall interviews, along with completion of a self-report questionnaire.

After groups were split, and randomly allocated to the three different experimental conditions, all participants were pre-tested to measure their ability of using CSs before the intervention. Administration of pre-tests, post-tests and delayed post-tests followed this sequence: an interaction task, followed by a stimulated recall interview, and finally, a self-report questionnaire. The major reason for administering the questionnaire at the end was to eliminate the possibility of stimulating learners towards using CSs while performing the interaction tasks at pre-test, post-test and delayed post-tests.

Regarding the interaction tasks, a counterbalancing strategy was utilised in which two versions of 'describe and draw' interaction tasks were employed in pre-, post- and delayed post-tests (Haslam & McGarty, 2014; Marsden & Torgerson, 2012) (See Appendix B). Accordingly, half of the learners in each condition were randomly allocated to perform "describe and draw task 1" and the other half carried out "describe and draw task 2". The purpose of using this counterbalanced design was twofold: first, to neutralise any effects associated with the order in which these tasks are achieved (Haslam & McGarty, 2014). The second aim is to elicit a sufficient range of CSs from participants. To avoid any attrition bias, one consistent advanced level of English learner was recruited to perform the role of an interlocutor with all participants in both pre-and post-tests.

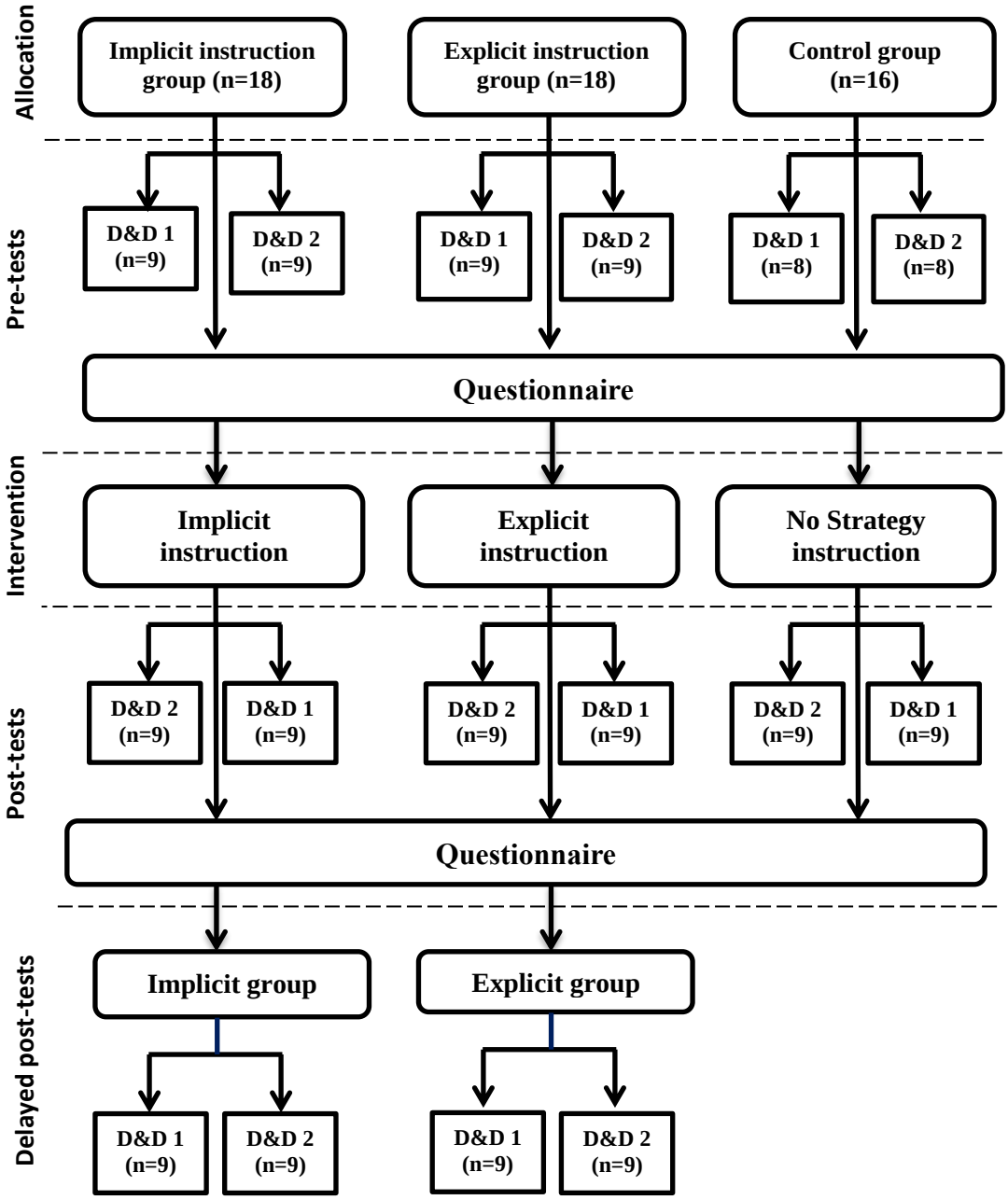


Figure 3.2 Design of the study

Moreover, in order to control for any test effect and the possibility of learning from pre-test to post-test (Haslam & McGarty, 2014; Marsden & Torgerson, 2012), two parallel versions of "describe and draw" tasks were used to measure the participants' use of CSs. It is worth noting that efforts have been made to design comparable tasks that could elicit similar language in terms of grammar and vocabulary. In addition, the difficulty of the designed tasks is determined by consulting ESL teaching textbooks

for intermediate and advanced level learners (Jones & Williams, 2004; Kehe & Kehe, 2011; Keller & Warner, 2002; Mariani, 2010; Ward, 2010). Consequently, these tasks should be slightly over the proficiency level of the participants to require them use as many CSs as possible while performing pre-and post-tests.

The experimental intervention included five one-hour lessons over a five-week period i.e. one hour per week (See Table 1 for the time scale of the study). The researcher himself did the teaching to control the teacher variable and to ensure the fidelity to experimental conditions. Both implicit and explicit instruction groups received strategy training according to Ellis' (2006) Framework for Designing Task-Based Lessons (See Section 2.6 for more details). Immediate post-tests were administered two days after the intervention sessions. Delayed post-tests were administered after a four to five week interval after the post-tests to measure participants' retained knowledge of CSs (See Table 3.1).

Table 3.1: Timescale of the study in weeks

	Pre-tests	intervention Implicit instruction & explicit instruction	Post-tests	Interval	Delayed post-tests
Duration	2	5	2	4	2
Cumulative time scale	2	7	9	13	15

3.5 Material

3.5.1 Training Material

As mentioned in section 3.5, the training materials for the implicit and explicit instruction groups were set according to the methodology of TBLT. Therefore, communicative interaction tasks were required to be selected for the purpose of the present study. Having reviewed the literature on the characteristics of tasks chosen in TBLT research, it has been found that second language task design is based on certain performance conditions such as information flow, goal orientation and task complexity (Lambert & Engler, 2007; Skehan, 2016). The features of tasks and performance conditions may facilitate different kinds of interactions. These conditions label and distinguish communicative tasks along a number of dimensions: one-way or two-way, convergent or divergent, closed or open, and complex or simple. In order to identify the properties of a task that best suits the teaching purposes of this study, these dimensions are discussed in relation to literature and previous research findings.

3.5.1.1 One-way or two-way tasks

This dimension describes the direction of information flow among participants. It concerns whether task achievement requires only one participant to do most of the talking or entails both participants to exchange information (Willis, 2004). A one-way task requires only a one-way flow of information from a speaker to a listener. That is, it does not necessitate both participants to exchange information since only one party has all the information required to accomplish a task. For example, one-way opinion-gap tasks and non-reciprocal picture description tasks (Mackey, 2012). Comparatively, two-way tasks, also called reciprocal tasks (Ellis, 2001), are those tasks where each party holds unique information that should be exchanged in order to achieve a task successfully such as information-gap tasks and jigsaw tasks (Long, 2014). By way of illustration, in a spot-the-difference task which is one type of information-gap tasks, participants are supplied with two pictures that are similar in most details but differ in some aspects. In order to achieve the task outcome, both participants are required to interact using the target language in order to find the differences between the two pictures (Mackey, 2012).

In spite of the fact that both one-way and two-way tasks are widely used in TBLT research, they may facilitate different kinds of interactions, particularly among non-native speakers. For instance, it has been found that two-way tasks lead to more negotiated interaction than one-way tasks (Gass, Mackey & Feldman, 2005; Pica & Doughty, 1985; Shintani, 2011).

3.5.1.2 Convergent or divergent tasks

This dimension concerns whether a task requires learners to agree on a single outcome (convergent) or allows them to disagree (divergent) and provide various outcomes (Elis, 2003). In convergent tasks, also known as consensus tasks, learners are required to agree on one solution which should be acceptable to all participants. Mackey (2012) provides a familiar example of convergent tasks, which is the desert island scenario. In this task, learners are given a list of items. They need to examine them, select items, discuss their options, and come to an agreement on which of the items (usually a limited number) they would want to take for survival. That is, the learners should reach a consensus on the nominated items. Conversely, in divergent tasks, the outcome is open and it accepts different acceptable answers. Therefore, learners are not required to reach such consensus as in the convergent tasks. For example, learners may be asked

to discuss the advantages and disadvantages of using Facebook. In this task, each one of the learners may come up with a different response. They might also have to defend their positions and refute their partners' points of view.

Research has found that convergent tasks result in more meaning negotiation (more turns, more questions, and more confirmation checks) than divergent tasks (Duff, 1986; Skehan & foster, 2001; Newton, 2013).

3.5.1.3 Open or closed tasks

There is a close relationship between convergent/divergent tasks and close/open tasks, respectively. While the former pair deals with the goal orientation of a task, the latter refers to "the scope of the task outcomes available to the participants in meeting the task goal" (Ellis, 2003, p. 215). In open tasks, learners know that there is no predetermined answer where many answers can be accepted (Willis, 2004). Closed tasks, on the other hand, are "often highly structured, and have only one right answer or solution" (Willis, 1996, p. 28).

Findings of previous studies have suggested that closed tasks are likely to provide more opportunities for learners to negotiate meaning than open tasks (Long, 1989; Loschky, 1998; Pica & Doughty, 1988). This is because in closed tasks, learners are less likely to give up when communication problems arise, since they know that task achievement depends on their finding the answer. That is, learners are required to interact and exchange information in order to arrive at a solution. Therefore, it is contended that closed tasks could generate more useful negotiation of meaning than open tasks (Long, 1989; 1990).

3.5.1.4 Complex or simple tasks

This category concerns the extent to which a specific task is inherently easy or difficult to be achieved by learners. Task complexity covers three main dimensions. (a) code-complexity, including lexical and linguistic complexity; (b) cognitive complexity, including topic familiarity and cognitive processing, such as information organization and sufficient information given; (c) communicative stress, including time pressure, number of participants, and type of response (Bygate, 2001; Ellis, 2003; Nunan, 2004; Skehan, 1998). It has been argued that a linguistically complex, interactive and cognitively demanding task promotes more negotiation of meaning than simple,

interactive, and cognitively undemanding tasks (Robinson, 2001; 2005). This is because the nature of complex tasks can raise more linguistic and content problems, which require more clarification and, therefore, result in more interaction (Robinson & Gilabert 2007). Similarly, Ghout-Khenoune (2012) concluded that complex tasks were more cognitively taxing for the learners, therefore, learners used more CSs in order to be able to manage the task difficulty.

Addressing these different dimensions of tasks, and drawing on the findings of previous studies (Long, 1989; Loschky, 1998; Newton, 2013; Pica & Doughty, 1988; Robinson & Gilabert 2007; Skehan & foster, 2001), it was decided, in this study, to employ tasks that have the following characteristics: (1) reciprocal two-way tasks that require information exchange; and (2) tasks that have convergent goals, closed outcomes, and cognitively demanding. These kinds of tasks can serve the aim of the present study for two main reasons. Firstly, they are found to generate more negotiation of meaning among learners. Secondly, the interactionist perspective of communication strategies adopted here describes communication strategies in terms negotiation of meaning between learners and their interlocutors during the interaction process (Nakatani, 2005; Rost & Rose, 19991; Tarone, 1981). Negotiation of meaning is defined as conversational adjustments or modifications that happen in interactions when a speaker and their interlocutors experience difficulty in comprehending some messages. To create mutual understanding, participants can use different strategies such as comprehension checks, confirmation requests, clarification requests, and repetition (Gass, Mackey & Feldman, 2005).

Based on the discussion above, the researcher designed five oral tasks for the training purposes of the present study. The topics of the designed tasks were different and covered various themes like spot the differences, a Mr Bean clip, a map game and the Island survival game tasks. Variations in the topics of the tasks were to be aligned with the targeted CSs to be taught in each one of the five intervention lessons (See Figure 3.3 below & Appendix C). In addition, careful attention was paid to ensure that designed tasks hold all the characteristics that research has suggested to be available in a task to elicit interaction and generate more negotiation of meaning among the students. The designed tasks were also given to the researcher's supervisor and a native-speaking fellow PhD student to check their appropriateness, as well as to ensure that the instructions of the tasks were clear and not ambiguous.

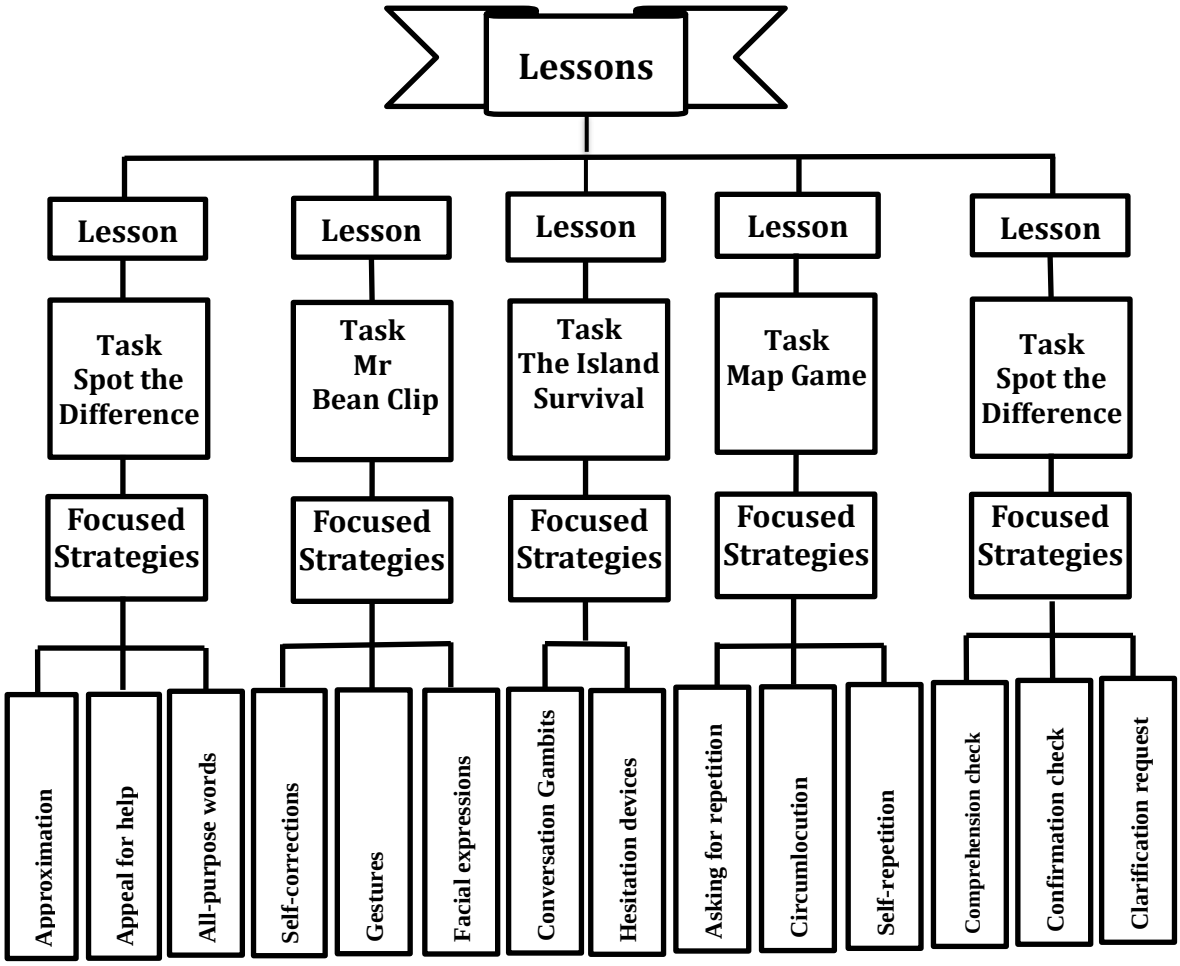


Figure 3.3: The training materials and lessons

Lesson One: Spot-the-differences

Focus: Approximation, appeals for help, and use of all-purpose words.

In this task students are given two pictures (labelled A & B) of a room in a house. The two pictures are similar in most details. However, there are nine differences between picture A and picture B.

- The teacher asks the students to sit in pairs.
- Then, the teacher tells the pairs to interact and find these differences without looking at each other's pictures as quickly as possible.
- The teacher also informs the students that they can tell each other about their pictures and ask each other questions to find the NINE differences.
- The teacher provides the students with an example of one difference between the two pictures to help them achieve the task successfully.

- The teacher tells the students that the first pair that discovers the nine differences between the two pictures will be the winner.

Lesson Two: Mr. Bean Clip

Focus: self-correction, gestures and facial expressions.

This lesson is based on the Mr Bean episode "Sandwich for Lunch".

- The teacher tells the students that they are going to watch a clip from the Mr Bean episode "Sandwich for Lunch". Then, the teacher provides the students with some pictures from the episode that were put in the right order to make the task a bit easier and to ensure that the students understand what is actually required from them to complete the task successfully.
- The teacher asks them to sit in pairs. One of the students sits with their face looking at the screen and the other student sits with their back to the screen.
- The teacher tells them that the student facing the screen is going to watch and describe what's happening in the episode to their partner.
- The student with their back to the screen has to take notes from this description. They can ask for clarification if anything is unclear.
- The teacher checks the time and asks students to change positions every 90 seconds and repeat the process until the end of the clip.
- The teacher stops the video quite frequently so that students can concentrate on describing two or three actions accurately rather than trying to describe a big chunk of the scene.
- The teacher then replays the whole video from the start so that everyone can watch and enjoy it together; the teacher also asks students if they think their partner described the action well.
- The link to the episode: https://www.youtube.com/watch?v=jtqpuYvOfHY.

Lesson Three: Island Survival Game

Focus: Conversation gambits, and Hesitation devices.

In this task, the teacher asks the students to sit in pairs and imagine that their cruise ship sank in the Caribbean. Students are provided with a task instruction sheet (See

Appendix C) which includes information about this imaginary story such as: They are the only two survivors but one of them is injured. They have got no idea where they are, etc... Then, the teacher tells the students that there are number of items on the beach, which were dropped from the ship, that could help them, but they can only carry ten items. After that, the teachers tells the students that the task is to choose the TEN best items from the given inventory and rank them in the order of their importance for their survival on the island.

Lesson Four: Map Game

Focus: Circumlocution, self-repetition, and asking for repetition.

In this task students are given two Maps (labelled A & B). Map A included the full route, whereas map B does not have the route. The teacher asks the students to sit in pairs. The teacher gives one student in each pair map A and the other student map B. Then, students who have map A in each pair are asked to interact and guide their partners from start to finish (following the line as accurately as possible). The teacher informs the pairs that they are not allowed to look at each other's maps while they are communicating to complete this task.

Lesson Five: Spot-the-differences

Focus: Comprehension checks, confirmation checks and clarification requests.

Although the pictures used in this task differ from those employed in lesson one, they followed the same procedures used for implanting spot-the-difference task in lesson one.

3.5.2 Pre and post-tests

This section describes the three types of pre and post-tests that were employed for gauging participants' use of communication strategies and reported strategy use. These tests were elicitation tasks, followed-up by stimulated recall interviews, and a self-reported questionnaire.

3.5.2.1 Elicitation tasks

Throughout the literature of CSs, oral communicative tasks have been widely employed for assessing second language learners' use of CSs. However, it has been found that the nature of a task has a direct impact on the use of CSs, both quantitatively

and qualitatively (Bialystok and Froehlich, 1980; Ghout-Khenoune, 2012; Khan, 2010; Poulisse, 1990 ; Rababah, 2001). In this respect, Bialystok and Frohlich (1980) claim that the task type "may bias the learner to select particular strategies" (p. 5). Also, Poulisse (1990) found that the selected strategies are markedly affected by the nature of a task. While in photo description tasks more analytic strategies like word coinage and circumlocution were used, the oral interview and story-retelling resulted in more holistic strategies such as non-verbal, approximation, and foreignizing being elicited.

As discussed in the preceding section, tasks have different dimensions which need to be considered by teachers and researchers in adopting or designing communicative tasks. The current study used the same characteristics of tasks for both training and testing purposes. That is, reciprocal two-way tasks that have convergent goals, closed outcomes, and are cognitively demanding. However, in the current study, one of the challenging steps was to design appropriate elicitation tasks that share the above characteristics but also differ from those tasks used in the intervention study to eliminate the familiarity of the task topic. In addition, the designed tasks also should provide the learner opportunities to apply the CSs that they had been taught. Moreover, the aim of the present study differs from those of previous studies in that it is mainly focused on developing learners' use of CSs and finding how the extent of learners' appropriate usage of CSs can support them to complete the task successfully. Therefore, after conducting a pilot study (See section 3.9), a decision was made to design two parallel versions of "describe and draw" tasks to be used for gauging learners' actual use of CSs (See Appendix B).

3.5.2.2 Stimulated recalls

As mentioned in section 3.2, sometimes CSs cannot easily be identified, especially those concerned with achievement self-solving strategies such as approximation and using all-purpose word strategies. For instance, observers may "hear the word 'car' but the learner may have originally wanted to say 'lorry'" (Khan, 2010, p. 60). Moreover, it is widely accepted that the stronger language users are at producing oral performance, the more difficult it is for observers to detect and identify problems in their speech. Therefore, it has been argued that in order to gain valid data on speakers' strategic behaviour, researchers need to go beneath the surface by consulting the participants, after accomplishing the communicative task, about the problems they

faced and how they solved them (Poulisse, 1990). One way for tapping into participants underlying thoughts is to employ stimulated recall interviews (Gass & Mackey, 2000). According to Lam (2006), stimulated recall is an introspective method that can be employed "to gauge students' covert strategy use (if any) by tapping their underlying thought processes" (p. 150).

Stimulated recall is "one subset of a range of introspective methods that represent a means of eliciting data about thought processes involved in carrying out a task or activity" (Gass & Mackey, 2000, p. 1). It is a retrospective technique based on retrieval cues. Such cues may entail audio and/or video stimuli. In his study, video-recordings were used as a stimulus for two main reasons: first, using video recording as a visual stimulus may be a stronger stimulus for recall (Paskins et al., 2014). Second, it allows participants to comment on their non-verbal strategic behaviour. The participants are expected, with the help of video prompts, to be able to recall thoughts they had while engaging in communicative tasks or oral activities.

Stimulated recall has been used in several SL strategy use studies as research method to uncover the participants' thought process when engaging in oral activities in the classroom (Khan, 2010; Lam, 2006; 2007; Nakatani, 2005; Poulisse, 1989). Findings of these studies support the argument that stimulated recall methodology "can yield valuable data that is otherwise unavailable about the learner's thought in action" (Lam, 2007, p. 58). Moreover, Poulisse (1989) has argued that using stimulated recall interviews helped in nearly doubled the identification of self-solving CSs. in addition, she adds that "retrospective comments help the researcher to identify compensation strategies which would otherwise have remained unnoticed" (p. 101).

In this study, stimulated recall interviews were used to tap into participants' underlying thought processes in order to interpret their actual strategic behaviour to serve the following purposes:

1) To cross-check the validity of the observed CSs
2) To facilitate the identification of CSs through asking the learner to comment at:

a) Long pauses and non-verbal cues that need to ascertain whether they were strategic behaviour or not

b) Critical incidents that may suggest that a communication strategy had been used. For example, when a learner uses ambiguous words and phrases that are misleading in

context. That is, when a learner says something slightly different to what the context seems to ask them to say.

The procedures for employing stimulated recall interviews shared by most previous strategy use studies are as follows. Participants are asked to verbally report and review their performance in pre and post-elicitation tasks by watching their own video-recordings. Participants are interviewed individually and often immediately after completion of the tasks to minimize memory loss. While watching the played-back video-recordings, a participant is instructed to pause the video-tape whenever they want to report the reasons for their choices of CSs and their reactions to communication problems. In addition, an interviewer, from time to time, can stop the video-tape and ask the interviewee *"what was at the back of your mind at that moment?"* (Gass & Mackey, 2000, p. 118; Kongsom, 2009; Lam, 2007).

3.5.2.2.1 Observation schedule

The current study used structured observation (Cohen et al., 2011; Cooper & Schindler, 2001) as it was focused on examining the impact of implicit and explicit instruction on learners' use of CSs. In structured observation a researcher knows in advance what he is looking for and can do so in a more systematic manner (Cohen et al., 2011). The purpose of using structured observation was to record the following phenomena to allow the learners to comment on them later in stimulated recall sessions:

1) Easily observed CSs such as confirmation checks, clarification requests, asking for confirmation, self-correction, and using lexicalized fillers or asking for help.

2) Long pauses and non-verbal cues that are difficult to identify as either strategic behaviour or not

3) Occurrence of any critical incidents, such as referentially ambiguous words and phrases that are misleading in context

Such types of critical incidents, long pauses and non-verbal cues may give an indication that a learner is facing a problem in communicating their ideas in speech. Poulisse (1990) argues "problem indicators definitely constitute a valuable source of information for the researcher who is to identify communication strategy use" (p. 91). Thus, they play an important part in the identification stage of most studies on CSs.

Another important purpose for employing structured observations was to help the researcher gain time to conduct the stimulated recall interviews as soon as possible after task completion. This is because "a short time delay between behaviour and recall is essential for the quality of data obtained" (Meier & Vogt, 2015, p. 47). Therefore, in order to collect more reliable data, stimulated recall sessions should be conducted immediately after the task.

It is believed that if researchers know in advance what they wish to observe, then it may be more efficient in terms of time to go into a situation with a prepared observation schedule (Cohen et al., 2011). An observation schedule for the purpose of this study was designed and tested to ensure it worked (See section 3.9.4 & Appendix D). The schedule was based on a list of CSs on the five categories of the questionnaire to enable it to be used to easily triangulate the data collected from the interaction tasks. The five categories of CSs covered by this schedule include: non-taught CSs, positive self-solving CSs, interactional CSs, time-gaining CSs, non-verbal CSs. All categories are divided into sub- categories. For example, the interactional CSs category is subdivided as follows: asking for confirmation (AC), comprehension checks (CC), clarification request (CR), appeal for help (AH), and asking for repetition (AR). The subdivided strategies are given unique codes according to the designed coding scheme (See Appendix H). In addition, the researcher added two categories to the observation schedule, which are "pauses" and "others." The "pauses" category includes long pauses that a participant takes during the interaction task. The "others" category was added to record any critical incidents observed in learners' performance during the elicitation tasks.

The time set for the observation schedule covered 5 minutes divided into thirty-second intervals. In each thirty-second interval the observer recorded whether or not the pre-specified set of CSs had occurred. It is believed that interval recording enables frequencies to be calculated, simple patterns to be observed, and an approximate sequence of events to be noted (Cohen, et al., 2011). Thus, the rationale for using interval recording was to determine the exact time when the incidents happened to know where to stop the video during the stimulated recall session.

The procedures for conducting the observation were as follows: while the participant began performing the elicitation task (i.e. "describe & draw task"), the researcher sat behind the camera with an observation schedule and carefully observe

their performance. While observing, he noted on the observation schedule in appropriate category what happened at a fixed interval. That is, each observed strategy, non-verbal cues and critical incident identified in the learner's speech were ticked under their appropriate category at fixed times to allow later follow-up in the stimulated recall interview.

3.5.2.2.2 The stimulated recall interview protocol

As stated earlier in section 3.5.2.2, stimulated recall interviews were used in this study to serve the following purposes:

1) To cross-check the validity of the observed CSs
2) To facilitate the identification of CSs through asking the learner to comment at:

a) Long pauses and non-verbal cues that need to ascertain whether they were strategic behaviour or not

b) Critical incidents that may suggest that a communication strategy had been used. For example, when a learner uses ambiguous words and phrases that are misleading in context.

The procedures for conducting stimulated recall sessions were as follows. Learners were asked to take part in stimulated recall interviews to comment on their performance in pre, post, and delayed post-elicitation tasks by watching their own video-recordings. The researcher individually interviewed learners on the same day they completed the tasks to minimize potential memory loss. It has been strongly recommended that, to have a satisfactory degree of reliability for obtaining data, stimulated recall should be conducted within "a forty-eight-hour timeframe'' (Henderson & Tallman, 2006, p. 75) as the information is still accessible in learners' short-term memory (Meier & Vogt, 2015; Poulisse, 1990).

At the beginning of the interview, the learners were asked to watch the video-tape and describe what had gone through their mind during the process of completing the elicitation task. To facilitate reporting, the learners were given the choice of the language they wished to use, either Arabic or English. In addition, they were also provided with the pictures that they had described during the elicitation tasks in order to help them remember smaller details about those pictures, to help them easily recall the communication problems they faced (if any) and what they did. The learners' comments were audio recorded to be checked and coded later along with the

transcribed data. Specifically, the researcher, based on his observation notes (See section 3.5.2.2.1), occasionally stopped the video and asked the students prompt questions to have them elaborate upon their oral behaviour. In addition, they were also instructed to stop the video whenever they wanted to comment on their performance.

In order to minimize "researcher bias" no leading questions were used in the interviews. This is because the focus of the current study is on examining the effect of implicit and explicit strategy instruction on learners' use of CSs. Using direct questions about the use of CSs may attract the learners' attention to the focus of the study and may stimulate them towards using CSs strategies in post-tests and delayed post-tests. Therefore, only the following prompt questions were asked to help learners recall their thoughts on events as they occurred:

1. Can you describe what did you do there?
2. Why did you do that?
3. Any difficulty there?

The learners were asked to describe what had gone through their mind at that particular point during the process of completing the task. That is, they were asked to report what they were thinking during the task performance only (i.e. "there and then"), and not to report what they were thinking during the stimulated recall sessions.

3.5.2.3 Self-reported questionnaire

A few studies have used self-reported questionnaires to investigate learners' use of communication strategies (Cohen et al., 1998; Dornyei, 1995; Khan, 2010; Kongsom, 2009; Lam, 2004; Nakatani, 2006; Pronpibul, 2005). After reviewing and examining these questionnaires, it has been found that there is no unique questionnaire that could be employed to cover all of the communication strategies under study. Therefore, a decision has been made to develop a questionnaire based on both Nakatani's (2006) Oral Communication Strategy Inventory (OCSI) and Kongsom's (2009) Communication Strategy Questionnaire. This section is devoted to the discussion of these questionnaires and what types of changes have been done to develop a suitable questionnaire that would serve the purpose of the current study.

- **Modifying a questionnaire**

To begin, Nakatani's (2006) questionnaire is divided into two main sections. The first is comprised of 8 factors dealing with speaking problems, and including 32 statements.

Each factor contains between two to six items covering specific related speaking strategies. The second section consists of 7 factors on how to cope with listening problems, and includes 26 items. The factors also include between two to five items related to listening strategies. Using this questionnaire, students can report their use of communication strategies by responding on a 5-point Likert scale ranging from "1. Never or almost never true of me; 2. Generally not true of me; 3. Somewhat true of me; 4. Generally true of me 5. Always or almost always true of me" (Nakatani, 2006, p. 163).

After examining the OCSI factors and their items, it is found that although it can be considered to be a comprehensive questionnaire, it has several limitations. Firstly, it does not contain factors that address time-gaining strategies and lexical communication strategies such as approximation, circumlocution, and using an all-purpose word. Secondly, some factors contain only two statements, which is statistically regarded to be weak and not reliable (Castello & Osborne, 2005). For example, the first section that deals with speaking problems, two out of eight factors, namely factors number 6 and 8 included only two items each. The second section of the questionnaire that addresses the strategies for coping with listening problems, also factors number 5 and 6, contained only two items in each factor.

Thirdly, some items are quite ambiguous and rather difficult to be easily comprehended by the learners. For instance, "I replace the original message with another message because of feeling incapable of executing my original intent" and "I abandon the execution of a verbal plan and just say some words when I don't know what to say". This could be due to the fact that it was originally administered to students in Japanese.

Otherwise, the OCST involves some factors are far beyond the scope of the current study. That is, some factors contain items that have no counterpart strategies in the proposed taxonomy for this study. For example, social Affective strategies factor, fluency-oriented strategies factor, attempt to think in English factor and getting the gist strategies factor. All these factors are beyond the framework of CSs designed for the present study.

For the above mentioned limitations and in order to develop an appropriate questionnaire that serves the context of this study, it was necessary to adapt some items

from Kongsom's (2009) questionnaire to compensate for the missing factors in the OCSI. Consequently, some factors of the OCSI have been deleted and some others have been generated in return. Some items have been transferred to more suitable factors, and some items have been divided into two items (See Appendix E for more detail). By doing so, the modified questionnaire would be aligned with the adopted theoretical background of communication strategies and with the proposed taxonomy prepared for the purpose of the current study.

It is worth mentioning that most of the statements adapted from both questionnaires have been re-worded as they contain many technical and ambiguous terms. Following Brown & Rodgers's (2002) recommendations, efforts have been made to make all items in the developed questionnaire unambiguous, answerable, and simple with an uncluttered format, with no leading questions, embarrassing or biased questions. The following section discusses the structure of the questionnaire.

- **Structuring the developed questionnaire**

The adapted version of a questionnaire comprises two major parts. The first part asks for bio-data information about the respondents, like age, gender, first language, years of studying English in schools, period of studying English in the UK, and English proficiency level. It has pointed out that collecting bio-data is of great significance in determining the extent to which the results of the study are generalizable to a broader population and/or context (Mackey & Gass, 2005). The second part constitutes the essence of the questionnaire. It contains 43 items (first version) distributed into five main categories with sub-categories as shown in Table 3.2 below. It should be noted here that after this modification of the questionnaire and the changes that have been made on the original version of Nakatani's questionnaire, it might be hard to compare the results of the current questionnaire with previous research. As mentioned earlier in section 2.6.1, the four taught categories of CSs in this study were: negotiation of meaning CSs, positive self-solving CSs, time-gaining CSs and non-verbal CSs. As for the not-taught CSs category, these strategies were not included in the instructional design. However, they were analysed just to observe whether students will reduce their usage after intervention or not (See section 3.7.1 for more detail).

Table 3.2: Main categories with sub-categories of the questionnaire

Category	Strategies included in each scale	Items of the scale	Number of items
Interactional CSs (Negotiation of meaning)	Asking for confirmation (AC) Comprehension check (CC) Clarification request (CR) Appeal for help (AH) Asking for repetition (AR)	Q 9, Q11, Q16, Q26, Q30, Q38, Q39, Q40, Q42, Q44, Q46, Q48.	12 items
Positive self-solving CSs	Circumlocution (Cir) Approximation (App) Self-correction (SC) Use of all-purpose words (UA)	Q7, Q8, Q15, Q17, Q18, Q19, Q25, Q36	8 items
Time-gaining CSs	Conversation gambits & Hesitation devices (CHD) Self-repetition (SR)	Q22, Q24, Q28, Q37.	4 items
Non-verbal CSs	Gestures (GsCs) Facial expressions (FE)	Q10, Q13, Q23, Q29, Q31, Q32, Q34, Q45.	8 items
Non-taught CSs	Topic avoidance (TA) Message abonnement (MA) Code-switching (CS) Foreignizing (For) Word coinage (WC)	Q6, Q12, Q14, Q20, Q21, Q27, Q35, Q41, Q43, Q47.	10 items
Total number of items			41 items

When developing the questionnaire, much care has been taken to create a balanced number of items among categories. Moreover, the number of items in each category has been considered as well. That is, every effort has been made to create categories that should contain at least three items to increase their robustness and reliability. The questionnaire is also accompanied by an information sheet and a consent form to inform the respondents about the purpose of the questionnaire and its instructions (See Appendix F).

The modified questionnaire of the present study was based on an 11-point continuous data scale starting from never true of me (0) to always true of me (10). As such, participants were able to report their strategy use by responding on an average scale 0-10 (0 being the lowest), indicating how often they use each of the provided communication strategies. It is also important to mention that the categorization line will not be included in the administration of the questionnaire to participants. The order

of questionnaire items was also randomised before administering it to eliminate order bias. An online Qualtrics hosted survey was used for questionnaire administration. However, during the pre-test some of the participants preferred to answer the questionnaire using pen and paper. Therefore, copies of the Qualtrics questionnaire were printed out and administered at the pre, post, and delayed post-test.

The questionnaire in its final version consisted of 41 items distributed over 5 scales as follows:

- Meaning-Negotiation scale: includes clarification request, comprehension check, asking for confirmation, asking for repetition and appeal for help strategies. These strategies are put together as they require interaction between the speaker and the listener.
- Positive self-solving scale: includes circumlocution, approximation, use of all-purpose words, and self-correction strategies. These strategies are regarded to be positive compensatory self-solving strategies.
- Time-gaining CSs scale: includes self-repetition, fillers, conversational gambits and hesitation devices strategies.
- Non-verbal CSs scale: includes facial expression and gestures.
- Non-taught/observable CSs scale: includes codeswitching, foreignizing, word-coinage, and reduction strategies, topic avoidance and message abandonment. These two scales have been merged together as they both contain observable strategies i.e. have not been focused on during the intervention.

3.6 Procedure

The current work presented in this thesis was an experimental study including four main stages, as shown in Figure 3.4 below:

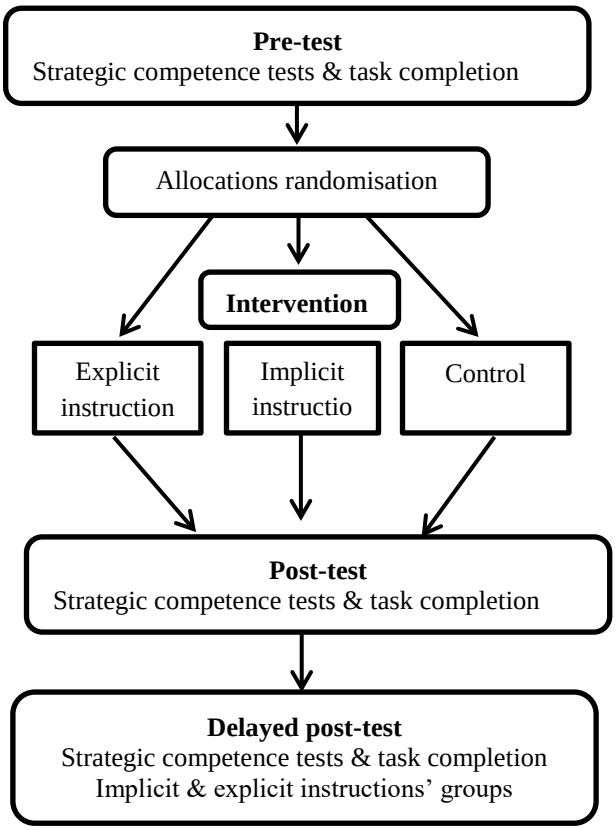


Figure 3.4: Experimental procedure

At the start of the study, participants were divided into three groups and allocated randomly to one of the three conditions: implicit instruction, explicit instruction and control group. After groups were split and randomly allocated to the different experimental conditions, the participants were further divided and randomly allocated to pre-tests. As mentioned in (section 3.4) the time schedule of this study lasted for a total of 15 weeks. The pre-tests were administered two weeks prior to the intervention. The intervention itself was carried out over 5 weeks in weekly one-hour lessons, giving a total duration of 5 hours. It should be acknowledged here that five hours of intervention are considered as a relatively short intervention period. However, given the difficulty and time constraints on access to the English language centres, which was after 4 pm during winter time, it was regarded to be realistic. Furthermore, previous intervention studies have used less than this period of instruction, and it has been identified that the mean treatment lengths of intervention studies were 4.08 hours (Norris & Ortega, 2000; Spada & Tomita, 2010). The immediate post-test took place immediately after the end of the intervention over a two week period. This was due to the number of participants, time constraints, and procedures followed in administering the tests: questionnaire, elicitation oral tasks (video-taped) and stimulated recall

interviews. The delayed post-tests were administered 4 weeks after the post-tests to determine whether any development seen in the two experimental groups was sustained after a certain period of time had passed. Previous intervention studies have used a similar time and 4 weeks after post-tests has been identified as the medium period for the delayed post-tests to take place (Norris & Ortega, 2000; Spada & Tomita, 2010).

3.6.1 Pre-tests

After randomly assigning groups to one of the three experimental conditions i.e. implicit, explicit and control, all students took pre-tests on strategy use two weeks prior to the intervention. The pre-tests, as in post and delayed post-tests, followed this sequence: questionnaire, observation tasks followed by stimulated recall interviews. The questionnaire was administered using paper-and-pencil method as it was found to be easier and preferred by most of the participants than the internet-based method.

Concerning the elicitation tasks, the 'describe and draw' oral task was chosen for eliciting actual use of strategic behaviour from the participants. However, in order to limit any potential test effects and the possibility of learning from pre-tests to post-tests (Marsden & Torgerson, 2012), two versions (A & B) of 'describe and draw' tasks were designed. The two versions were rotated over the three tests times i.e. over pre-test, post-test and delayed post-test using a counter-balanced strategy. In addition, half of the students in each condition were randomly allocated to have either version A or B as shown in Table 3.3 below:

Table 3.3: Rotation of two versions (A & B) of oral interaction tasks

Group	Allocation	Pre-test	Post-test	Delayed post-test
Implicit	9 participants	A	B	A
instruction	9 participants	B	A	B
Explicit	9 participants	A	B	A
instruction	9 participants	B	A	B
Control	8 participants	A	B	
	8 participants	B	A	

At the pre-test, each participant had to do one 'describe and draw' task independently with a consistent interlocutor. The interlocutor worked with the participants in the pre, post and delayed post-tests. Although this might be considered a limitation in this

study, a consistent interlocutor was recruited to control the attrition bias. The elicitation tasks were conducted in a quiet separate room prepared for this purpose. Each participant was seated at a table face to face with the interlocutor, separated by a low screen to allow hand movements and eye contact. A camcorder was positioned in an appropriate place near the table to capture both the participant and the interlocutor. Before a participant began describing a picture, I had to ensure that instructions for the task were clear. While the participant began describing the picture to the interlocutor to draw it, I sat behind the camera with an observation schedule, focusing on critical incidents in the participant's speech to ask about them later in a follow-up stimulated recall interview.

3.6.2 Training

As stated in section 2.5, both implicit instruction and explicit instruction groups received strategy training according to Ellis' (2006) Framework for Designing Task-Based Lessons. According to this framework, a lesson was divided into three stages: pre-task phase, task-phase, and post-task phase. Broadly speaking, the task and post-task phases were the same with the two groups. The training differences were in the pre-task phase. The main aim of the pre-task phase is to get the learners ready for the task-phase. That is, to make the learners aware of the task outcome and how it should be achieved. In the literature of TBLT, several options have been suggested for the teachers to use in the pre-task phase. For example, asking and answering questions, listening to audio data related to the topic or watching a video of people doing a similar task (Ellis, 2006; Skehan, 1996). In the current study, five videos of two persons doing similar tasks were designed and used at the pre-task phase to be watched by both implicit and explicit groups. The two persons who performed the tasks were fellow PhD students. One of them was a native speaker and the other was nativelike. In each video, the researcher told the video performers to intentionally use specific CSs while communicating to achieve the task. For instance, in lesson one the task was "spot-the-differences" and the focus CSs were approximation, appeals for help and use of all-purpose words (See Figure 3.3). So, a similar "spot-the-differences" task was designed differing from those designed for the main study and one of the PhD students was given picture (A) and the other one was given picture (B). The researcher asked them to find the nine differences without looking at the other picture. They were also asked to pretend to use the three targeted CSs while communicating to achieve the task. Their performance was videotaped and the videos were used at the pre-task phase. The

rationale for designing the five different videos was twofold: first, to prepare the learners for the task-phase by showing them how others perform the task successfully. This is because helping learners know how to perform the task may lead to more productive use of language and thus can have a great effect on the task value (Skehan, 1996). The second reason was to include the target CSs so that the implicit instruction group learners might notice them and acquire them incidentally and use them in their conversations. Consequently, the explicit instruction group received explicit instruction of CSs within the TBLT framework; whereas the implicit instruction group received TBLT without introduction of CSs. The explicit instruction treatment condition is explained in detail. Then the only difference was presented for the other two treatment conditions. Table 3.4 illustrates the detailed differences across the treatment conditions.

Table 3.4: The detailed differences between the three treatment conditions

<table>
<tr><td rowspan="2">Task-phases</td><td colspan="3">Experimental conditions</td></tr>
<tr><td>First condition
Implicit instruction</td><td>Second condition
Explicit instruction</td><td>Third condition
Control group</td></tr>
<tr><td>Pre-task</td><td>1-A video-clip is played to be watched by learners.
2-Each video-clip contains two or more of the targeted CSs.
3-Establishing task outcome.
4-Setting a time limit for a task.</td><td>1-Explanations of specific CSs are given to the learners.
2-Examples of CSs are provided.
3- practice of CSs
4-The same video-clip is played to be watched by learners.
5-Establishing task outcome.
6- Setting a time limit for a task.</td><td rowspan="3">Control group learners were exposed to pre-tests and post-tests only.</td></tr>
<tr><td>Task-phase</td><td colspan="2">The same in implicit and explicit conditions
1-Learners work in pairs to perform the tasks.
2- Learners are encouraged to achieve a task outcome.
2-The teacher’s role is responsive.</td></tr>
<tr><td>Post-task</td><td colspan="2">The same in implicit and explicit conditions
1-Checking the task outcome.
2-Answering any questions my raise.</td></tr>
</table>

As Table 3.4 clearly shows the main differences between the two experimental conditions occur in the pre-task stage. CSs are explicitly presented in the explicit condition, whereas in the implicit condition, CSs are implicitly presented via video-clips. In addition, learners in the explicit condition were trained on how to use CSs during communication whenever they face difficulties in either communicating or comprehending their communicative messages. They were also provided examples of

CSs and how they are used in real life situations. In contrast, learners in the implicit condition were not explicitly trained to use CSs. However, they were exposed to video-clips containing two or more of the targeted CSs in each of the five lessons. That is, learners in the implicit condition might infer CSs incidentally while they are watching video-clips or during interaction with their partners. The following section discusses the procedures followed for teaching CSs in both conditions. Since the differences were at the pre-task stage, the procedure followed for teaching CSs through explicit instruction will be explained in detail.

The first group: Explicit instruction

The pre-task phase:

This phase contains the following steps:

1. Two or three strategies were explained by presenting their names and the rationale for using them in conversation. Full lesson plans of explicit instruction group are provided in (see Appendix S).
2. Examples of how to use the target strategies in times of communication difficulties were introduced. Then, learners were asked to practice these examples.
3. After that, the researcher explains the task and establishes the outcome to be accomplished by the learners.
4. Learners were asked to use communication strategies whenever they encountered difficulties in communicating their messages while performing the task.
5. The teacher sets a time limit for the task to be achieved.

The task-phase

In this phase learners were given a task and asked to achieve its outcome. They were asked to sit in pairs and use whatever language resources they have to accomplish the task. Students were also encouraged to make their utterances more comprehensible to their partners. During this phase, the researcher moved around and monitored to make sure that learners are engaged and using the English language only in their interaction. This is because all participants share the same first language, which is Arabic. As for the learners' questions, the researcher was responsive to those raised by the learners and answered them.

The post task phase

The researcher checks the outcome of the task and answers any questions raised by students about the task or their performances during the task-phase.

3.7 Analysis

As stated in section 2.3, a mixed method approach was employed for data collection. Three different instruments were used to measure participants' use of CSs: a self-reported questionnaire, oral interaction tasks, and a follow-up stimulated recall interview. This section presents the pre-analysis procedures employed for the analysis of data obtained from these three instruments. Section 3.8.1 discusses the procedures used for the analysis of the questionnaire results. Section 3.8.2 discusses the procedures used for the analysis of the interaction tasks data, and section 3.8.3 for the analysis of the stimulated recall interviews.

3.7.1 Pre-analysis procedures of the questionnaire

After questionnaire data had been collected, several pre-analysis procedures and steps were taken. The first step was coding the data which is presented in section 3.7.1.1. Then, the technique used for handling the missing data is discussed in section 3.7.1.2. After that, results of the internal consistency reliability test for the questionnaire are reported in section 3.7.1.3.

3.7.1.1 Coding

Step 1: Entering data

Since the questionnaire was administered by hand (pen and paper), all answers have been entered manually into the Statistical Package for the Social Sciences (SPSS). It is worth noting that the reason for using pen and paper rather than the online method is that not all participants were familiar with completing online surveys. In addition, some participants preferred pen and paper to the online method, as the former is easier for them.

However, while entering the data, three problems were encountered and decisions made to handle them. The first was missing values, where some participants did not answer some items on their questionnaire. This problem was solved by employing an adequate missing data treatment (See section 3.8.1.2. for more detail). The second problem was that some participants gave two answers for the same question/item. For example, on the scale from (0) to (10), a participant may put two ticks on 2 and 4. The solution was to take the middle number which is 3. The third problem was participant dropout. Six participants (3 in implicit instruction group and 3 explicit instruction group) did not participate in the delayed post-test. Therefore, those 6 participants had

to be excluded only from the analysis of pre-delayed post gain scores (pre-delayed post gain is the score on the delayed post-test minus the score on the pre-test). In addition, one participant from the explicit instruction group did not answer almost all the questionnaire items of the pre-test, and he was totally excluded from analysis (See Table 3.5).

Table 3.5: The number of participants who answered the questionnaire

Groups	N	Pre-test	Post-test	Delayed post-test
Implicit	18	N=18	N=18	N=15 (as 3 participants were excluded
Explicit	18	N= 17 (as 1 participant was excluded)	N=18	N=15 (as 3 participants were excluded)
Control	16	N=16	N=16	N=16

Step 2: Data checking

Data errors can arise either from typing mistakes during data entry or from incorrect computer commands (Barker, Pistrang, & Elliott, 2015). Therefore, it was necessary, after entering all of the data into the SPSS, to ensure that all data have been recorded and entered correctly. The accuracy of coding and entry of data have been checked twice by the researcher.

3.7.1.2 Missing data

As mentioned above, there are some missing data found and decisions had to be made to handle this issue. In the literature, several methods and techniques have been suggested for dealing with missing values (Soley-Bori, 2013). However, in order to manage the missing data and to nominate a suitable technique, it is important firstly to explore the nature of the missing data. That is, whether data is missing completely at random, at random, or not at random (Pigott, 2001). To test if the missing data of the questionnaire is missing completely at random (MCAR), the Little's MCAR Test was used.

Result of Little's MCAR test appeared to be not statistically significant, $\chi 2$(4.21, N=45)=.000, p= 1.00. This result indicates that the missing data of the questionnaire is missing completely at random. In addition, the percentage of missing values is 4.21% which is less than 10%.

According to the Little's test results, the Expectation Maximisation (EM) technique is employed as it is considered to be an effective method used in data analysis to treat missing values (Schafer & Olsen, 1998). It helps to overcome the drawbacks of other methods used for handling missing data, such as regression substitution and mean substitution, that underestimate the standard errors (Scheuren, 2005).

The EM algorithm provides estimates of the means and covariance matrix, which can be used to get consistent estimates of the unknown true values (Soley-Bori, 2013). It consists of two main steps: Expectation and Maximization. In the Expectation step, the "expected valuesfor missing observations are computed using regression equations given the observed data" and the missing observation is replaced by the conditional mean based on the regression equations (Rubin et al., 2007, p. A73). In the Maximization step, the estimates are updated to maximize the log likelihood based on the statistics from the Expectation step. These two steps are repeated several times until maximum likelihood estimates are obtained (Rubin et al., 2007; Schafer & Olsen, 1998; Soley-Bori, 2013).

3.7.1.3 Measuring Internal Consistency Reliability

Cronbach's Alpha test has been applied to measure the internal consistency reliability of the items in each scale. The questionnaire in its final version consisted of 41 items distributed over 5 scales (See section 3.5.2.3). The Cronbach's Alpha values of the new scales were found to be acceptable except the time-gaining scale which is (α = .41) as below the acceptable size (α =.70) (George & Mallery, 2003) (See Table 3.6).

Table 3.6: The scales of the questionnaire after modification

Scale	N of Items	Alpha
Time-gaining CSs	4	.41
Non-verbal CSs	7	.69
Meaning-negotiation CSs	12	.76
Positive self-solving CSs	8	.68
Not-taught CSs	10	.75
Total	41	

3.7.2 Pre-analysis procedures of the interaction tasks

This section discusses the pre-analysis procedures of data obtained from the interaction tasks. These procedures are:

- The transcription of the videos and its accuracy
- Coding of CSs and examining inter-coder Reliability.

3.7.2.1 Transcription

As stated in section 3.5, the current study included three groups: two experimental groups and one control group. Participants of the two experimental groups performed three tests (pre, post and delayed post-tests) and the control group participants did pre- and post-tests only. The total number of participants was 52. However, 6 participants dropped out at delayed post-test from the two experimental groups as shown in Table 3.7.

Table 3.7: Number of participants included in analysis of tasks

Groups	N	Pre-test	Post-test	Delayed post-test
Implicit	18	N=18	N=18	N=14
Explicit	18	N=18	N=18	N=16
Control	16	N=16	N=16	----------
Total	52	52	52	30

Each participant had to perform one oral task in each test. The performance of the participants on the observation tasks was video recorded. The dataset therefore consisted of 134 video recordings. The length of the videos varied from 2 minutes to 5 minutes.

In order to control time variation across video recordings on the three tests, a decision was made to take the first two minutes from each video and for analysis. To ensure this decision is valid, 30 videos from the dataset were selected randomly and analysed. Each video was classified into two equal halves according to time. Then, frequencies of CSs were counted in each half. After that, scores for the first half and the last half of the videos were compared.

A Mann-Whitney U test was used to compare the first part and the second part of the videos. That is, to find if there are any differences in frequencies of use of communication strategies between the two parts of the videos.

The result of a Mann-Whitney U Test suggests that no statistically significant difference was found between the first and the second parts of the videos in the taught CSs (See Appendix G).

As for the non-taught CSs, a statistically significant difference was found only in the Topic Avoidance (TA) strategy (See Appendix G). However, this strategy as well as the other non-taught strategies (e.g. MA, CS, For. and WC) is not the focus of the study. Accordingly, a decision of taking the first two minutes of each video for analysis is statistically confirmed and appropriate.

3.7.2.2 Accuracy of Transcription

After ascertaining that taking the first two minutes of each video for analysis is viable, the transcription of all the data was completed by the researcher. The 134 video-recorded data were transcribed using TRANSANA software to facilitate the transcription process.

Then, to ensure the validity of the transcripts and the coding, 18% of the dataset was given to a native speaker PhD colleague. He was provided the videos along with their transcripts. At the first stage, he was asked just to watch the videos and check the accuracy of the transcription. He identified very minor corrections on the transcripts such as spelling mistakes. After transcripts were checked, he was asked to code the CSs. The next section is devoted to discussing the coding of CSs and examining inter-coder reliability.

3.7.2.3 Coding of CSs and inter-coder reliability

A coding scheme of CSs was prepared for the purpose of the current study (See Appendix H). Based on this coding scheme, CSs were identified and coded by the researcher. After all transcripts were coded, a sample of 18% of data was given to another coder to check its reliability. Inter-coder reliability can be measured by having two or more coders classify units (e.g. articles, stories, words, etc.), and then using these classifications to compute a numerical index of the extent of agreement between the coders (Lombard, Snyder-Duch, & Bracken, 2002, p. 590; Tinsley & Weiss, 2000). Inter-coder reliability is considered to be "near the heart of content analysis; if coding is not reliable, the analysis cannot be trusted" (Singletary, 1993, p.294).

In this study, the rationale of calculating inter-coder reliability was to find the extent to which two or more different coders agreed on the coded communication strategies.

Two methods have been used in order to increase the reliability of coding: blind coding and inter-coder reliability. The blind coding method was employed in which 18% of the data (transcripts) was given to a second coder (the same native speaker PhD colleague who checked the accuracy of transcription) to identify and code the CSs. The second coder was provided the coding scheme, as well as full definitions of the CSs. Full instruction was also given to him about how to use the coding scheme and how to code the identified CSs.

After the second coder completed coding, the researcher compared his coding with that of the second coder. It is worth noting that the coding of CSs covered only participants' transcripts/utterances, rather than the interlocutor's as he was consistent with all participants.

The inter-coder reliability coefficients were calculated using percent agreement between two coders (Hayes & Krippendorff, 2007; Lombard, Snyder-Duch, and Bracken, 2002). Like most correlation statistics, percent agreement takes values of .00 as no agreement to 1.00 or 100% as perfect agreement (Hayes & Krippendorff, 2007). To calculate the percent agreement, the formula that suggested by Miles and Huberman (1994, p. 64) was used as follows:

$$\boldsymbol{Reliability} = \frac{\boldsymbol{Number\ of\ agreement}}{\boldsymbol{Total\ number\ of\ agreements + disagreements}}$$

The inter-coder agreements between the researcher as a first coder and a native speaker PhD colleague appeared to be 0.92 which indicated a high and acceptable agreement (Miles & Huberman, 1994; Plonsky & Derrick, 2016) (See Appendix I).

The second method used to enhance the reliability of coding was giving 20% of the coded data to another fellow PhD to check the identified CSs. This time, the coder was supplied the coding scheme, definitions of the CSs under study, the transcripts and the coded CSs. The required explanations were delivered to her by the researcher to avoid ambiguity and ensure full understating about the aim of coding. She was asked to watch the videos, look at the transcripts along with the identified CSs and to state whether she agrees or disagrees with the coding of the researcher.

The formula of Miles and Huberman (1994, p. 64) was also used for calculating this inter-coder reliability. The inter-coder agreement was this time 0.96 which indicated a

very high agreement (Miles & Huberman, 1994; Plonsky & Derrick, 2016) (See Appendix I).

3.7.3 Analysis of the Stimulated recall interviews

As mentioned in section 3.5.2.2, stimulated recall interviews were used in this study to tap into participants' underlying thought processes in order to interpret their actual strategic behaviour to serve the following purposes. Firstly, to verify the validity of the coded CSs observed in the interaction tasks, i.e. to confirm the validity of the coding (See example 1 below). However, if a learner's comments during the stimulated recall did not match the coding, it would be rejected and deleted from further analysis (See example 2). There were very few cases where the researcher's coding conflicted with the learners' comments during the stimulated recall sessions.

The second purpose was to facilitate the identification of CSs through asking the learner to comment at critical incidents where it may be suggested that a communication strategy had been used. As mentioned in section 3.5.2.2, some strategic behaviour is difficult to be interpreted in such a way that makes CSs difficult to be observed**,** for example, when a learner uses long pauses, non-verbal behaviour or ambiguous words that are misleading in context. That is, when a learner says something slightly different to what the context seems to ask them to say (See example 3).

Consequently, the data collected from the stimulated recall interviews were used to triangulate and counter-check the authenticity the data collected from the interaction tasks. That is, the learners' comments in stimulated recall interviews were used to complement data collected from interaction tasks by verifying the observed coded CSs and identifying unrecognised ones. As such, the data collected from stimulated recall interviews were combined with the data collected from the interaction tasks and analysed together as the complete interaction tasks data.

Example 1:

Task Code: 1	**Participant's code:** 1002
Group: Explicit instruction	**Test:** Post-test

Video clip

Interlocutor: Go on.

Student: There is under the sssm (MA)…Actually, there is two stars two stars (**SR**) and the **happy face** (App to mean smiley face) on them. Under the two stars, there is two lines.

Interlocutor: Two?

Student: Two lines yeah like this. (GsCs: the learner used his hands to draw slanted lines in the air)

Interlocutor: Under the stars?

Student: Yeah.

(PAUSE)

Researcher

Can you describe what did you do there? And Why did you do that?

Any difficulty there?

Stimulated Recall:

-Here, I have not completed my message because I was not sure how to say a smiley face in English. (MA: Message abandonment strategy)

Then, I started again and used the word "happy face" instead of "smiley face". (App: Approximation strategy)

-Also, I did not know how to say slanted lines in English. Instead I used my hands to describe that the two lines are slanted and not straight. (GsCs: Gesture as communication strategy)

-The learner added that I did not described the door below **(**to mean arch**)** because I did not know its name. Therefore, I ignored describing it. (TA: Topic avoidance)

In Example 1, the researcher observed and coded four strategies in the learner's utterances. These strategies were message abandonment (MA), self-repetition (SR), approximation (App) and Gestures as communication strategies (GsCs). All of these strategies were confirmed by the learner during the stimulated recall session other than the self-repetition (SR) strategy, although it is easily identifiable.

It should be highlighted that during the interview, the researcher tried to refrain from asking leading questions about the use of CSs and relied on the prompt questions mentioned in section 3.5.2.2.2, which were, as the literature suggests, open to all types

of responses (Gas & Mackey, 2000; Meier & Vogt, 2015). This was done to reduce the effect of researcher bias as much as possible (Poulisse, 1989). Therefore, the learner may comment on other things in their speech rather than what the researcher intends for them to comment on, particularly when there are more than two CSs in one utterance, as in Example 1 above. Although obvious, the learner did not comment that he used the self-repetition (SR) strategy. For this reason, it was necessary to establish and ensure the reliability of coding. Thus, two methods have been used in order to increase the reliability of coding: blind coding and inter-coder reliability (see section 3.7.2.3).

Interestingly, in Example 1 above, the learner spontaneously commented that he avoided describing the shape of the arch because he did not know its exact name in English. This spontaneous comment helped the researcher identify a new unrecognised strategy. Therefore, it was added to the confirmed strategies and coded as the Topic Avoidance (TA) strategy. During the interviews, there were several times the learners provided the researcher with information that helped to identify unrecognised strategies, especially those concerned with reduction strategies such as topic avoidance. This is because topic avoidance is regarded as an alternative option for the learners to solve their communication problems by giving up and avoiding the issue (Farch & Kasper, 1983).

Example 2:

Task Code: 1 **Participant's code:** 1038
Group: Explicit instruction **Test:** Delayed post-test
Video clip
Interlocutor: Where?
Student: Under the face.
Interlocutor: Under the face.
Student: Yes.
Interlocutor: How many lines?
Student: Three lines row lines. (**App** horizontal)
(PAUSE)
Researcher
Any difficulty there?
Stimulated Recall:
No, I said that there were three row lines. I use both row and horizontal to mean the same thing.

In Example 2 above, the researcher identified the "row" lines as an approximation (App) strategy during the observation. However, during the interview, it was rejected as the learner used this word interchangeably with "horizontal" and not as a strategic behaviour.

Example 3:

Task Code: 2	**Participant's code:** 1053
Group: Implicit instruction	**Test:** Post-test
Video clip	
Student: Uh, and on the top of the square, in the middle, there is **a half circle** (He used his hands) **(GSCs).** Do you follow me?	
Interlocutor: Yeah, Yeah.	
Student: Beneath this circle or **half circle**, there is face. And under this face, there are two stars.	
(*PAUSE*)	
Researcher	
Can you describe what did you do there? And Why did you do that?	
Stimulated Recall:	
Here, I used a word "half circle" [to mean arch] because I did not know what this shape means. In addition, I used my hands to draw the shape to make myself understood.	
(Here a "half circle" was coded as (Circumlocution Strategy) because the student exemplified the shape.)	

In Example 3 above, the word half circle was put under the "others" category in the observation schedule, as it was an ambiguous word. However, through the learner's comments during the interview, it appeared that he used two CSs in order to describe the "arch" as it was unknown to him. The two coded strategies were circumlocution and gestures.

3.8 Ethical Considerations

To make sure that this research was ethically acceptable, several concerns were taken into consideration before, during and after conducting this intervention study. The first step to consider when researching any particular phenomenon is gaining official permission (Cohen et al., 2008; Creswell, 2005).

About 3 months prior to conducting this experimental study, application was submitted to the Department of Education at the University of York to obtain their permission to conduct the experiment. Explained in the application were the aims of the study, the procedures and provided details of what it involved. The University of York granted approval to conduct the research. Permission was also obtained from the English Language Centres. The procedures and data collection instruments were checked to ensure their suitability for pre-intermediate second language students.

Another important issue was to check that the potential advantages of the study outweighed the risks. It was paramount to ensure that: firstly, the research along with its results would lead to tangible benefits for the students and the teachers. Secondly, the study and its results would not have a negative effect on the participants' emotions, reputations or careers (Berg, 2007; Flick, 2006).

Before starting the intervention, two main ethical issues, namely consent forms and confidentiality of data were considered. Consent forms were given with the information sheet to be filled in by the learners who agree to participate in the study. Participants were informed of the research objectives, including procedures and time period and the anticipated benefits. It is worth noting that since the current study focused on comparing implicit and explicit instructions for developing use of CSs, learners were told that the study was investigating the development of their speaking skills without reference to CSs. The participants were also informed that they may withdraw themselves and their data at any time by informing the researcher without any penalty imposed on them.

As for confidentiality, the students were informed that all of the information they provided would remain confidential and anonymous. In this study, instead of using students' actual names, each student was given a number to ensure confidentiality. In addition, the linking data collected through the questionnaire, speaking tasks and the interviews were kept in separate password-protected files, to which only the researcher had access.

Another important issue concerning the video-recording was that one female refused to agree to be video-taped due to cultural constraints. Therefore, an audio-recording was used instead and her non-verbal strategies were excluded from the analysis.

3.9 Piloting

3.9.1 Overview

Pilot studies are a crucial part of any successful study design (van Teijlingen & Hundley, 2002). In the present study, the pilot process involved both teaching materials represented by TBLT as well as testing materials. The latter included methods of data collection, namely observation tasks, stimulated recall interviews, and the self-reported questionnaire. The purpose of piloting these materials was fivefold:

- To check the feasibility of employing TBLT inside the classroom and its suitability with pre-intermediate Arab learners of English;
- To check whether different types of communicative tasks can elicit a range of communication strategies;
- To check the feasibility of the coding scheme prepared for the purpose of the current study;
- To evaluate the appropriateness of employing stimulated recall interviews for eliciting unrecognized CSs and to verify the validity of observable CSs;
- To check the clarity of the developed self-report questionnaire items and to establish its validity and reliability.

The pilot study was conducted over a period of two weeks; it began on Wednesday 20th May 2015 and ended on Thursday 4th June 2015. This section thoroughly describes the rationale, the participants, and procedures employed for piloting each one of the three research instruments.

3.9.2 Piloting training material

The key objective of this study was to investigate the potential effects of implicit instruction in the framework of TBLT on developing Arab ESL learners' use of CSs. Therefore, there was a need to pilot some lessons of TBLT with Arab ESL learners. The rationale for piloting TBLT was twofold: first, to evaluate its suitability for pre-intermediate Arab ESL learners. Second, since some scholars have questioned its practicality and feasibility in the classroom (e.g. Carless, 2007; Ellis, 2003; Widdowson, 2003), there was a need to examine how TBLT works in a real classroom.

The participants of the pilot study were six pre-intermediate Arab ESL learners enrolled at an English language centre in the UK. In order to avoid any research contamination, participants of the pilot study did not participate in the main study.

Consequently, one TBLT lesson was delivered by the researcher to ensure that the three stages of TBLT were appropriately implemented, as suggested by Ellis's (2006) framework of TBLT lessons. Furthermore, characteristics of the task designed for the pilot study had the equivalent features of the tasks discussed in section 3.6.1, which were used in the main study.

Subsequently, the following types of data were collected during the pilot session:

1- Classroom observation;
2- Students' end-of-lesson evaluation of TBLT;
3- Interview data from the students to explore their perceptions of the session;
4- Audio recordings of pair discussions.

Procedure

As stated above, the main objective of piloting the TBLT was to examine how it works in the classroom. Moreover, to observe whether the designed task prepared for the main study can require participants to use a wide range of CSs to achieve the desired task outcome. The designed spot-the-difference task was tried with the six participants of the pilot study (See Appendix J). The lesson was given by the researcher, and it was audio-taped for further evaluation.

Implications for the main study

Based on my observation, learners were enthusiastic towards doing the task. They did it in pairs and used different communication strategies to communicate their messages. For example, comprehension check, clarification request, appeals for help, self-corrections, and circumlocution. In addition, the learners were asked at the end of the lesson to evaluate the task that they had just performed. The following sentences are taken from them:

Students in pair 1: The task was so good for pushing us to speak in English and to learn new vocabulary.
Students in pair 2: I feel that the task was good. When we had to describe the picture to find the differences, my partner and I were forced to use new words we do not usually use.
Students in pair 3: It was a good exercise because it forced us to think deeply in order to find appropriate words.

Accordingly, the results of the pilot study indicated that TBLT was feasible and workable with pre-intermediate Arab leaners of English. Moreover, taking into account that the aim of the current study is to investigate the impact of TBLT on developing learner's SC, a spectrum of CSs were used by the learners during the task-phase.

3.9.3 Piloting elicitation tasks for pre- and post-tests

As stated in section 3.5.2.1, it has been found that the nature of a task has a direct impact on eliciting different types of CSs. To assess whether different task types can indeed elicit various CSs, two different interactional tasks were designed and tried, namely "information-gap" and "describe and draw" tasks. Moreover, two parallel versions of these two tasks were designed to examine whether they can elicit similar tokens and types of CSs. Thus, four different tasks were piloted, namely two information-gap tasks and two describe and draw tasks (See Appendices K & L).

The same six learners who participated in piloting the training materials were asked to perform these four different tasks. Three of them completed two "describe and draw" tasks and the other three performed two "spot-the-difference" tasks. The six participants did the tasks with one additional participant who played the role of the interlocutor with all of them. Their performance was video recorded, and the obtained data was transcribed and coded for analysis. The frequency of strategy use and their types were counted and analysed. Therefore, the pilot study was conducted to answer the following questions:

1. What types of communication strategies did both information-gap task and describe and draw task elicit?
2. Do the two parallel versions of the same tasks elicit similar tokens and types of CSs?

Data Analysis and results

The first question posed was: What types of communication strategies did both information-gap task and describe and draw task elicit?

The results indicated that both information-gap task and describe and draw tasks can elicit most of the CSs included in the proposed taxonomy of CSs for this study. These strategies are interactional CSs, positive self-solving CSs, time-gaining CSs and non-verbal CSs. However, two types of CSs were not observed in these tasks, specifically foreignizing and word coinage (See Tables 3.8 & 3.9).

Table 3.8: A range of CSs elicited by the two versions of spot-the-differences tasks									
CSs		Spot-the-differences (task 1) N=3				Spot-the-differences (task 2) N=3			
Factor	Coding	Student A	Student B	Student C	Total	Student A	Student B	Student C	Total
Non-taught CSs	TA	5	2	4	11	3	2	2	7
	MA	1	2	3	6	3	1	3	7
	CS	0	0	0	0	0	0	2	2
	For	0	0	0	0	0	0	0	0
	WC	0	0	0	0	0	0	0	0
Positive self-solving CSs	Cir	2	4	1	7	1	2	2	5
	SC	3	5	1	9	2	3	2	7
	App	9	6	9	24	6	7	10	23
	UA	2	1	1	4	4	2	2	8
Interactional CSs	AC	6	5	2	13	6	1	1	8
	CC	1	0	1	2	1	1	0	2
	CR	0	4	2	6	1	0	1	2
	AH	1	1	8	10	1	4	7	12
	AR	0	0	0	0	0	0	0	0
Time-gaining CSs	Fs	10	8	11	29	7	4	15	26
	CHD	0	0	0	0	0	0	0	0
	SR	3	0	3	6	2	3	0	5
Non-verbal CSs	GsCs	0	0	2	2	1	2	2	5
	FE	0	0	0	0	2	0	0	2

Table 3.9: A range of CSs elicited by the two versions of describe and draw tasks									
CSs		**Describe and draw (task 1) N=3**				**Describe and draw (task 2) N=3**			
Factor	Coding	Student D	Student E	Student F	Total	Student D	Student E	Student F	Total
Non-taught CSs	TA	1	1	2	4	2	2	2	6
	MA	6	0	0	6	3	2	2	7
	CS	0	0	0	0	0	0	0	0
	For	0	0	0	0	0	0	0	0
	WC	0	0	0	0	0	0	0	0
Positive self-solving CSs	Cir	0	0	1	1	4	0	2	6
	SC	3	2	0	5	10	0	1	11
	App	5	5	3	13	5	6	6	17
	UA	0	1	2	3	3	1	3	7
Interactional CSs	AC	0	0	2	2	0	0	4	4
	CC	9	3	0	12	6	3	0	9
	CR	0	0	0	0	0	0	3	3
	AH	2	0	6	8	4	2	5	11
	AR	0	0	0	0	0	0	0	0
Time-gaining CSs	Fs	8	4	6	18	13	7	4	24
	CHD	1	1	0	2	0	1	0	1
	SR	3	1	0	4	7	2	1	10
Non-verbal CSs	GsCs	9	10	8	27	14	11	7	32
	FE	0	0	2	2	0	1	0	1

As for the second question, which was: Do the two parallel versions of the same tasks elicit similar tokens and types of CSs?, analysis of the results showed that the two parallel versions of the tasks elicit similar tokens and types of CSs (See Table 3.10 and 3.11 below).

Table 3.10: Frequencies and percentages of CSs elicited by spot-the-differences tasks

Communication Strategies		STD task 1:N=3		STD task 2: N=3		Chi-square P value
Factor	Coding	Frequency (F)	Percentage %*	Frequency (F)	Percentage %	
Non-taught CSs	TA	11	61	7	38.89	0.188
	MA	6	46.15	7	53.85	0.700
	CS	0	0	2	100	0.333
	For	0	0	0	0	0
	WC	2	100	0	0	0.333
Positive self-solving CSs	Cir	7	58.33	5	41.67	0.424
	SC	9	56.25	7	43.75	0.486
	App	24	51.06	23	48.94	0.837
	UA	4	33.33	8	66.67	0.109
Interactional CSs	AC	13	61.9	8	38.1	0.127
	CC	2	50	2	50	1
	CR	6	75	2	25	0.052
	AH	10	45.45	12	54.55	0.551
	AR	0	0	0	0	0
Time-gaining CSs	Fs	29	64.44	26	57.78	0.518
	CHD	0	0	0	0	0
	SR	6	54.55	5	45.45	0.676
Non-verbal CSs	Gs	2	28.57	5	71.43	0.122
	FE	0	0	2	100	0.333

*Percentage= the frequency of a strategy used in (STD task 1) divided by the sum of frequencies of strategies used in (STD task 1) and (STD task 2) multiplied by 100.

Table 3.11: Frequencies and percentages of CSs elicited by describe and draw tasks

Communication Strategies		D&D task 1 N=3		D&D task 2 N=3		Chi-square P value
Factors	**Coding**	**Frequency (F)**	**Percentage %***	**Frequency (F)**	**Percentage %**	
Non-taught CSs	TA	4	40	6	60	0.383
	MA	6	46.15	7	53.85	0.700
	CS	0	0	0	0	0
	For	0	0	0	0	0
	WC	0	0	0	0	0
Positive self-solving CSs	Cir	1	14.29	6	85.71	0.010
	SC	5	31.25	11	68.75	0.0368
	App	13	43.33	17	56.67	0.305
	UA	3	30	7	7	0.081
Interactional CSs	AC	2	33.33	4	66.67	0.268
	CC	12	57.14	9	42.86	0.360
	CR	0	0	3	100	0.025
	AH	8	42.11	11	57.89	0.336
	AR	0	0	0	0	0
Time-gaining CSs	Fs	18	42.86	24	57.14	0.193
	CHD	2	100	1	50	1
	SR	4	28.57	10	71.43	0.025
Non-verbal CSs	GsCs	27	45.76	32	54.24	0.359
	FE	2	66.67	1	33.33	0.456

*Percentage= the frequency of a strategy used in (STD task 1) divided by the sum of frequencies of strategies used in (STD task 1) and (STD task 2) multiplied by 100.

Implications for the main study

Several important issues were found after piloting the interaction tasks and they were considered in the main study. Firstly, the two different interaction tasks designed for measuring learners' use of CSs namely "describe and draw" task and "spot the differences" tasks appeared to elicit similar types of CSs. Therefore, only one "describe and draw" task will be used in the main study. Using one interaction tasks is also more feasible than applying two tasks, due to the time constraints in accessibility to the language centres. In addition, applying two tasks at the same time takes time and effort on the part of the participants and the researcher.

Secondly, it was noticed that participants of the pilot study did not use foreignizing and word coinage as a strategy when communicating their messages. This phenomenon was also noticed when learners did their pre-tests later. The reason could be due to the linguistic differences between English and Arabic. Therefore, these two strategies were excluded from the proposed taxonomy. Thirdly, it was also noticed that learners overused non-lexicalized fillers like "umm", "urr", "hmm". Therefore, a decision was made to include only lexicalized fillers and drop-out non-lexicalized fillers from the coding framework as they do not contribute to the findings of the study. The possible explanation for the overuse of the non-lexicalized fillers by the participants of the current study is that these fillers might be easily transferable from their first language into the second language. Fourthly, another important issue also noticed was the time available for the learners to complete the task. While some learners spent about 2-3 minutes for completing the task, others required more than 4-5 minutes. This variation in time would have an impact on the number of CSs used. Therefore, this issue was addressed in the main study by coding and analysing the first two minutes from each video across the three groups (See section 3.7.2.1 and Appendix G for more details).

3.9.4 Piloting stimulated recall interviews

As mentioned in section 2.6.2.2, the ultimate goal of employing stimulated recall interviews in this study is to gain insights into students' use of CSs by tapping into their underlying thought processes. The aim of piloting stimulated recall interviews was threefold: First, to evaluate their appropriateness for eliciting unobservable communication strategies. Second, to verify interpretations of the observable CSs. Third, to check the reliability of the designed observation schedule.

All of the six learners who had already participated in the four language speaking tasks were asked to participate in stimulated recall interviews. They were individually interviewed and given the choice of the language they wish to use, either Arabic or English. Their answers were audio recorded to be transcribed and coded later.

During the interviews, the researcher asked the learners to describe what had gone through their mind at that particular point during the process of completing the task.

Implications for the main Study

After trying the stimulated recall interviews, the following issues were found. Firstly, the questions suggested by the literature (See section 2.6.2.2) did not work with some of my participants. Therefore, I modified the prompt questions of the stimulated recall interviews to be simpler in the main study. For example, Can you describe what did you do there?, Why did you do that? In addition, I noticed that it was difficult for some learners to reflect on their performance in the English language due to their language deficiencies. Therefore, in the main study, students were told to comment on their performance during the stimulated recall interviews in either English or Arabic languages.

3.9.5 Piloting self-report questionnaire

The purpose of piloting the self-reported questionnaire was to provide information about the communication strategies used by the learners and to ensure the instrument's validity and internal consistency reliability. The questionnaire was first piloted face-to-face with the same six pre-intermediate Arab learners of English as a second language. The participants were asked to complete the questionnaire in the presence of the researcher. Participants were asked to use the Arabic language if they wished to comment and give feedback about the questionnaire. While participants were engaged in completing the questionnaire, the researcher watched for hesitation, erasures, or skipped questions and made field notes. Based on these observations, the researcher sought verbal feedback from the participants by encouraging them to raise questions and make comments about the items of the questionnaire. Subsequently, the purpose of piloting the questionnaire face-to-face was to answer the following questions:

1- Are all words understood?
2- Do all respondents interpret the items in the same way?

3- Is the range of response choices actually used?
4- Do respondents correctly follow directions?
5- Does each item measure what it is supposed to measure?
6- How long does it take to complete?

After piloting it face-to-face and making any required adjustments, the questionnaire was administered online to thirty Arab learners of English. They were asked to answer it and highlight areas of confusion and comment on any ambiguous statements. The results gained from piloting the questionnaire were compared with the results obtained from piloting the interaction tasks. The rationale for this comparison was to check the validity of the self-report questionnaire. Any amendments highlighted by the pilot study were made to the questionnaire before issuing a final version.

Procedure

The questionnaire was tried with the six participants face-to-face with the researcher. They were instructed to read the instructions and statements of the questionnaire carefully and report any difficulties concerning the items. In addition, they were also asked to comment on any item they felt confusing or that may allow two different interpretations. The following points were identified by the participants and the questionnaire items were modified accordingly.

1- Some statements and words in the questionnaire were found to be complex and rather difficult for the learners to easily comprehended. Therefore, to reduce the cognitive load on respondents, a decision was made to write the Arabic translation in front of each difficult word and statement. (See items number 10, 12, 15, 18, 19, 20, 25, 29, 46, 47, 49 in Appendix F).
2- Statement number 8 was slightly modified by adding the word “notice” to be “I correct myself immediately if I notice that I made mistake(s) in pronunciation.” Also this modification was applied to item No. 19 and item No. 25 by adding the word “notice”.
3- Some examples of the strategic behaviour were added to the statements to make it easier for the participants. For instance, item number 13 in Nakatani’s (2006) questionnaire, “I make comprehension checks to ensure the listener understands what I want to say”, was modified to “I check if the listener understands me and follows my speech by asking questions like: OK? Right? Can you follow me? Do you understand?” Another example from Nakatani’s

(2006) questionnaire was item number 2 “I make a clarification request when I am not sure what the speaker has said.” This item was rewritten and examples were added to it to become “I ask the speaker to explain her/his meaning if I do not understand her/him. For example, “What do you mean by that please?” Other various examples were added to various items of the developed questionnaire (See items: 16, 25, 39, and 44, 48 in Appendix F).

4- Some statements in Nakatani’s (2006) questionnaire appeared to be ambiguous to the learners as they contained two different concepts (See items: I: 1, D: 17, J: 7, M: 19 in Appendix E). It has been recommended that in order to obtain accurate responses, a statement that includes two verbs or concepts should be avoided in a questionnaire (Brislin, 1986; Liz, 2010). Therefore, they were modified by dividing these items into two separate items that contain one concept or verb.

5- The type of a rating scale used in both Nakatani’s (2006) and Kongsom’s (2009) questionnaires was a 5-point Likert scale. This type of rating scale has been criticized in the literature as it constraints respondents to choose between a limited number of options. This could cause a loss of information (Treiblmaier & Filzmoser, 2011). Therefore, in the developed questionnaire the type was replaced by implementing a bi-polar 11-points continuous rating scale to help solve the issue of loss of information, providing respondents more options to give as accurate strategic behaviour as possible and to make data collection and analysis easier for the researcher.

6- After required modifications were made on the questionnaire, it was administered to 30 Arab learners of English to ensure its validity and internal consistency reliability (See section 4).

Implications for the main study

The pilot study showed that the questionnaire included some difficult words and ambiguous items. Therefore, modifications were made by either rephrasing the items or putting the Arabic translation in front of the difficult word. In addition, most of the original statements were rewritten using familiar and easy words. Some examples were also added to the questionnaire items to be more easily comprehended by the participants. Furthermore, the type of rating scale and the number of the questionnaire points were changed to be 11- points on a continuous rating scale, to give the learners

wider options to select. Finally, the developed questionnaire appeared applicable to pre-intermediate Arab learners of English. This is because many efforts were made to modify the items and use simple language to suit their proficiency level.

3.10 Summary

In this chapter, the detailed accounts of the methodological issues of the present study have been presented. It began by restating the research questions, followed by discussing the research strategy i.e. a mixed method approach. That is, both quantitative (observation tasks and questionnaire) and qualitative (stimulated recall interviews) methods were employed for measuring participants' use of communication strategies. The rationale for adopting a mixed methods approach was to gain a valid and accurate description of learners' strategic behaviour since each method has its own inherent biases and limitations. After that, information about the participants of the study was provided. The participants were recruited from two English language centres in the UK. The total number of participants was 52 learners with ages ranging from nineteen to thirty-five. All participants were pre-intermediate adult learners of English as a second language and share the same first language of Arabic.

Then, the design of the study and rationale for employing a split-class design has been discussed in detail. Administration of pre and post-tests and their application sequence has been justified. That is, the major reason for administering the questionnaire after observation tasks was to eliminate the possibility of stimulating learners towards using CSs while performing the pre and post-tests tasks.

Concerning the pre and post-test tasks, a counterbalancing strategy was employed in which two versions of "describe and draw" tasks were administered in pre and post-tests. The purpose of using the counterbalanced design is to neutralise any effects associated with the order in which these tasks are achieved. In addition, the second aim is to elicit a sufficient range of CSs from participants. As for the training material, implicit and explicit conditions received strategy training according to Ellis' (2006) Framework for Designing Task-Based Lessons.

Furthermore, in order to identify the properties of tasks that can be utilized for both teaching and testing purposes, different dimensions of task types have been reviewed. However, it has established that the characteristics of a task that generates more negotiation of meaning among learners are: (1) reciprocal two-way tasks that require

information exchange and (2) tasks that have convergent goals, closed outcomes, and are cognitively demanding.

After that, the procedures for strategy training were presented. Implicit and explicit groups received strategy training according to Ellis' (2006) Framework for Designing Task-Based Lessons. According to this framework, a lesson is divided into three stages: pre-task phase, task-phase, and post-task phase. The task and post-task phase were the same with the two groups. The training differences were in the pre-task phase. Consequently, the explicit group received explicit instruction of CSs within the framework of TBLT; whereas the implicit group received TBLT without introduction of CSs. The chapter ends presenting the pilot study and discussing ethical considerations.

4 Chapter 4: Results

4.1 Overview

As stated in Chapter One, the purpose of this experimental study was to examine the effect of implicit instruction and explicit instruction on the strategic competence and task completion among pre-intermediate Arabic learners of English. That is, it aims to find whether there were significant differences in the use of communication strategies across the experimental groups after the treatment.

This chapter presents results of the participants' performance on each of the outcome measures employed in the study to answer the following research questions:

RQ1: To what extent are explicit and implicit instruction effective in supporting task completion?

RQ2: To what extent are explicit and implicit instruction effective in developing learners' use of communication strategies?

RQ3: Which types of communication strategies does implicit instruction develop?

RQ4: Which types of communication strategies does explicit instruction develop?

This chapter is divided into three main sections. The first main section (4.2) provides task completion results. The second section (4.3) presents the results of the questionnaire. The third main section (4.4) deals with the results of the interaction tasks and stimulated recall interviews.

4.2 Task completion

4.2.1 Overview

The rationale for assessing learner's performance on task completion was to ensure that the development of strategic competence can contribute to the development of the learners' oral competence. This is because the learners may overuse CSs in their communication without making considerable progress in their communication tasks (Anderson, 2005).

In order to discover the impact of implicit and explicit strategy training on the participants' performance in terms of task completion, the following procedures have

been followed. Firstly, the two comparable 'describe and draw' tasks used on pre-, post- and delayed post-tests (See Appendix B) have been carefully examined, and 15 elements in each picture have been identified. Secondly, participants' drawings on each test have been given a mark out of 15 according to the number of elements they were able to describe about the picture to an interlocutor (See Appendix M). Thirdly, gain scores of each participant regarding task completion have been computed and compared across the groups.

This section presents the results of gain scores of the participants in respect to task completion. It is divided into two parts. The first part deals with pre-post gains across the group. The second part discusses the pre-delayed post gain scores between explicit and implicit instruction.

4.2.2 Comparison of pre-post gains in task completion across the experimental and control conditions

The mean scores and the standard deviations for the three groups at pre-post gain scores on task completion are provided in Table 4.1 and presented graphically in Figure 4.1 below.

Table 4.1: Comparison of pre-post gains in task completion across the three groups

Groups	N		Pre-post gains
Implicit instruction	18	*M*	4.67
		SD	2.25
Explicit instruction	18	*M*	4.11
		SD	2.08
Control group	16	*M*	1.25
		SD	1.57
Kruskal-Wallis Test	52	*H(2)*	19.759
(two-tailed)		*p***	0.001

**significant at the 0.017 level

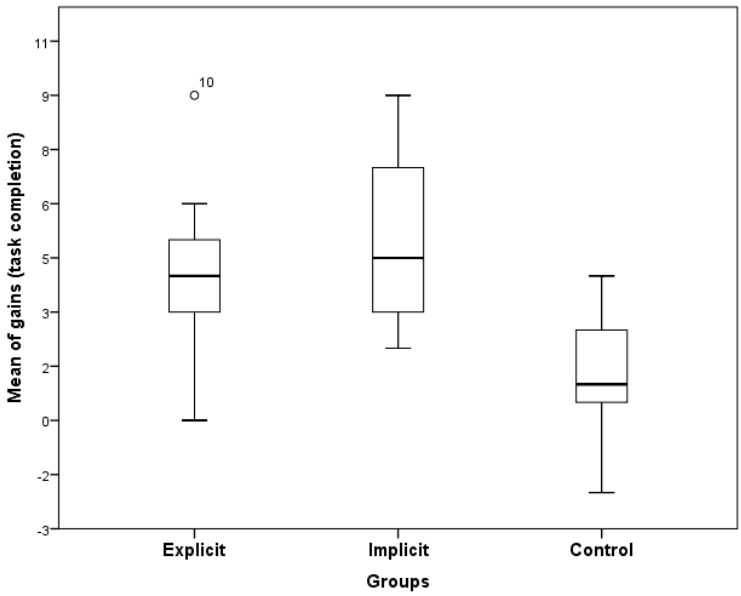


Figure 4.1: Comparison of pre-post gains in task completion across the three groups

The results of the Kruskall Wallis test revealed a significant difference between the three groups in task completion on pre-post gains ($H(2) = 19.75$, $p = .01$). Between the implicit instruction and control groups, the Mann-Whitney test suggests a statistically significant difference on pre-post gains in task completion ($U = 28.500$, $z = -4.022$, $p = .01$, $r = .66$). Also, results of the Mann-Whitney test suggests a statistically significant difference between the explicit instruction and control groups on pre-post gains in task completion ($U = 38.500$, $z = -3.681$, $p = .01$, $r = .61$). However, no significant difference was found between implicit and explicit instruction groups on pre-post gains ($U = 145.000$, $z = -.544$, $p = .58$, $r = .12$) (See Table 4.2 below).

Table 4.2: Results of Mann Whitney test between the experimental and control groups on pre-post gains in task completion

Category	Groups comparison	***U***	***z***	***p**** ***(two-tailed)***
Task completion	Implicit vs. control	28.500	-4.022	0.001**
	Explicit vs. control	38.500	-3.681	0.001**
	Implicit vs. explicit	145.000	-.544	0.59

**significant at the 0.017 level

4.2.3 Comparison of pre-delayed post gains in task completion between explicit and implicit instruction

The mean scores and the standard deviations for the implicit and the explicit groups at pre-delayed post gain scores on task completion are provided in Table 4.3 and Figure 4.2 below.

Table 4.3: Comparison of pre-delayed post gains in task completion between explicit and implicit instructions

Groups	N		Pre-delayed post gains
Implicit instruction	14	*M*	4.43
		SD	2.17
Explicit instruction	16	*M*	4.19
		SD	2.53
Mann-Whitney (two-tailed)	30	*U*	109.000
		z	-.126
		*p**	.90

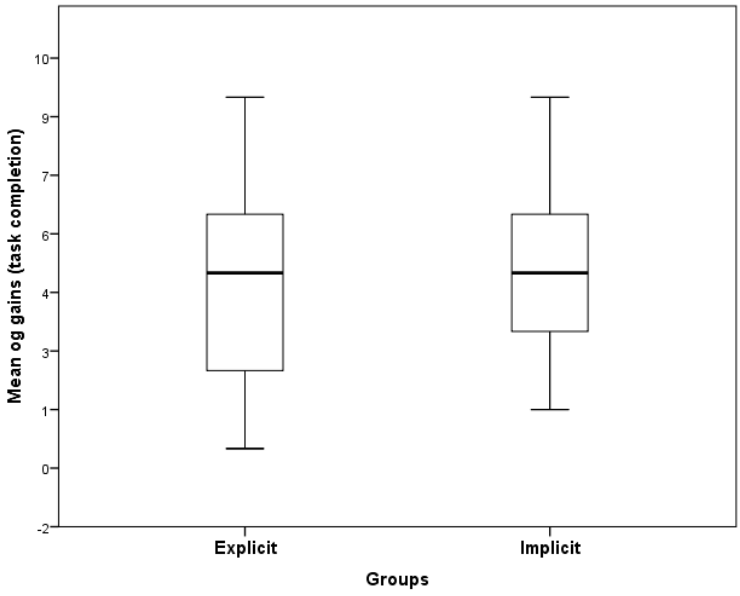


Figure 4.2: Comparison of pre-delayed post gains between explicit and implicit instruction

The Mann-Whitney U test showed no statistically significant difference on pre-delayed post gains between the implicit and the explicit groups in terms of task completion (*U*= 109.000, *z* = -.126, *p* = .90, *r* =.05) (See Table 4.3).

4.2.4 Summary of task completion results

The results suggested that both the implicit instruction and the explicit instruction have a positive impact on the learners' performance in terms of task completion at post-test and delayed post-test. The results showed that implicit instruction and explicit instruction outperformed the control group in task completion on pre-post gains. The results also showed that there were no statistically significant differences between the implicit instruction and explicit instruction in task completion on pre-delayed post gains.

4.3 Questionnaire

4.3.1 Overview

This section is divided into nine sub-sections. Section 4.3.2 reports results of the Cronbach's Alpha test for examining the internal consistency reliability of the questionnaire. Section 4.3.3 discusses assumptions for employing parametric or non-parametric tests. Section 4.3.4 compares participants' performance at the pre-test. Section 4.3.5 compares participants' performance in each condition over time. Section 4.3.6 compares overall gains according to the five categories of the questionnaire across the groups. Then, sections 4.3.7 to 4.2.11 compare gain scores on individual strategies across the experimental and control groups.

4.3.2 Internal consistency reliability of the questionnaire

The Cronbach's Alpha test has been applied to measure the internal consistency reliability of the items in each scale. The Cronbach's Alpha values for scales were found to be acceptable, except the time-gaining scale, which was appeared to be 0.41, below the acceptable size of 0.7 (George & Mallery, 2003) (See Tables 4.4 and Appendix N).

Table 4.4: The Cronbach's Alpha test for the questionnaire

Scale	No. of Items	Alpha
Interactional CSs (Meaning-negotiation)	12	.7**6**
Positive self-solving CSs	8	.78
Time-gaining CSs	4	.41
Non-verbal CSs	7	.6**9**
Not-taught CSs	10	.7**5**
Total	41	

4.3.3 Assumptions

4.3.3.1 Parametric versus non-parametric

Before delving into the analysis of the data, it is necessary to decide a priori whether parametric or non-parametric tests are to be used. The use of parametric tests in data analysis necessitates certain underlying assumptions to be met. One of these assumptions is the normal distribution of the data. The assumption of normality assumes that all of the data points (individual scores of each participant) for given tests (questionnaire and interaction tasks) are distributed evenly around the centre of all scores (i.e. measure of central tendency).

Determining whether or not data are normally distributed can be accomplished in two ways: graphically and numerically. When presented graphically the data would appear as a "bell-shaped" curve (Field, 2009). In this study, a graphic representation of the data (histogram) was generated to provide a visual indication of the normality of distribution. In addition, a normality test was used to provide a more accurate assessment of the nature of the distribution for the questionnaire data. Two normality tests can be employed: the Kolmogorov-Smirnov test and the Shapiro-Wilk test. These two tests determine the normality of a given dataset by computing whether the sample data significantly deviates from an equivalent normally distributed set of data with the same mean and standard deviation (Field, 2009). If findings were statistically significant ($p < .05$), it would suggest that the dataset does deviate from normality.

As for the current study, the results of the Shapiro-Wilk test were utilised, as the Shapiro-Wilk test is more appropriate for testing the normal distribution of small-size samples. In addition, this test is considered to be more accurate (Field, 2009, p. 546) and more powerful than the Kolmogorov-Smirnov test (Razali & Wah, 2011). The Shapiro-Wilk test provides an exact significance value, whereas the Kolmogorov-Sminov test sometimes gives an approximate significance of $p= .2$ (Field, 2009, p. 546). Data from the questionnaire were found to violate the assumption of normality. The results of the Shapiro-Wilk test for the questionnaire data are presented in Appendix O-1.

The test of normality indicated that although most of the scales in the explicit instruction group and the control groups were found to be normally distributed, some data from the implicit instruction group appeared to violate the assumption of normality. In addition, histograms were generated for each scale and groups to corroborate the findings of the Shapiro-Wilk test. Histograms show clearly that some scales data are not normally distributed (See Appendix O-2). Furthermore, the sample size is small and not big enough for employing parametric tests. Therefore, non-parametric tests were employed to analyse the performance of the experimental groups over the course of CSs training. Table 4.5 summarizes the non-parametric tests used to analyse the data collected from the questionnaire.

Table 4.5: Non-parametric tests utilized in the study to analyse the questionnaire data

Test	Between- or Within-groups	Levels	Purpose
Kruskal-Wallis	Between-group	3	Compare between implicit instruction, explicit instruction and Control groups at pre-post gains
Mann-Whitney	Between-group	2	Compare between implicit instruction and explicit instruction and at pre-post gains
Mann-Whitney	Between-group	2	Compare between implicit instruction and Control and at pre-post gains
Mann-Whitney	Between-group	2	Compare between explicit instruction and Control and at pre-post gains
Mann-Whitney	Between-group	2	Compare between implicit instruction and explicit instruction at pre-d post gains
Wilcoxon signed-rank	Within-group	2	Analyse each group's (implicit, explicit, control) performance over pre-and post-test
Wilcoxon signed-rank	Within-group	2	Analyse implicit and explicit groups' performance over pre-and delayed post-test

It is worth mentioning that when the Kruskal-Wallis test was conducted to compare the conditions at pre-post gains, the alpha level was adjusted by applying a Bonferroni correction. The standard alpha level (0.05) was divided by the number of comparisons made (three comparisons), resulting in an adjusted alpha level of $p < .017$. The use of the Bonferroni corrections controls the familywise error rate for multiple comparisons of a single dataset and helps guard against Type I errors (the false positive) across the comparisons of 0.05 (Field, 2009).

4.3.3.2 Calculation of effect size

Using a standardized measure of effect size can provide a fuller description or complete view of how large or small the difference between two means is. Computing the effect sizes enables comparison of the effectiveness of various instructional treatments across different studies, and therefore reporting the effect size is recommended (Field, 2009; Marsden, 2006; Norris & Ortega, 2000). The rationale for examining the effect size is due to the fact that measures of statistical significance do not inform about the magnitude of the effect (Plonsky & Oswald, 2014).

Over the last decade, the calculation and use of effect sizes have shown a dramatic increase in SL research. However, interpretations of these effect sizes have been largely defaulted to Cohen's (1988) benchmarks of *d*=2 (Small); *d*=5 (medium); and *d*=8 (large), which were originally considered a general guide and not prescription (Plonsky & Oswald, 2014, p.878-79). Plonsky and Oswald (2014) urge second language researchers to adopt their new field-specific benchmarks of small (*d*=.40), medium (*d*=.70), and large (*d*=1.00). Therefore, in the current study, effect size was provided, using Plonsky and Oswald's (2014) d, as a measure of the difference in means of gain scores among the three groups in terms of the standard deviation. For mean differences between groups, *d* values in the neighbourhood of .40 should be considered small, .70 medium and 1.00 large.

4.3.4 Comparison of the three groups at pre- test in the five categories of the questionnaire

The mean scores, standard deviation, and n for the implicit instruction, explicit instruction, and control groups at pre-test in the five categories of the questionnaire are presented in Table 4.6 and Figure 4.3 below.

Table 4.6: Pre-test results of the questionnaire for the three groups

Groups		Interaction CSs	Positive self-solving	Time-gaining	Non-verbal	Non-taught
Implicit	*M*	6.41	6.26	5.63	6.09	5.05
n=(18)	*SD*	1.03	1.34	1.62	1.42	1.65
Explicit	*M*	5.15	4.94	4.62	4.76	4.11
n=(17)	*SD*	1.07	1.84	1.48	1.32	1.11
Control	*M*	5.73	5.74	5.14	5.61	4.81
n=(16)	*SD*	1.53	1.55	1.55	1.29	1.57
Total	*M*	5.77	5.65	5.13	5.49	4.66
	SD	1.31	1.65	1.58	1.43	1.49
Kruskal-Willis	*H(2)*	7.96	6.63	3.29	6.63	4.43
	p	.019*	.036*	.190	.036*	.11

*significant at the .05 level[2]

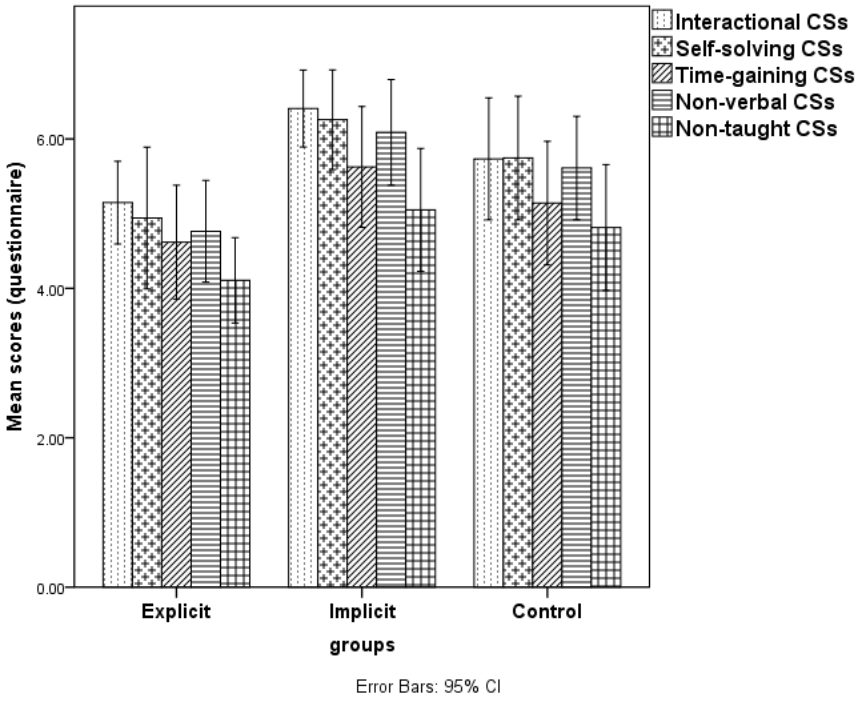


Figure 4.3: Pre-test results of the questionnaire for the three groups

[2] The author acknowledges that a Bonferroni correction should have been applied here.

The results of the Kruskal-Wallis suggested a significant difference in the performance of the three groups at pre-test on interaction CSs ($H(2) = 7.96$, $p = .019$), positive self-solving CSs ($H(2) = 6.63$, $p = .036$)**,** and non-verbal CSs ($H(2) = 6.631$, $p = .036$). However, no significant difference was found between the groups on time-gaining CSs ($H(2) = 3.289$, $p = .193$) and non-taught CSs($H(2) = 4.428$, $p = .109$) at pre-test. Since the Kruskal-Wallis test suggested a different baseline across the groups on the three categories of taught CSs, the gain scores were analysed rather than the actual scores for the three groups.

4.3.5 Comparing conditions over time

In order to examine whether any improvements were made in the learners' use of CSs after the intervention, the results of each one of the three experimental conditions are to be analysed over pre, post and delayed post-test. However, since the control group did not participate in the delayed post-test, two waves of analysis were carried out. Firstly, the pre-and post-test results of the three conditions (implicit, explicit and control) were analysed to demonstrate whether the implicit and explicit conditions were improved after the intervention or not. Secondly, the implicit and explicit groups' results were analysed and compared over pre-and delayed post-test to establish whether any observed development was sustained four weeks after the intervention. Accordingly, this section reports whether students in each condition improved from pre-test to post-test, and from pre-test to delayed post-test. It firstly presents the pre- to post-test performance of the three groups on the five categories of the questionnaire, namely interactional strategies, positive self-solving strategies, time-gaining strategies, non-verbal strategies and non-taught strategies. Then, the pre- to delayed post-test scores of the implicit and explicit condition on the five categories of the questionnaire are analysed and reported.

Before delving into the analysis of the questionnaire results, it is important to recall that the final version of the questionnaire used in the present study was based on an 11-point continuous data scale starting from never true of me (0) to always true of me (10). As such, participants were able to report their strategy use by responding on an average scale 0-10 (0 being the lowest), indicating how often they use each of the provided communication strategies.

The mean scores and standard deviations for the implicit, explicit and the control groups in each category of the questionnaire at pre- and post-tests were

calculated. The pre-and post-test results of the three conditions were analysed using the Wilcoxon signed-rank test (See Appendix Q). The Wilcoxon signed-rank test results indicated that there was a significant improvement in both the implicit and explicit groups at post-test in the four taught categories of CSs, whereas no change was found in the control group's score in the four taught CSs at post-test. The results also showed no change in all three groups' scores at post-test in the non- taught CSs (See Appendix Q & Figure 4.4). The results suggested that both implicit instruction and explicit instruction are beneficial for developing learners' use of CSs.

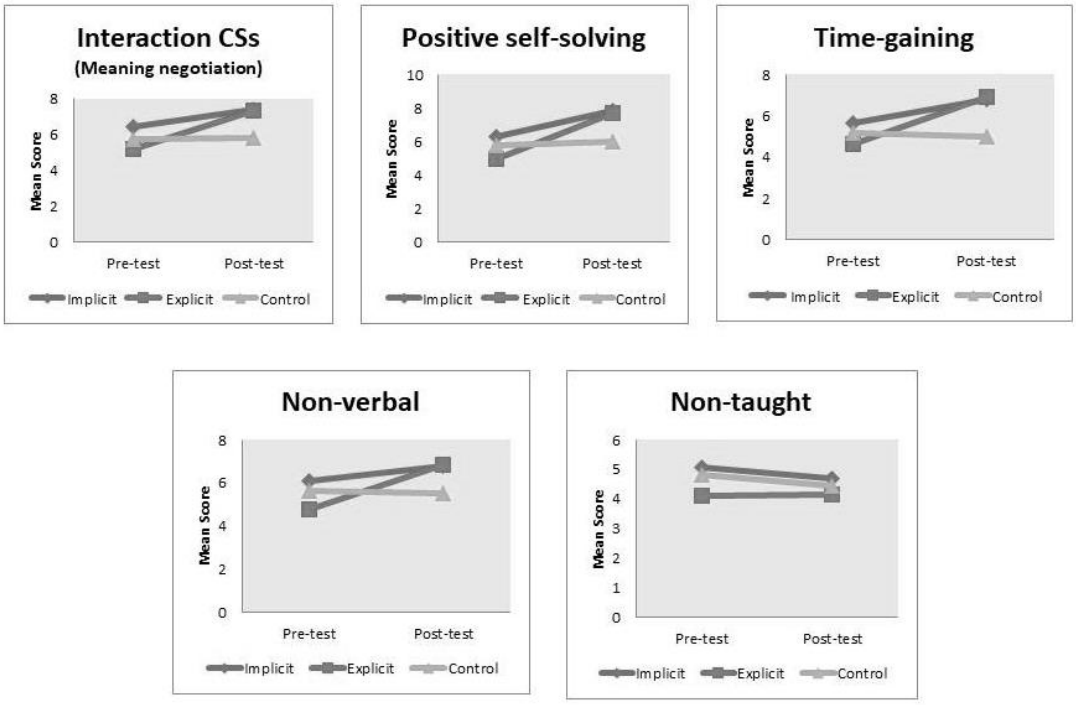


Figure 4.4: Scores of the five categories of the questionnaire on pre-and post-tests

To examine whether learners in both implicit and explicit groups would retain their use of CSs at four weeks after the intervention the Wilcoxon signed-rank test was also used to analyse the pre-to delayed post-test scores of the two conditions in the five categories of the CSs of the questionnaire. The results of the Wilcoxon signed-rank test revealed no statistically significant difference between the pre- and delayed post-test scores for both implicit and explicit instruction groups in the five categories of the CSs (See Appendix Q). However, examining Figure 4.5 shows that both the implicit and the explicit groups slightly decreased their use of CSs in three categories of taught

CSs, namely positive self-solving CSs, time-gaining CSs and non-verbal CSs. Only the implicit group showed a persistent increase in the use of the interactional CSs over-time i.e. from pre-test, post-test and delayed post-test. As for the non-taught CSs, the implicit instruction group showed a continuous decrease over time, whereas the explicit instruction group showed a slight continued increase in the use of non-taught CSs over time.

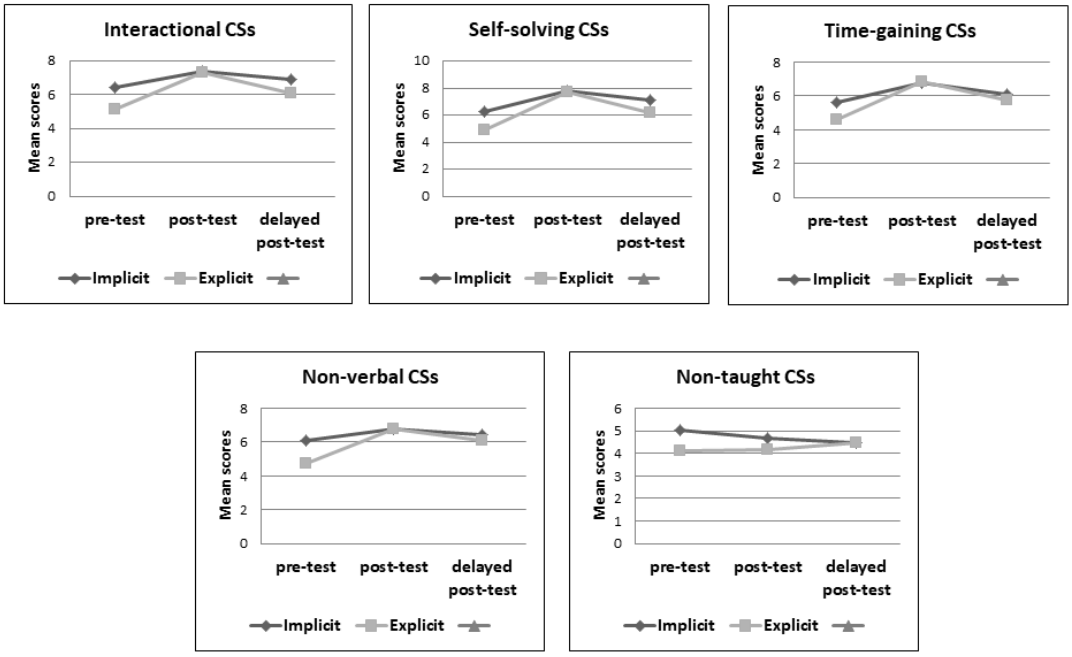


Figure 4.5: Scores of the questionnaire on pre-, post and delayed post-tests

4.3.6 Comparison of gains across the experimental and control groups

Between groups (pre-post gains)

The mean scores and standard deviations and the Kruskal-Wallis Test results for the pre-post gains across the experimental and control groups in the five categories of CSs are shown in Table 4.7 and Figure 4.6 below.

Table 4.7: Comparison of pre-to-posttests gains across the experimental and control conditions in the five categories of CSs

Groups		Interaction CSs	Positive self-solving	Time-gaining	Non-verbal	Non-taught
		Pre-Post	Pre-Post	Pre-Post	Pre-Post	Pre-Post
Implicit	M	0.99	1.58	1.18	0.68	-.32
	SD	1.40	1.49	1.41	1.29	1.42
Explicit	M	2.03	2.64	2.10	1.98	-.067
	SD	1.60	2.02	1.79	1.63	1.13
Control	M	0.06	0.20	-.140	-.100	-.370
	SD	1.52	1.17	1.29	1.66	1.40
Kruskal-Wallis Test	*H(2)*	11.35	14.55	14.07	10.6	0.244
	p	.003**	.001**	.001**	.005**	.885

**significant at the .017 level

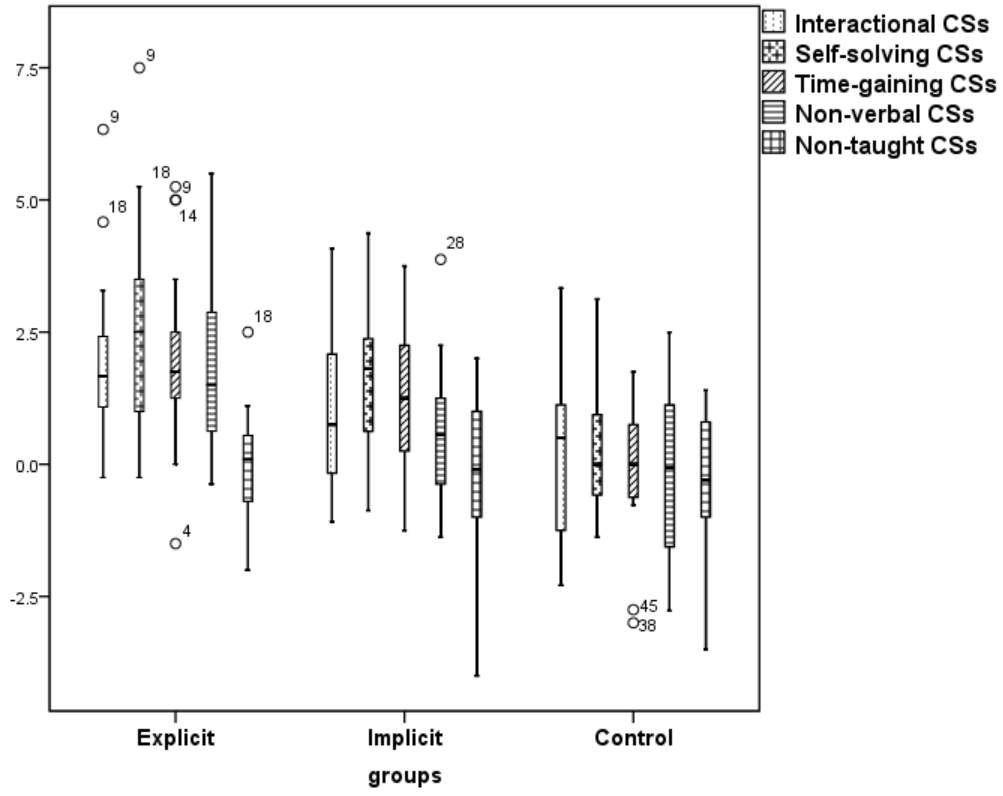


Figure 4.6: Comparison of pre-post gains across the experimental and control conditions

The results of the Kruskall Wallis test revealed a significant difference between groups on pre-post gains in all taught CSs categories (See Table 4.7 above). In contrast there was no difference between the three groups in non-taught CSs on pre-post gains ($H(2) = 0.244$, $p = .885$).

Between the implicit and the control groups, there was a statistically significant difference on pre-post gains in positive self-solving CSs (U = 67.5, z =-2.643, p = .01, r =.45) and time-gaining CSs (U = 75.0, z =-2.386, p =.017, r =.43) on the direction of the implicit condition. However, there was no significant difference between the two groups in interactional CSs, non-verbal CSs and non-taught CSs on pre-post gains**.** Between the explicit and the control groups, the Mann-Whitney test showed a statistically significant difference on the pre-post gains in all of the four taught CSs scales on the direction of the explicit group. The Mann-Whitney test results suggested that there were no statistically significant differences between the explicit and the control groups in non-taught CSs on pre-post gains (U = 130.5, z =-.198, p = .84, r =.11). Between the implicit and explicit groups, the Mann-Whitney test showed no significant difference on pre-post gains in positive self-solving CSs (U= 107.500, z = -1.506, p = .13, r =.28) and time-gaining CSs (U= 111.500, z = -1.373, p = .17, r =-.27). However, there was a significant difference between the implicit and explicit groups on pre-post gains in non-verbal CSs (U= 83.500, z = -2.296, p = .02, r =.40) and meaning-negotiation CSs (U = 93.0, z =-1.981, p = .04, r =-.32) on the direction of the explicit group (See Appendix T-1).

As for the effect size, the between group effect sizes for all taught CSs at pre-post gains suggested a favourable impact of both implicit and explicit groups, compared to the control group (See Appendix U). This reflects learners of implicit and explicit groups' significant improvement on all taught CSs, compared to the control group learners. The magnitude of change for the explicit group when compared to the control group at pre-post gains was found to be large in all taught CSs and trivial in non-taught CSs. On the other hand, the magnitude of change for the implicit group over the control group was large only in positive self-solving CSs and time-gaining CSs. In interactional CSs and non-verbal CSs, the effect sizes were medium. Yet, a trivial effect was in negative self-solving CSs (Plonsky & Oswald, 2014). Although there were no statistically significant differences between the pre-post gains in the implicit and explicit groups, the effect sizes were calculated "to reduce any impact that slight differences at the outset might have on differences at posttests and delayed posttests" (Marsden, 2006, p.535). The effect size for each category at pre-post gain scores suggested a favourable impact of the explicit compared to implicit. The magnitude of change between pre-post gains was medium in meaning-negotiation CSs

(-0.69), positive self-solving CSs (-0.59) and non-verbal CSs (-0.88). In time-gaining CSs, effect sizes were small (-0.57) and trivial in negative self-solving CSs (-0.19).

Between groups (pre-to-delayed post-tests gains)

Between the implicit and the explicit groups, the Mann-Whitney U test showed no statistically significant difference on pre-delayed post gains in all of the four taught CSs categories and non-taught CSs as well (See Table 4.8 and Figure 4.7).

Table 4.8: Comparison between implicit and explicit groups on pre-to-delayed posttests gain scores

Groups		Interactional CSs	Positive self-solving CSs	Time-gaining CSs	Non-verbal CSs	Non-taught CSs
		Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post
Implicit	M	0.59	1.03	0.48	0.38	-.46
	SD	1.80	2.29	1.42	1.84	1.41
Explicit	M	0.70	0.87	0.95	1.23	.233
	SD	2.00	2.07	2.69	2.39	1.92
Mann-Whitney	*U*	103.00	85.00	98.00	83.00	79.00
	z	-.087	-.874	-.306	-.962	-1.136
	*P**	.930	.382	.759	.336	.256

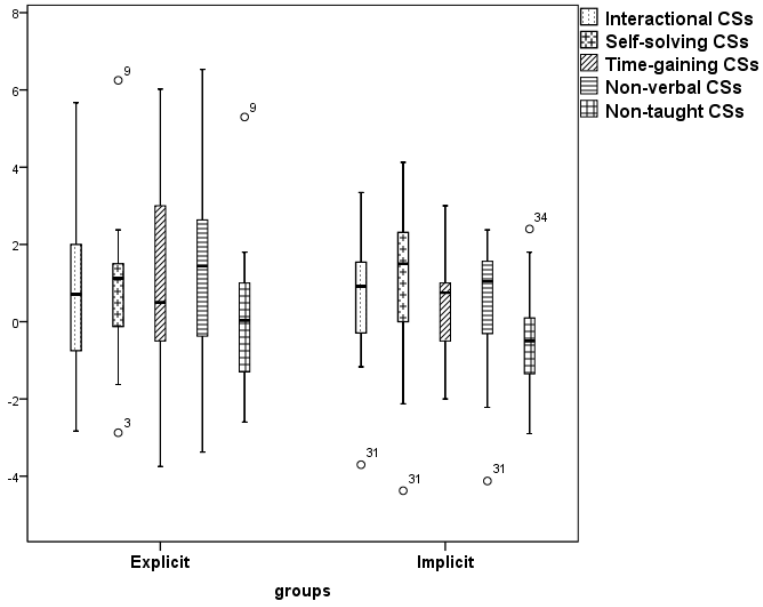


Figure 4.7: Comparison between implicit and explicit groups on pre-to-delayed posttests gain scores

The effect sizes of the implicit over explicit groups for each category on pre-delayed post gains were also calculated. The effect sizes were found to be small in non-verbal CSs and non-taught CSs in favour of the explicit group. In positive self-solving CSs category, the effect sizes were trivial in favour of the implicit group. For the interactional and time-gaining CSs categories, the effect sizes were also found trivial in favour of the explicit group (See Appendix U).

After having presented results of the questionnaire according to its five categories of CSs across three experimental conditions, results of the questionnaire based on the individual strategies within each one of the five categories are presented in the following sections. The rationale was to examine the effect of the implicit and explicit instructions on the use of CSs more closely and to find which type of CSs implicit and explicit instruction can develop. Therefore, the comparisons of the gain scores within each category are reported.

4.3.7 Interactional communication strategies

This category included five strategies, namely asking for confirmation, comprehension checks, clarification request, appeal for help and asking for repetition.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskall Wallis test results for the pre-post gains across the experimental and control conditions on interactional CSs are shown in Table 4.9 and Figure 4.8 below.

Table 4.9: Comparison of pre-post gains in interactional CSs across the experimental and control conditions

Groups		Asking for confirmation (AC)	Comprehension check(CC)	Clarification request (CR)	Appeal for help (AH)	Asking for repetition (AR)
		Pre-Post	Pre-Post	Pre-Post	Pre-Post	Pre-Post
Implicit	*M*	.11	1.09	1.19	1.19	.69
	SD	3.32	2.19	2.00	2.06	2.04
explicit	*M*	1.59	2.20	1.75	2.16	2.26
	SD	2.64	1.90	2.06	2.16	2.70
Control	*M*	.00	.28	-.31	-.21	.73
	SD	3.759	2.04	2.16	2.526	3.71
Kruskal-Wallis Test	*H(2)*	2.785	6.618	6.452	7.579	4.664
	*p**[3]	.248	.037*	.040*	.023*	.097

*significant at the 0.05 level

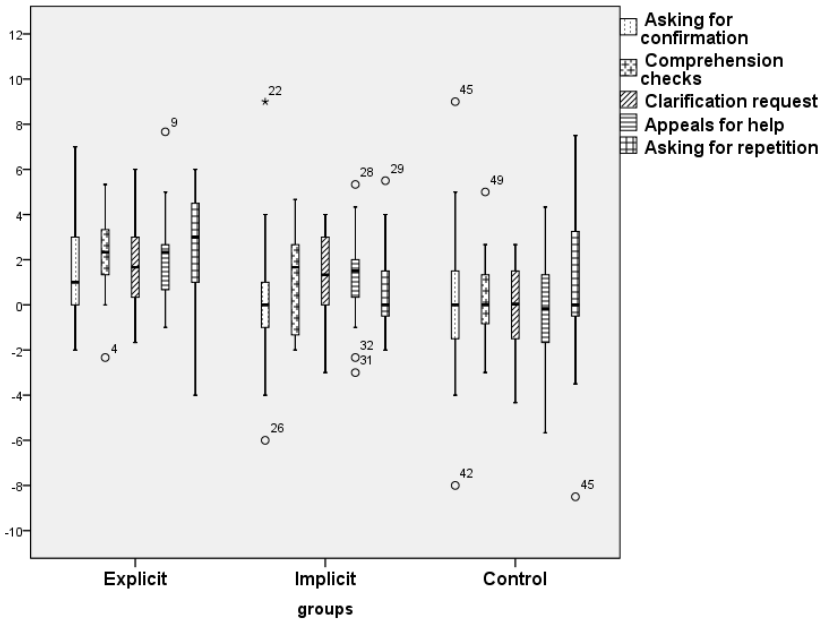


Figure 4.8: Comparison of pre-post gains in interactional CSs across the three groups

[3] The author acknowledges that a Bonferroni correction should have been applied here.

The results of the Kruskall Wallis test revealed a significant difference between the experimental and control groups on pre-post gains in three strategies: comprehension check ($H(2) = 6.618$, $p = .037$), clarification request ($H(2) = 6.452$, $p = .040$) and appeal for help ($H(2) = 7.579$, $p = .023$). However, no difference was found between the groups on pre-post gains in asking for confirmation ($H(2) = 2.785$, $p = .248$) and asking for repetition ($H(2) = 4.664$, $p = .097$).

Between the implicit and the control groups, the Mann-Whitney test suggested no significant difference on pre-post gains in the three strategies: comprehension check ($U = 115.000$, $z = -1.004$, $p = .31$, $r = .18$), clarification request ($U = 90.500$, $z = -1.849$, $p = .065$, $r = .33$) and appeal for help ($U = 94.500$, $z = -1.711$, $p = .087$, r =.29). Between the explicit and the control groups, the Mann-Whitney test showed a statistically significant difference on the pre-post gains in the three strategies on the direction of the explicit group: comprehension check ($U = 61.500$, $z = -2.691$, $p = .007$, $r = .43$), clarification request ($U = 69.000$, $z = -2.417$, $p = .016$, $r = .34$) and appeal for help ($U = 63.500$, $z = -2.618$, $p = .009$, $r = .45$). Between the implicit and explicit groups, the Mann-Whitney test also revealed no significant difference on pre-post gains in the three strategies: comprehension check ($U = 112.500$, $z = -1.342$, $p = .180$, $r = -.26$), clarification request ($U = 132.000$, $z = -.695$, $p = .487$, $r = -.13$) and appeal for help ($U = 114.000$, $z = -1.292$, $p = .196$, $r = -.22$) (See Appendix T-1).

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the implicit and explicit groups on the pre-delayed post gains on interactional CSs are shown in Table 4.10 & Figure 4.9 below.

Table 4.10: Comparison of pre-delayed post gains between implicit and explicit conditions on interactional CSs

Groups		Asking for confirmation (AC)	Comprehension check (CC)	Clarification request(CR)	Appeal for help (AH)	Asking for repetition (AR)
		Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post
Implicit	*M*	.67	.33	.49	1.09	.34
	SD	3.50	1.62	2.77	2.37	2.45
Explicit	*M*	1.64	1.29	.10	.79	.10
	SD	3.35	2.14	2.39	2.44	2.62
Mann-Whitney	*U*	87.500	78.000	88.500	91.000	95.500
	z	-.770	-1.182	-.723	-.614	-.416
	*P**	.442	.237	.470	.539	.678

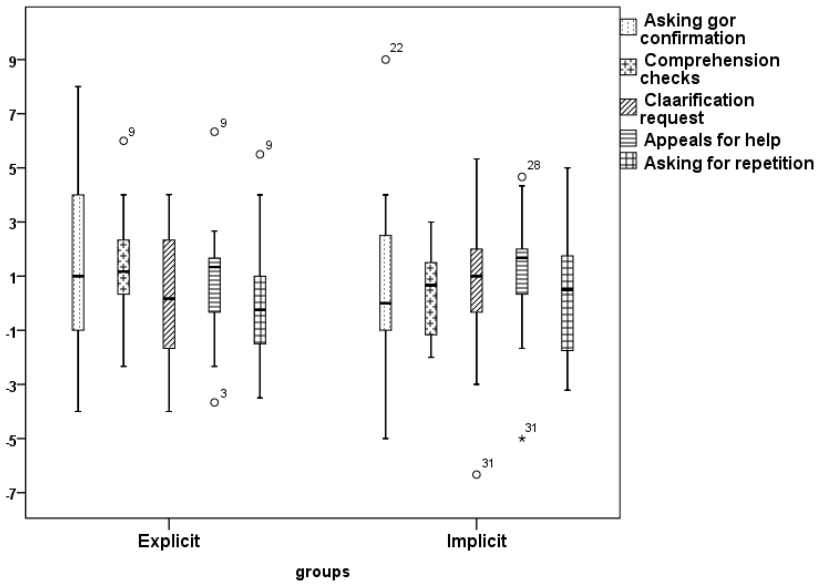


Figure 4.9: Comparison of pre-delayed post gains between implicit and explicit conditions on interactional CSs

As seen in Table 4.10, the Mann-Whitney U test showed no statistically significant difference between the implicit and the explicit groups on pre-delayed post gains in the five CSs.

4.3.8 Positive self-solving strategies

The positive self-solving category of CSs contained four types of strategies which are circumlocution, approximation, self-correction and the use of all-purpose words. This

section compares the pre-post gains of positive self-solving strategies across the three groups and the pre-delayed post gains between implicit and explicit conditions.

Between groups (pre-post gains)

The mean scores standard deviations and the Kruskall Wallis test results for the pre-post gains across the experimental and control conditions on positive self-solving strategies are shown in Table 4.11and Figure 4.10 below.

Table 4.11: Comparison of pre-post gains in positive self-solving strategies across the experimental and control conditions

Groups		Circumlocution (Cir)	Approximation (App)	Self-correction (SC)	Use of all-purpose words (UA)
		Pre-Post	Pre-Post	Pre-Post	Pre-Post
Implicit	*M*	2.08	1.50	1.11	2.50
	SD	2.20	2.4**8**	1.82	3.365
Explicit	*M*	2.93	2.88	2.33	3.06
	SD	2.04	3.18	2.2**8**	2.8**4**
Control	*M*	.19	.13	.51	-.94
	SD	1.62	2.94	1.40	3.62
Kruskal-Wallis Test	*H(2)*	13.195	5.716	6.687	10.741
	*p**	.001**	.05*	.03*	.001**

*significant at the 0.05 level
**significant at the 0.017 level

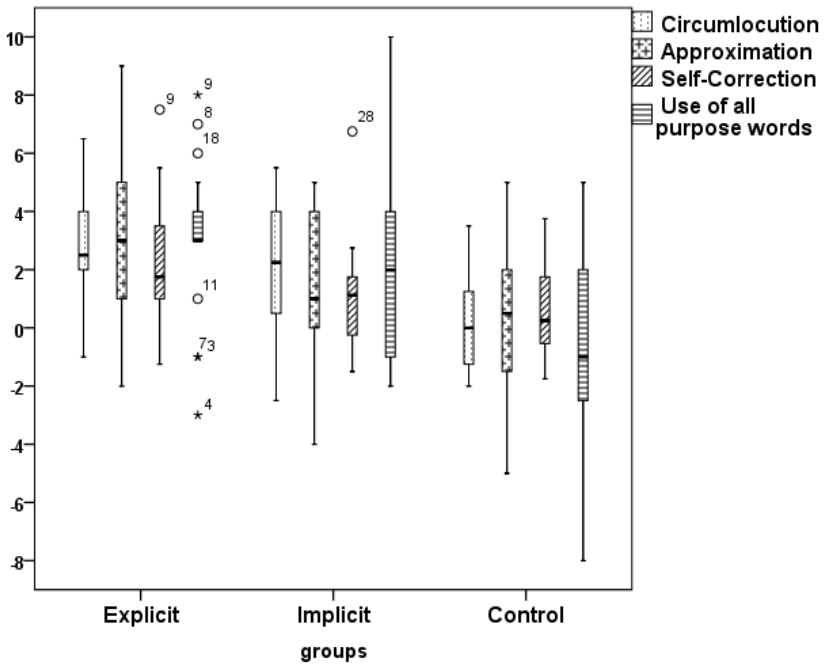


Figure 4.10: Comparison of pre-post gains in positive self-solving strategies across the experimental and control conditions

The results of the Kruskall Wallis test showed a significant difference across the three groups on pre-post gains in the four strategies of the positive self-solving category.

Between the implicit and the control groups, the Mann-Whitney test suggested a statistically significant difference on the pre-post gains in circumlocution (*U*= 70.000, *z* = -2.560, *p* = .01, *r* =.43) and use of all-purpose words (*U*= 72.500, *z* = -2.488, *p* = .01, *r* =.44) on the direction of the implicit group. However, no significant difference was found in self-correction (*U*= 114.000, *z* = -1.039, *p* = .29, *r* =.18) and approximation strategies (*U*= 107.500, *z* = -1.271, *p* = .20, *r* =.24). Between the explicit and the control groups, the Mann-Whitney showed a statistically significant difference on the pre-post gains in the four strategies of the positive self-solving category on the direction of the explicit group.

Between the implicit and explicit groups, the Mann-Whitney test showed no significant difference on pre-post gains in all positive self-solving CSs categories: circumlocution (*U*= 123.000, *z* = -.993, *p* = .32, *r* =.19), approximation (*U*= 113.000, *z* = -1.331, *p* = .18, *r* =.23), self-correction (*U*= 102.000, *z* = -1.687, *p* = .092, *r* =-.28) and the use of all-purpose words (*U*= 124.500, *z* = -.949, *p* = .34, *r* =-.08). (See Appendix T-1).

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains on positive self-solving CSs are shown in Table 4.12 & Figure 4.11 below.

Table 4.12: Comparison of pre-delayed post gains in positive self-solving CSs between the implicit and explicit conditions

Groups		Circumlocution (Cir)	Approximation (App)	Self-correction	Use of all-purpose words
		Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post
Implicit	*M*	.87	.73	1.10	1.60
	SD	2.86	3.45	2.56	2.**90**
Explicit	*M*	.44	1.21	.78	1.79
	SD	2.3**7**	3.33	2.1**2**	3.19
Mann-Whitney	*U*	94.500	99.000	88.000	96.000
	z	-.459	-.263	-.744	-.396
	P	.646	.792	.457	.692

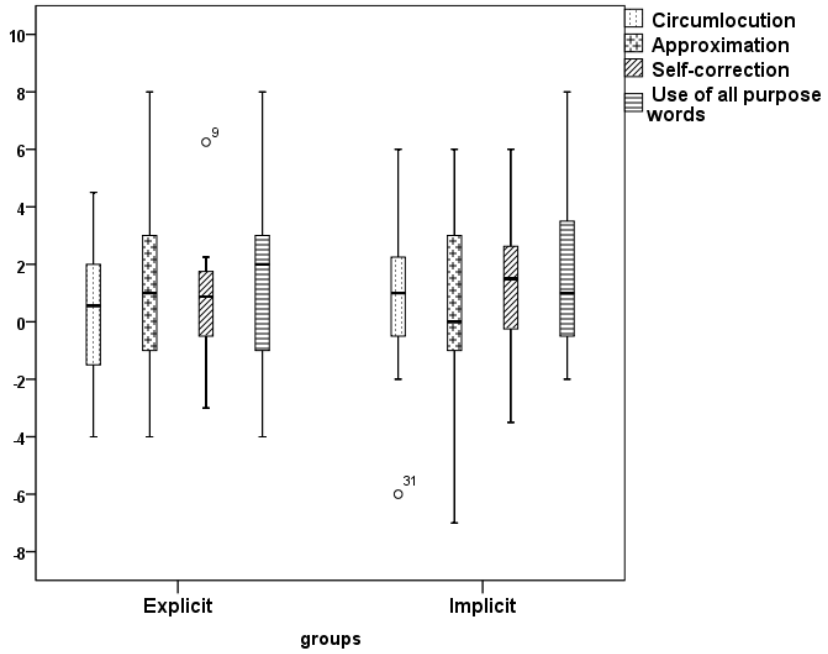


Figure 4.11: Comparison of pre-delayed post gains in positive self-solving CSs between the implicit and explicit conditions

The Mann-Whitney U test suggested no statistically significant difference between the implicit and the explicit groups on pre-delayed post gains in the four CSs of the positive self-solving CSs category (See Table 4.12 above).

4.3.9 Time-gaining strategies

The time gaining strategies investigated in this study were hesitation devices and conversation gambits, as well as self-repetition. This section firstly compares the pre-post gains of the time gaining strategies across the three groups, then the pre-delayed post gains between implicit and explicit conditions are compared.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskal Wallis test results of the experimental and control conditions for the time-gaining strategies on pre-post gains are shown in Table 4.13 below.

Table 4.13: Comparison of pre-post gains in time-gaining CSs across the experimental and control conditions

Groups		Conversation gambits & Hesitation devices (CHD)	Self-repetition (SR)
		Pre-Post	Pre-Post
Implicit	*M*	1.48	.28
	SD	1.33	3.61
Explicit	*M*	2.02	2.35
	SD	1.79	3.39
Control	*M*	.23	-1.25
	SD	1.48	3.17
Kruskal-Wallis Test	*H(2)*	8.626	10.477
	*p**	.013**	.001**

**significant at the 0.017 level

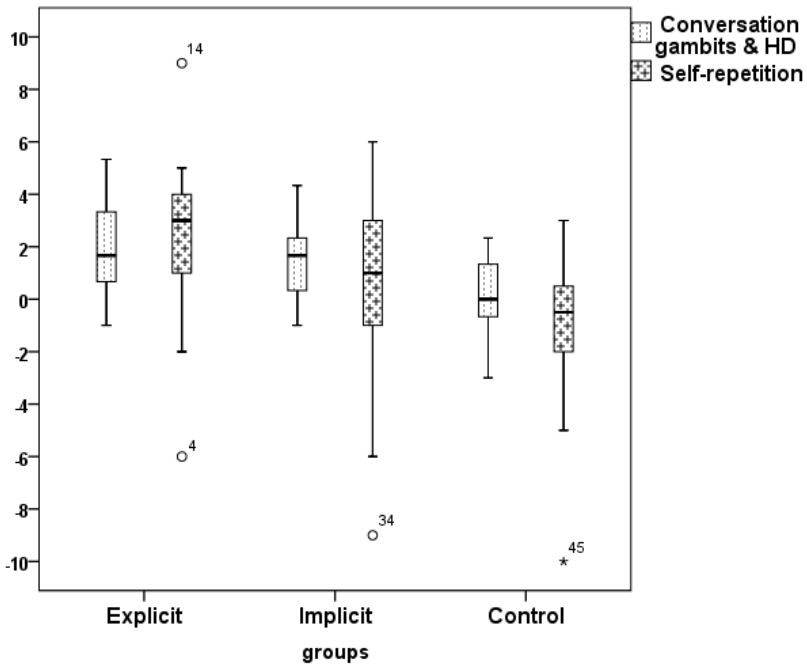


Figure 4.12: Comparison of pre-post gains in time-gaining CSs across the experimental and control conditions

The results of the Kruskall Wallis test showed a significant difference between groups on pre-post gains in both conversation gambits and hesitation devices ($H(2) = 8.626$, $p = .013$) and self-repetition strategy ($H(2) = 10.477$, $p = .01$).

Between the implicit and the control groups, the Mann-Whitney test showed a significant difference on pre-post gains in conversation gambits and hesitation devices ($U = 77.500$, $z = -2.300$, $p = .02$, $r = .40$) on the direction of the implicit group, whereas there was no significant difference between the implicit and the control groups on pre-post gains in self-repetition strategy ($U = 98.000$, $z = -1.601$, $p = .11$, $r = .21$). Between the explicit and the control groups, there was a significant difference on pre-post gains in both conversation gambits and hesitation devices ($U = 62.500$, $z = -2.655$, $p = .01$, $r = .47$) and self-repetition strategy ($U = 50.000$, $z = -3.115$, $p = .01$, $r = .48$) on the direction of the explicit group. Between the implicit and explicit groups, the Mann-Whitney test suggested no significant difference on pre-post gains in conversation gambits and hesitation devices ($U = 127.000$, $z = -.861$, $p = .389$, $r = -.16$). However, there was a significant difference on pre-post gains in self-repetition strategy ($U = 96.500$, $z = -1.877$, $p = .060$, $r = -.23$) on the direction of the explicit group (See Appendix T-1).

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains between the implicit and explicit conditions on time-gaining strategies are shown in Table 4.14 & Figure 4.13 below.

Table 4.14: Comparison of pre-delayed post gains in time-gaining strategies between the implicit and explicit conditions

Groups		Conversation gambits & Hesitation devices (CHD)	Self-repetition (SR)
		Pre-delayed Post	Pre-delayed Post
Implicit	*M*	.56	.27
	SD	1.44	2.58
Explicit	*M*	.93	1.00
	SD	2.61	3.57
Mann-Whitney	*U*	95.000	91.500
	z	-.438	-.595
	P	.66	.55

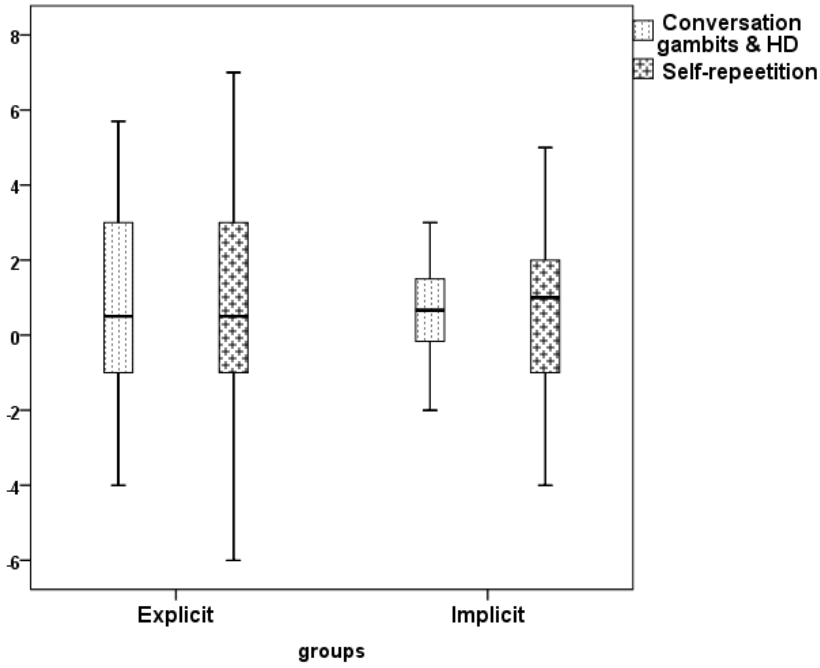


Figure 4.13: Comparison of pre-delayed post gains in time-gaining strategies between the implicit and explicit conditions

The Mann-Whitney test results suggested that there was no difference between the implicit and explicit groups on pre-delayed post gains in both conversation gambits

and hesitation devices (U= 95.000, z = -.438, p = .66, r =-08) and self-repetition strategy (U= 91.500, z = -.595, p = .55, r =-.11).

4.3.10 Non-verbal strategies

The non-verbal category of CSs included two strategies which were gestures and facial expressions. Below is the comparison of gain scores between the three groups.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskal Wallis test results of the experimental and control conditions for the non-verbal strategies on pre-post gains are shown in Table 4.15 & Figure 4.14 below.

Table 4.15: Comparison of pre-post gains in non-verbal CSs across the experimental and control conditions

Groups		Gestures (GsCs)	Facial expressions (FE)
		Pre-Post	Pre-Post
Implicit	*M*	0.56	0.40
	SD	2.14	1.74
Explicit	*M*	1.87	2.30
	SD	2.39	1.71
Control	*M*	-.37	0.40
	SD	1.88	2.58
Kruskal-Wallis Test	*H(2)*	6.901	9.884
	*p**	.03*	.001**

**significant at the 0.017 level

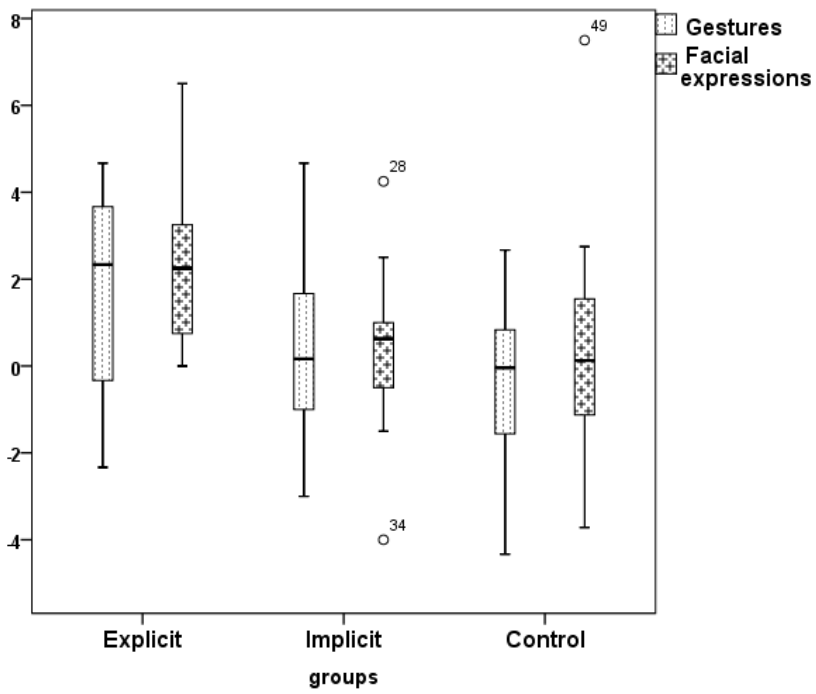


Figure 4.14: Comparison of pre-post gains in non-verbal CSs across the experimental and control conditions

The Kruskall Wallis test showed a significant difference between groups on pre-post gains in gestures ($H(2) = 6.901$, $p = .032$) and facial expressions ($H(2) = 9.884$, $p = .007$).

Between the implicit and the control groups, the Mann-Whitney test showed no significant difference on pre-post gains in both gestures ($U = 113.000$, $z = -1.071$, $p = .28$, $r = .22$) and facial expressions ($U = 133.000$, $z = -.381$, $p = .703$, $r = .01$).

Between the explicit and the control groups, the Mann-Whitney test suggested a significant difference on pre-post gains in both gestures ($U = 66.000$, $z = -2.526$, $p = .012$, $r = .46$) and facial expressions ($U = 62.500$, $z = -2.651$, $p = .01$, $r = .39$) on the direction of the explicit group.

Between the implicit and explicit groups, the Mann-Whitney test showed no significant difference on pre-post gains in gestures ($U = 102.000$, $z = -1.687$, $p = .09$, $r = .27$), whereas there was a significant difference in facial expressions on pre-post gains on the direction of the explicit group ($U = 70.000$, $z = -2.748$, $p = .01$, r =.48) (Appendix T-1).

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains between the implicit and explicit conditions on non-verbal strategies are shown in Table 4.16 & Figure 4.15 below.

Table 4.16: Comparison of pre-delayed post gains between implicit and explicit conditions on non-verbal CSs

Groups		Gestures (GsCs)	Facial expressions (FE)
		Pre-delayed Post	Pre-delayed Post
Implicit	*M*	.30	.13
	SD	2.18	2.19
Explicit	*M*	1.90	.93
	SD	2.74	2.47
Mann-Whitney	*U*	65.000	82.500
	z	-1.748	-.983
	p	.08	.32

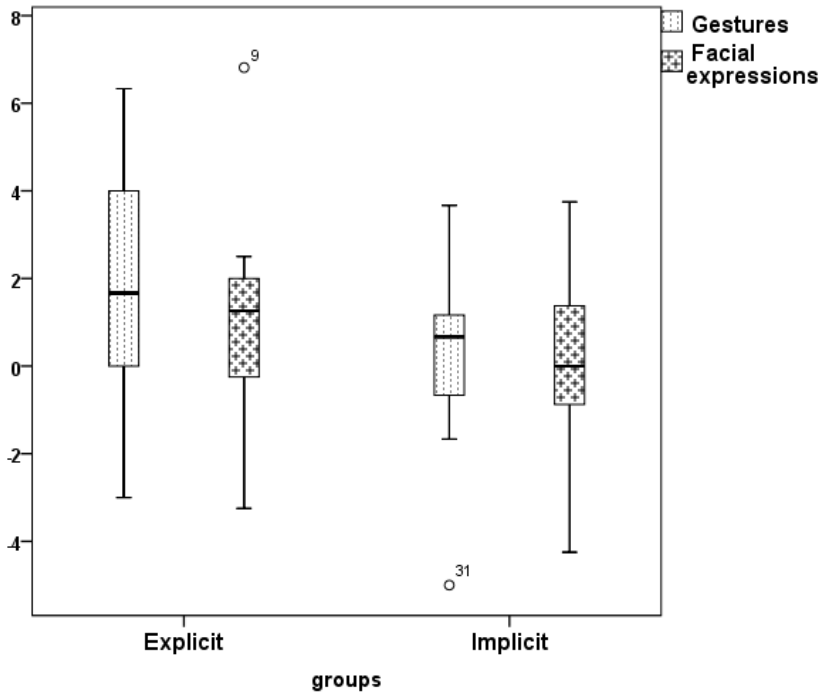


Figure 4.15: Comparison of pre-delayed post gains between implicit and explicit conditions on non-verbal CSs

The Mann-Whitney U test results revealed that there was no significant difference found between the implicit and explicit groups on pre-delayed post gains in gestures (*U*= 65.000, *z* = -1.748, *p* = .08, *r* =-.30) and facial expressions (*U*= 82.500, *z* = -.983, *p* = .32, *r* =-.16).

4.3.11 Non-taught strategies

The non-taught CSs were topic avoidance, message abonnement, code-switching, foreignising and word coinage.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskal Wallis test results of the experimental and control conditions for the non-taught strategies on pre-post gains are shown in Table 4.17 below and Figure 4.16 below.

Table 4.17: Comparison of pre-post gains in non-taught CSs across the experimental and control conditions

Groups		Topic avoidance (TA)	Message abonnement (MA)	Code-switching (CS)	Foreignizing (For)	Word coinage (WC)
		Pre-Post	Pre-Post	Pre-Post	Pre-Post	Pre-Post
Implicit	*M*	-.44	-.89	-.67	.08	.89
	SD	2.61	2.07	3.22	2.19	4.55
Explicit	*M*	.66	.22	-2.35	-.56	.18
	SD	1.63	1.65	2.94	1.90	3.19
Control	*M*	-.31	-.59	-.06	-.19	-.56
	SD	1.69	2.77	1.00	1.84	3.60
Kruskal-Wallis Test	*H(2)*	4.696	2.150	5.301	.485	1.942
	p	.096	.341	.071	.785	.379

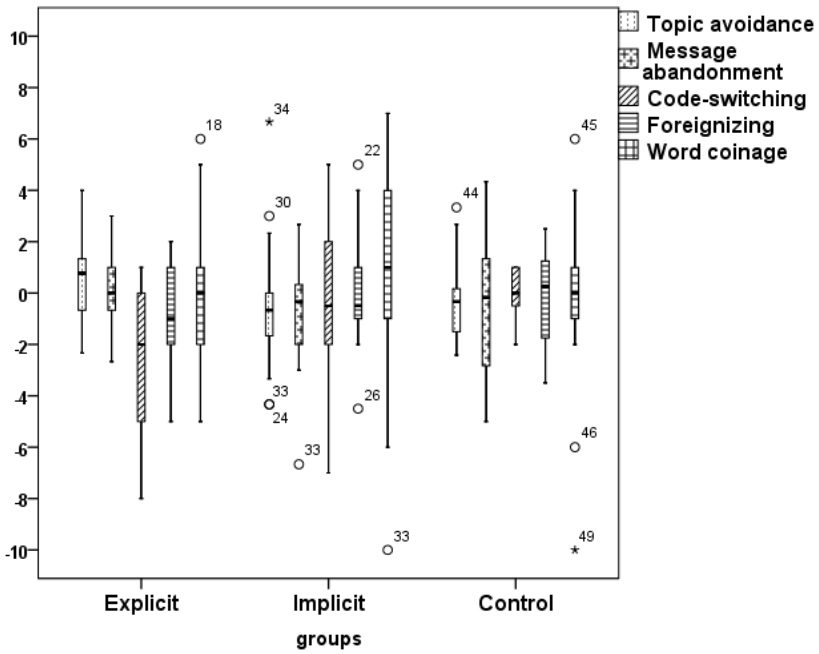


Figure 4.16: Comparison of pre-post gains in non-taught CSs across the experimental and control conditions

The results of the Kruskall Wallis test suggested no significant difference between groups on pre-post gains in all strategies within the non-taught strategies category.

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains between the implicit and explicit conditions on the non-taught strategies are shown in Table 4.18 7 Figure 4.17 below.

Table 4.18: Comparison of pre-delayed post gains in non-taught strategies between the implicit and explicit conditions

Groups		Topic avoidance (TA)	Message abonnement (MA)	Code-switching (CS)	Foreignizing (For)	Word coinage (WC)
		Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post
Implicit	*M*	-1.04	-.80	-1.00	.67	.53
	SD	2.45	2.14	2.78	1.99	3.23
Explicit	*M*	-.23	.64	-1.63	1.04	.64
	SD	2.90	2.19	3.52	2.69	3.59
Mann-Whitney	*U*	94.000	67.000	95.500	89.500	102.000
	z	-.481	-1.662	-.416	-.679	-.132
	P	.630	.096	.677	.497	.895

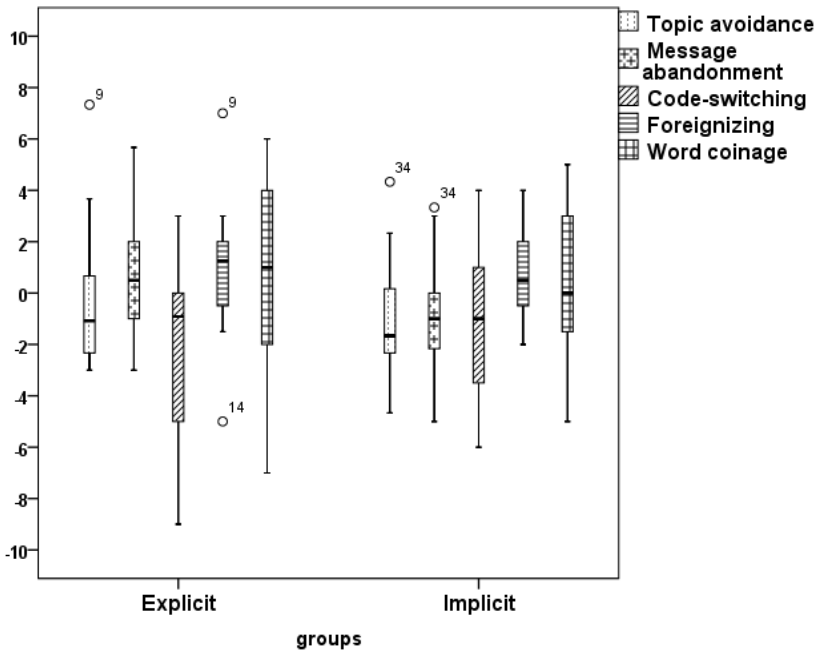


Figure 4.17: Comparison of pre-delayed post gains in non-taught strategies between the implicit and explicit conditions

No significant difference was found between the implicit and explicit groups on pre-delayed post gains in all strategies within the non-taught strategies category.

4.3.12 Summary of questionnaire results

Analysis of the questionnaire results showed a number of findings. Firstly, the overtime results showed a significant development at post-tests for the implicit and explicit groups in the four taught categories of CSs, whereas no change was found in the control group's score at the post-test. The results also suggested that there was no change in the experimental and control groups' scores at post-test in the non-taught CSs. Secondly, explicit instruction outperformed the control group on pre-post gains in the four targeted categories of CSs, namely interaction strategies, positive self-solving strategies, time-gaining strategies and non-verbal strategies. Implicit instruction, on the other hand, was superior to the control group on pre-post gains in positive self-solving strategies and time-gaining strategies. Thirdly, according to the development of individual strategies, explicit instruction was shown to be superior to the control group on pre-post gains in developing all taught CSs, except for asking for confirmation. In contrast, the implicit instruction outperformed the control group on pre-post gains in comprehension checks, circumlocution, use of all-purpose words, approximation, and conversation gambits and hesitation devices. Fourthly, concerning

the non-taught CSs, the results suggested no difference on pre-post gains in the non-taught CSs across the three groups. Finally, the pre-delayed post gains results suggested no significant differences between the explicit and implicit instruction on the five categories of CSs as well as on the individual strategies.

4.4 Interaction Tasks

4.4.1 Overview

The interaction tasks were employed in the current study to elicit the learners' actual use of CSs. Two parallel versions of 'describe & draw" tasks were designed. The learners were asked to perform one version each time over the three points of data collection (i.e. pre, post and delayed post-tests). The learners' performance on the interaction tasks was transcribed, coded and analysed to examine the impact of the implicit and explicit instructions on developing their use of CSs in action. However, as stated in section 3.3, CSs sometimes cannot easily be recognized, particularly those related to positive self-solving strategies such as approximation and using all-purpose word strategies. For example, the observer may hear the word box, whereas the learner may want to say square. Therefore, the rationale for conducting stimulated recall interviews was to tap into the learners' underlying thought processes in order to interpret their actual strategic behaviour and to verify the validity of the identified strategies observed in the interaction tasks. As such, the data collected from the stimulated recall interviews were combined with the data collected from the interaction tasks and analysed together as the complete interaction task data.

In order for the presentation of the results of the interaction tasks to be consistent with the questionnaire results presented earlier, the internal consistency reliability of the CSs categories and data distribution are reported in section 4.4.2. Comparison of pre-test scores across the experimental and control conditions are presented in section 4.4.3. Comparison of gains according to individual strategies across experimental and control conditions are presented in section 4.4.4.

4.4.2 Assumptions

4.4.2.1 Internal consistency reliability of interaction tasks

The internal consistency reliability of the five scales of the CSs was also examined with the interaction tasks data. The rationale of examining the internal consistency reliability of the five scales of the interaction tasks was to be consistent in presenting the results of both questionnaire and interaction tasks. The second aim was to check whether the communication strategies within each scale are related to the same category of CSs they belong to.

The results of the Cronbach's Alpha test for examining internal consistency reliability appeared to be very low in all the five scales (See Table 4.19 below). Therefore, analysis and comparisons of the interaction task results will be done according to individual strategies, rather than scales.

Table 4.19: The Cronbach's Alpha test for the scales of the interaction tasks

Scale	No. of CSs	Alpha
Interactional CSs (Meaning-negotiation)	4	.296
Positive self-solving CSs	4	-.010
Time-gaining CSs	2	-.008
Non-verbal CSs	2	-.039
Not-taught CSs	3	-.521
Total	13	

4.4.2.2 Normality distribution test

In order to check whether the data collected from the interaction tasks were normally distributed or not, the data was examined numerically and graphically. That is, histograms and the Shapiro-Wilk test were applied. The rationale for examining whether interaction tasks data are normally distributed or not was to decide which type of tests was to be used. That is, parametric tests would be used if data were normally distributed and non-parametric tests if data were not normally distributed.

The results of the Shapiro-Wilk test of normality showed that most of the pre-test scores of the interaction tasks in the experimental and control conditions were found to violate the assumption of normality (See Appendix P-1). Furthermore, histograms were also generated for the pre-, post and delayed post-tests' scores in the interaction tasks for the experimental and control groups. The histograms clearly showed that the data of the interaction tasks on pre-, post- and delayed post-tests for the three groups were not normally distributed (See Appendix P-2). Therefore, non-parametric tests were used for analysing the results of the interaction tasks.

4.4.3 Comparison of pre-test scores of the interaction tasks across the experimental and control conditions

In order to check whether there were any significant differences between the experimental and the control groups at pre-test, the participants' scores on the interaction tasks were analysed. The mean scores, standard deviations and the Kruskal-Wallis test results of the experimental and control conditions at pre-test in the complete interaction tasks are shown in Table 4.20 below.

Table 4.20: Comparison of pre-test scores on the interaction tasks across the three groups

Categories	CSs	Implicit		Explicit		Control		K-W test	
		M	*SD*	*M*	*SD*	*M*	*SD*	*H(2)*	*p**[4]
Interaction CSs	AC	0.01	0.01	0.44	0.92	0.01	0.01	8.013	.01*
	CC	0.56	0.86	0.56	0.92	0.56	1.03	.102	.95
	CR	0.01	0.01	0.01	0.01	0.01	0.00	.000	1.0
	AH	0.39	0.85	0.67	0.77	0.19	0.54	5.48	.06
	AR	0.01	0.00	0.06	0.24	0.00	0.00	1.88	.38
Positive self-solving CSs	Cir	0.33	0.59	0.22	0.43	0.38	0.88	.274	.87
	App	4.33	2.8	3.61	2.55	6.06	3.15	5.64	.05*
	SC	0.11	0.32	0.83	1.04	0.88	1.08	.529	.76
	UA	0.11	0.32	0.78	1.48	0.38	1.25	3.66	.16
Time-gaining	CHD	0.01	0.01	0.01	0.01	0.06	0.25	2.25	.32
	SR	3.61	2.30	2.44	2.09	3.56	3.16	2.24	.32
Non-verbal	GsCs & FE	1.78	2.13	0.94	1.35	0.81	1.37	2.01	.36
Non-taught CSs	TA	0.50	0.79	0.67	0.69	0.44	0.81	2.00	.36
	MA	0.67	0.84	0.39	0.61	0.25	0.58	3.43	.17
	CS	0.11	0.32	0.33	0.77	0.81	1.80	3.56	.16

*significant at the 0.05 level
**significant at the 0.01 level

The results of the Kruskal-Wallis test showed no statistically significant differences between the three groups at pre-test on the following CSs: comprehension checks ($H(2) = 102$, $p = .95$), clarification request ($H(2) = 0.01$, $p = 1.0$), appeal for help ($H(2) = 5.48$, $p = .06$), asking for repetition ($H(2) = 1.88$, $p = .38$), circumlocution ($H(2) = .274$, $p = .87$), self-correction ($H(2) = .529$, $p = .76$), use of an all-purpose word ($H(2) = 3.66$, $p = .16$), conversation gambits & hesitation devices ($H(2) = 2.25$, $p = .32$), self-repetition ($H(2) = 2.24$, $p = .32$), gestures and facial expressions ($H(2) = 2.01$, $p = .36$), topic avoidance ($H(2) = 2.00$, $p = .36$), message abandonment ($H(2) = 3.43$, $p = .17$), code-switching ($H(2) = 3.56$, $p = .16$). However, the Kruskal Wallis test results

[4] The author acknowledges that a Bonferroni correction should have been applied here.

suggested a significant difference across the experimental and control groups at pre-test on asking for confirmation strategy ($H(2) = 8.013$, $p = .01$), and approximation strategy ($H(2) = 5.64$, $p = .059$). Therefore, since Kruskal Wallis test suggested different baselines across the groups on two taught CSs, and due to the small sample size, the gain scores of the learners in the interaction tasks were analysed, rather than the actual scores for the three groups.

4.4.4 Comparison of gains on the interaction tasks across the experimental and control groups

Since results of the Cronbach's Alpha test (See section 4.4.2.1) for the categories of the interaction tasks were found very low and under the acceptable size 0.7 (George & Mallery, 2003), comparisons were made according to individual strategies rather than scales. In addition, the gain scores were used instead of actual scores, because scores of the interaction tasks violated the assumption of normality. Sections 4.4.5 to 4.4.9 present a comparison of pre-post and pre-delayed post gain scores of individual strategies across the experimental and control groups.

4.4.5 Interactional communication strategies

This category contains five strategies: asking for confirmation, comprehension checks, clarification request, appeal for help and asking for repetition.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskall Wallis test results for the pre-post gains across the experimental and control conditions on interactional CSs (meaning negotiation) are shown in Table 4.21 and Figure 4.18 below.

Table 4.21: Comparison of pre-post gains in the interactional CSs across the experimental and control groups

Groups		Asking for confirmation (AC)	Comprehension check (CC)	Clarification request (CR)	Appeal for help (AH)	Asking for repetition (AR)
		Pre-Post	Pre-Post	Pre-Post	Pre-Post	Pre-Post
Implicit	*M*	.333	1.22	.056	.167	.167
	SD	.594	1.59	.236	1.20	1.20
Explicit	*M*	-.222	1.55	.010	.010	.010
	SD	.942	1.54	.010	1.33	1.33
Control	*M*	.062	-.375	.010	.125	.125
	SD	.250	1.024	.000	1.024	1.024
Kruskal-Wallis Test	*H(2)*	5.003	13.362	1.889	0.621	.621
	*p**	.08	.001**	.39	.73	.73

**significant at the 0.017 level

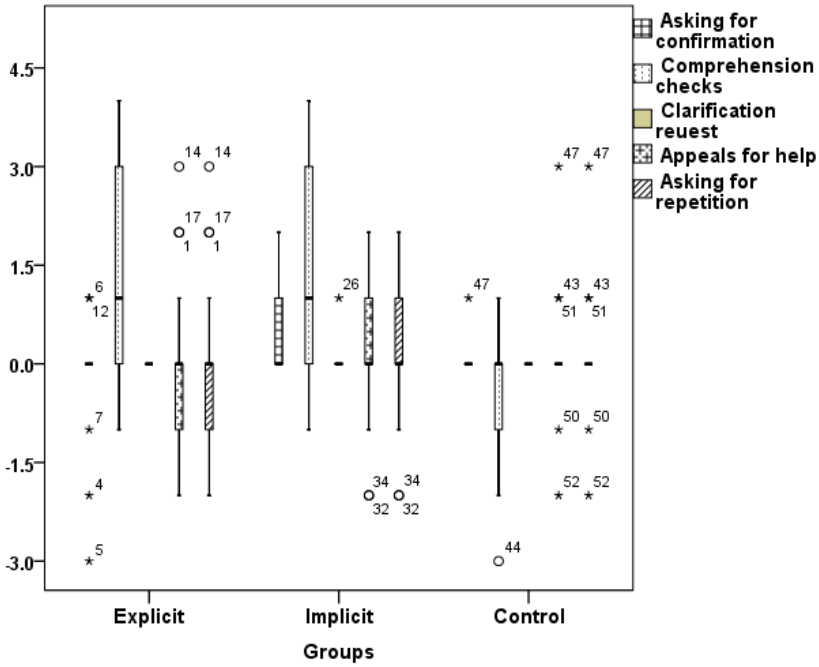


Figure 4.18: Comparison of pre-post gains in the interactional CSs across the experimental and control groups

The Kruskall Wallis test showed a significant difference between the groups on pre-post gains in comprehension check strategy ($H(2) = 13.362$, $p = .001$), whereas there was no significant difference between groups on pre-post gains in asking for confirmation ($H(2) = 5.003$, $p = .082$), clarification request ($H(2) = 1.889$, $p = .389$),

appeal for help ($H(2) = 0.621$, $p = .733$), and asking for repetition ($H(2) = .621$, $p = .733$).

Between the implicit and the control groups, the Mann-Whitney test suggested a significant difference on pre-post gains in comprehension check ($U= 70.500$, $z = -2.688$, $p = .01$, $r =.51$) on the direction of the implicit group.

Between the explicit and the control groups, the Mann-Whitney test also suggested a significant difference on pre-post gains in comprehension check ($U= 43.500$, $z = -3.590$, $p = .000$, $r =.59$) on the direction of the explicit group.

Between the implicit and explicit groups, the Mann-Whitney test showed no significant difference on pre-post gains in comprehension check ($U= 140.500$, $z = -.696$, $p = .487$, $r =-.10$) (See Appendix T-2).

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains between the implicit and explicit conditions on the interactional strategies are shown in Table 4.22 & Figure 4.19 below.

Table 4.22: Comparison of pre-delayed post gains in interactional strategies between the implicit and explicit conditions

Groups		Asking for confirmation (AC)	Comprehension check (CC)	Clarification request (CR)	Appeal for help (AH)	Asking for repetition (AR)
		Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post
Implicit	*M*	.222	.44	.00	.00	.00
	SD	.428	1.98	.00	1.46	1.46
Explicit	*M*	-.389	.889	.00	-.500	-.500
	SD	.979	3.085	.00	.985	.985
Mann-Whitney	*U*	107.00	161.00	162.00	121.50	121.50
	z	-2.293	-.034	.000	-1.415	-1.415
	*p**	.02*	.97	1.00	.15	.15

*significant at the 0.05 level

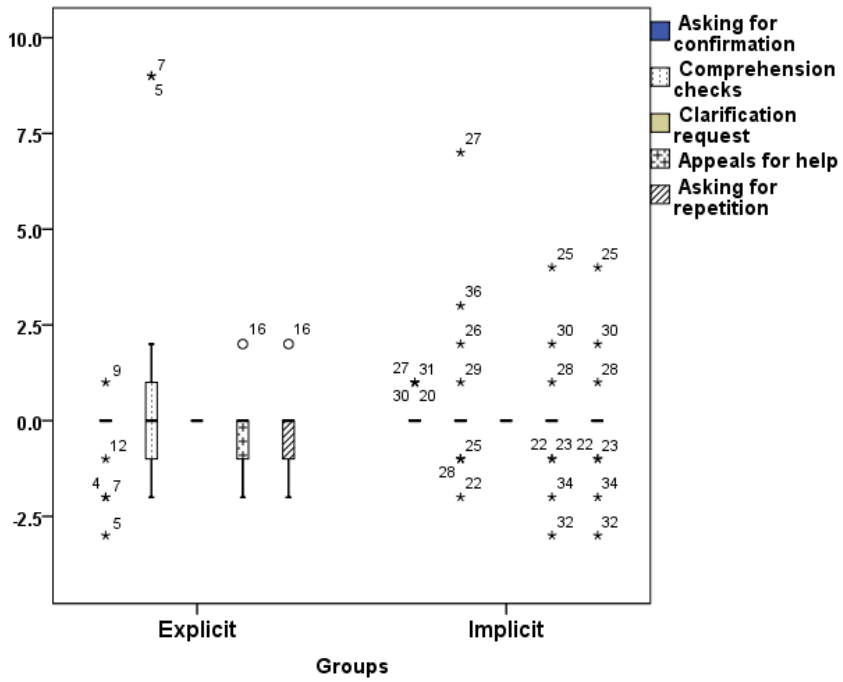


Figure 4.19: Comparison of pre-delayed post gains in interactional strategies between the implicit and explicit conditions

The Mann-Whitney U test suggested a statistical difference between the implicit and the explicit groups on pre-delayed post gains in asking for confirmation strategy (*U*= 107.000, *z* = -2.293, *p* = .02, *r* =.37) on the direction of the implicit group. However, there was no statistically significant difference between the implicit and the explicit groups on pre-delayed post gains in the other CSs (See Table 4.22 above).

4.4.6 Positive self-solving strategies

The positive self-solving category included circumlocution, approximation, self-correction and use of all-purpose words.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskal Wallis test results of the experimental and control conditions for the positive self-solving on pre-post gains are shown in Table 4.23 & Figure 4.20 below.

Table 4.23: Comparison of pre-post gains in positive self-solving CSs across the experimental and control conditions

Groups	Mean & SD	Circumlocution (Cir)	Approximation (App)	Self-correction (SC)	Use of all-purpose words (UA)
		Pre-Post	Pre-Post	Pre-Post	Pre-Post
Implicit	*M*	.611	2.06	.000	.667
	SD	1.036	2.46	1.46	1.41
Explicit	*M*	.667	3.17	.333	.611
	SD	.767	3.17	1.37	2.03
Control	*M*	-.125	-.438	.062	-.125
	SD	.885	3.44	1.91	.885
Kruskal-W Test	*H(2)*	8.237	9.278	.875	3.104
	p	.001**	.001**	.64	.21

**significant at the 0.017 level

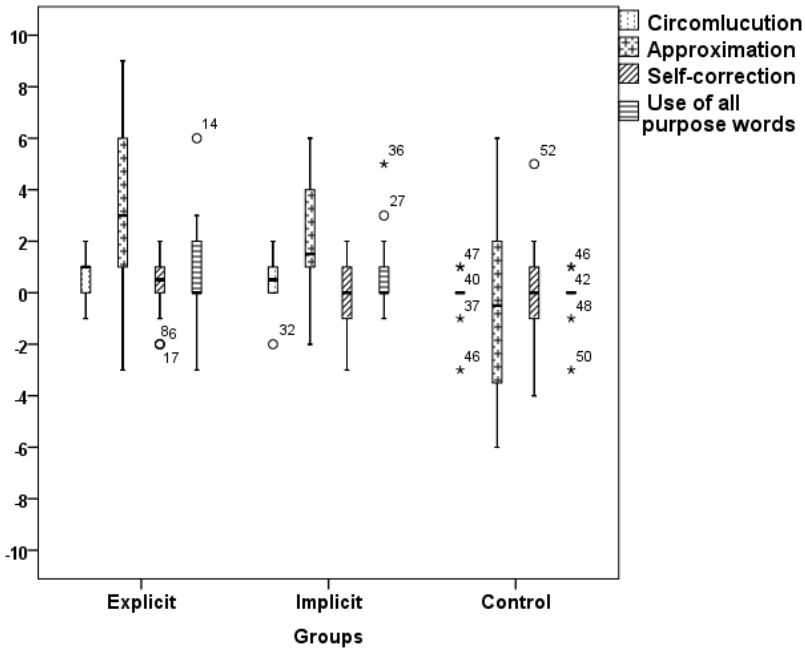


Figure 4.20: Comparison of pre-post gains in positive self-solving CSs across the experimental and control conditions

The results of the Kruskall Wallis test suggested a significant difference between groups on pre-post gains in circumlocution ($H(2) = 8.237$, $p = .016$) and approximation ($H(2) = 9.278$, $p = .01$). However, no significant difference between groups was found on pre-post gains in self-correction and the use of all-purpose words.

Between the implicit and the control groups, the Mann-Whitney test suggested a significant difference in pre-post gains in circumlocution (*U*= 84.000, *z* = -2.334, *p* = .02, *r* =.35) and approximation (*U*= 81.000, *z* = -2.186, *p* = .03, *r* =.38) on the direction of the implicit group.

Between the explicit and the control groups, the Mann-Whitney test suggested a significant difference on pre-post gains in circumlocution (*U*= 71.500, *z* = -2.766, *p* = .01, *r* =.43) and approximation (*U*= 63.000, *z* = -2.806, *p* = .01, *r* =.47) on the direction of the explicit group.

Between the implicit and explicit groups, the Mann-Whitney test showed no significant difference on pre-post gains in circumlocution (*U*= 157.500, *z* = -.152, *p* = .87, *r* =-.03) and approximation (*U*= 125.000, *z* = -1.182, *p* = .23, *r* =-.19) (See Appendix T-2).

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains between the implicit and explicit conditions on the positive self-solving strategies are shown in Table 4.24 and Figure 4.21 below.

Table 4.24: Comparison of pre-delayed post gains in positive self-solving strategies between the implicit and explicit conditions

Groups		Circumlocution (Cir)	Approximation (App)	Self-correction (SC)	Use of all-purpose words
		Pre-delayed Post	Pre-delayed Post	Pre-delayed Post	Pre-delayed Post
Implicit	*M*	.389	.722	.000	.556
	SD	1.09	5.31	1.91	1.42
Explicit	*M*	.778	2.39	.611	.389
	SD	1.22	4.11	1.04	1.14
Mann-Whitney	*U*	135.50	132.00	137.00	159.00
	z	-.939	-.955	-.816	-.108
	P	.34	.34	.41	.91

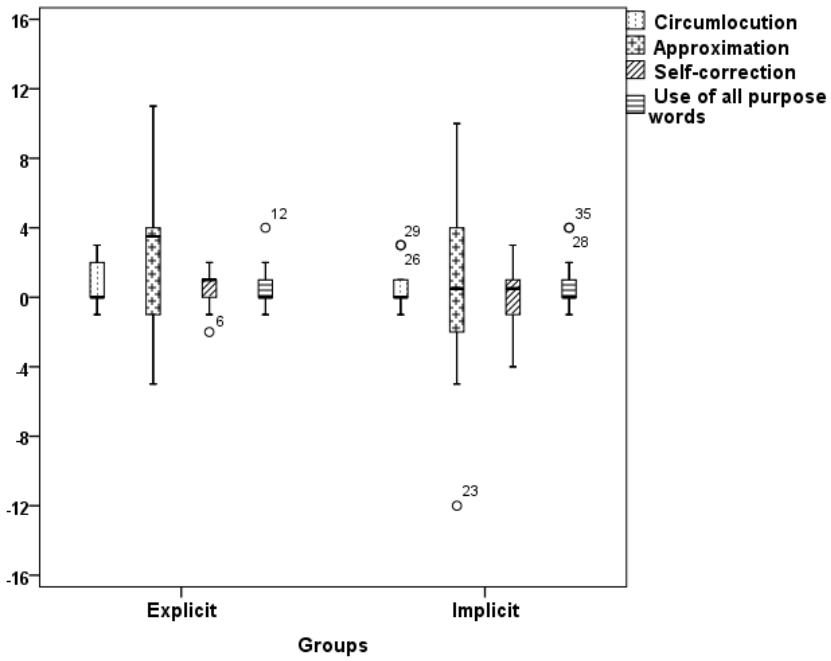


Figure 4.21: Comparison of pre-delayed post gains in positive self-solving strategies between the implicit and explicit conditions

The Mann-Whitney U test results revealed that there was no statistically significant difference between the implicit and the explicit groups on pre-delayed post gains in all positive self-solving strategies.

4.4.7 Time-gaining strategies

Two strategies were in this category, namely conversation gambits and self-correction.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskal Wallis test results of the experimental and control conditions for the time-gaining strategies on pre-post gains are shown in Table 4.25 and Figure 4.22 below.

Table 4.25: Comparison of pre-post gains in time-gaining CSs across the experimental and control conditions

Groups		Conversation gambits (CHD)	Self-repetition (SR)
		Pre-Post	Pre-Post
Implicit	*M*	.01	-.39
	SD	.01	2.7
Explicit	*M*	.72	.77
	SD	.95	2.7
Control	*M*	.01	-.18
	SD	.36	3.3
Kruskal-Wallis	*H(2)*	14.07	2.15
Test	*p**	.001**	.34

**significant at the 0.017 level

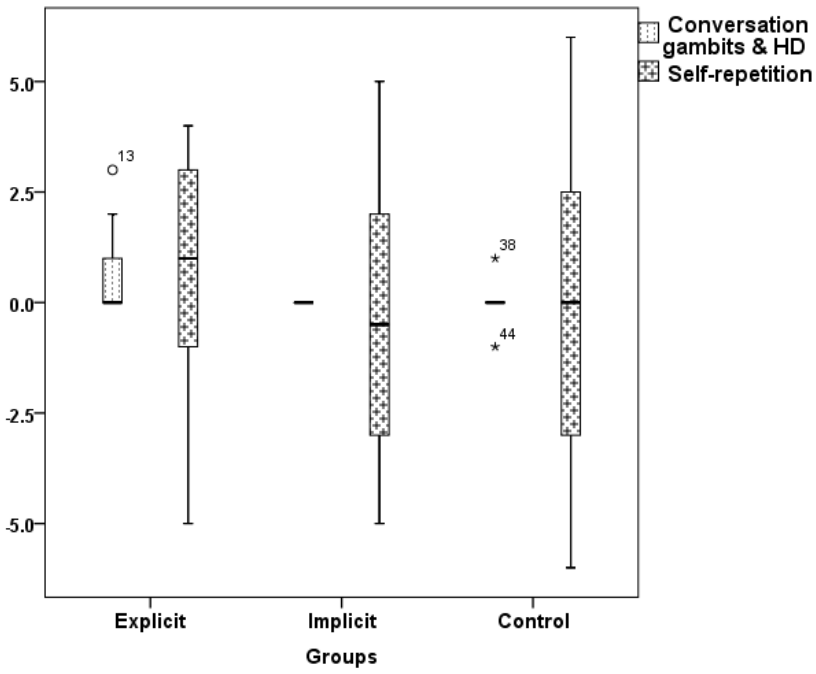


Figure 4.22: Comparison of pre-post gains in time-gaining CSs across the experimental and control conditions

The results of the Kruskall Wallis test suggested a significant difference between groups on pre-post gains in conversation gambits ($H(2) = 14.070$, $p = .01$), whereas no significant difference was found between groups on pre-post gains in self-repetition strategy ($H(2) = 2.149$, $p = .342$).

Between the implicit and the control groups, the Mann-Whitney test showed no difference on pre-post gains in conversation gambits and hesitation devices (*U*= 144.000, *z* = .000, *p* = 1.00, *r* =.01).

Between the explicit and the control groups, the Mann-Whitney test suggested a significant difference on pre-post gains in conversation gambits and hesitation devices (*U*= 82.000, *z* = -2.664, *p* = .01, *r* =.44) on the direction of the explicit group.

Between the implicit and the explicit groups, the Mann-Whitney test suggested a significant difference on pre-post gains in conversation gambits and hesitation devices (*U*= 90.000, *z* = -3.135, *p* = .01, *r* =-.46) on the direction of the explicit group (See Appendix T-2).

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains between the implicit and explicit conditions on the time-gaining strategies are shown in Table 4.26 & Figure 4.23 below.

Table 4.26: Comparison of pre-delayed post gains in time-gaining strategies between the implicit and explicit conditions

Groups		Conversation gambits (CHD)	Self-repetition (SR)
		Pre-delayed Post	Pre-delayed Post
Implicit	*M*	.167	.056
	SD	.515	3.56
Explicit	*M*	.444	1.28
	SD	.983	3.37
Mann-Whitney	*U*	143.000	131.000
	z	-.927	-.986
	P	.354	.324

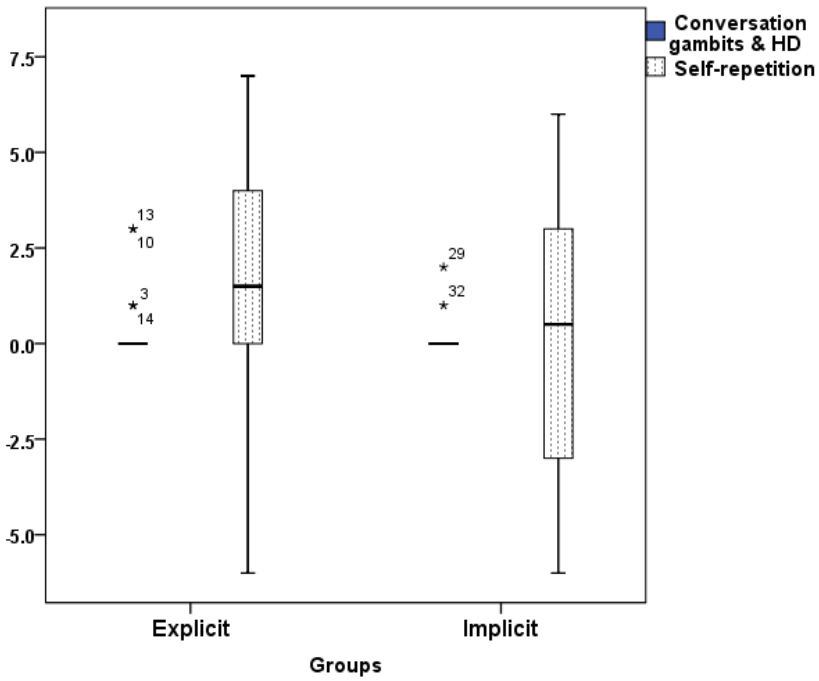


Figure 4.23: Comparison of pre-delayed post gains in time-gaining strategies between the implicit and explicit conditions

The Mann-Whitney U test results suggested that there was no statistically significant difference between the implicit and the explicit groups on pre-delayed post gains in both conversation gambits and self-repetition strategies.

4.4.8 Non-verbal strategies

This category included two strategies: gestures and facial expressions. In the analysis of the interaction tasks results, these two strategies were combined.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskal Wallis test results of the experimental and control conditions for the non-verbal strategies on pre-post gains are shown in Table 4.27 and Figure 4.24 below.

Table 4.27: Comparison of pre-post gains in the non-verbal CSs across the experimental and control conditions

Groups		Gestures and Facial expressions (GsCs & FE)
		Pre-Post
Implicit	*M*	.667
	SD	2.50
Explicit	*M*	1.10
	SD	1.95
Control	*M*	.125
	SD	1.82
Kruskal-Wallis Test	*H(2)*	2.005
	p	.367

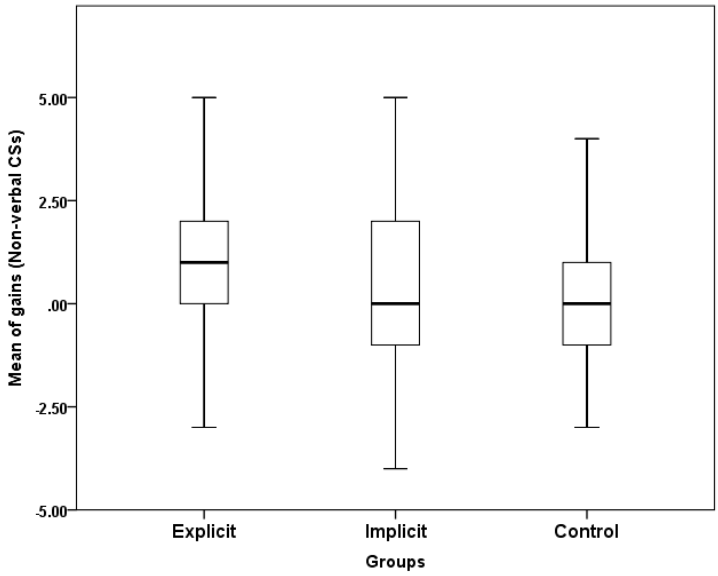


Figure 4.24: Comparison of pre-post gains in the non-verbal CSs across the experimental and control conditions

The results of the Kruskall Wallis test suggested no significant difference between groups on pre-post gains in gestures and facial expressions ($H(2) = 2.005$, $p = .367$).

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains between the implicit and explicit conditions on the non-verbal strategies are shown in Table 4.28 & Figure 4.25 below.

Table 4.28: Comparison of pre-delayed post gains in the non-verbal strategies between the implicit and explicit conditions

Groups		Gestures and Facial expressions (GsCs & FE)
		Pre-delayed Post
Implicit	*M*	-.556
	SD	2.04
Explicit	*M*	.278
	SD	1.78
Mann-Whitney	*U*	121.500
	z	-1.315
	P	.188

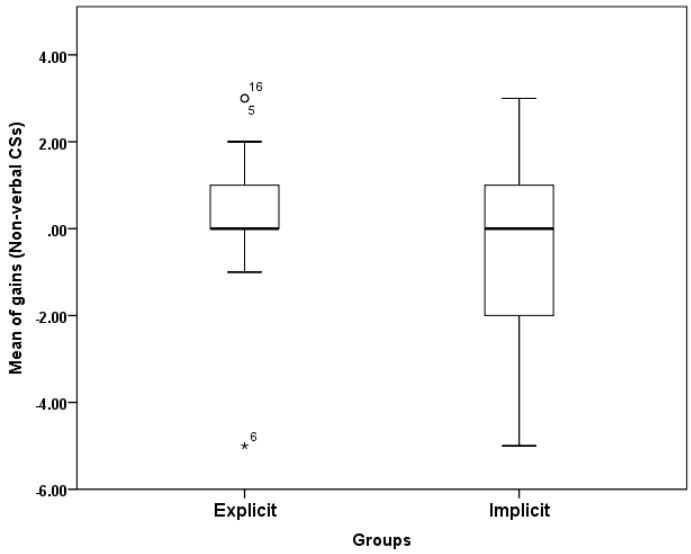


Figure 4.25: Comparison of pre-delayed post gains in the non-verbal strategies between the implicit and explicit conditions

The Mann-Whitney test showed that there was no difference between the implicit and the explicit groups on pre-delayed post gains in gestures and facial expressions (*U*= 121.500, *z* = -1.315, *p* = .188, *r* =-.21).

4.4.9 Non-taught strategies

The non-taught category included five categories in the proposed taxonomy for this study. These strategies were topic avoidance, message abandonment, word-coinage, foreignizing and code-switching. However, after coding the interaction tasks results it

was found that the participants of the experimental and control groups did not use them. Therefore, they were excluded from the analysis.

Between groups (pre-post gains)

The mean scores, standard deviations and the Kruskal Wallis test results of the experimental and control conditions for the non-taught strategies on pre-post gains are presented in Table 4.29 and Figure 4.26 below.

Table 4.29: Comparison of pre-post gains in the non-taught CSs across the experimental and control conditions

Groups		Topic avoidance (TA)	Message abandonment (MA)	Code-switching (CS)
		Pre-Post	Pre-Post	Pre-Post
Implicit	*M*	-.389	-.611	-.057
	SD	.608	.916	.416
Explicit	*M*	-.611	-.167	-.278
	SD	.608	.857	.574
Control	*M*	-.125	.000	-.125
	SD	.957	.632	1.09
Kruskal-Wallis Test	*H(2)*	4.716	4.381	1.250
	p	.09	.11	.53

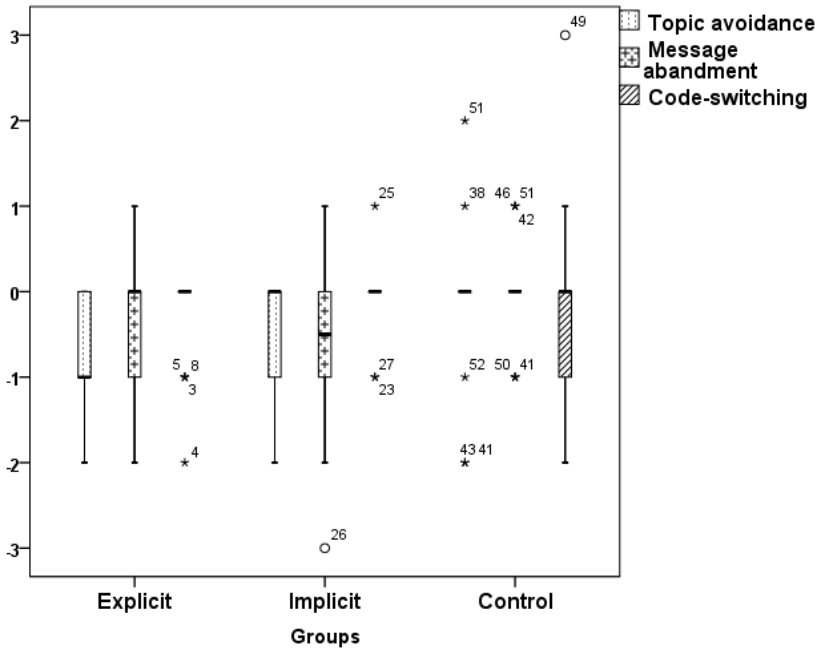


Figure 4.26: Comparison of pre-post gains in the non-taught CSs across the experimental and control conditions

The results of the Kruskall Wallis test suggested no significant difference between groups on pre-post gains in all strategies within the non- taught CSs category.

Between groups (pre-delayed post gains)

The mean scores, standard deviations and the Mann-Whitney U test results for the pre-delayed post gains between the implicit and explicit conditions on the non-taught strategies are shown in Table 4.30 and Figure 4.27 below.

Table 4.30: Comparison of pre-delayed post gains in the non-taught strategies between the implicit and explicit conditions

Groups		Topic avoidance (TA)	Message abonnement (MA)	Code-switching (CS)
		Pre-delayed Post	Pre-delayed Post	Pre-delayed Post
Implicit	*M*	-.333	-.556	.056
	SD	1.14	1.04	.639
Explicit	*M*	-.556	-.389	-.333
	SD	.922	.608	.767
Mann-Whitney	*U*	135.000	139.000	129.000
	z	-.934	-.818	-1.438
	P	.35	.41	.15

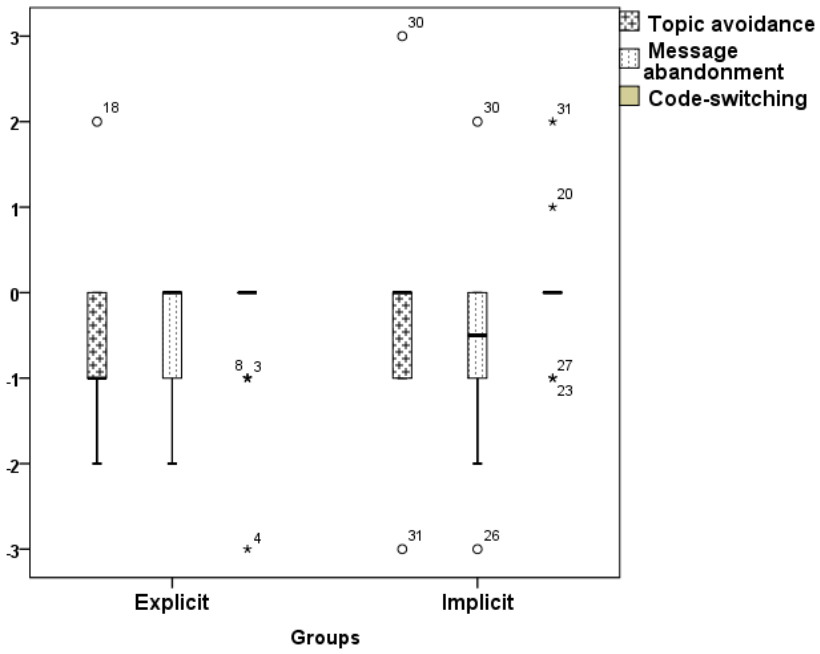


Figure 4.27: Comparison of pre-delayed post gains in the non-taught strategies between the implicit and explicit conditions

The Mann-Whitney test showed that there was no significant difference found between the implicit and explicit groups on pre-delayed post gains in all strategies within the non-taught strategies category.

4.4.10 Summary of interaction tasks results

Analysis of the interaction task results showed that: firstly, both the explicit and the implicit instructions outperformed the control group on pre-post gains in developing comprehension checks strategies, circumlocution, and approximation strategies. However, the explicit instruction group performed superiorly to the implicit instruction and the control groups on pre-post gains in developing conversation gambits and hesitation device strategies. Secondly, no difference was found on pre-post gains across the experimental and control groups in the non-taught CSs. Thirdly, the implicit instruction was superior to the explicit instruction on pre-delayed post gains in the asking for confirmation strategy.

4.5 Conclusion

This chapter presented the results of the participants' scores on task completion, questionnaire and the interaction tasks. Examination of the results obtained from both the questionnaire and interaction tasks highlights a number of general findings. Table 4.31 below summarizes the findings of the study.

Table 4.31: The general findings of the study			
Comparisons	Variable	Implicit instruction	Explicit instruction
Over time	Task-completion	-Implicit instruction showed a positive impact on the learners' performance in terms of task completion both at post-test and delayed post-test.	-Explicit instruction showed a positive impact on the learners' performance in terms of task completion both at post-test and delayed post-test.
	Strategy use	- Implicit instruction group showed significant development at post-test across the four taught categories of CSs. However, the development was sustained only in interactional CSs category at delayed post-test. - Implicit instruction group showed significant development in 9 out of 12 targeted taught CSs at post-test (See Appendices Q & R). However, only two strategies were sustained at delayed post-test: Asking for confirmation and appeal for help. -Implicit instruction group learners generally decreased their use of the non-taught CSs at post-test and sustained this decrease at delayed post-test. Two non-taught CSs were decreased at post-test: topic avoidance and message abandonment, and only the message abandonment strategy sustained this decrease at the delayed post-test.	- Explicit instruction group showed significant development at post-test across the four taught categories of CSs. However, this development was decreased at the delayed post-test in the four taught categories of CSs. - Explicit instruction group showed significant development at post-test in all the 12 targeted CSs (See Appendices Q & R). However, only five CSs were sustained at delayed post-test: Circumlocution, approximation, use of all-purpose words, comprehension checks and gestures - Explicit instruction group learners generally showed a slight increase in the use of non-taught CSs category at post-test and sustained this at delayed post-test. However, two non-taught CSs were decreased at post-test: topic avoidance and code-switching. Only code-switching strategy sustained decrease at the delayed post-test.
Comparison with the control group	Task-completion	-Implicit instruction group demonstrated to be superior to the control group on pre-post gains in task completion.	-Explicit instruction group demonstrated to be superior to the control group on pre-post gains in task completion.
	Strategy use	-Implicit instruction group significantly outperformed the control group on pre-post gains in three targeted categories of CSs, namely negotiation of meaning, positive self-solving and time-gaining. -As for the development of individual CSs, the findings suggested higher pre-post gains for the implicit instruction group over the control group in the following CSs: comprehension checks, circumlocution, approximation, use of an all-purpose words and conversation gambits and hesitation devices. -No significant difference was found between the implicit instruction and the control groups on the non-taught CSs at pre-post gains.	-Explicit instruction was demonstrated to be superior to control group across the four taught categories of CSs on pre-post gains. These were: negotiation of meaning, positive self-solving, non-verbal and time-gaining. - As for the development of individual CSs, the findings suggested significant outperformance for the explicit instruction over the control group on pre-post gains in all taught CSs except in asking for repetition and asking for confirmation strategies. -No significant difference was found between the explicit instruction and the control groups on the non-taught CSs at pre-post gains.
Comparison with one another (implicit vs. explicit)	Task completion	- No statistically significant difference was found between implicit instruction and explicit instruction groups on students' performance in terms of task completion on pre-post gains as well as on pre-delayed post gains.	
	Strategy use	- Explicit instruction showed to be superior to implicit instruction in the non-verbal CSs and time-gaining CSs on pre-post gains. - Implicit instruction group had higher gain scores than the explicit instruction group in meaning-negotiation category of CSs, particularly in the asking for confirmation strategy on pre-delayed post gains.	

The table (4.31) above summarized the key findings obtained from the current intervention study. The key findings of the study suggested that, after the five week period of instruction, there was a significant relationship between the explicit and implicit strategy instructions and the learners' success in task competition. The findings also showed that the learners of the implicit and the explicit instructions developed a wide range of taught CSs at post-test, and some of them were sustained at the delayed post-test.

The findings revealed that the explicit instruction group showed a significant development in all the 12 targeted CSs at the post-test. However, only five CSs were sustained at delayed post-test (i.e. comprehension checks, circumlocution, approximation, use of all-purpose words and gestures). The findings also showed that the explicit instruction group learners outperformed the control group learners on pre-post gains in all the targeted taught CSs, except in asking for repetition and asking for confirmation strategies.

With regard to the implicit instruction, the findings revealed that the implicit instruction group learners developed 9 out of the 12 targeted CSs at post-test. These strategies were asking for confirmation, comprehension checks, clarification request, appeal for help, conversation gambits & hesitation devices, approximation, self-correction, use of all-purpose words and circumlocution. However, only two strategies were sustained at delayed post-test: asking for confirmation and appeal for help. The findings suggested that the implicit instruction group learners had higher pre-post gains than the control group learners in 5 out of 12 targeted strategies (i.e. comprehension checks, circumlocution, approximation, use of all-purpose words and conversation gambits and hesitation devices).

These findings suggested the explicit instruction was superior to the implicit instruction in developing more targeted CSs than the implicit instruction. However, the findings of the current study showed that the implicit instruction was superior to the explicit instruction on pre-delayed post gains in interactional CSs, particularly in the asking for confirmation strategy. With regard to the control group participants' performance over time, no change in their performance occurred between pre- and post-test on any one of the five categories of the CSs. The results of this study also suggested that there was no significant difference between the pre-test and post-test scores of the control group learners on task completion.

5 Chapter 5 Discussion

5.1 Overview

This chapter discusses the main findings presented in Chapter 4 in relation to the research questions and previously reviewed studies. The key findings of the current study and their explanations are presented in section 5.2. Then, the methodological contributions of the study are discussed in section 5.3. The limitations of this study are presented in section 5.4. Finally, a summary of the discussion chapter is presented in section 5.5.

5.2 The key findings: Significance of this study

This thesis reports on one of the first intervention studies that set out to examine the differential impact of implicit and explicit instruction on developing learners' SC and task completion among Arab learners of English as a second language. It is also unique in covering a wide range of CSs including non-verbal CSs for the first time. This study is one of the first in CSs research that employed a split class design for allocating the participants to the experimental conditions. This research also contributes to the debate about whether CSs are transferable or need to be taught.

As stated in Chapter One that the aim of conducting this study was three fold: first, to investigate whether teaching CSs through implicit instruction is possible for developing learners' SC and supporting task completion. Second, to verify the findings of previous explicit strategy instruction studies which found that the explicit instruction is effective for developing learners' use of CSs. And third, to assess which type of instruction (i.e. implicit vs explicit) is more effective for developing a range of CSs at immediate post-tests, and which is superior in helping learners retain the developed CSs after 4 weeks i.e. at the delayed post-test.

The results of this study are interesting in that they suggest that implicit instruction is effective for developing learners' use of CSs (See Table 5.1). The results also showed that implicit instruction has a significant positive effect on supporting learners in terms of task completion both at post-test and delayed post-test. The results also confirm findings of previous studies in that explicit instruction is beneficial for developing learners' use of CSs (See Table 5.2), and that explicit instruction is effective for supporting task completion. Finally, findings of this study suggest that CSs are

teachable particularly interactional CSs, positive self-solving CSs, and time-gaining CSs.

Table 5.1: Summary of pre-post gain results between the implicit group and the control group

Strategies	Comparison made on a whole category	Comparison made on individual CSs within each category	
Interactional CSs	Sig	Asking for confirmation	Not sig
		Asking for repetition	Not sig
		Comprehension checks	Sig
		Clarification request	Not sig
		Appeal for help	Not sig
Positive self-solving CSs	Sig	Circumlocution	Sig
		Approximation	Sig
		Self-correction	Not sig
		Use of all-purpose words	Sig
Time-gaining CSs	Sig	Conversation gambits & HD	Sig
		Self-repetition	Not sig
Non-verbal CSs	Not sig	Gestures & facial expressions	Not sig
Non-taught CSs	Not sig	Topic avoidance	Not sig
		Message abandonment	Not sig
		Code-switching	Not sig

Sig= a statistically significant difference at 0.05 in favour of the implicit instruction group
Not sig= No significant difference between the two groups

Table 5.2: Summary of pre-post gain results between the explicit group and the control group			
Strategies	Comparison made on a whole category	Comparison made on individual CSs within each category	
Interactional CSs	Sig	Asking for confirmation	Not sig
		Asking for repetition	Not sig
		Comprehension checks	Sig
		Clarification request	Sig
		Appeal for help	Sig
Positive self-solving CSs	Sig	Circumlocution	Sig
		Approximation	Sig
		Self-correction	Sig
		Use of all-purpose words	Sig
Time-gaining CSs	Sig	Conversation gambits & HD	Sig
		Self-repetition	Sig
Non-verbal CSs	Sig	Gestures & facial expressions	Sig
Non-taught CSs	Not sig	Topic avoidance	Not sig
		Message abandonment	Not sig
		Code-switching	Not sig
Sig= a statistically significant difference at 0.05 in favour of the explicit instruction group Not sig= No significant difference between the two groups			

In relation to the comparison between explicit and implicit instruction, the results suggest that there were no statistically significant differences between the implicit and explicit instruction in supporting task competition at pre-post gains (i.e. short-term) and pre-delayed post gains (i.e. long-term). As for strategy development, the results showed that the explicit instruction appeared to be superior to implicit instruction in developing non-verbal CSs and time-gaining CSs on pre-post gains. However, on pre-delayed post gains, results showed that implicit instruction is more effective than explicit instruction in retaining the use of interactional CSs after 4 weeks particularly in the asking for confirmation strategy (See Table 5.3).

Table 5.3: Summary of pre-post and pre-delayed post gains results between implicit instruction and explicit instruction			
Categories	Strategies	Comparison made on individual CSs within each category	
		Pre-post gains	Pre-delayed post gains
Interactional CSs	Asking for confirmation	Not sig	*Sig
	Asking for repetition	Not sig	Not sig
	Comprehension checks	Not sig	Not sig
	Clarification request	Not sig	Not sig
	Appeal for help	Not sig	Not sig
Positive self-solving CSs	Circumlocution	Not sig	Not sig
	Approximation	Not sig	Not sig
	Self-correction	Not sig	Not sig
	Use of all-purpose words	Not sig	Not sig
Time-gaining CSs	Conversation gambits & HD	**Sig	Not sig
	Self-repetition	**Sig	Not sig
Non-verbal CSs	Gestures & facial expressions	**Sig	Not sig
Non-taught CSs	Topic avoidance	Not sig	Not sig
	Message abandonment	Not sig	Not sig
	Code-switching	Not sig	Not sig
*Sig= a statistically significant difference at 0.05 in favour of the implicit instruction group **Sig= a statistically significant difference at 0.05 in favour of the explicit instruction group Not sig= No significant difference between the implicit and explicit groups			

Considering the full range of data collected in this study and drawing on the findings of previous studies, there are a number of possible explanations for these results.

5.2.1 Procedural task repetition supports task completion

The results suggest that both implicit instruction and explicit instruction have a positive impact on supporting task completion. The students in both the implicit and explicit groups were able to achieve the task outcome successfully and describe quite similar pictures to the original ones better than their counterparts in the control group on the immediate post-test and sustained this improvement at the delayed post-test. The interactional tasks employed for eliciting the learner's use of CSs in this study were two parallel versions of 'describe and draw' tasks (See section 3.6.1).

A possible explanation for this result is related to the series of interaction tasks that the learners were exposed to and asked to perform during the intervention. Exposing learners to watching people do interaction tasks and asking them to do similar tasks afterwards would probably make the learners familiar with the task requirements and train them on how to achieve it successfully. In this study, the interaction tasks used for training and testing CSs shared the same characteristics and followed similar procedures but they were different in content only. It could be argued that training learners to perform a series of slightly altered interaction tasks can prepare them to achieve subsequent tasks successfully, both in the short and long terms. This is because "experience of a particular communication task on one occasion can help learners to carry out the same task [or the same task procedure with different content] on subsequent occasions" (Bygate, 2001, p. 29). Task repetition can be either task repetition (i.e. same procedure and same content) or procedural repetition (i.e. same procedure and different content) (Ahmadian & Tavakoli, 2011; Bygate & Samuda, 2005; Kim & Tracy-Ventura, 2013). Previous research findings showed that although task repetition was effective for improving learners' performance on the same task, it was not effective in helping the learners sustain this improvement in a new context (Bygate, 2001; Gass et al. 1999). Recent studies have shown that the procedural repetition is more beneficial than task repetition for learners' performance in terms of supporting them carry the knowledge over to new or subsequent contexts (García-Fuentes & McDonough, 2016; Kim & Tracy-Ventura, 2013; Takimoto 2012). Results of the current study confirm the effectiveness of task procedural repetition in supporting learners to develop procedural knowledge about how to deal with new slightly altered tasks to achieve them successfully.

5.2.2 Implicit instruction develops certain types of CSs

In the current study, the implicit instruction was implemented by employing Task-based Language Teaching methodology. That is, in each lesson, an interaction task was given to the learners in the implicit instruction group in order to achieve it. At the pre-task stage, the learners were exposed to a video of two people doing a similar task and using CSs whenever they face speaking or listening problems during their communication. In each task, two or three targeted CSs were deliberately used by the two people who performed the task in order to help the learners infer the targeted CSs,

but without drawing their explicit attention to them. The rationale was to create the most appropriate learning environment for implicit strategy instruction to take place, which has been suggested by previous literature (DeKeyser, 1995; 2003; Ellis, 2005; Hulstijn, 2005; Norris & Ortega, 2001). Moreover, the tasks used in this study were designed by the researcher and included all the characteristics that the literature suggests of a good task for eliciting increased students' interaction, as well as fostering their cognitive engagement.

As shown in Table 5.1, the results suggest that there is a significant difference in the implicit instruction over the control group on pre-post gains in five CSs, namely comprehension checks, circumlocution, approximation, use of an-all-purpose word, and conversation gambits and hesitation devices.

There are two possible explanations for this result. The first explanation is that the implicit instruction group learners are affected by the type of interaction tasks that they performed during the intervention. As explained in section 3.5.1, the interaction tasks were designed in a way that promotes more interaction and meaning negotiation between the learners. They were two-way interactive tasks with convergent goals and closed outcomes. In addition, they were both linguistically and cognitively demanding. The learners were asked to do the tasks in pairs, rather than in groups of three or more, to provide more time for speaking for each student. The tasks required both of the students to interact and share the information that they had about the task to achieve the intended outcome. These types of tasks provided good conditions for the students to adjust their interaction through negotiation of meaning strategies as well as other targeted CSs in times of facing communication difficulties, either in expressing what they intended to say or in comprehending what is said to them. It can be seen clearly in Excerpts 1, 2 & 3 below how the designed interaction tasks induced students in the implicit instruction group to use CSs to communicate their meanings and to deliver their communication messages successfully.

Excerpt 1: (taken from lesson 4, map game task, pair 2)

> Student 1: Then, go between book and candle (**Approximation** to mean menorah**)**
>
> Student 2: Between book and candle where can I go? (**Asking for clarification**)

Student 1: Go right no left (**Self-correction**) up the home (**Approximation** to mean house) and go down.

Student 2: Ok

In Excerpt 1, the students were communicating to find the correct route of the map. Student 1 used the word candle as an approximation strategy to mean menorah, as he did not know the latter. Student 2 repeated the sentence between book and candle to confirm that what he heard was correct, and then asked his partner which direction to go because Student 1 did not originally give him the direction (where can I go=asking for more clarification). Student 1 used self-correction and then used the word 'home' as an approximation, as he was not able to recall the word 'house' at that time.

Excerpt 2: (Taken from lesson 2, Mr Bean task, pair 1)

Student 1: Now, Mr Bean sat on the chair (**Approximation** to mean bench) in the street.

Student 2: Again please? (**Asking for repetition**)

Student 1: Sat on the chair (**Approximation**) in the street

Student 2: Yes

Student 1: He puts a big a big (**self-repetition**) sandwich (**Approximation** to mean bread) on his uhh here (**Gesture** he used his hands as a non-verbal strategy because he did not know the word knees). Now, He cuts the bread (**Self correction**) into small pieces. Ok? (**Comprehension checks**)

Student 2: Ok

Excerpt 2 presents another example of how the Mr Bean task has provided opportunities for the students to use CSs in several places while they were communicating to complete the task. For example, Student 1 used the word 'chair' as an approximation strategy to mean 'bench'. Student 2 did not get the message clearly; therefore, he used the asking for repetition strategy. Then, Student 1 used different types of CSs in order to get his message across. For example, he used gestures, self-repetition, approximation and comprehension checks strategies.

Excerpt 3 below also provide more evidence of how the interaction tasks designed for the purpose of this study generate negotiation of meaning strategies, such as asking for confirmation, clarification request and appeal for help.

Excerpt 3: (Taken from lesson five, spot the difference task, pair 3)

Student 1: Ok, there is a big uhh bed

Student 2: a big bed? (**Asking for confirmation**)

Student 1: Yes.

Student 2: Ok, is it with a red quilt or no? (**Clarification request**)

Student 1: Yes, with a red

Student 2: ok, and?

Student 1: And white uhh what do you mean by that? (**Appeal for help**)

Student 2: Pillows? (**Asking for confirmation**)

Student 1: Yes, pillows

Student 2: Yes, yes pillows white pillows. And?

This explanation is supported by Dörnyei's (1995) study focusing on the teachability of communication strategies to second language learners and Newton's (2013**)** study focusing on the ways in which students negotiate the meaning of unfamiliar words that they face in interaction tasks. In both studies, communicative interaction tasks that contain information-gap elements were found to be indirect ways of practicing the use of CSs. This explanation is also supported by Rabab'ah's (2016) research where he found that the control group which was exposed to communicative activities only (as type of implicit instruction) did not show any improvement in the use of CSs. The possible reason for the results is probably due to the types of communicative activities that he used in his study, which were characterized as open-ended activities such as role-playing and open discussion. The open-ended tasks probably do not encourage learners to get fully engaged in the task as engagement in these tasks is optional (Doughty & Pica, 1986). This is because the nature of these tasks does not require mutual agreement and/or accepts different acceptable answers. Therefore, students may be free to select the information they want to discuss. Usually, students tend to use the words most familiar to them and "avoid or ignore unfamiliar words that [they

do not know] or play a minor role in the task" (Newton, 2013, p.19). Thus, such tasks may be good for developing other language features but not for developing CSs. Furthermore, he relied on having students work in groups of five or six, rather than having them work in pairs of two students, as in the current study. This explanation is also supported by findings of previous studies on student-student interaction that showed the two-way information-gap tasks are more likely to maximize opportunities for the learners to use negotiation of meaning strategies (Doughty & Pica, 1986; Gass, Mackey & Ross Feldman, 2005; Nakahama et al., 2001; Sauro, Kang & Pica, 2005).

The second explanation for the development of these CSs can be attributed to the videos that the learners of the implicit instruction group were exposed to at the pre-task stage. It is more likely that the videos made the learners aware that native speakers also use CSs when they encounter communication problems. It is worth remembering that the pre-task videos involved two native speakers doing similar tasks. Each video was saturated with specific CSs in the hope that the learners would notice and become aware of how native speakers overcome communication difficulties through the use of CSs. Ellis (2009) asserts that implicit instruction "involves creating a learning environment that is 'enriched' with the target feature, but without drawing learners' explicit attention to it" (p.17). This explanation is also supported by previous research that showed a positive impact of teaching CSs through video clips on enhancing learners' use of CSs (Amoozesh & Gorjian, 2015; Liaghat & Afghary, 2015; Nguyet & Mai, 2012). Nguyet and Mai (2012) highlighted that teaching CSs through video clips helps the learners become familiar with how CSs are used by native speakers and thus encourages them to use these strategies. Amoozesh and Gorjian (2015) concluded that the appropriate use of video clips assists students in enhancing their use of CSs, which led to the development of their speaking skills.

5.2.3 Explicit instruction develops a wide range of CSs

The findings of this study showed that the explicit strategy instruction group was superior to the control group in developing 10 out of 12 targeted CSs. These strategies were comprehension checks, clarification request, appeal for help, circumlocution, approximation, self-correction, use of all-purpose words, conversation gambits and hesitation devices, self-repetition, facial expressions and gestures (See Table 5.2). The probable reason for this significant development for the explicit instruction group over the control group is due to the ample learning opportunities that the explicit instruction

provided to the learners during the intervention. In this study, explicit instruction group learners were given definitions of CSs along with explanations and examples of how to use CSs in times of communication difficulties. In addition, the learners were also exposed to video samples to draw their attention to the appropriate usage of CSs (See section 2.6.1). That is, in each lesson specific CSs were presented, explained by the researcher and then discussed and practiced with the learners. It is more likely that the explicit instruction of CSs stimulated the learners to greater use of such CSs during interaction tasks and to report them more in the questionnaire and interviews. The findings confirm that explicit instruction that includes both explanation and practice is beneficial for developing a wide range of CSs on the immediate post-test. This means that explicit instruction is effective for developing the learner's declarative knowledge of CSs. With the exception of Salomone and Marsal (1997) and Scullen and Jourdain (2000), previous research findings also suggest a positive impact of explicit instruction for developing learners' use of CSs. (Alibakhshi & Padiz, 2011; Lam, 2006; Maleki, 2007; Rabab'ah, 2016; Tavakoli et. al, 2011).

It is worth mentioning that the results of the present study can be broadly in line or different to other reviewed studies that focused on developing CSs through explicit instruction. However, it is difficult to immediately compare the current study results with these, because of various important variables that have a direct impact on learners' use of CSs. These essential variables are: (1) the type and number of CSs nominated to be developed varied from one study to another, (2) the target population of the research and their proficiency levels, and (3) the methods of data collection employed for gauging participants' strategic behaviour.

For example, both findings from Salomone and Marsal's (1997) and Scullen and Jourdain's (2000) studies differ from the results of the current study in that they showed no significant differences between the explicit and the control groups in circumlocution on post-test scores. It is most likely that the results of Salomone and Marsal's (1997) study were affected by the type of tests used for assessing circumlocution, specifically written tests rather than oral. Employing written tests to assess the learners' oral ability to circumlocute in English may lack face validity. The English levels of the learners who participated in Scullen and Jourdain's (2000) study ranged from pre-intermediate to post-intermediate. It has been found that there is "an inverse relationship between proficiency level and CS use: the less proficient subjects

produced more CSs than did the more proficient speakers" (Liskin-Gasparro 1996, p. 319).

In this study, the asking for confirmation and asking for repetition strategies did not show any improvements on pre-post gains. A possible explanation for why the explicit training group showed no significant difference from the control group in these two strategies might be that they were affected by the way they achieved the interaction tasks at pre-and post-tests, where they were only required to describe the picture to a consistent interlocutor, who was a native speaker of Arabic with English skills at an advanced level. Therefore, the description of the picture might not require them to use these two strategies. This could be one of the limitations of this study, as asking the learners to describe a picture to one consistent interlocutor may be useful for eliciting only the strategies that cope with speaking problems, rather than listening problems. This explanation is supported by Rabab'ah's (2016) study in which he also discovered that there was no difference between the explicit strategy training group and the control group in asking for confirmation strategy at post-test. Raba'ah (2016) used two different versions of the IELTS speaking test. The test setting was a one-to-one interview with the examiner and one of the participants. Therefore, it can be confirmed that the oral test setting has an impact on generating different types of CSs.

5.2.4 The Explicit instruction vs implicit instruction

As stated in section 5.2, the pre-post gains results showed that there were no statistically significant differences between the implicit instruction and explicit instruction for developing interactional CSs (i.e. comprehension checks, clarification request and appeal for help) and positive self-solving CSs (i.e. circumlocution, approximation, self-correction and the use of all-purpose words). However, explicit instruction appeared to be superior to implicit instruction in developing non-verbal CSs (i.e. in facial expressions strategy) and time-gaining CSs (i.e. self-repetition and conversation gambits & hesitation devices strategies) (See Table 5.3).

The possible explanation for the superiority of explicit instruction over implicit instruction in non-verbal and time-gaining CSs on pre-post gains could be that explicit instruction enabled the learners to remember the strategies that they had during the explicit strategy training. In other words, because the post-test was applied immediately after the intervention, explicit instruction learners might still store the CSs in their short-term memory (a part of working memory). Therefore, it was easy

for them to use and report the CSs. There is a large body of evidence (i.e. meta-analyses, cognitive psychological and education studies) showing that working memory plays a vital role in the acquisition of explicit knowledge through explicit instruction (Indrarathne & Kormos, 2017; Robinson, 2005b).

Findings of the pre-post gains between the implicit and explicit strategy instruction groups in this study are broadly in line with the findings of the meta-analysis studies by Goo, Granena, Yilmaz and Novella (2015), Norris and Ortega (2000) and Spada and Tomita (2010). These meta-analyses were conducted to investigate the relative efficacy of explicit instruction and implicit instruction on developing different second language features. The results of these meta-analyses showed that explicit instruction is more effective than implicit instruction in the short-term i.e. immediate post-tests. Similarly, DeKeyser (2003) compared findings of 14 studies carried out to examine the impact of explicit instruction and implicit instruction in laboratory and classroom settings. The results of DeKeyser (2003) also indicated that explicit instruction is more effective than implicit instruction on post-tests.

However, the results of pre-delayed post gains of this study showed that the implicit instruction group earned higher scores than the explicit instruction group in interactional meaning-negotiation strategies, specifically in the asking for confirmation strategy. These results contrast the findings of the above meta-analyses in which they found that the explicit instruction is more effective than implicit instruction on delayed post-tests.

The possible explanation for this result may be that the implicit instruction is stronger in the delayed post-test than the immediate post-test. That is, the implicit instruction could lead to more solid and stable learning and lasts for a longer period. In other words, implicit strategy instruction could enable learners to engage more deeply in the knowledge and, thus help them develop their implicit knowledge of the usage of CSs. This result lends support to Craik and Lockhart's (1972) Depth of Processing Hypothesis. According to this hypothesis, the process of remembering information depends on the depth to which it was processed, rather than on having paid attention to its occurrence or having repeated it after its occurrence. The latter is considered shallow processing, and can be exemplified by students who only process the physical features of the language. Shallow processing involves learners repeating or rehearsing the information in order to store it in their short-term memory. Thus, it does not lead to robust retention of the information (Leowa & Mercer, 2015). In

contrast, deep processing takes place when students take the information and decode it in relation to its meaning and relationship with the other similar information available in their prior knowledge system. Therefore, deep processing leads to superior recall or retention of the given information (Leowa & Mercer, 2015, p. 70). This explanation is supported by Mackey (1999) and Murunoi's (2000) findings, which also suggest that the effects of form-focused instruction were more robust in the delayed post-test.

5.3 The methodological contributions of the study

Another possible explanation for these interesting results may be due to the research strategy and a solid design adopted in this study.

First, in order to gain a valid and accurate description of learners' use of CSs, a mixed methods approach was used for data collection. Both quantitative (interaction tasks and questionnaire) and qualitative (stimulated recall interviews) methods were employed for measuring learners' strategic behaviour. The rationale for using three methods of data collection was that each method has its inherent biases and limitations. For example, without employing follow-up stimulated recall interviews, it was difficult to have a clear picture of the learners' actual use of CSs from interaction tasks only. This is because the actual strategic behaviour covers observable as well as some unrecognizable CSs. For this reason, it was necessary to tap into participants' underlying thought processes through using stimulated recall interviews to interpret the actual strategic behaviour of the learners and to verify the validity of data collected by observation tasks. Although both interaction tasks and stimulated recall interviews provided evidence about the learners' actual use of CSs, they cannot elicit a wide range of the developed CSs. Therefore, a questionnaire was used to compensate for the limitations of the preceding methods and to provide a general overview of the participants' use of CSs.

Second, one of the contributions of this study was employing a split-class design to assess the differential impact of explicit and implicit instruction on the use of CSs among pre-intermediate Arab learners of English. In this design, half of the participants in each group were randomly allocated to each of the three experimental conditions (i.e. implicit instruction, explicit instruction and control group). This design helped in countering sample bias due to the "cluster effect" (Torgerson & Torgerson 2003, p. 73) or "inter-group correlation" (Marsden, 2007, p. 568) and many potential

confoundings, such as class composition, setting, learning histories, and regulations were also controlled (Carver, 2006, Marsden, 2007).

Third, the interaction tasks were counterbalanced by using two parallel versions of "describe and draw" tasks. Half of the learners in each condition were randomly allocated to perform "describe and draw task 1" and the other half carried out "describe and draw task 2". This procedure helped in two ways: (1) to neutralise any effects associated with the order in which these tasks are achieved. (2) To control for any test effect and the possibility of learning from pre-test to post-test (Haslam & McGarty, 2014; Marsden & Torgerson, 2012).

5.4 Limitations of this study

A number of limitations must be acknowledged. Firstly, this study employed three groups: two experimental groups and one control group. The first experimental group (i.e. implicit instruction) was taught CSs through practising interaction tasks only. The second experimental group (i.e. explicit instruction) was explicitly taught CSs as well as practicing the same interaction tasks. The control group was only exposed to pre- and post-tests. In this design, explicit group participants benefited from both explicit instruction of CSs (i.e. presentation) and interaction tasks (practice). Therefore, it is not clear whether the effectiveness of the explicit instruction can be attributed to the explicit instruction of CSs (i.e. presentation) or the combination of the presentation and practice of CSs. Future research could therefore compare the explicit instruction (presentation only) to explicit instruction plus practice (presentation and practice) and implicit instruction (practice only) as explained in Table 5.4 below.

Table 5.4: Design of future study

Groups	Conditions	Description
Group 1	Implicit instruction (practice only)	Teaching CSs through practicing interaction tasks
Group 2	Explicit instruction (Presentation only)	Teaching CSs through explicit instruction only without practicing interaction tasks
Group 3	Explicit instruction (Practice and presentation)	Teaching CSs through explicit instruction plus practicing interaction tasks
Group 4	Control	Pre-test, post-test and delayed post-test

Secondly, another limitation relates to the nature and the way that the students performed the "describe and draw" tasks. It is found that these tasks are useful for eliciting the strategies that cope with speaking problems rather than listening problems. However, this limitation can be found in almost all interaction tasks, as it is difficult to find one unique task that is able to elicit all types of CSs. It was also not feasible to use more than one type of elicitation tasks due to the number of data collection methods employed in this study (e.g. interaction tasks, stimulated recall interviews and questionnaire). Thirdly, the majority of the participants were male due to their availability and willingness to communicate voluntary. Having a mixed representative gender sample could have provided generalisation to the results.

Fourthly, as indicated in the introduction, is that one of the reasons for choosing implicit instruction is that there are claims or evidence that it leads to implicit knowledge, which is more durable than explicit knowledge. A limitation of this study is that we do not know whether the developed knowledge was implicit or explicit knowledge. In future research, some methods of measurements might be used to test this issue. And finally, the researcher himself delivered the strategy training sessions. This may have affected the ecological validity of the study and it would have been more natural if the students had received the training from their actual teachers.

5.5 Summary

This chapter discussed and interpreted the main findings of the present study. It began by summarising the key findings of the results obtained from the combination of the three data collection methods, namely interaction tasks, stimulated recall interviews

and questionnaire. Then, the main findings were organised into themes and a number of possible explanations were offered.

The first theme concerned the results of task completion. As mentioned in section 5.2, the results suggest that there were no statistically significant differences between implicit and explicit instruction in supporting task competition at pre-post gains (i.e. short-term) and pre-delayed post gains (i.e. long-term). The possible explanation for the superiority of implicit and explicit instruction to the control group in task completion is related to the interaction tasks that the learners were exposed to and practiced during the experiment. This result confirms that task procedural repetition is effective for developing learners' procedural knowledge about how to deal with new slightly altered tasks to achieve the goals successfully.

The second theme interpreted the results of the implicit instruction. Two possible explanations for the impact of implicit instruction on developing certain types of CSs were given. The first is that the learners are affected by the type of interaction tasks (i.e. two-way interactive tasks with convergent goals and closed outcomes) that they performed during the intervention. The second explanation can be attributed to the videos that the learners of the implicit instruction group were exposed to at the pre-task stage.

The third theme discussed the results of the explicit instruction and its effectiveness on developing a wide range of CSs. The possible explanation for this result is more likely due to the ample learning opportunities that the explicit instruction provided to the learners during the intervention. That is, the explicit instruction group learners were exposed to videos samples, received explicit instruction of CSs and practiced the CSs in interaction tasks.

The fourth theme related to the comparison between explicit and implicit instruction in terms of strategy development on pre-post gains and pre-delayed post gains. The most interesting finding was that the implicit instruction group outperformed the explicit instruction group on pre-delayed post-gains. Two possible explanations for this result were offered. The first explanation is that the implicit strategy instruction could enable learners to engage more deeply in the knowledge and, thus help them develop their implicit knowledge of the usage of CSs. The second explanation is attributed to the measurements used for assessing the learners' use of

CSs. The tests employed in this study were balanced in assessing both implicit knowledge (represented by the interaction tasks) and explicit knowledge (represented by a questionnaire) of learner' use of CSs. Another possible explanation for these can be attributed to the research strategy and solid design employed in this study.

6 Chapter 6: Conclusion

6.1 Overview

In this chapter, the key elements of the current intervention study are addressed. The aims of the study, along with the research questions, are presented in section 6.2. the summary of the study is presented in 6.3. The summary of findings is introduced in section 6.4. And finally, the theoretical and pedagogical implications are discussed in section 6.5.

6.2 Aims and research questions

This thesis set out to investigate the impact of explicit and implicit instruction through the framework of TBLT on developing strategic competence and supporting task completion among pre-intermediate Arabic learners of English. The study had the following aims: first, to investigate whether teaching CSs through implicit instruction is beneficial for developing learners' SC and supporting their task completion. Second, to verify the findings of previous explicit strategy instruction studies that found explicit instruction is effective for developing learners' use of CSs. And third, to assess which type of instruction (i.e. implicit vs explicit) is more effective for developing a range of CSs at immediate post-tests, and which is superior in helping learners retain the developed CSs after 4 weeks i.e. at the delayed post-test. To achieve the main overarching aims, the following contributing questions were proposed:

RQ1: To what extent are explicit and implicit instruction effective in supporting task completion?

RQ2: To what extent are explicit and implicit instruction effective in developing learners' use of communication strategies?

RQ3: Which types of communication strategies does implicit instruction develop?

RQ4: Which types of communication strategies does explicit instruction develop?

6.3 Summary of the study

As stated above, the aim of this thesis was to examine whether implicit instruction or explicit instruction is more effective for developing the learners' SC and supporting

task completion. A mixed methods research strategy was followed in order to answer the research questions that were addressed in this study.

The participants were 52 (49 male, 3 female) L1 Arabic learners of L2 English from two English Language Centres in the North East of England. Initially, participants were divided into three groups and allocated randomly to one of the three conditions: implicit instruction, explicit instruction and control group. After groups were split and randomly allocated to the different experimental conditions, the participants were further divided and randomly allocated to pre-tests. The key dependent variable in this study was the use of CSs. Development of CSs was measured through observation of task completion and follow-up stimulated recall interviews, along with completion of a self-report questionnaire. The target CSs were interaction strategies, positive self-solving, time-gaining and non-verbal CSs. The participants were tested at three points throughout the study; pre-test (week 1), post-test (week 9) and delayed post-test (week 15).

The time schedule of this study lasted for a total of 15 weeks. The interventions were administered in weekly sessions over a period of five weeks, giving a total duration of 5 hours. In addition a non-active Control group was utilised in order to control for any potential test effect influencing the learners' performance.

6.4 Summary of findings

The present study has provided substantial evidence that implicit strategy instruction can be effective in developing learners' SC and supporting their task completion. The results also confirm findings of previous studies in that explicit instruction is effective for developing learners' use of CSs, and that explicit instruction is effective for supporting task completion. Finally, findings of this study suggest that CSs are teachable, particularly interactional CSs, positive self-solving CSs, and time-gaining CSs.

The following is the summary of the findings of this study in relation to the research questions.

RQ1: To what extent are explicit and implicit instruction effective in supporting task completion?

Findings:

The answer is that both implicit and explicit instructions were effective in supporting task completion at post-test and this was maintained at delayed post-test. The results also suggested that both the implicit and explicit instruction learners had significantly higher gain scores than the control group on pre-post and pre-delayed post gains in terms of task completion.

RQ2: To what extent are explicit and implicit instruction effective in developing learners' use of communication strategies?

Findings:

Concerning the time sensitive results (i.e. pre-test, post-test, delayed post-test), the implicit instruction group showed significant development at post-test across the four taught categories of CSs. However, the development was sustained only in the interactional CSs category at the delayed post-test. In contrast, the explicit instruction group showed significant development at post-test across the four taught categories of CSs and decreased this development at the delayed post-test in the four taught categories of CSs. As for individual strategy development over time, the implicit instruction group showed significant development in 9 out of the 12 targeted taught CSs at post-test. However, only two strategies were sustained at delayed post-test, namely asking for confirmation and appeal for help. The explicit instruction group, on the other hand, showed significant development at post-test in all 12 targeted CSs. However, only five CSs were sustained at delayed post-test, specifically circumlocution, approximation, use of all-purpose words, comprehension checks and gestures.

With respect to the comparison between implicit and explicit instruction, the pre-post gains showed that both implicit instruction and explicit instruction appeared to be effective for developing interactional meaning of negotiation CSs (i.e. comprehension checks, clarification request and appeal for help) and positive self-solving CSs (i.e. circumlocution, approximation, self-correction and the use of all-purpose words). However, explicit instruction appeared to be superior to implicit instruction in developing non-verbal CSs (i.e. facial expressions strategy) and time-gaining CSs (i.e. self-repetition, conversation gambits, and hesitation devices strategies).

On pre-delayed post gains, implicit instruction outperformed explicit instruction in the meaning-negotiation category of CSs, particularly in the asking for confirmation strategy.

Q3: Which types of communication strategies does implicit instruction develop?

Findings:

The implicit instruction group significantly outperformed the control group on pre-post gains in three targeted categories of CSs, namely negotiation of meaning, positive self-solving and time-gaining.

As for the development of individual CSs, the findings suggested higher pre-post gains for the implicit instruction group over the control group in the comprehension checks, circumlocution, approximation, use of all-purpose words, and conversation gambits and hesitation devices strategies.

Q4: Which types of communication strategies does explicit instruction develop?

Findings:

Explicit instruction was demonstrated to develop the four targeted categories of CSs, namely interactional negotiation of meaning strategies, positive self-solving strategies, non-verbal strategies and time-gaining strategies.

The findings also suggested that explicit instruction outperformed the control group in all taught CSs on pre-post gains, except in the asking for repetition and asking for confirmation strategies.

6.5 Theoretical and pedagogical implications

6.5.1 Implicit strategy instruction

This study offers substantial evidence that implicit strategy instruction is effective for developing certain types of CSs, namely interactional (meaning negotiation strategies) and positive self-solving CSs. The findings also provide evidence that implicit strategy instruction is stronger and more durable than explicit instruction in retaining CSs. This indicates that the implicit instruction lead to more solid and stable learning and lasts for a longer period. That is, implicit strategy instruction enabled learners to engage more deeply in the knowledge.

This result also lends support to Craik and Lockhart's (1972) Depth of Processing Hypothesis. That is, implicit instruction can encourage deep learning. According to this hypothesis, the process of remembering information depends on the depth to which it was processed. Deep processing leads to superior recall or retention of the given information (Leowa & Mercer, 2015, p. 70).

The study also lends support to Long's (1983) Interaction Hypothesis that was adopted in this study in which the strong form of TBLT provides more opportunities for learners and enables the input to be more comprehensible to them.

6.5.2 Explicit strategy instruction

The findings of this study suggest that explicit instruction is more beneficial for developing a wide range of CSs than implicit instruction in pre-post gains (i.e. short-term). This could mean that explicit instruction is effective for developing learners' use of CSs. These findings are broadly in line with previous research that has shown that explicit strategy instruction is effective for developing learners' use of CSs (Alibakhshi & Padiz, 2011; Bataineh, Al-Bzour, & Baniabdelrahman, 2017; Dobao & Martínez, 2007; Kongsom, 2009; Lam, 2006, 2010; Maleki, 2007; Nakatani, 2005; Raba'ah, 2016; Tavakoli, Dastjerdi & Esteki, 2011).

6.5.3 Task completion

The results also showed that both implicit and explicit strategy instruction within the framework of TBLT were effective in supporting task completion at post-test and this was maintained at delayed post-test. These impressive results are attributed to the series of interaction tasks that the learners were exposed to and asked to perform during the experiment. Exposing learners to watching people perform interaction tasks and asking them to do similar tasks afterwards would make the learners familiar with the task requirements and train them on how to achieve the goal successfully. The findings of this study are in line with previous research which has demonstrated that task procedural repetition is beneficial for learners' performance in terms of supporting them to carry the knowledge over to new or subsequent tasks (García-Fuentes & McDonough, 2016; Kim & Tracy-Ventura, 2013; Takimoto 2012). Therefore, it could be argued that implicit strategy instruction within the strong form TBLT format

prepares the learners to face and overcome their language problems independently in order to achieve their communication goals successfully.

6.5.4 Teachability of CSs

Findings of the current study, in opposition to the view of the "Cons" group (e.g. Bialystok, 1990; Bongaerts & Poulisse, 1989; Kellerman, 1991; Poulisse, 1990) who reject the idea of teaching CSs, suggest that CSs are teachable. All of the CSs selected to be developed in this study appeared to be teachable, namely interaction CSs, positive self-solving CSs, time-gaining CSs and non-verbal CSs. Therefore, the findings of this study lend support to the "Pros" group or the proponents of teaching CSs (e.g. Dornyei, 1995; Dornyei & Thurrell, 1991; Maleki, 2007; Tarone, 1980) who argue that CSs are teachable and teaching CSs is pedagogically effective.

6.5.5 Observation and stimulated recall interviews

This study showed that doing observation followed-up by stimulated recall interview is necessary in communication strategy research. Observation helped the researcher to conduct the stimulated recall sessions as soon as possible after task completion. Due to the large number of participants and time constraints, it was practically impossible to transcribe and/or code the learners' oral performance and conduct stimulated recall within the same day. This is because, as mentioned in section 3.5.2.2.1, in order to gain more reliable data, stimulated recall interviews should be carried out immediately after task completion.

The stimulated recall was beneficial to employ in this study for the following reasons. Firstly, it helped the researcher confirm the validity of the coded CSs, except those rejected by the learners. Secondly, students' comments in stimulated recall helped the researcher identify unrecognised strategies, such as topic avoidance and approximation strategies, which would have otherwise remained unnoticed. Thirdly, stimulated recall sessions provided an opportunity for the researcher, though not directly, to ask the learner to comment at critical incidents that may suggest that a communication strategy had been used. For example, long pauses, non-verbal behaviours or ambiguous words that were misleading in context. Finally, stimulated

recall sessions helped the researcher to adjust or delete some strategies incorrectly identified in learners' utterances.

Appendices

Appendix A: Definitions of communication strategies

Strategy	Definition	Examples
Approximation	The learner uses an alternative target language word or structure which is not correct but it shares sufficient semantic features with the desired item. -Using an alternative lexical item that shares certain semantic features with the target item.	Use of a superordinate term ("It's a type of"), an analogy ("It's like an octopus, but it's not an octopus.") or a related term ("It's a cigarette" for "It's a cigar"). e.g. quicker for faster Damaged for broken down.
Circumlocution	The learner exemplifies, illustrates or describes the properties of the target object (size, shape, texture) or action instead of using the appropriate target language item or structure.	**"**It is something like a chair used to put the child on and push it" to mean "a pushchair". "It's oval and shiny,", "Made of metal (or plastic)".
Word-coinage	The learner creates a non-existing L2 word or phrase based on a supposed rule in order to communicate the desired concept.	"Airball for balloon", "fish zoo for aquarium", "vegetarianist for vegetarian", "ice cabinet (or ice box) for freezer". "The car is unmove" to mean "the car broke down".
Use of all-purpose words	The learner uses a more general concept such as stuff, thing, do, make, as the specific word might be unknown or it cannot be recalled at the time of execution.	**"**They are cleaning stuff…" to mean "dishes". "I can't can't work until you repair my...thing".
self-correction	The learner makes self-initiated corrections in their own utterance once realizing s/he has made a mistake in pronunciation, grammar or choice of words.	"then the sun shines and the weather get be… gets better". "He just completed his road…his way".
Appeals for assistance	The learner asks the interlocutor for the right word, either directly or indirectly.	Directly ("What do you call something… in English?") Indirectly ("I do not know the word in English", eye-contact or puzzled expression).
Asking for repetition	The learner asks the interlocutor to repeat what they have just said to facilitate understanding.	"Pardon?, beg your pardon, can you say it again, please?"
Asking for clarification (clarification request)	The learner asks the interlocutor to clarify an unfamiliar meaning structure that the latter has just mentioned to facilitate comprehension.	"What do you mean? You saw what? The what? What? / You what? / When? / Where? / Who? / What kind of…?"
Asking for confirmation (confirmation checks)	The learner seeks confirmation of the interlocutor's preceding speech through repetition with rising intonation to confirm what s/he has just heard or understands is correct.	Repeating the trigger in a "question repeat" or "asking a full question, such as You said…? You mean…right? Do you mean to say…? So you mean…? Do you mean…? You said that the International School is the best?"
Comprehension checks	The learner checks whether the interlocutor has understood their preceding message(s) and can follow them.	"Ok? Right? Is that clear? Do/ can you follow me? Do you see what I mean? Does that make sense (to you)? Do you understand me?"
Stalling/time-gaining strategies	The learner uses hesitation devices, fillers, self- repetition or conversation gambits to gain time to think of what to say or how to say it. These strategies help to keep the conversation channel open.	"Well, Um, er. Actually…You know…you see… "As a matter of fact, now let me think/see". "I'll have to think about it". "Frankly", "So I stopped at the gate…stopped at the gate and…"
Nonverbal signals: mime, gesture, facial expression.	The learner employs nonverbal strategies in place of a lexical item or action.	Clapping one's hands to illustrate applause, or to accompany another communication strategy "It's about this long."

Appendix B: Two parallel versions of 'describe and draw' interaction tasks

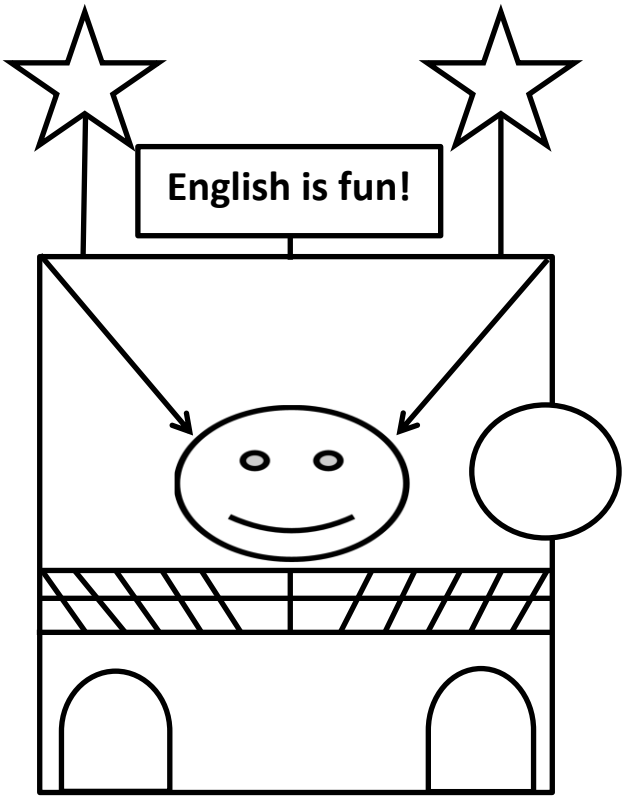
Task 1: Describe and draw

Instructions:

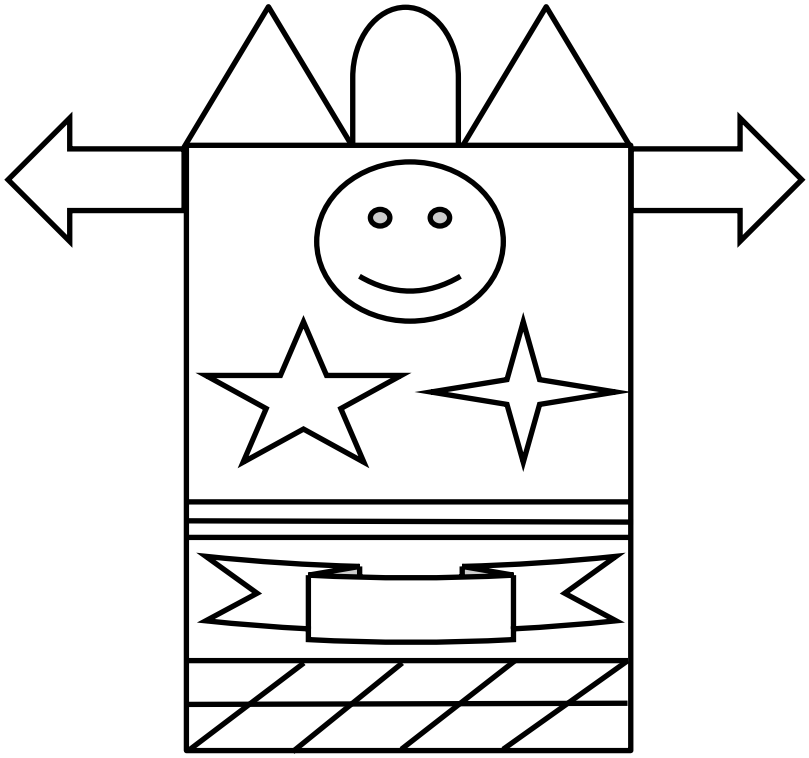
Please read the following instructions carefully. If you have any questions, please do not hesitate to ask the researcher.

1- You will be given a picture and you will be given one minute to examine it carefully.
2- Your task is to describe it to a partner (another student) so that he can draw it and reproduce another picture according to your description.
3- Make sure that you do not **SHOW** the picture to your partner.
4- Make sure that you do not look at what your partner is drawing.
5- You have only 5 minutes for this task to be completed.
6- Your success in this task will be determined according to how close the drawn picture is to the one you are given.
7- Good Luck!

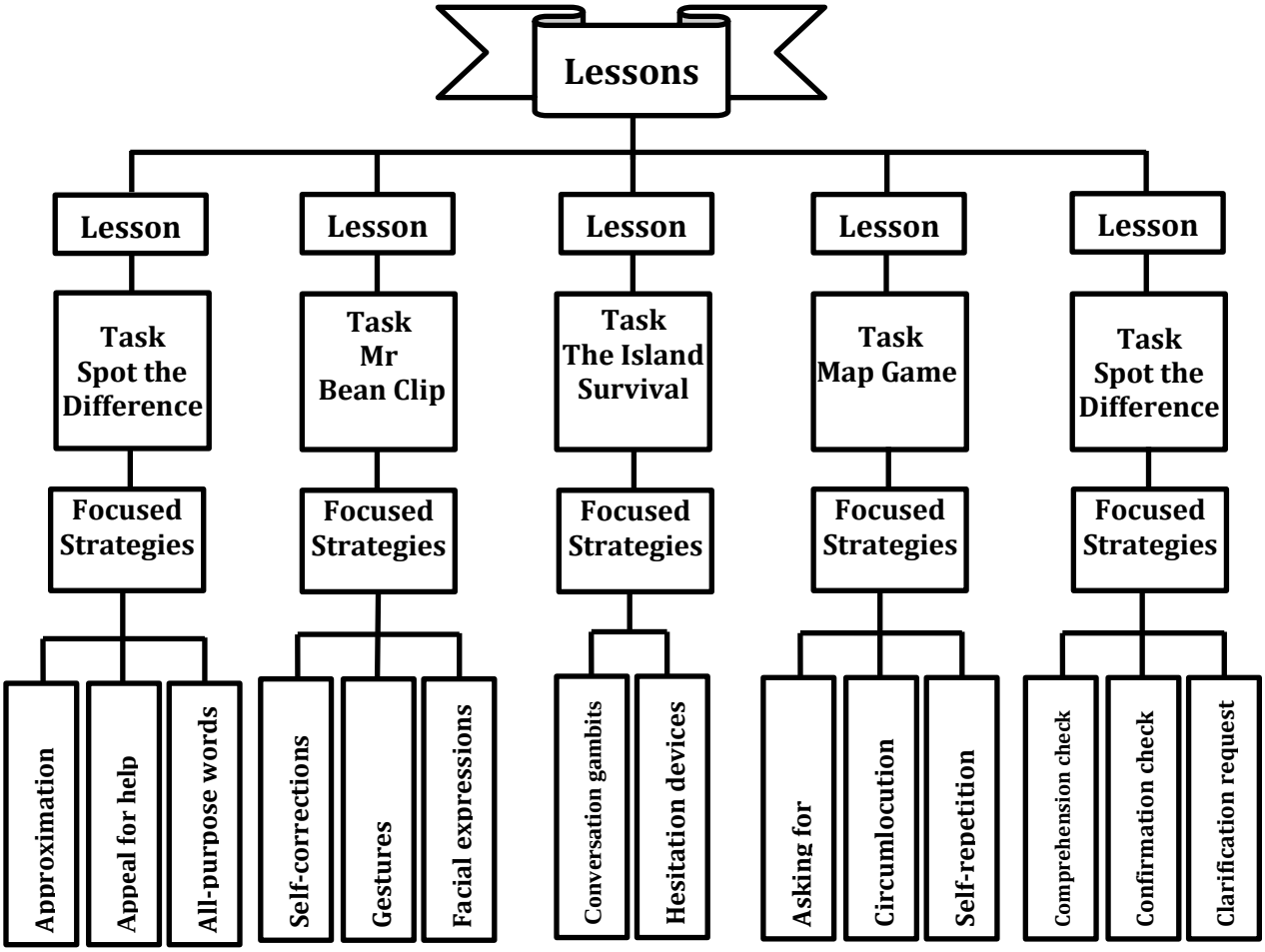
Describe & draw task: Version 1



Describe & draw task: Version 2



Appendix C: The training materials and lessons



Lesson One

Task: Spot-the-differences

Instructions:

In this task, you and your partner will be given two pictures (labelled A & B) of a room in a house. Almost all of the details in these two pictures are similar. However, there are **NINE differences** between picture A and picture B. Your task is to find these differences as quickly as possible **WITHOUT LOOKING AT** each other's pictures. You can describe your pictures to each other and ask each other questions to find out what the **NINE** differences are. An example is provided to help you complete the activity successfully.

Example: In picture A, there is a cot on the left, whereas in picture B, there is a chair.

Picture A:

Picture B:

Lesson Two:

Task: Mr. Bean Clip

Instructions:

- You are going to watch a clip from the Mr Bean episode “Sandwich for Lunch”.
- Sit in pairs. One of you has to sit facing the screen and the other student sits with their back to the screen.
- The student facing the screen is going to watch and describe what’s happening in the episode to their partner. You should try to describe at least two or three actions accurately rather than trying to describe a big chunk of the scene.
- The student with their back to the screen has to take notes from this description.
- The video will be paused every 90 seconds. At this time, you need to swap your positions and repeat the process until the end of the clip.
- At the end, the whole video will be played from the start so that everyone can watch and enjoy it together; you will be asked to indicate whether you think your partner described the action well.




Lesson Three:

Task: The Island Survival Game

Task description:

Imagine that your cruise ship just sank in the Caribbean.

You and your partner are the only survivors.

One of you is injured.

You have got no idea where you are.

You think there's some chance of people knowing about the ship wreck, but you're not sure.

A storm appears to be on the way. You decide to try to stay alive until a rescue party spots you.

There are number of items on the beach, which were dropped from the ship, that could help you, but you can only carry TEN items.

The Task:

Step 1: You need to choose the TEN best items from the given inventory and rank them in the order of their importance for your survival on the island. Give the most crucial item a 1, the next most crucial a 2, and so on. There are no right or wrong answers.

Step 2: Discuss the list of items that you have chosen with your partner. Then, together you need to agree on TEN items which you both think are essential for your survival.

For example: You can say, we both agree that we need to keep a shovel because we will have to dig. Next...

Ship's Inventory

Items	Need	Rank	Partner	Final
1. Two changes of clothing				
2. AM-FM and short-wave radio receiver				
3. Ten gallons of water				
4. Pots and pans				
5. Matches				
6. Shovel				
7. Backpack				
8. Toilet paper				
9. Two tents				
10. Two sleeping bags				
11. Knife				
12. Small life raft, with sail				
13. Sun block lotion				
14. Cook stove and lantern				
15. Long rope				
16. Two walkie-talkie sender-receiver units				
17. Freeze-dried food for seven days				
18. One change of clothing				
19. A bottle of orange juice				
20. Flares				
21. Compass				
22. Regional aerial maps				
23. Gun with six bullets				
24. First-aid kit with penicillin				
25. Oxygen tanks				

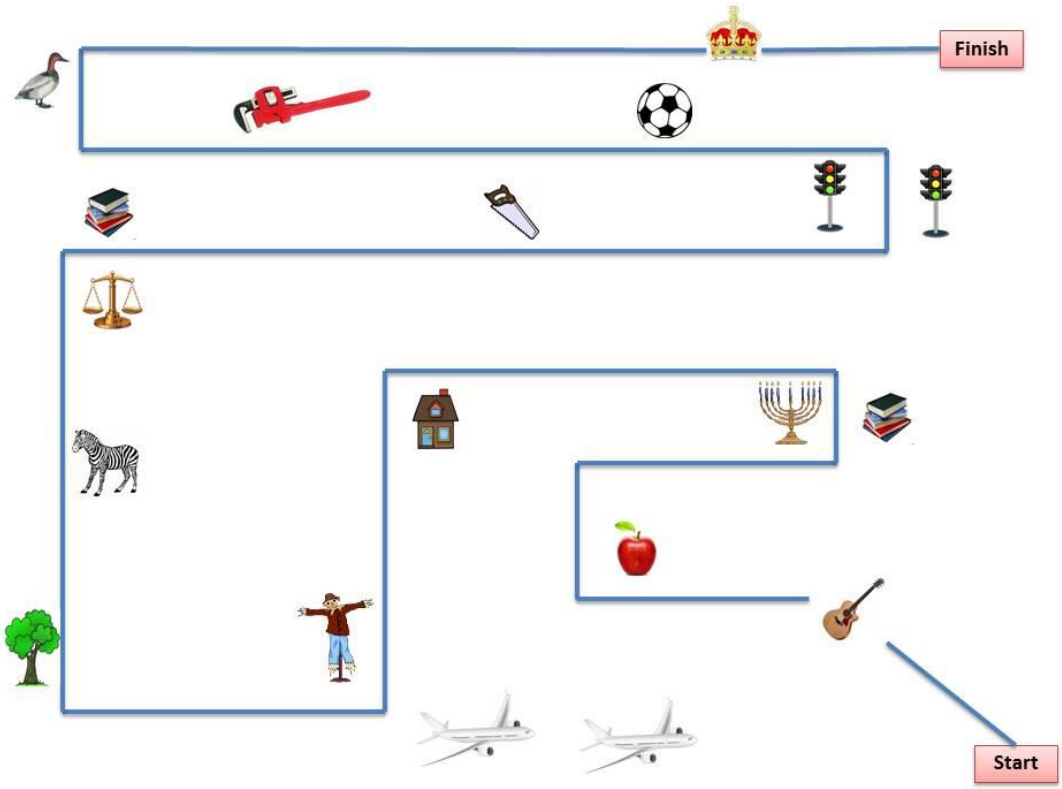
Lesson Four:

Task: Map Game

Instructions:

Please look at the following map. Your partner's map does not have the route. You must guide your partner from start to finish (following the line as accurately as possible). While you are communicating to complete this task, please **do not <u>LOOK AT</u> your partner's map**. The first two steps (lines) have been done for your partner as an example. Please continue!

Map A:

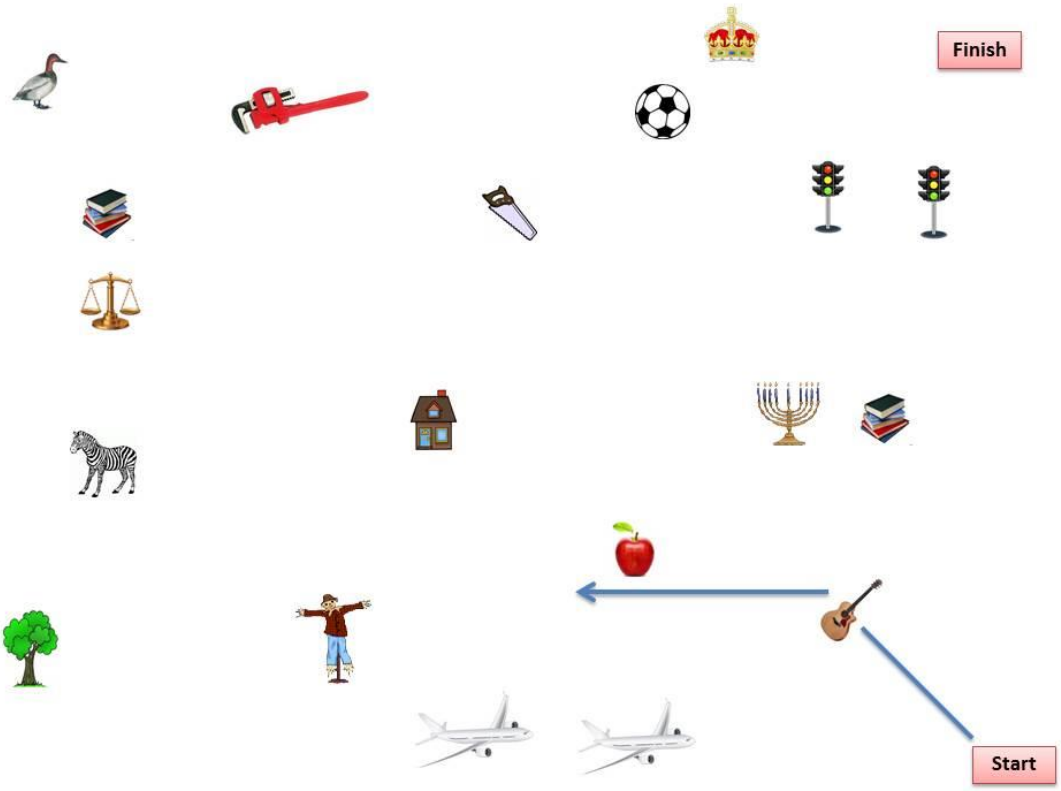


Map Game:

Instructions

Please look at the following map. Your partner's map has the route. You must follow your partner's directions from start to finish (drawing the route as accurately as possible). While you are communicating to complete this task, **please do <u>NOT LOOK AT</u> your partner's map**. The first two steps (lines) have been done for you as an example. Please continue!

Map B:



Lesson Five

Task: Spot-the-differences

Instructions: Picture A

In this task, you and your partner will be given two pictures (labelled A & B) of a room in a house. Almost all of the details in these two pictures are similar. However, there are **NINE differences** between picture A and picture B. Your task is to find these differences as quickly as possible **WITHOUT LOOKING AT** each other's pictures. You can describe you pictures to each other and ask each other questions to find out what the **NINE** differences are. An example is provided to help you complete the mission successfully.

Example: In picture A, there is a clock in the middle of the far wall, whereas in picture B, there is a natural scene image.

Picture A

Lesson Five (continued)

Task: Spot-the-differences

Instructions: Picture B

In this task, you and your partner will be given two pictures (labelled A & B) of a room in a house. Almost all of the details in these two pictures are similar. However, there are **NINE differences** between picture A and picture B. Your task is to find these differences as quickly as possible **WITHOUT LOOKING AT** each other's pictures. You can describe you pictures to each other and ask each other questions to find out what the **NINE** differences are. An example is provided to help you complete the mission successfully.

Example: In picture A, there is a clock in the middle of the far wall, whereas in picture B, there is a natural scene image.

Picture B

Appendix D: Observation Schedule

Task Code: **Participant's code:**

Observer's name: **Time:**

Criteria / Time in seconds	Non-taught CSs			Positive self-solving CSs				Interactional CSs					Time-gaining CSs			Non-verbal strategies		Pauses	Others
	TA	MA	CS	Cir	App	SC	UA	AC	CC	CR	AH	AR	Fs	CHD	SR	GsCs	FE	P	
0:00-0:30																			
0:30-1:00																			
1:00-1:30																			
1:30-2:00																			
2:00-2:30																			
2:30-3:00																			
3:00-3:30																			
3:30-4:00																			
4:00-4:30																			
4:30-5:00																			

Appendix E: Factors and item modification of the questionnaire

The categories, numbers and items of the current development questionnaire are indicated in the left columns, whereas Kongsom's (2009) and Nakatani's (2006) statements are indicated in the right columns. The letters (A, B, C, D, F, G, H…) along with the number of the item refer to the different factors of Nakatani's (2006) questionnaire. This would help to determine the origin factor of an item and to establish its new categories within the current developed questionnaire.

No.	**No. of items and categories of developed questionnaire for this study after being modified.**			**Items of Nakatani's (2006) and Kongsom's (2009) questionnaires before modifications.**	
	No. of items	**Category**	**Items of the current study after being modified**	**Items before modifications.**	**No. of items**
1	40	**Interactional CSs**	I repeat some of my words and sentences to help the listener understand the message.	I repeat what I want to say until the listener understands. (Nakatani, 2006).	C:14
2	39		I check if the listener understands me and follows my speech by asking questions like: OK? Right? Can you follow me? Do you understand?	I make comprehension checks to ensure the listener understands what I want to say (Nakatani, 2006).	C: 13
3	30		I pay attention to the listener's reaction to my speech to make sure he/she understands me.	While speaking, I pay attention to the listener's reaction to my speech (Nakatani, 2006).	C:15
4	46		I ask for repetition when I cannot understand what the speaker has said	I ask for repetition when I can't understand what the speaker has said (Nakatani, 2006). This item was divided into two statements	I: 1
5	42		I ask the speaker to repeat her/his word(s) if I cannot understand them. For example, "Can you repeat that please?", "Pardon?"		
6	44		I ask the speaker to explain her/his meaning if I do not understand her/him. For example, "What do you mean by that please?"	I make a clarification request when I am not sure what the speaker has said (Nakatani, 2006).	I: 2
7	11		I repeat some of the speaker's words loudly to confirm what I have just heard is correct.	I repeat the words that the interlocutor has said in order to confirm what I have heard is correct or not (Kongsom, 2009).	15
8	26		I ask the speaker to give an example if I am not sure what she/he has said.	I ask the speaker to give an example when I am not sure what he/she has said (Nakatani, 2006).	J: 9
9	38		I ask the speaker to use easy words when I have difficulties in understanding an idea or a message	I ask the speaker to use easy words when I have difficulties in comprehension (Nakatani, 2006).	I: 3
10	9		I ask a person I am speaking with for help when I cannot communicate my idea well.	I ask other people to help when I can't communicate well (Nakatani, 2006).	G: 28
11	16		If I do not know how to say a word in English, I directly ask for a help. For example, "How do you say…in English?", "What do you call…..in English?"	If I do not know how to say something in English, I turn to the interlocutor for assistance by asking an explicit question, e.g., "how do you say…", "what do you call" (Kongsom, 2009).	9

12	48		If I do not know how to say a word in English, I indirectly ask for a help. For example, " I do not know how to say it in English."	This statement is divided into two items.	
13	15	**Positive self-solving CSs**	I pay attention to the word order of my sentences during conversation.	I pay attention to grammar and word order during conversation (Nakatani, 2006). This statement is divided into two items.	D: 17
14	25		I correct myself immediately if I notice that I have made grammatical mistakes, for example, the boy play…plays football every day.		
15	8		I correct myself immediately if I notice that I have made mistakes in pronunciation.	I correct myself when I notice that I have made a mistake (Nakatani 2006). This statement is divided into two items.	D: 19
16	19		I correct myself immediately if I notice that I have used inappropriate vocabulary.		
17	7		When I do not know how to express my idea in English, I give examples to explain it.	I give examples if the listener doesn't understand what I am saying (Nakatani, 2006).	C: 16
18	36		When I do not know how to express the target English object, I explain it by describing "What it looks like", or "what you can use it for".	If I do not know the English word for something, I describe it, e.g., "what it looks like", or "what you can use it for" (Kongsom, 2009).	1
19	17		I use general words like "something" "thing", or "stuff" to refer to the English word I do not know.	I use general words like "thing", or "stuff" to refer to the English word I do not know (Kongsom, 2009).	3
20	18		When I do not know how to express the right English word(s), I use word(s) with similar meaning(s), e.g., "boat" instead of "ship".	When I do not know how to express something in English, I use a word that has roughly the same meaning, e.g., "boat" instead of "ship" (Kongsom, 2009).	2
21	24	**Time-gaining CSs**	I use " ummm, uhhh, urrr" to gain time while I am thinking of what to say next.	I try to use fillers when I cannot think of what to say (Nakatani, 2006). This statement is divided into two items.	A: 6
22	37		I repeat some of my words to give myself time to think about what to say next.		
23	28		I use words and phrases like "Now let me see", "As a matter of fact", " Well", "Not at all", or " you know " to gain more time to think of what I should say next.	I use "stalling strategies" like "Well", "Now let me see", "As a matter of fact", "Not at all", or "Absolutely" (Kongsom, 2009).	12.
24	22		I stop my speech to have time to think of what to say next.	I take my time to express what I want to say (Nakatani, 2006).	B: 11
25	29	**Non-verbal CSs**	I use my facial expressions if I have difficulty in understanding, for example, raising my eyebrows or opening my mouth.	I use gestures when I have difficulties in understanding (Nakatani, 2006). This statement is divided into three items.	M: 19
26	23		While communicating, I use hand movements if I have difficulty in understanding the message.		
27	31		While communicating, I shake my head if I have difficulties in understanding.		
28	45		I make eye contact with the listener to communicate what I want to say.	I try to make eye contact when I am talking (Nakatani, 2006).	F: 25
29	32		I use my hands to communicate what I want to say.	I use gestures and facial expressions if I can't communicate what I want to say (Nakatani, 2006). This statement is divided into two items.	F: 26
30	34		I use my facial expressions (smile, laugh, eyebrows) to communicate what I want to say.		

31	10		I nod my head to show my understanding of the message(s).	I send continuation signals to show my understanding in order to avoid conversation gaps (Nakatani, 2006). This statement is divided into two items.	J: 7
32	13		While communicating, I smile to show my understanding of the message(s).		
33	14	**Non-taught CSs**	I begin talking about an idea in English, but I stop in the middle because it is difficult to express.	I leave a message unfinished because of some language difficulty (Nakatani, 2006).	G: 27
34	27		I leave a conversation incomplete because I do not know what to say.	I leave a conversation incomplete due to some speaking difficulty (Kongsom, 2009).	10
35	35		I use short sentences and use simple words if I have speaking problems.	I reduce the message and use simple expressions (Nakatani, 2006).	E: 22
36	41		I give up (stop talking) when I cannot make myself understood.	I give up when I can't make myself understood (Nakatani, 2006).	G: 29
37	49		I use words which are familiar to me.	I use words which are familiar to me (Nakatani, 2006). Deleted after piloting: reliability	E: 23
38	43		I replace my message with another simpler one because I feel I am not able to communicate it.	I replace the original message with another message because of feeling incapable of executing my original intent (Nakatani, 2006).	E: 24
39	47		When I cannot say the correct vocabulary, I avoid talking about it.	When I have difficulty in thinking of the right word in English, I avoid talking any kind reference to it (Kongsom, 2009).	19
40	6		If I cannot communicate my idea well, I say it in Arabic.	If I do not know the vocabulary I want to use, I translate word for word from Thai to English (Kongsom, 2009).	6
41	12		I use Arabic word(s) with an English pronunciation when I have difficulty in communicating my ideas.	I use a word or phrase from Thai with English pronunciation when I do not know the right one in English (Kongsom, 2009).	22
42	20		If I do not know the right English word, I invent a non-existing English one to communicate my idea, for example, “Airball” for “Balloon”.	If I do not know the right English word, I invent a non-existing English word by applying a supposed rule to an existing English word (Kongsom, 2009).	20
43	21		I make a sound imitation of something if I do not know the right word for it in English.	I try to make the sound imitation of something that I do not know the right word in English (Kongsom, 2009).	26

Appendix F: Final version of the questionnaire

A Self Report Questionnaire on Strategy Use

Dear participant,

Thank you very much for your time. Please, read the brief description and informed consent sections. Then, if you wish to continue to take the questionnaire, select the 'Agree' button at the end of the consent form.

Sincerely,
Khalid Alahmed
PhD student
Centre for Research in Language Learning and Use
Department of Education
University of York

Brief description:

This study investigates the impact of Task-based Language Teaching on developing Arabic ESL learners' speaking proficiency. It involves completing an online questionnaire about communication problems that you may face while communicating in English and how you overcome them. The questionnaire will take approximately 10-15 minutes.

Electronic consent form:

How will my data be handled?

I understand that:

-My participation is voluntary, and I may withdraw myself at any time during the completion of the questionnaire.
-Only the researcher will have access to the data and information collected before it is anonymised.
-The researchers' supervisor will only have access to the anonymised data.
-The anonymised data will be published in the researcher's PhD thesis and may be disseminated through conference presentations, journal articles and other scholarly publications.
-The data collected will be archived and could be used for future analysis, including, for example, assessing and analysing my (a) fluency: flow of my speech. (b) accuracy: errors in my speech, and (c) complexity: use of more advanced language such as complex sentences and structures.

What should I do if I have questions or concerns?

I understand that:

-This project has been reviewed by and received ethics clearance through the ethics committee in the Department of Education at the University of York.
-If I have any questions about this research, I should in the first instance contact the Principal Investigator, Khalid Alahmed (kima500@york.ac.uk).
-If I have any concerns about the conduct of this research, I may contact the Chair of the Ethics Committee, Dr. Emma Marsden (emma.marsden@york.ac.uk).

Would you like to continue?

- ○ **Agree**
- ○ **Disagree**

Part A: Personal details

Q1 What is your gender?

- Male
- Female

Q2 What is your age group?

- 20-25
- 26-30
- 31-35

Q3 What is your first language?

Q4 How many years have you studied English in school?

- 1-5
- 6-10
- 11-15
- 16-20

Q5 How long have you been studying English in the UK?

- Less than six months
- Less than one year
- Less than one year and a half
- Less than two years
- More than two years

Part B: The questionnaire

The present questionnaire consists of 41 statements which deal with different communication strategies that ESL learners might use to help overcome their communication problems in conversation. Please, read each one of the statements carefully. Then, on average scale 0-10 (0 being the lowest), indicate how often you use each of the following communication strategies.

Q6 If I cannot communicate my idea well, I say it in Arabic.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q7 When I do not know how to say my idea in English, I give examples to explain it.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q8 I correct myself immediately if I notice that I have made mistake(s) in pronunciation.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q9 I ask a person I am speaking with for help when I cannot communicate my idea well.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q10 I nod my head (احرك رأسي) to show my understanding of the message.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q11 I repeat some of the speaker's words loudly to confirm (أؤكد) what I have just heard is correct.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q12 I use Arabic word(s) with an English pronunciation when I have difficulty in communicating my ideas (استخدم كلمات عربية ولكن بلفظ انكليزي).

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q13 While communicating, I smile to show my understanding of the message(s).

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q14 I begin talking about an idea in English, but I stop in the middle because it is difficult to express.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q15 I pay attention to the word order (ترتيب الكلمات) of my sentences during conversation.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q16 If I do not know how to say a word in English, I directly ask for help, for example, “How do you say ....in English?”, “What do you call....in English?”.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q17 I use general words like "something", "stuff" to refer to the English word I do not know.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q18 When I do not know how to say the right English word(s), I use word(s) with similar meaning(s), for example, I use “boat” instead of (بدلا من) “ship”.

Q19 I correct myself immediately if I notice that I have used inappropriate (غير مناسبة) vocabulary.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q20 If I do not know the right English word, I invent a non-existing English one (أخترع كلمة غير موجودة) to communicate my idea for example, “Airball” for “Balloon”.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q21 I make a sound imitation of something if I do not know the right word for it in English.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q22 I stop my speech to have time to think about what to say next.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q23 While communicating, I use hand movements if I have difficulty understanding the message.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q24 I use " umm", "ahh", urm", "urr" to have time to think of what to say next.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q25 I correct myself immediately if I notice that I have made grammatical mistakes (اخطاء نحوية), for example, “the boy play.....plays football every day.”

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q26 I ask the speaker to give an example if I am not sure what she/he has said.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q27 I leave a conversation incomplete because I do not know what to say.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q28 I use words and phrases like "Now let me see", "As a matter of fact", "Well", "Not at all, or "You know" to have time to think of what to say next.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q29 I use my facial expressions (تعابير الوجه) if I have difficulty in understanding, for example, raising eyebrows or mouth opening.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q30 I pay attention to the listener's reaction to my speech to make sure she/he understands me.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q31 While communicating, I shake my head if I have difficulty in understanding.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q32 I use my hands to communicate what I want to say.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q34 I use my facial expressions (smile, laugh, eyebrows) to communicate what I want to say.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q35 I use short sentences and simple words if I have speaking problems.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q36 When I do not know how to say the English word, I explain it by describing "what it looks like", or "what you can use it for".

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q37 I repeat some of my words to give myself time to think about what to say next.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q38 I ask the speaker to use easy words when I have difficulty understanding an idea or a message.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q39 I check if the listener understands me and follows my speech by asking questions like: OK?, Right?, Can you follow me? Do you understand?

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q40 I repeat some of my words and sentences to help the listener understands the message.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q41 I give up (stop) talking when I cannot make myself understood.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q42 I ask the speaker to repeat her/his word(s) if I cannot understand them, for example, "Can you repeat that please", "Pardon".

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q43 I replace my message with a simpler one because I feel I am not able to communicate it.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q44 I ask the speaker to explain her/his meaning if I do not understand her/him. For example, "What do you mean by that please?"

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q45 I make eye contact with the listener to communicate what I want to say.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q46 I ask for repetition (اعادة) when I cannot understand what the speaker has said.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q47 When I cannot say the correct vocabulary, I avoid (أتجنب) talking about it.

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q48 If I do not know how to say a word in English, I indirectly ask for help, for example, "I do not know how to say it in English".

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Q49 I use words which are familiar to me (استخدم كلماتت مألوفة لدي)

Never true of me 0 1 2 3 4 5 6 7 8 9 10 Always true of me

Appendix G: Results of a Mann-Whitney U Test for comparing the first and second parts of the videos.

Communication strategies	**Comparison**	**U**	**z**	***p**** ***(two-tailed)***
Circumlocution	First vs. Second	437.0	-.219	.827
Self-corrections	First vs. Second	443.0	-.112	.911
Approximation	First vs. Second	416.0	-.515	.607
Use of all-purpose words	First vs. Second	397.5	-.916	.360
Asking for confirmation	First vs. Second	403.0	-1.035	.301
Comprehension checks	First vs. Second	391.5	-.921	.357
Clarification request	First vs. Second	420.0	-1.426	.154
Appeal for help	First vs. Second	409.5	-.732	.464
Asking for repetition	First vs. Second	420.0	-1.426	154
Conversation gambits & HD	First vs. Second	447.5	-.063	.950
Self-repetition	First vs. Second	371.0	-1.183	.237
Gestures	First vs. Second	362.5	-1.332	.183
Facial expresions	First vs. Second	450.0	.000	1.000
Topic avoidance	First vs. Second	345.0	-2.510	.012**
Message abandonment	First vs. Second	405.0	-1.076	.282
Code-switching	First vs. Second	435.5	-.385	.700
Foreinigzing	First vs. Second	450.0	.000	1.0
Word coinage	First vs. Second	435.0	-1.0	.317

**significant at the 0.017 level

Appendix H: Coding scheme of communication strategies

Factors	Target Strategies		Code
Interactional CSs (Meaning-negotiation strategies)	1	Asking for confirmation	AC
	2	Comprehension check	CC
	3	Clarification request	CR
	4	Asking for repetition	AR
	5	Appeal for help	AH
Positive self-solving strategies.	6	Self-correction	SC
	7	Use of all-purpose words	UA
	8	Approximation	App
	9	Circumlocution	Cir
Time-gaining strategies	10	Conversation gambits & hesitation devices	CHD
	11	Self- repetition	SR
Non-verbal strategies	12	Facial expressions	FE
	13	Gestures as communication strategies	GsCs
Non-taught strategies	14	Topic avoidance	TA
	15	Message abandonment	MA
	16	codeswitching	CS
	17	foreignizing	For
	18	word-coinage	WC

Appendix I: Inter-coder reliability of observation tasks

	Data	Number of agreement	Number of disagreement	Reliability
Blind coding	18%	293	26	0.918
Normal coding	20%	356	14	0.96

Appendix J: Piloting one lesson of TBLT

Instructions:

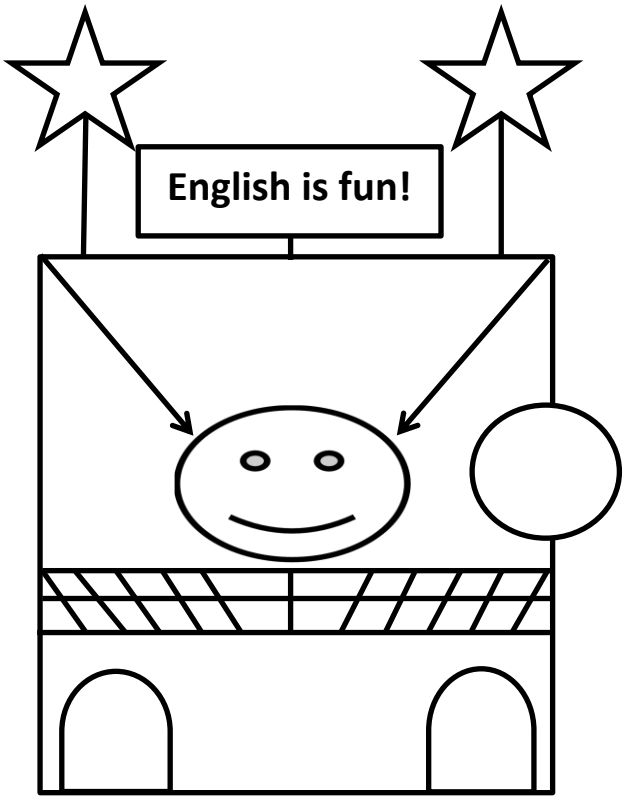
In this task, you and your partner will be given two pictures (labeled A & B) of a room in a house. These two pictures are similar in most details. However, there are **TEN** differences between picture A and picture B. Your task is to find these differences without **LOOKING AT** each others' pictures as quickly as possible. You can tell each other about your picture and ask each other questions to find out what the **TEN** differences are.

Picture A:

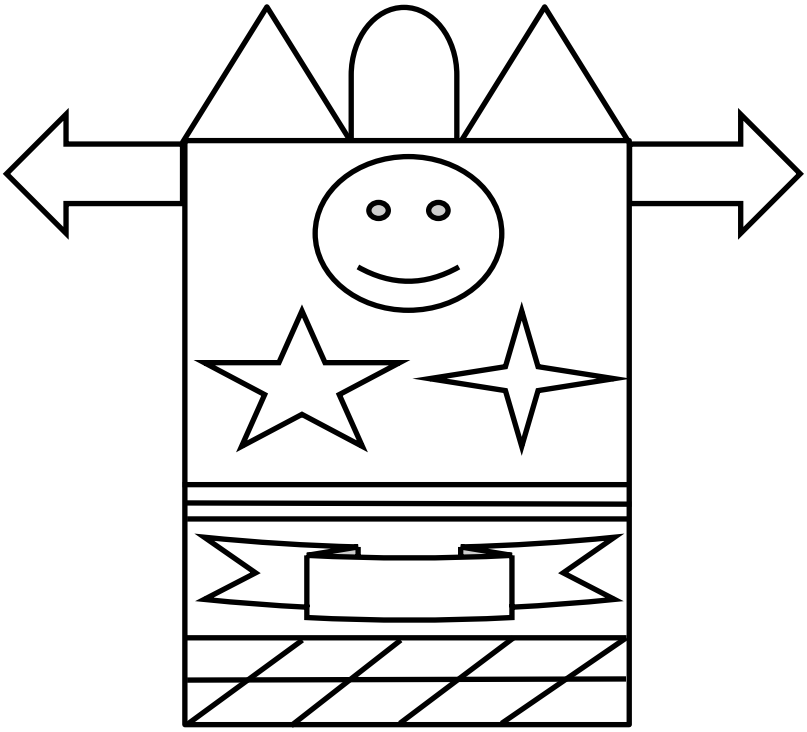
Picture B:

Appendix K: Piloting elicitation tasks for pre-, post and delayed post-tests (Describe & draw)

Describe & draw task: version 1



Describe & draw task: version 2



Appendix L: Piloting elicitation tasks for pre-, post and delayed post-tests (Spot-the-dfferences)

Spot-the-dfferences task:version 1

Picture A **Picture B**

Spot-the-dfferences task:version 2

Picture A **Picture B**

Appendix M: Marks and gain scores results of task completion for the three groups

Explicit instruction group

No.	Conditions	Code	Task completion score out of 15			Gain scores	
			Pre-test	Post-test	Delayed post-test	Pre-post gains	Pre-delayed post gains
1	Explicit	1001	7	12	13	5	6
2	Explicit	1002	6	11	12	5	6
3	Explicit	1004	8	11	11	3	3
4	Explicit	1005	6	10	----	4	
5	Explicit	1006	9	12	11	3	2
6	Explicit	1007	9	15	-----	6	
7	Explicit	1008	4	10	10	6	6
8	Explicit	1009	8	12	12	4	4
9	Explicit	1010	2	3	2	1	0
10	Explicit	1037	1	10	10	9	9
11	Explicit	1038	10	12	12	2	2
12	Explicit	1039	7	12	12	5	5
13	Explicit	1040	9	14	13	5	4
14	Explicit	1041	13	13	13	0	0
15	Explicit	1042	4	10	10	6	6
16	Explicit	1043	10	13	12	3	2
17	Explicit	1044	8	12	13	4	5
18	Explicit	1045	5	8	12	3	7

Implicit instruction group

No.	Condition	Code	Task completion score out of 15			Gain scores	
			Pre-test	Post-test	Delayed post-test	Pre-post gains	Pre-delayed post gains
1	Implicit	1011	4	11	13	7	9
2	Implicit	1012	5	10	10	5	5
3	Implicit	1013	8	11	------	3	
4	Implicit	1014	10	12	------	2	
5	Implicit	1015	7	14	---------	7	
6	Implicit	1016	6	15	11	9	5
7	Implicit	1018	7	10	10	3	3
8	Implicit	1019	11	13	14	2	3
9	Implicit	1020	7	15	13	8	6
10	Implicit	1046	6	12	11	6	5
11	Implicit	1047	12	14	14	2	2
12	Implicit	1048	9	14	10	5	1
13	Implicit	1049	5	10	11	5	6
14	Implicit	1050	8	12	12	4	4
15	Implicit	1051	8	12	----------	4	
16	Implicit	1052	7	14	14	7	7
17	Implicit	1053	10	13	14	3	4
18	Implicit	1054	11	13	13	2	2

Control group

No.	Condition	Code	Task completion score out of 15		Gain scores
			Pre-Test	Post-test	Pre-post gains
1	Control	1021	12	11	-1
2	Control	1022	11	11	0
3	Control	1023	10	13	3
4	Control	1024	7	11	4
5	Control	1025	4	5	1
6	Control	1026	14	12	-2
7	Control	1027	8	11	3
8	Control	1028	10	13	3
9	Control	1029	8	10	2
10	Control	1030	13	14	1
11	Control	1031	11	12	1
12	Control	1032	10	10	0
13	Control	1033	8	10	2
14	Control	1034	4	5	1
15	Control	1035	10	11	1
16	Control	1036	9	10	1

Appendix N: Internal consistency reliability of the questionnaire if item deleted

Scale	Item's number	Cronbach's Alpha if item deleted	Number of items before deletion	Number of items in the scale after deletion
Interactional CSs (Meaning negotiation	Item9	.746	12 items	12 items
	Item11	.733		
	Item16	.748		
	Item26	.756		
	Item30	.740		
	Item38	.756		
	Item39	.761		
	Item40	.743		
	Item42	.738		
	Item44	.710		
	Item46	.723		
	Item48	.721		
Positive self-solving CSs	Item7	.761	8 items	8 items
	Item8	.764		
	Item15	.760		
	Item17	.768		
	Item18	.737		
	Item19	.743		
	Item25	.751		
	Item36	.715		
Time-gaining CSs	Item22	.267	4 items	4 items
	Item24	.434		
	Item28	.437		
	Item37	.199		
Non-verbal CSs	Item10	.612	8 items	7 items
	Item13	.628		
	Item23	.650		
	Item29	.630		
	Item31 deleted	.689		
	Item32	.632		
	Item34	.633		
	Item45	.635		
Non-taught CSs	Item6	.748	10 items	10 items
	Item12	.731		
	Item14	.680		
	Item20	.714		
	Item21	.720		
	Item27	.723		
	Item35	.743		
	Item41	.720		
	Item43	.746		
	Item47	.711		
Total			42	41

Appendix O: Tests of normality for the questionnaire data

This appendix includes results of Shapiro-Wilk test and Histograms for testing the normal distribution of the questionnaire data.

O-1: Results of Shapiro-Wilk test

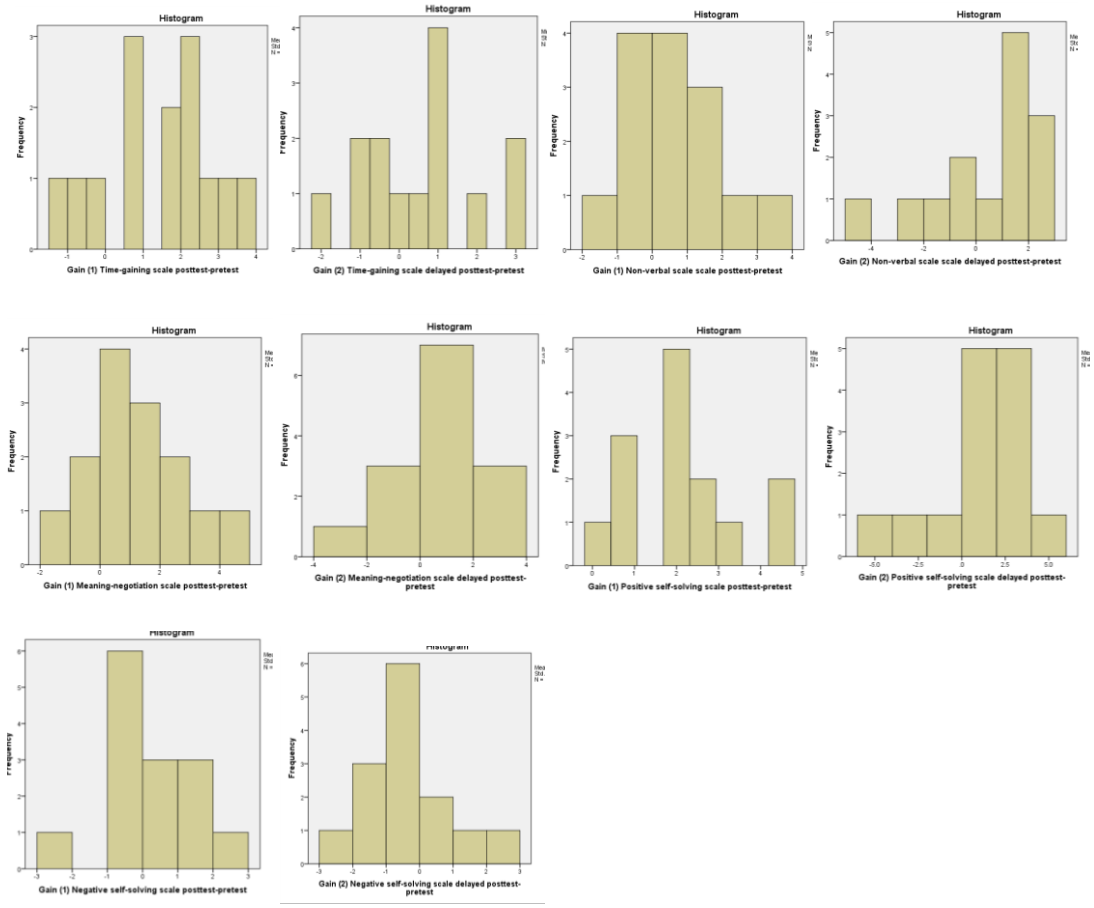
Category	Gain score	Group	W	df	*p**
Interaction CSs	Pre-post gains	Implicit	.973	14	0.91
		Explicit	.899	14	0.11
		Control	.933	16	0.27
	Pre-delayed post gains	Implicit	.954	14	0.62
		Explicit	.941	14	0.43
Positive self-solving CSs	Pre-post gains	Implicit	.947	14	0.51
		Explicit	.916	14	0.19
		Control	.942	16	0.37
	Pre-delayed post gains	Implicit	.890	14	0.08
		Explicit	.900	14	0.11
Time-gaining CSs	Pre-post gains	Implicit	.955	14	0.63
		Explicit	.892	14	0.08
		Control	.908	16	0.10
	Pre-delayed post gains	Implicit	.960	14	0.72
		Explicit	.986	14	0.99
Non-verbal CSs	Pre-post gains	Implicit	.958	14	0.69
		Explicit	.962	14	0.75
		Control	.944	16	0.40
	Pre-delayed post gains	Implicit	.861	14	0.03*****
		Explicit	.969	14	0.86
Non-taught CSs	Pre-post gains	Implicit	.944	14	0.47
		Explicit	.968	14	0.84
		Control	.921	16	0.17
	Pre-delayed post gains	Implicit	.962	14	0.75
		Explicit	.911	14	0.16

*significant at the .05 level

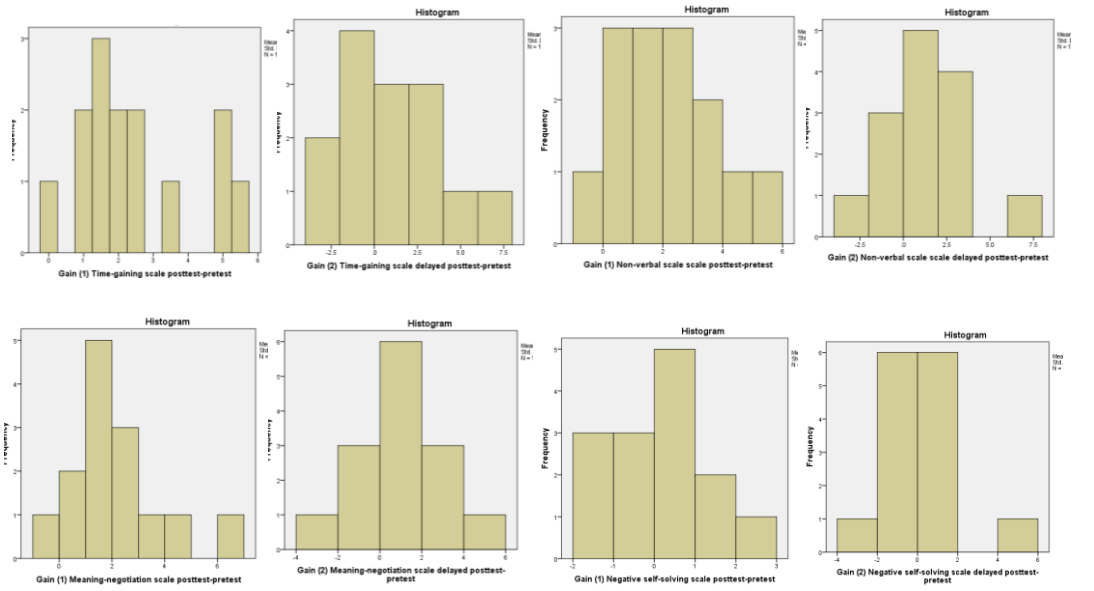
Appendix O: (Continued)

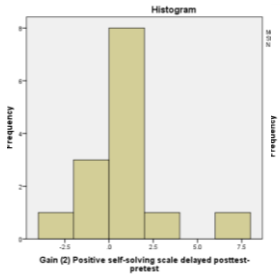
O-2: Histograms

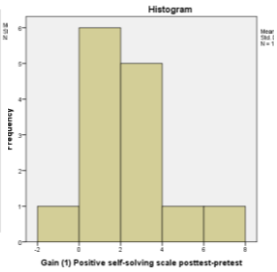
Implicit instruction group



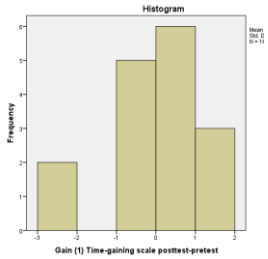
Explicit instruction group

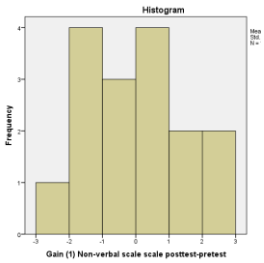


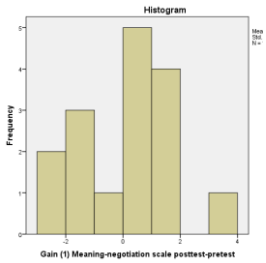


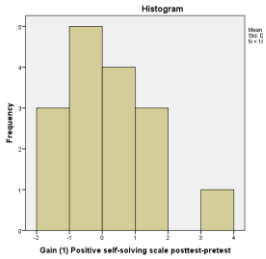


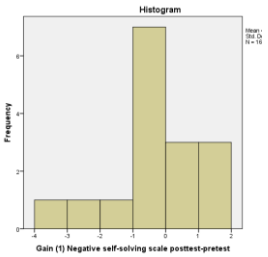
Control group:











Appendix P: Tests of normality for the interaction tasks data

This appendix includes results of Shapiro-Wilk test and Histograms for testing the normal distribution of the interaction tasks data.

P-1: Results of Shapiro-Wilk test

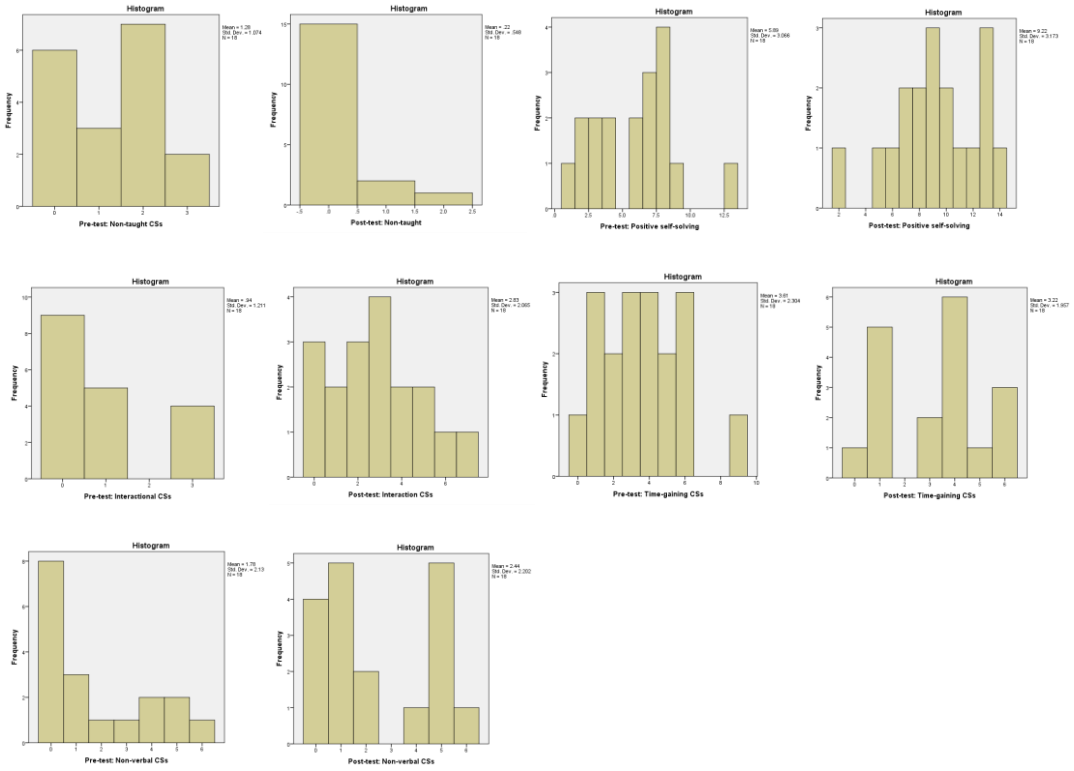
Category	score	Group	W	df	*p**
Interaction CSs (Meaning-negotiation)	**Pre-test**	Implicit	.722	18	0.01**
		Explicit	.863	18	0.014**
		Control	.613	16	0 .01**
Positive self-solving CSs	**Pre-test**	Implicit	.943	18	0.32
		Explicit	.931	18	0.199
		Control	.953	16	0.54
Time-gaining CSs	**Pre-test**	Implicit	.958	18	0.55
		Explicit	.912	18	0.09
		Control	.893	16	0.06
Non-verbal CSs	**Pre-test**	Implicit	.800	18	0.01**
		Explicit	.733	18	0.01**
		Control	.645	16	0.01**
Non-taught CSs	**Pre-test**	Implicit	.842	18	0.01**
		Explicit	.868	18	0.016**
		Control	.724	16	0.01**

*significant at the 0.05 level
**significant at the 0.017 level

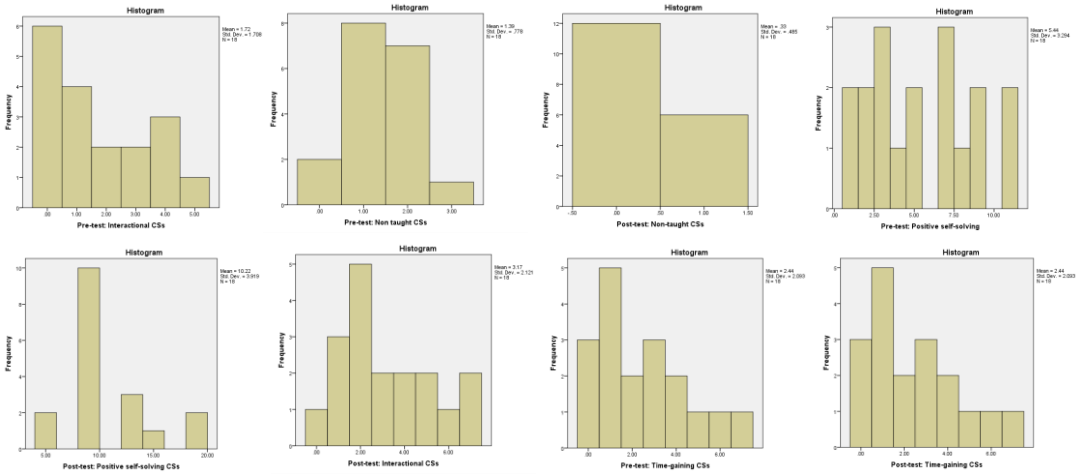
Appendix P: (Continued)

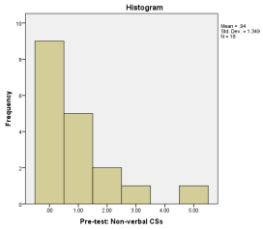
P-2: Histograms

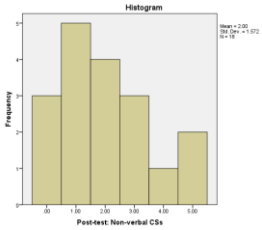
Implicit instruction group



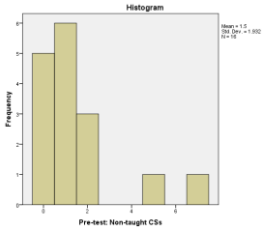
Explicit Instruction group

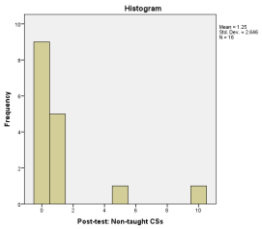


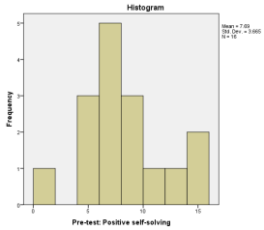


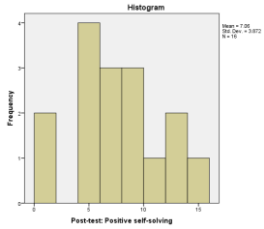


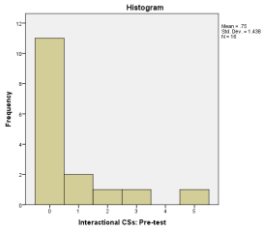
Control group

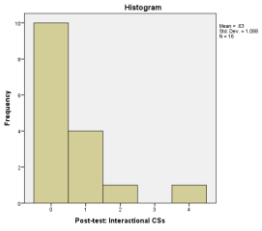


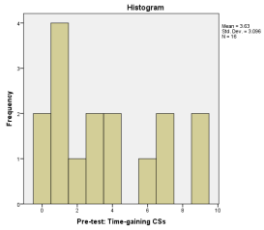


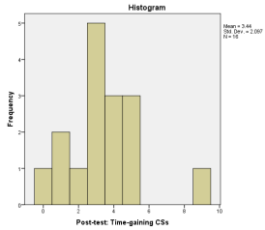


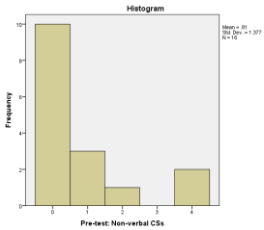


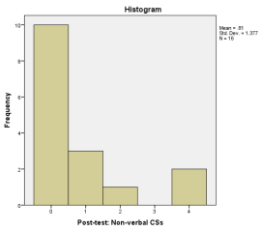












Appendix Q: Overtime results of the questionnaire

Overtime results of the five categories of the questionnaire							
Categories	Group	Wilcoxon signed-rank Pre-to-post tests			Wilcoxon signed Rank (Pre-to-delayed post-tests)		
		z	*p*	*r*	*z*	*p*	*r*
Interaction CSs	Implicit	-2.48	0.01**	-0.61	-1.28	0.19	*-0.23*
	Explicit	-3.57	0.01**	-0.86	-1.16	0.24	*-0.21*
	Control	-.052	0.95	-0.01	-----	-----	-----
Positive self-solving CSs	Implicit	-3.26	0.01**	-0.76	-1.81	0.06	*-0.33*
	Explicit	-3.57	0.01**	-0.86	-1.50	0.13	*-0.28*
	Control	-.388	0.69	-0.09	-----	-----	-----
Time-gaining CSs	Implicit	-2.75	0.01**	-0.64	-1.16	0.24	*-0.21*
	Explicit	-3.23	0.01**	-0.78	-1.19	0.23	*-0.22*
	Control	.001	1.00	0.01	-----	-----	-----
Non-verbal CSs	Implicit	-1.93	.052**	-0.45	-.938	0.34	*-0.17*
	Explicit	-3.43	0.01**	-0.83	-1.75	0.07	*-0.33*
	Control	-.388	0.69	-0.09	-----	-----	-----
Non-taught CSs	Implicit	-1.30	0.19	-0.30	-1.19	0.23	*-0.21*
	Explicit	-.213	0.83	-0.05	-.188	0.85	*-0.03*
	Control	-.569	0.57	-0.14	-----	-----	-----

*significant at the 0.05 level
**significant at the 0.017 level

Appendix Q: (Continued)

Overtime results of individual communication strategies: Questionnaire							
Strategies	**Group**	**Wilcoxon signed-rank**					
		Pre-to-post tests			**Pre-to-delayed post tests**		
		z	***p***	***r***	***z***	***p***	***r***
Asking for confirmation	Implicit	-.032	.97	-0.01	-.73	.460	-0.18
	Explicit	-2.21	.02	-0.52	-1.61	.106	-0.40
Asking for repetition	Implicit	-1.05	.29	-0.24	-.45	.649	-0.11
	Explicit	-2.726	.01**	-0.64	-.21	.834	-0.05
comprehension checks	Implicit	-1.99	.04*	-0.46	-.74	.459	-0.18
	Explicit	-3.10	.01**	-0.73	-1.98	.048*	-0.49
clarification request	Implicit	-2.20	.03*	-0.51	-.91	.362	-0.22
	Explicit	-2.79	.01**	-0.65	-.17	.861	-0.04
appeal for help	Implicit	-2.18	.03*	-0.51	-1.96	.050*	-0.49
	Explicit	-2.72	.01**	-0.64	-1.01	.310	-0.25
circumlocution	Implicit	-2.95	.01**	-0.69	-1.38	.166	-0.34
	Explicit	-3.46	.01**	-0.81	-.66	.504	-0.16
approximation	Implicit	-2.30	.02*	-0.54	-.86	.387	-0.21
	Explicit	-2.85	.01**	-0.67	-1.18	.238	-0.295
self-correction	Implicit	-2.46	.01**	-0.57	-1.47	.140	-0.36
	Explicit	-3.19	.01**	-0.75	-1.44	.148	-0.36
use of all-purpose words	Implicit	-2.74	.01**	-0.64	-1.79	.073	-0.44
	Explicit	-3.12	.01**	-0.73	-1.96	.049*	-0.49
conversation gambits & HD	Implicit	-3.31	.01**	-0.78	-1.35	.176	-0.33
	Explicit	-3.18	.01**	-0.74	-1.24	.212	-0.31
self-repetition	Implicit	-.81	.41	-0.19	-.46	.645	-0.11
	Explicit	-2.44	.01**	-0.57	-1.10	.270	-0.27
gestures	Implicit	-1.00	.31	-0.23	-.66	.509	-0.16
	Explicit	-2.56	.01**	-0.60	-2.03	.042	-0.50
facial expressions	Implicit	-1.28	.19	-0.30	-.48	.624	-0.12
	Explicit	-3.41	.01**	-0.80	-1.32	.187	-0.33
topic avoidance	Implicit	-1.26	.20	-0.29	-1.62	.105	-0.40
	Explicit	-1.50	.13	-0.35	-.911	.362	-0.22
message abandonment	Implicit	-1.72	.08	-0.40	-1.50	.132	-0.37
	Explicit	-.675	.50	-0.15	-.840	.401	-0.21
foreignizing	Implicit	-.182	.85	-0.04	-1.09	.275	-0.27
	Explicit	-1.19	.23	-0.28	-1.73	.084	-0.43
code-switching	Implicit	-.782	.43	-0.18	-1.23	.216	-0.30
	Explicit	-2.64	.01	-0.62	-1.42	.154	-0.35
word-coinage	Implicit	-1.02	.30	-0.24	-.703	.482	-0.17
	Explicit	-.236	.81	-0.05	-.80	.418	-0.20

*significant at the 0.05 level

**significant at the 0.017 level

Appendix R: Overtime results of the interaction tasks

Overtime results of individual strategies: Interaction tasks							
Strategies	**Group**	**Wilcoxon signed-rank**					
		Pre-to-post tests			**Pre-to-delayed post tests**		
		z	***p***	***r***	***z***	***p***	***r***
Asking for confirmation	Implicit	-2.12	.03*	-0.49	-2.00	.04*	-0.47
	Explicit	-.96	.33	-0.22	-1.63	.10	-0.38
Asking for repetition	Implicit	-1.41	.15	-0.33	-1.00	.31	-0.23
	Explicit	-1.00	.31	-0.23	-1.00	.31	-0.23
Comprehension checks	Implicit	-2.69	.01**	-0.63	-.71	.47	-0.16
	Explicit	-3.11	.01**	-0.73	-.627	.53	-0.14
Clarification request	Implicit	-1.00	.31	-0.23	.01	1.00	-0.01
	Explicit	0.01	1.00	-0.01	.01	1.00	-0.01
Appeal for help	Implicit	-.57	.56	-0.13	-.08	.93	-0.01
	Explicit	-.05	.95	-0.01	-1.82	.06	-0.42
Circumlocution	Implicit	-2.04	.04*	-0.48	-1.40	.16	-0.32
	Explicit	-2.81	.01**	-0.66	-2.34	.01**	-0.55
Approximation	Implicit	-2.71	.01**	-0.63	-.641	.52	-0.15
	Explicit	-3.06	.01**	-0.72	-2.14	.03*	-0.50
Self-correction	Implicit	-.107	.91	-0.02	-.105	.91	-0.02
	Explicit	-.863	.38	-0.20	-2.11	.03*	-0.50
Use of all-purpose words	Implicit	-1.98	.04*	-0.46	-1.55	.12	-0.36
	Explicit	-1.01	.31	-0.23	-1.40	.16	-0.32
Conversation gambits & HD	Implicit	0.01	1.00	-0.01	-1.34	.18	-0.31
	Explicit	-2.56	.01**	-0.60	-1.85	.06	-0.43
Self-repetition	Implicit	-.63	.52	-0.14	-.024	.98	-0.01
	Explicit	-1.20	.23	-0.28	-1.48	.13	-0.34
gestures & facial expressions	Implicit	-1.12	.26	-0.26	-1.06	.28	-0.24
	Explicit	-2.12	.03*	-0.50	-1.09	.27	-0.25
Topic avoidance	Implicit	-2.33	.02*	-0.54	-1.54	.12	-0.36
	Explicit	-3.05	.01**	-0.71	-2.14	.03*	-0.50
Message abandonment	Implicit	-2.48	.01**	-0.58	-2.01	.04*	-0.47
	Explicit	-.832	.40	-0.19	-2.33	.02*	-0.54
Code-switching	Implicit	-.57	.56	-0.13	-.378	.70	-0.08
	Explicit	-1.89	.05*	-0.44	-1.89	.05*	-0.44

*significant at the 0.05 level

**significant at the 0.017 level

Appendix S: Lesson plans of explicit instruction group

The aim of the training course for the explicit instruction group was to make learners aware of a range of targeted CSs in order to use these strategies in communication. Therefore, the general objective of the training is that by the end of the study, learners will be able to use a wide range of the targeted CSs whenever they face difficulties in communication, either in expressing their intended meaning or attaining the desired communicative goal.

As mentioned in section 3.5, the training included five one-hour lessons over a five-week period. That is, one hour per lesson. The researcher himself did the teaching for the two experimental groups to control the teacher variable and to ensure fidelity to conditions. The explicit strategy instruction was set according to Elli's (2006) Framework for Designing TBLT Lessons. Consequently, the researcher designed five communicative tasks to be employed in the training programme. Both the explicit instruction and implicit instruction groups received the same tasks. However, the difference between them was at the pre-task stage where the explicit instruction group received explicit strategy training in the use of targeted CSs. Below are the lesson plans used with the explicit instruction group over the intervention:

S.1: Lesson One: Spot-the-differences

Group: Explicit instruction
Time: 60 minutes
Focus: Approximation, appeals for help, and use of all-purpose words
Learning outcome for this lesson: By the end of the lesson, learners will be able to use the following strategies whenever they face communication difficulties during task completion

- **Approximation**
- **Appeal for help**
- **Use of all-purposes words**

▱Find the nine differences between the two pictures

Material required for this lesson:
-PowerPoint with data projector
-Laptop
-Video-taped tasks
-Coloured copies of the two pictures
-Whiteboard
-Blank papers
-Pens

Procedures

The pre-task phase: Time: (35 minutes)

This phase contains the following:

Register (2 minutes)

-At the beginning of the lesson, the teacher welcomes the students and checks the attendance.

Introduction to the lesson (8 minutes)

-Then he starts the lesson by providing a definition of CSs and a brief account of the source of communication difficulties that non-native speakers may encounter in communication. He tells students that the source of communication difficulties could be attributed to a range of factors, such as:

- ❖ Linguistic (lack of the necessary knowledge of the language),
- ❖ Cultural (lack knowledge of cultural demands of the situation), or
- ❖ Contextual (someone or something that makes the conversation difficult to follow).

-Then, the teacher shows, on the PowerPoint, the students the importance of using CSs:

- ❖ CSs solve oral communication problems;
- ❖ CSs help improve speaking skill;
- ❖ CSs help enhance fluency;
- ❖ CSs give speakers more confidence;
- ❖ CSs expand English knowledge and provide more speaking techniques.

Presentation of the three CSs (10 minutes)

-Then, the teacher tells the students that today we are going to cover three CSs, which are:

- ❖ Approximation, appeal for help and use of all-purposes words.

-Definitions of the three target communication strategies will be given as well as examples of how to use these strategies in times of communication difficulties are introduced as follow:

Approximation: It is defined as when the learner uses an alternative target language word or structure, which is not correct, but that shares sufficient semantic features with the desired item.

Examples of the approximation strategy in speech can be:

- ❖ Use of a superordinate term “It's a type of” an analogy “It's like an octopus, but it's not an octopus” or a related term “It's a cigarette" for "It's a cigar”.
- ❖ Use of synonyms: Quicker= faster, bank of the road=side, wound=hurt, calculate=measure, earth=ground, old objects= antique.

Appeals for help: The learner asks the interlocutor for the right word, either directly or indirectly.

Examples of appeals for help strategy in speech:

Directly: What do you call something… in English?

What do/would you call it/someone who/ the thing which?

Indirectly: I do not know the word in English.

I can’t remember/ I’ve forgotten the word for…?

Use of all-purpose words: The learner uses a more general concept such as stuff, thing, do, and make as the specific word might be unknown or it cannot be recalled at the time of execution.

Examples of All-purpose words:

They are cleaning stuff…. (to mean dishes).

I can't work until you repair my ... thing. (to mean for example, computer)

Then, learners are asked to practice these examples.

Introduction to the task (15 minutes)

-After that, the teacher tells the students they are going to do a task similar to the one that they are about to watch.

-The teacher starts the show and asks the students to watch the video-clip of two people doing a similar task.

-The teacher tells the students that there are two aims behind watching this video-clip.

The first aim is to know how to achieve the tasks correctly.

The second aim is to learn how native speakers use the target CSs appropriately whenever they face communication difficulties.

-After watching the video-clip, the teacher explains the task and the outcome to be accomplished by the learners. Instructions for the task, along with the picture, are given to the students.

-The learners are asked to use communication strategies whenever they encounter difficulties in communicating their messages while performing the task.

-The teacher sets a time limit (15 minutes) in which the task should be achieved.

-Copies of picture A and picture B below are distributed to the learners

Task: Spot-the-differences
Instructions:
In this task, you and your partner will be given two pictures (labelled A & B) of a room in a house. Almost all of the details in these two pictures are similar. However, there are **NINE differences** between picture A and picture B. Your task is to find these differences as quickly as possible **WITHOUT LOOKING AT** each other's pictures. You can describe your pictures to each other and ask each other questions to find out what the **NINE** differences are. An example is provided to help you complete the activity successfully.
Example: In picture A, there is a cot on the left, whereas in picture B, there is a chair.

Task: Spot-the-differences
Instructions:
In this task, you and your partner will be given two pictures (labelled A & B) of a room in a house. Almost all of the details in these two pictures are similar. However, there are **NINE differences** between picture A and picture B. Your task is to find these differences as quickly as possible **WITHOUT LOOKING AT** each other's pictures. You can describe your pictures to each other and ask each other questions to find out what the **NINE** differences are. An example is provided to help you complete the activity successfully.
Example: In picture A, there is a cot on the left, whereas in picture B, there is a chair.

Picture A

Picture B

The task-phase (15 minutes)

This phase contains the following steps:

-In this phase, learners are given a task and asked to achieve its outcome, which is to find the nine differences between the two pictures.

-The students are asked to sit in pairs and use whatever language resources they have to accomplish the task.

-The students are also encouraged to make their utterances more comprehensible to their partners.

-During this phase, the teacher moves around and monitors the students to make sure that they are engaged and using the English language only in their interaction. This is because all participants share the same first language, which is Arabic.

- While moving around the class, the researcher also responds to any questions raised by the students.

The post task phase (10 minutes)

The researcher checks the outcome of the task and answers any questions raised by students about the task or their performances during the task-phase.

S.2: Lesson Two: Mr. Bean Clip

Group: Explicit instruction
Time: 60 minutes
Focus: self-correction, gestures and facial expressions.
Learning outcome for this lesson: By the end of the lesson, learners will be able to use the following strategies when they face communication difficulties during task completion.

- Self-correction
- Gestures
- Facial expressions

Material required for this lesson:

- PowerPoint with data projector
- Laptop
- YouTube
- Video-taped tasks
- Whiteboard
- Blank paper
- Pens

Procedures

The pre-task phase: Time: (35 minutes)
This phase contains the following:
Register (2 minutes)
At the beginning of the lesson, the teacher welcomes the students and checks attendance.

Review of previous lesson (8 minutes)
Then, he tells the students that in the last week we had three strategies and asks the students the following questions:

Who can tell us about them?

What do we mean by approximation?

Who can give an example of approximation?

Who can give an example of appeals for help?

Who can give an example of use of all-purpose words?

The teacher thanks the students and asks them if they have any question about these strategies.

Presentation of the three CSs (15 minutes)
The teacher starts the lesson by telling the students today we are going to cover three new strategies which are: **Self-correction, gestures & facial expressions**

The teacher provides, on the PowerPoint, definitions of the three targeted communication strategies, as well as examples of how to use these strategies in times of communication difficulties, as follows:

Self-correction: The learner makes self-initiated corrections in their own utterance once realizing s/he has made a mistake in pronunciation, grammar or choice of words.

Examples of self-correction strategy in speech can be:

- **Pronunciation**

height /haɪt/, gauge /geɪdʒ/, Greenwich /ˌgrɛnɪtʃ/green witch, quay /kiː/.

- **Grammar:**

Then the sun shines and the weather **get** be… **gets** better.

- **Choice of word:**

He just completed his **road**…his **way**.

Gestures and Facial expressions (Non-verbal strategies):

The teacher tells the students that effective body language supports the message and projects a strong image of the presenter. Audiences appreciate body movement when it is meaningful and supportive of the message. The most effective movements are ones that reflect the presenter's personal investment in the message. The body language has two aims; the first aim is to enhance the effectiveness of the speech and the second is to compensate for communication breakdowns and serve as CSs. Therefore, it is important to use gestures and facial expressions in conversation. Then, he provides the definition and examples.

Definition of gestures and facial expressions: The learner employs non-verbal strategies in place of a **lexical item** or **action.** This means using body language to communicate what you want to say.

Examples of gestures and facial expressions in speech can be:

- Using a hand to refer to the length or width of the object. For example: It's about this long.
- Nodding the head to show understanding of the message.
- Smiling to show understanding of the message(s).
- Shaking the head if there is difficulty in understanding.
- Making eye contact with the listener to communicate what you want to say.

Introduction to the task (10 minutes)

After that, the teacher tells the students they are going to do a task similar to the one that they are about to watch.
The teacher starts the show and asks the students to watch the video-clip of two people doing a similar task: Mr. Bean Episode "Alarm clock and getting up"
The teacher tells the students that there are two aims behind watching this video-clip.

The first aim is to know how to achieve the tasks correctly.
The second aim is to learn how native speakers use non-verbal strategies, such as gestures and facial expressions in place of unknown lexical items or actions whenever they face communication difficulties.

After watching the video-clip, the teacher explains the task and the outcome to be accomplished by the learners.
The learners are asked to use non-verbal strategies whenever they encounter difficulties in communicating their messages while performing the task.
The teacher sets a time limit in which the task should be achieved.
Instructions for the task are given to the students. To facilitate description, some pictures from the episode are given to the students in sequence along with the instructions.

Task: Mr. Bean Clip
Instructions:
-You are going to watch a clip from the Mr Bean episode "Sandwich for Lunch".
-Sit in pairs. One of you has to sit facing the screen and the other student sits with their back to the screen.
-The student facing the screen is going to watch and describe what's happening in the episode to their partner. You should try to describe at least two or three actions accurately rather than trying to describe a big chunk of the scene.
-The student with their back to the screen has to take notes from this description.
-The video will be paused every 90 seconds. At this time, you need to swap your positions and repeat the process until the end of the clip.
-At the end, the whole video will be played from the start so that everyone can watch and enjoy it together; you will be asked to indicate whether you think your partner described the action well.




The task-phase: Time: (10 minutes)

The students are given a task and asked to achieve its outcome.

The teacher plays the video and asks the students to start the task.

They are encouraged to use gestures and facial expressions if they face difficulty in recalling the correct words or actions.

The teacher checks the time and asks students to switch their roles every 90 seconds and repeat the process until the end of the clip.

The teacher stops the video quite frequently so that students can concentrate on describing two or three actions accurately, rather than trying to describe a big chunk of the scene at once.

The post task phase (15 minutes)

The teacher checks the outcome of the task and answers any questions raised by students about the task or their performances during the task phase.

The teacher then replays the whole video from the start so that everyone can watch and enjoy it together; the teacher also asks students if they think their partner described the action well.

S.3: Lesson Three: The Island Survival task

Group: Explicit instruction
Time: 60 minutes
Focus: Time-gaining strategies (**Conversation gambits and Hesitation devices)**
Learning outcome for this lesson: By the end of the lesson, learners will be able to use the following strategies whenever they face communication difficulties during task completion.

- Conversation gambits
- Hesitation devices

Material required for this lesson:

- PowerPoint with data projector
- Laptop
- Video-taped tasks
- Whiteboard
- Blank paper
- Pens

Procedures

The pre-task phase: Time: (35 minutes)
This phase contains the following:

Register (2 minutes)
At the beginning of the lesson, the teacher welcomes the students and checks attendance.

Review of previous lesson (8 minutes)
The teacher tells the students that in the last week, we had three strategies and asks the students the following questions:

Who can tell us about them?

What do we mean by self-correction?

Who can give an example of self-correction?

What do we mean by non-verbal strategies?

Who can give an example of gestures?

Who can give an example of facial expressions?

The teacher thanks the students and asks them if they have any question about these strategies.

Introduction to the lesson (15 minutes)

The teacher starts the lesson by telling the students today we are going to cover two new strategies which are: **conversation gambits and hesitation devices.** These strategies are known as **Time-gaining Strategies**

The teacher provides, on the PowerPoint, definitions of the time-gaining strategies, rationale for using them and examples of how to use time-gaining strategies in times of communication difficulties as follow:

Definition of Time-gaining Strategies: Strategies that speakers use to gain time to think of what to say next or how to say it, such as hesitation devices and conversation gambits.

The aim of using time-gaining strategies is to help learners to keep the conversation channel open. That is, the learner uses hesitation devices, and conversation gambits to fill pauses and to gain time to think of what to say or how to say it.

Examples of Time-gaining strategies:

Well. Actually... You know .../you see. I see. I/you mean... As a matter of fact... Let's see (now). Now let me think/see. I'll have to think about it.	Frankly, ...To be honest In fact,… I wonder... The thing is... I see what you mean. It's like this, you see. .. Let's say... What I'm trying to say is. (Now) where should I start? What I would say is... How shall I put it?

Examples of Time-gaining strategies in communication:

Example 1:

A: Why haven't you done your homework?

B: Well…er, you see, it's like this…now, where shall I start…?

Example 2:

A: So, what are we going to do tomorrow then?

B: Well, as a matter of fact, I was thinking of going on a picnic.

A: Oh, I see. Interesting. And where to?

B: Well, actually London appeals to me, you know…

Then, learners are asked to practice these examples.

Introduction to the task (10 minutes)

After that, the teacher tells the students they are going to do a task similar to the one that they are about to watch.

The teacher starts the show and asks the students to watch the video-clip of two people doing a similar task.

The teacher tells the students that there are two aims behind watching this video-clip.

The first aim is to know how to achieve the tasks correctly.

The second aim is to learn how native speakers use time gaining strategies like hesitation devices, and conversation gambits to gain time to think of what to say or how to say it.

After watching the video-clip, the teacher explains the task and the outcome to be accomplished by the learners.

The learners are asked to use time-gaining strategies to gain time to think of what to say and how to say it while performing the task.

The teacher sets a time limit in which the task should be achieved.

Instructions for the task are given to the students as follows:

Task: The Island Survival Game

Task description: Imagine that your cruise ship just sank in the Caribbean. You and your partner are the only survivors. One of you is injured. You have got no idea where you are.

You think there's some chance of people knowing about the ship wreck, but you're not sure. A storm appears to be on the way. You decide to try to stay alive until a rescue party spots you. There are number of items on the beach, which were dropped from the ship, that could help you, but you can only carry TEN items.

The Task:

Step 1: You need to choose the TEN best items from the given inventory and rank them in the order of their importance for your survival on the island. Give the most crucial item a 1, the next most crucial a 2, and so on. There are no right or wrong answers.

Step 2: Discuss the list of items that you have chosen with your partner. Then, together you need to agree on TEN items which you both think are essential for your survival.

For example: You can say, we both agree that we need to keep a shovel because we will have to dig. Next...

The task-phase: Time: (15 minutes)

This phase contains the following steps:

In this phase, learners are given a task and asked to achieve its outcome.
The students are asked to sit in pairs and use whatever language resources they have to accomplish the task.
The students are also encouraged to make their utterances more comprehensible to their partners.
During this phase, the teacher moves around and monitors the students to make sure that they are engaged and using the English language only in their interaction. This is because all participants share the same first language, which is Arabic.
While moving around the class, the researcher also responds to any questions raised by the students.

The post task phase (10 minutes)
The researcher checks the outcome of the task and answers any questions raised by students about the task or their performances during the task-phase.

S.4: Lesson Four: The Map Game task

Group: Explicit instruction
Time: 60 minutes
Focus: Circumlocution, asking for repetition, and self-repetition
Learning outcome for this lesson: By the end of the lesson, learners will be able to use the following strategies whenever they face communication difficulties during task completion.

- **Circumlocution**
- **Asking for repetition**
- **Self-repetition**

Material required for this lesson:

- PowerPoint with data projector
- Laptop
- Video-taped tasks
- Coloured copies of the two pictures
- Whiteboard
- Blank paper
- Pens

Procedures

The pre-task phase: Time: (35 minutes)
This phase contains the following:

Register (2 minutes)
At the beginning of the lesson, the teacher welcomes the students and checks attendance.

Review of previous lesson (8 minutes)

The teacher tells the students that in the last week, we had time-gaining strategies and asks the students the following questions:

- Who can tell us about time-gaining strategies?
- What do we use time-gaining strategies in communication?
- Who can give an example of time-gaining strategies?

The teacher thanks the students and asks them if they have any question about these strategies.

Introduction to the lesson (15 minutes)

The teacher starts the lesson by telling the students today we are going to cover three new strategies which are:

- **Circumlocution, asking for repetition, and self-repetition**

The teacher provides, on the PowerPoint, definitions of the three targeted communication strategies, as well as examples of how to use these strategies in times of communication difficulties as follow:

Circumlocution

Definition: exemplifying, illustrating or describing the properties of the target object (size, shape, texture) or action instead of using the appropriate target language item or structure.

Examples of circumlocution strategy in communication:
It is something like a chair used to put the child on and push it" to mean "a pushchair".
Student A doesn't know the word "corkscrew

A: Well, I can't remember the word…the thing you open bottles with."
B: Is it corkscrew?"
A: That's it!

Phrases for paraphrasing to describe an object:
It's a thing that is… (color, shape, size)
It is made of/from… (material)
It is used to/for… (function)
It has a/an… (a component/ a part).

Asking for repetition

Definition: The learner asks the interlocutor to repeat what they have just said to facilitate understanding.
Examples of asking for repetition in communication:
Can you say it again, please?
Can you say that a gain please? (I'm) sorry? (I) (beg your) pardon?
Could you repeat that for me, please?
Would you mind repeating that?
Sorry, can / could you say that again please?
Sorry, can / could you repeat it more slowly?
What was that word again?
Would / could you repeat that, please?
Would / could you repeat what you said, please?

Self-repetition

Definition: The learner uses self-repetition to gain time to think of what to say or how to say it. These strategies help to keep the conversation channel open.

Examples of self-repetition in communication:

"Frankly", "So I stopped at the gate…stopped at the gate and…"
Then, learners are asked to practice these examples.

Introduction to the task (10 minutes)

After that, the teacher tells the students they are going to do a task similar to the one that they are about to watch.

The teacher starts the show and asks the students to watch the video-clip of two people doing a similar task.

The teacher tells the students that there are two aims behind watching this video-clip.

- The first aim is to know how to achieve the tasks correctly.
- The second aim is to learn how native speakers use the target CSs appropriately whenever they face communication difficulties

After watching the video-clip, the teacher explains the task and the outcome to be accomplished by the learners.

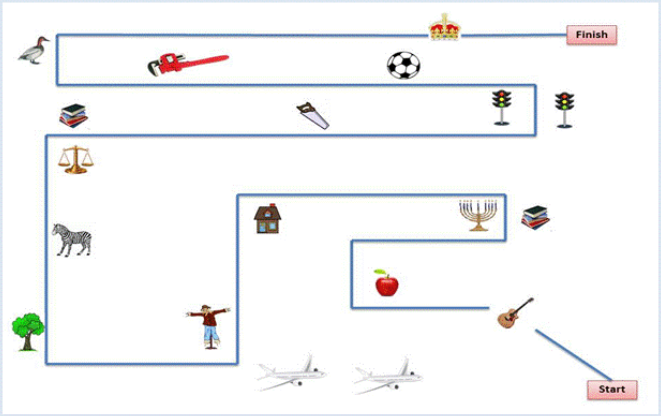
The learners are asked to use circumlocution, asking for repetition and self-repetition while performing the task.

Instructions for the task, along with the pictures, are given to the students

Copies of picture A and picture B below are distributed to the learners.

The teacher sets a time limit (15 minutes) in which the task should be achieved.

Map Game: A
Instructions:
Please look at the following map. Your partner's map does not have the route. You must guide your partner from start to finish (following the line as accurately as possible). While you are communicating to complete this task, please **DO NOT LOOK AT your partner's map**. The first two steps (lines) have been done for your partner as an example. Please continue!



Map Game: B
Instructions:
Please look at the following map. Your partner's map has the route. You must follow your partner's directions from start to finish (drawing the route as accurately as possible). While you are communicating to complete this task, please **DO NOT LOOK AT your partner's map**. The first two steps (lines) have been done for you as an example. Please continue!

The task-phase: Time: (15 minutes)

This phase contains the following steps:

- In this phase, learners are given a task and asked to achieve its outcome.
- The students are asked to sit in pairs and use whatever language resources they have to accomplish the task.
- The students are also encouraged to make their utterances more comprehensible to their partners.
- During this phase, the teacher moves around and monitors the students to make sure that they are engaged and using the English language only in their interaction. This is because all participants share the same first language, which is Arabic.
- While moving around the class, the researcher also responds to any questions raised by the students.

The post task phase (10 minutes)

The researcher checks the outcome of the task and answers any questions raised by students about the task or their performances during the task phase.

S.5: Lesson Five: Spot-the-differences

Group: Explicit instruction
Time: 60 minutes
Focus: Comprehension Checks, clarification request and asking for confirmation
Learning outcome for this lesson: By the end of the lesson, learners will be able to use the following strategies whenever they face communication difficulties during task completion.

- **Comprehension Checks**
- **Clarification request**
- **Asking for confirmation**

Material required for this lesson:

- PowerPoint with data projector
- Laptop
- Video-taped tasks
- Coloured copies of the two pictures
- Whiteboard
- Blank papers
- Pens

Procedures

The pre-task phase: Time: (35 minutes)

This phase contains the following:

Register (2 minutes)

-At the beginning of the lesson, the teacher welcomes the students and checks attendance.

Review of previous lesson (8 minutes)

Then, he tells the students that in the last week we had three communication strategies, and asks them the following questions:

Who can tell us about them?

What do we mean by circumlocution?

Who can give example on circumlocution?

What do we mean by asking for repetition?

Who can give example on asking for repetition?

Why do speakers sometimes use self-repetition in communication?

Who can give example on self-repetition?

The teacher thanks the students and asks them if they have any question about these strategies?

Introduction to the lesson (13 minutes)

-The teacher starts the lesson by telling the students today we are going to cover three new strategies which are:

- **Comprehension Checks, clarification request and asking for confirmation**

The teacher provides, on the PowerPoint, definitions of the three targeted communication strategies as well as examples of how to use these strategies in times of communication difficulties as follow:

Comprehension checks:

Definition: The learner checks whether the interlocutor has understood their preceding message(s) and can follow them.

Examples of Comprehension checks in communication:

"Ok? Right? Is that clear?

Do/ can you follow me?

Do you see what I mean?

Does that make sense (to you)?

Do you understand me?"

Asking for confirmation:

Definition: The learner seeks confirmation of the interlocutor's preceding speech through repetition with rising intonation to confirm what s/he has just heard or understand is correct.

Examples of asking for confirmation in communication:

You said…?

You mean . . . , right?

Do you mean to say . . . ?

So you mean . . . ?

Do you mean . . . ?

You said that the International School is the best?"

Clarification request:

Definition: The learner asks the interlocutor to clarify an unfamiliar meaning structure that the latter has just mentioned to facilitate comprehension.

Examples of clarification request in communication:

"What do you mean?

You saw what? The what? What?

You what?

When?

Where?

Who?

What kind of. . . ?

Then, learners are asked to practice these examples.

Introduction to the task (15 minutes)

-After that, the teacher tells the students they are going to do a task similar to the one that they are about to watch.

-The teacher starts the show and asks the students to watch the video-clip of two people doing a similar task.

-The teacher tells the students that there are two aims behind watching this video-clip.

- The first aim is to know how to achieve the tasks correctly.
- The second aim is to learn how native speakers use the target CSs appropriately whenever they face communication difficulties.

-After watching the video-clip, the teacher explains the task and the outcome to be accomplished by the learners. Instructions for the task, along with the picture, are given to the students.

-The learners are asked to use comprehension checks, clarification request and asking for confirmation strategies whenever they encounter difficulties in communicating their messages while performing the task.

-The teacher sets a time limit (15 minutes) in which the task should be achieved.

-Copies of picture A and picture B below are distributed to the learners

Task: Spot-the-differences
Instructions:
In this task, you and your partner will be given two pictures (labelled A & B) of a room in a house. Almost all of the details in these two pictures are similar. However, there are **NINE differences** between picture A and picture B. Your task is to find these differences as quickly as possible **WITHOUT LOOKING AT** each other's pictures. You can describe you pictures to each other and ask each other questions to find out what the **NINE** differences are. An example is provided to help you complete the mission successfully.
Example: In picture A, there is a clock in the middle of the far wall, whereas in picture B, there is a natural scene image.

Picture A

Task: Spot-the-differences
Instructions:
In this task, you and your partner will be given two pictures (labelled A & B) of a room in a house. Almost all of the details in these two pictures are similar. However, there are **NINE differences** between picture A and picture B. Your task is to find these differences as quickly as possible **WITHOUT LOOKING AT** each other's pictures. You can describe you pictures to each other and ask each other questions to find out what the **NINE** differences are. An example is provided to help you complete the mission successfully.
Example: In picture A, there is a clock in the middle of the far wall, whereas in picture B, there is a natural scene image.

Picture A

The task-phase (15 minutes)

This phase contains the following steps:

-In this phase, learners are given a task and asked to achieve its outcome, which is to find the nine differences between the two pictures.

-The students are asked to sit in pairs and use whatever language resources they have to accomplish the task.

-The students are also encouraged to make their utterances more comprehensible to their partners.

-During this phase, the teacher moves around and monitors the students to make sure that they are engaged and using the English language only in their interaction. This is because all participants share the same first language, which is Arabic.

- While moving around the class, the researcher also responds to any questions raised by the students.

The post task phase (7 minutes)

The researcher checks the outcome of the task and answers any questions raised by students about the task or their performances during the task-phase.

Appendix T: Results of a Mann Whitney U test between experimental and control groups on pre-post gains (questionnaire and interaction tasks)

T-1: Results of Mann Whitney U test between experimental and control groups on pre-post gains (the questionnaire)

Category/ strategy	Groups comparison	U	z	*p*(two-tailed)*
Interaction CSs	Implicit vs. control	97.000	-1.623	0.11
	Explicit vs. control	46.000	-3.245	0.01**
	Implicit vs. explicit	93.000	-1.981	0.04
Positive self-solving CSs	Implicit vs. control	67.500	-2.643	0.01**
	Explicit vs. control	37.000	-3.571	0.01**
	Implicit vs. explicit	107.500	-1.506	0.13
Time-gaining CSs	Implicit vs. control	75.000	-2.386	0.01**
	Explicit vs. control	33.500	-3.698	0.01**
	Implicit vs. explicit	111.500	-1.373	0.17
Non-verbal CSs	Implicit vs. control	106.000	-1.313	0.19
	Explicit vs. control	53.000	-2.991	0.01**
	Implicit vs. explicit	83.500	-2.296	0.02*
Non-taught CSs	Implicit vs. control	140.500	-.121	0.90
	Explicit vs. control	130.500	-.198	0.81
	Implicit vs. control	134.000	-.629	0.52
Comprehension checks CSs	Implicit vs. control	115.000	-1.004	0.31
	Explicit vs. control	61.500	-2.691	0.01**
	Implicit vs. explicit	112.500	-1.342	0.18
Clarification request CSs	Implicit vs. control	90.500	-1.849	0.06
	Explicit vs. control	69.000	-2.417	0.01**
	Implicit vs. explicit	132.000	-.695	0.49
Appeal for help CSs	Implicit vs. control	94.500	-1.711	0.09
	Explicit vs. control	63.500	-2.618	0.01**
	Implicit vs. explicit	114.000	-1.292	0.19
Circumlocution (Cir)	Implicit vs. control	70.000	-2.560	0.01**
	Explicit vs. control	38.500	-3.524	0.01**
	Implicit vs. explicit	123.000	-.993	0.32
Approximation (App.)	Implicit vs. control	107.500	-1.271	0.20
	Explicit vs. control	73.000	-2.286	0.02*
	Implicit vs. explicit	113.000	-1.331	0.18
Self-correction (SC)	Implicit vs. control	114.000	-1.039	0.29
	Explicit vs. control	67.500	-2.474	0.01**
	Implicit vs. explicit	102.000	-1.687	0.09
Use of all-purpose words (UA)	Implicit vs. control	72.500	-2.488	0.01**
	Explicit vs. control	52.500	-3.031	0.01**
	Implicit vs. explicit	124.500	-.949	0.34
Conversation gambits & hesitation devices (CHD)	Implicit vs. control	77.500	-2.300	0.02*
	Explicit vs. control	62.500	-2.655	0.01**
	Implicit vs. explicit	127.000	-.861	0.39
Self-repetition (SR)	Implicit vs. control	98.000	-1.601	0.10
	Explicit vs. control	50.000	-3.115	0.01**
	Implicit vs. explicit	96.500	-1.877	0.06
Gestures (GsCs)	Implicit vs. control	113.000	-1.071	0.28
	Explicit vs. control	66.000	-2.526	0.01**
	Implicit vs. explicit	102.000	-1.687	0.09
Facial expressions (FE)	Implicit vs. control	133.000	-.381	0.70
	Explicit vs. control	62.500	-2.651	0.01**
	Implicit vs. explicit	70.000	-2.748	0.01**
*significant at the 0.05 level----**significant at the 0.017 level				

Appendix T: (Continued)

T-2: Results of a Mann Whitney U test between experimental and control groups on pre-post gains (the interaction tasks)

Strategy	Groups comparison	U	z	*p*(twotailed)*
Comprehension checks	Implicit vs. control	70.500	-2.688	0.01**
	Explicit vs. control	43.500	-3.590	0.01**
	Implicit vs. explicit	140.500	-.696	0.48
Circumlocution (Cir)	Implicit vs. control	84.000	-2.334	0.02*
	Explicit vs. control	71.500	-2.766	0.01**
	Implicit vs. explicit	157.500	-.152	0.88
Approximation (App.)	Implicit vs. control	81.000	2.186	0.03*
	Explicit vs. control	63.000	-2.806	0.01**
	Implicit vs. explicit	125.000	-1.182	0.25
Conversation gambits & hesitation devices (CHD)	Implicit vs. control	144.000	.000	1.00
	Explicit vs. control	82.000	-2.664	0.01**
	Implicit vs. explicit	90.000	-3.135	0.01**

*significant at the 0.05 level

**significant at the 0.017 level

Appendix U: Magnitude of instructional effect

Magnitude of instructional effect on pre-post gains and pre-delayed post gains between the three experimental conditions for questionnaire results according to categories.

Categories	**Pre-post gains**						**Pre-delayed post gains**	
	Implicit over explicit		Implicit over control		Explicit over control		Implicit over explicit	
	d	ES	***d***	ES	***d***	ES	***d***	ES
Interaction CSs	-0.69	Mid.	0.63	Mid.	1.3	Large	-0.06	trivial
Self-solving	-0.59	Small	1.03	Large	1.5	Large	0.07	trivial
Time-gaining	-0.57	Small	1.00	Large	1.5	Large	-0.21	trivial
Non-verbal	-0.88	Mid	0.50	Mid.	1.3	Large	-0.39	trivial
Non-taught	-0.19	trivial	0.03	trivial	0.3	trivial	-0.41	trivial

Magnitude of instructional effect on pre-post gains between the experimental conditions for the questionnaire results according to individual strategies

Individual strategies	**Pre-post gains**								
	Implicit over Control			**Explicit over Control**			**Implicit over Explicit**		
	Sig.*	*d*	ES	Sig	*d*	ES	Sig	*d*	ES
CC	No	-----	-----	Sig	0.97	L	No	-----	-----
CR	No	-----	-----	Sig	0.97	L	No	-----	-----
AH	No	-----	-----	Sig	1.00	L	No	-----	-----
Cir.	Sig	0.97	L	Sig	1.48	L	No	-----	-----
App	No	-----	-----	Sig	0.89	L	No	-----	-----
SC	No	-----	-----	Sig	0.96	L	No	-----	-----
UA	Sig	0.98	L	Sig	1.22	L	No	-----	-----
CHD	Sig	0.88	L	Sig	1.08	L	No	-----	-----
SR	No	-----	-----	Sig	1.09	L	Sig	-0.59	M
GsCs	No	-----	-----	Sig	1.04	L	No	-----	-----
FE	No	0.00	T	Sig	0.86	L	Sig	-1.10	L

*Sig. = statistically significant at 0.05 level
T= Trivial effect, S= Small effect, M= Medium effect, L= Large effect

Appendix U: (Continued)

Magnitude of instructional effect on pre-post gains between the experimental conditions for the interaction task results according to individual strategies.												
Individual strategies	Pre-post gains									Pre-delayed post gains		
	TBLT over Control			PPP over Control			TBLT over PPP			TBLT over PPP		
	*Sig.	*d*	ES	Sig	*d*	ES	Sig	*d*	ES	Sig	*d*	ES
AC	No	0.60	M	No	-----	----	No	----	----	Sig	0.80	L
CC	Sig	1.21	L	Sig	1.47	L	No	----	----	No		
Cir.	Sig	0.80	M	Sig	1.00	L	No	----	----	No		
App.	Sig	0.82	M	Sig	1.08	L	No	----	----	No		
CHD	----	----	----	Sig	1.00	L	Sig	-1.06	L	No		

*Sig. = statistically significant at 0.05 level
T= Trivial effect
S= Small effect
M= Medium effect
L= Large effect

Appendix V: The mean scores and standard deviation of the three groups at pre, post- and delayed post-tests in questionnaire and interaction tasks

V-1: The mean scores and standard deviation of the three groups in the questionnaire: Categories of CSs

Categories	Groups	Pre-test		Post-test		Delayed post-test	
		M	*SD*	*M*	*SD*	*M*	*SD*
Interaction CSs	Implicit instruction	6.41	1.03	7.40	1.24	6.94	1.86
	Explicit instruction	5.15	1.07	7.33	1.46	6.11	1.77
	Control group	5.73	1.53	5.79	1.74	------	------
Positive self-solving CSs	Implicit instruction	6.26	1.34	7.83	1.31	7.13	1.83
	Explicit instruction	4.94	1.84	7.71	1.79	6.22	2.06
	Control group	5.74	1.55	5.95	1.58	------	------
Time-gaining CSs	Implicit instruction	5.63	1.62	6.80	1.58	6.13	1.94
	Explicit instruction	4.62	1.48	6.88	1.52	5.78	1.64
	Control group	5.14	1.55	5.00	1.66	------	------
Non-verbal CSs	Implicit instruction	6.09	1.42	6.76	1.61	6.45	1.31
	Explicit instruction	4.76	1.32	6.81	1.41	6.10	1.59
	Control group	5.49	1.43	5.51	1.87	------	------
Non-taught CSs	Implicit instruction	5.05	1.65	4.69	1.69	4.46	1.56
	Explicit instruction	4.11	1.11	4.15	1.28	4.49	1.66
	Control group	4.81	1.57	4.45	2.08	------	------

V-2: The mean scores and standard deviation of the three groups in the questionnaire: Individual CSs

Categories	Groups	Pre-test		Post-test		Delayed post-test	
		M	*SD*	*M*	*SD*	*M*	*SD*
Asking for confirmation	Implicit instruction	6.61	2.33	6.72	2.58	6.87	2.35
	Explicit instruction	4.76	2.27	6.56	2.30	6.60	2.19
	Control group	4.62	2.68	4.63	2.89		
Comprehension check	Implicit instruction	6.33	1.51	7.43	1.79	6.64	1.74
	Explicit instruction	4.92	0.94	7.28	1.53	6.38	1.95
	Control group	5.74	1.55	6.02	1.77		
Clarification request	Implicit instruction	6.31	1.63	7.50	1.25	6.80	2.53
	Explicit instruction	5.12	1.62	7.00	1.41	5.60	1.98
	Control group	5.81	1.73	5.50	2.38		
Appeal for help	Implicit instruction	5.87	1.74	7.06	1.58	7.00	2.01
	Explicit instruction	5.17	2.03	7.48	1.67	6.30	2.04
	Control group	5.94	1.75	5.73	2.36		
Asking for repetition	Implicit instruction	7.36	1.83	8.06	1.70	7.54	1.55
	Explicit instruction	5.68	1.49	8.06	1.79	5.93	2.30
	Control group	5.84	2.97	6.57	2.55		
Circumlocution	Implicit instruction	6.42	2.17	8.50	1.36	6.93	1.95
	Explicit instruction	5.29	2.35	8.31	1.84	6.10	2.34
	Control group	5.94	2.09	6.13	2.17		
Approximation	Implicit instruction	6.50	2.55	8.00	2.05	7.07	2.25
	Explicit instruction	5.18	2.27	8.17	2.09	6.93	2.39
	Control group	7.06	2.67	7.19	2.85		
Self-correction	Implicit instruction	6.33	1.26	7.44	1.48	7.28	1.99
	Explicit instruction	4.80	2.04	7.27	1.98	6.07	2.09
	Control group	5.21	1.66	5.72	1.58		
Use of an all-purpose words	Implicit instruction	5.39	2.83	7.89	2.13	6.53	2.64
	Explicit instruction	4.59	2.00	7.78	1.80	6.33	2.49
	Control group	6.19	3.31	5.25	2.49		
Conversation gambits and HD	Implicit instruction	5.46	1.52	6.94	1.50	6.04	2.00
	Explicit instruction	4.59	1.65	6.76	1.58	5.76	1.53
	Control group	4.94	1.69	5.16	1.54		
Self-repetition	Implicit instruction	6.11	2.92	6.39	3.32	6.40	2.16
	Explicit instruction	4.71	2.31	7.22	2.13	5.87	2.26
	Control group	5.75	2.51	4.50	3.07		
Gestures	Implicit instruction	6.22	2.11	6.78	1.83	6.41	1.70
	Explicit instruction	4.67	1.61	6.63	1.61	6.38	1.46
	Control group	5.84	1.50	5.47	2.52		
Facial expressions	Implicit instruction	6.51	1.42	6.92	1.90	6.63	1.29
	Explicit instruction	4.87	1.56	7.29	1.47	6.19	2.23
	Control group	5.37	2.18	5.77	1.91		
Topic Avoidance	Implicit instruction	6.67	2.04	6.22	1.77	5.24	1.25
	Explicit instruction	4.81	1.28	5.57	1.37	4.67	2.19
	Control group	6.15	1.87	5.84	1.90		
Message abandonment	Implicit instruction	5.43	2.12	4.54	2.33	4.36	2.23
	Explicit instruction	4.08	1.87	4.26	1.68	5.13	2.26
	Control group	4.98	1.83	4.39	3.05		
Code-switching	Implicit instruction	3.61	3.03	2.94	3.07	2.93	1.98
	Explicit instruction	4.23	2.81	1.88	1.60	2.60	1.88
	Control group	3.06	2.59	3.00	2.63		
Foreignizing	Implicit instruction	3.42	2.64	3.50	2.28	4.43	1.96
	Explicit instruction	3.71	2.14	3.42	2.18	4.60	1.77
	Control group	3.84	2.35	3.66	2.03		
Word coinage	Implicit instruction	3.78	3.15	4.67	3.74	4.07	2.54
	Explicit instruction	2.76	2.56	3.33	3.39	3.67	3.20
	Control group	4.00	3.54	3.44	3.36		

V-3: The mean scores and standard deviation of the three groups in the interaction tasks

Categories	Groups	Pre-test		Post-test		Delayed post-test	
		M	SD	M	SD	M	SD
Asking for confirmation	Implicit instruction	0.00	0.00	.33	0.59	0.22	0.42
	Explicit instruction	0.44	0.92	0.22	0.54	0.06	0.23
	Control group	0.00	0.00	0.06	0.25	------	------
Comprehension check	Implicit instruction	0.56	0.86	1.78	2.07	1.00	2.08
	Explicit instruction	0.56	0.92	2.11	1.77	1.44	2.87
	Control group	0.56	1.03	0.19	0.40	------	------
Clarification request	Implicit instruction	0.00	0.00	0.06	0.23	0.00	0.00
	Explicit instruction	0.00	0.00	0.00	0.00	0.00	0.00
	Control group	0.00	0.00	0.00	0.00	------	------
Appeal for help	Implicit instruction	0.39	0.85	0.56	0.78	0.39	1.03
	Explicit instruction	0.67	0.77	0.67	1.02	0.17	0.51
	Control group	0.19	0.54	0.31	0.79	------	------
Asking for repetition	Implicit instruction	0.00	0.00	0.11	0.32	0.06	0.23
	Explicit instruction	0.06	0.24	0.17	0.38	0.17	0.38
	Control group	0.00	0.00	0.06	0.25	------	------
Circumlocution	Implicit instruction	0.33	0.59	0.94	1.05	0.72	1.17
	Explicit instruction	0.22	0.43	0.89	0.83	1.00	1.23
	Control group	0.38	0.88	0.25	0.57	------	------
Approximation	Implicit instruction	4.33	2.8	6.39	2.30	5.06	3.93
	Explicit instruction	3.61	2.55	6.78	1.95	6.00	3.41
	Control group	6.06	3.15	5.63	3.59	------	------
Self-correction	Implicit instruction	0.11	0.32	1.11	0.83	1.11	1.07
	Explicit instruction	0.83	1.04	1.17	1.09	1.44	1.29
	Control group	0.88	1.08	0.94	1.34	------	------
Use of an all-purpose words	Implicit instruction	0.11	0.32	0.78	1.35	0.67	1.32
	Explicit instruction	0.78	1.48	1.39	1.65	1.17	2.45
	Control group	0.38	1.25	0.25	0.57	------	------
Conversation gambits and HD	Implicit instruction	0.00	0.00	0.00	0.00	0.17	0.51
	Explicit instruction	0.00	0.00	0.72	0.95	0.44	0.98
	Control group	0.06	0.25	0.06	0.25	------	------
Self-repetition	Implicit instruction	3.61	2.30	3.22	1.95	3.67	3.48
	Explicit instruction	2.44	2.09	3.22	1.70	3.72	2.90
	Control group	3.56	3.16	3.38	2.09	------	------
Gestures & facial expressions	Implicit instruction	1.78	2.13	2.44	2.20	1.22	1.62
	Explicit instruction	0.94	1.35	2.00	1.57	1.22	1.11
	Control group	0.81	1.37	0.94	1.28	------	------
Topic Avoidance	Implicit instruction	0.50	0.79	0.11	0.32	0. 17	0.70
	Explicit instruction	0.67	0.69	0.06	0.23	0.11	0.47
	Control group	0.44	0.81	0.31	0.79	------	------
Message abandonment	Implicit instruction	0.67	0.84	0.06	0.23	0.11	0.47
	Explicit instruction	0.39	0.61	0.22	0.42	0.00	0.00
	Control group	0.25	0.58	0.25	0.44	------	------
Code-switching	Implicit instruction	0.11	0.32	0.06	0.23	0.17	0.51
	Explicit instruction	0.33	0.77	0.06	0.23	0.00	0.00
	Control group	0.81	1.80	0.31	0.79	------	------

Abbreviations

CSs	Communication strategies
TBLT	Task-Based Language Teaching
TSLT	Task-supported Language Teaching
CA	Communicative Approach
SC	Strategic Competence
IT	Interaction tasks
ESL	English as a Second Language
FL	Foreign language
SL	Second Language
ELT	English Language Teaching
EFL	English as a Foreign Language
SR	Stimulated Recall
AC	Asking for confirmation
CCs	Comprehension checks
CR	Clarification request
AH	Appeal for help
AR	Asking for repetition
Cir	Circumlocution
App	Approximation
SCs	Self-corrections
UA	Use of all-purpose words
CHD	Conversation gambits & Hesitation devices
SR	Self-repetition
GsCs	Gestures as communication strategies
FE	Facial expressions
TA	Topic avoidance
MA	Message abonnement
CS	Code-switching

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