

The Impact of Reciprocal Teaching Strategies on the Learners' Reading Comprehension, Strategy Use and Attitudes

# أثر استظدام استراتيجيات التعليم التبادلي على تحصيل الطلبة في فهم المقروء و واستخدام الاستر اتيجيات وعلى اتجاهاتهم نحوها 

By

## Oraib Aref Ramadan

Advisor

Dr. Anwar Abdel Razeq<br>Birzeit University

Palestine

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## By

## Oraib Aref Ramadan

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#### Abstract

This quasi- experimental mixed- methods study investigated the impact of using Reciprocal Teaching strategies on the students' achievement in reading comprehension, students attaining of reading skills and their attitudes towards learning by Reciprocal Teaching in a cooperative group context. Intergroup relationships, interactions and their evolvements over the period of teaching were investigated, as well. The participants in this study were 165 of the $11^{\text {th }}$ grade female students, distributed into two groups: Reciprocal (Experimental $=84$ students) and Non- Reciprocal (Control $=81$ students). The experimental group received explicit instruction of RT strategies for two weeks prior the real teaching began. Then, they were distributed into heterogeneous groups of four based on their results in a diagnostic comprehension test. Each group included a Predictor, Clarifier, Questioner and Summarizer who worked cooperatively to apply the RT strategies to the reading texts for three months period.


Four quantitative and qualitative instruments were used to collect the data of the study. A pre/post test in reading comprehension was conducted for both groups to investigate students' reading achievement prior and post the teaching, in addition to five school tests to notice the change in performance along the period of teaching. Comprehension skills and attitudes of the Reciprocal group were revealed via a questionnaire. Finally, the group work context and the intergroup relationships were observed through the teacher's journal.

The results revealed a significant difference between the experimental and the control groups in the post-test scores in favour of the experimental. It also showed that the effect size of RT on developing the high- order thinking skills was bigger than the effect size on the low-order thinking skills in the experimental group. The results of the five school tests revealed a difference in favour of the experimental group in the fifth test. However, the differences did not reach statistical significance in the four precedent tests. Moreover, the
results showed that the two groups were progressing in their performance in reading comprehension along the period of teaching. The descriptive statistics of the questionnaire responses indicated that the experimental group has highly resorted to the reading strategies in their reading as a result of learning using RT. They also showed that students have developed positive attitudes towards using RT in a cooperative context.

The qualitative data were used to triangulate with the quantitative ones. The thematic analysis of the teacher's journal revealed that the experimental group' subjects were developing positive learning values towards learning reading comprehension in heterogeneous cooperative groups. The analysis yielded six major themes that indicated that values such as cooperation and the group's interdependency had reinforced the positive learning behaviors and increased the strategic practices of the students specially the low achievers. The study concluded that reciprocal teaching was a successful method for teaching reading comprehension. It has the potential to skill students with the metacognitive skills necessary to enhance reading with understanding, upgrade their reading skills and improve their attitudes towards reading. However, the intervention duration is a sensitive factor for the success of RT. Pedagogical implications and recommendations of the study were also discussed.

## الملخص

هدفت هذه الار اسة الى تدريب طالبات الصف الحادي عثر على استخدام استر اتيجيات التُليم التجـادلي لتيسير عملية فهم المقرو ء باللغة الانجليزية. بحثت الار اسة أثر استخدام استتر اتيجيات التعليم التبادلي على تحصيل الطالبـات في مـادة الاستيعاب. كما بحثت الدر اسة أثنر الطريقة على مهار ات القر اءة التي اكتسبهتها الطالبـات و توجهاتهن نحو هذا النوع من التعلم مع انتهاء فترة التتخل. اتبعت الار اسة المنهج شبه التجريبي حيث تم توزيـع 165 طالبـة من طالبـات الحـادي عشر الـى مجمو عتين: تبادليـة ( التجريبيـة و عددها 48 طالبـة) و غبر تبادليـة (الضـابطة وتنـاوي 81 طالبـة). تلقت المجموعـة التجريبية تدريبا على استخدام استر اتيجيات التعلم التنادلي لمدة اسبو عين قبل بدء التنفيذ الفعلي للتدريس. بعد التنريب، تم توزيع المجمو عة التجريبية على مجمو عات غير متجانسة ،ضمت كل و احدة اربع طالبـات بنـاء على نتائجهن في امتحـان تنتخيصي في مادة الاستيعاب. وبهذا ضمت كل مجمو عة اربع طالبـات يؤدين الأدو ار الأربعة للتعلم التجـادلي "اللتنبئ" ، "اللفسر " ، "المتساءل" و " الملخص"، يعملون بصورة تعاونية لتطبيق استر اتيجيات التُليم التبـادلي أثتاء نتـاول نصوص القر اءة ، لفترة استمرت ثلاثـة شـهور . تم جمـع بيانـات الدر اسـة باستخدام عدة أدوات : استخذمت الار اسـة امتحـانين قبلي وبعدي لقياس الفرق بين تحصيل الطالبات في المجمو عتين قبل وبعد التدريس التبادلي. تم تفنيد أسئلة هذا الامتحـان الـى أسئلة نقيس مهـار ات ذهنيـة عليـا وأخرى نقيس مهـار ات ذهنيـة دنيـا لمعرفـة أثر التـعلم في كـلا المجالين ـ كــــا استخدمت الدر اسة خمس امتحانات مدرسية كأداة لرصد النقتام الذي تحرزه الطالبات طو ال فقترة التنخل. اضافة الى ذلك، تم تصميم استبانة هدفت الى معرفة مهار ات القراءة التي استطاعت الطالبات اكتسابها نتيجـة التندريب الاستر اتتجي ، كمـا هدفت الى كثف توجهات الطلبة نحو تعلم القر اءة في سياق تبادلي تعاوني. وأخبر ا، تم استخدام دفتر يوميـات المعلمـة لملاحظـة سياق التعلم في مجموعات والعلاقات على صعيد المجموعة.
تم تطبيق طرق التحليل المختلطـة لتحليل بيانـات الار اسـة. دلت نتائج التحليل الاحصـائي على وجود فروق دالـة بين المجمو عتين التجريبية و الضابطة لصالح التجرييبـة. كمـا دلت النتائج على أن حجم الاثر للتعيلم التبادلي على المهـارات الذهنية العليا كان أكبر من حجمه على المهارات الذهنية الدنيا في ذات الاهتحـان. دلت نتائج الامتحـانـات المدرسية الخمس الـى وجود فرق دال بين المجمو عتين في الامتحـان الخـامس فقط. بـالر غم مـن ذلك أثنــارت اللنتـائج ان كـلا المجمو عتين احرزت تققما في الاداء في موضوع فهم المقروء طو ال فترة التدريس. وأثنـار التحليل الوصفي لإجابـات الطالبـات علىى الاستبانة أن المجموعة التجريبية قد لجأت الى حد كبير الـى استخدام استر اتيجيات القر اءة أثنـاء تـتاول النصوص وعزت ذلك الـى تعلم استر اتيجيات التعلم التبـدلي. كهـا اثــارت التحليلات الوصفية الـى نجـاح الطلبـة في استخدام استر اتتجيات متتو عة اثثاء القر اءة ، بالاضافة الى وجود نوجهات ايجابية لاى الطلبة نحو التعلم النبادلي في سياق تعاوني. كيفيـا، افـرز التحليـل المو اضـيعي لــفتر يوميـات المعلمــة عن وجـود سـت افكــار رئيسية ســادت سـياق العـــل فـي الدجمو عات وفسرت العلاقات التي سـادت بين افر اد مجمو عـات التعليم التبـادلي وشكل التفاعلات بينهم. و أظهرت هذه التحليلات ان مو اضيعا مثل التــاون و المسؤلية الجماعيـة قد عززت سلوكيات التـلم الايجابيـة وز ادت مـن المـمارسـات الاستر اتيجية لاى الطالبات ،خصوصا ضعيفات التحصيل ققدمت الار اسة دليلا على قارة التعليم التبادلي على إكساب الطلبة المهار ات فوق الذهنية اللازمة لتحسين فهم المقروء ـ كما استتتجت الدر اسة ان طول فترة التدخل يعتبر عاملا حساسأ في إنجاح التعلم التبادلي. وبناء على ذللك، خرجت الار اسة ببعض المضامين التزبوية و التوصيات.

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## Chapter One

## Theoretical Framework and the Research Problem

## Introduction

Reading is a key skill to gain knowledge and awareness. In fact, reading is not only a skill. It is more a process through which people develop. The more one reads, the more he/she will learn about a topic, develop perception and make connections to the world. Reading at school life is specifically fundamental. Students at school are exposed to different types of knowledge, from several sources of information. Therefore, students need to process and understand what they read to produce meaning. The centrality of reading comprehension $(\mathrm{RC})$ also arises from being a prerequisite for success in all school subjects. In fact, reading ability is considered as reference to how smart the student is, since students who are good at reading are usually good at wide variety of school tasks (Cohen \& Lotan,2014). However, building understanding of any text is the crux whether reading has added to the reader's knowledge and experience or not. Comprehending a text involves more than the ability to spell correctly or decode words. It involves students' ability to understand, build representations and explanations of what they read (Gomez \& López, 2012). For reading comprehension to take place, several operations such as cognition, reasoning and critical thinking need to be called (Komariah, Ramadhona, \& Silviyanti, 2015). Most definitions of RC have depicted reading as an interaction between the reader and the text, which definitely requires the reader to code and interpret what is read in the light of her/his previous knowledge (Tarchi, 2010; Wijayatiningsih, 2013).

The previous brief viewed reading comprehension as complex process which requires the lexical, cognitive and social skills to attend in order to construct the meaning of the text. That may justify why students face difficulties in RC. Students in many occasions at school, read aloud fluently. However, they are unable to tell the meaning of what they read (Lubliner,
2002). Students in general encounter challenges in reading with meaning (National Reading Panel, 2000). The percent of the struggling readers in the high school context have reached about $70 \%$ in the USA. (Ness, 2016)

The problem of RC is a world-wide educational issue and it is not only restricted to reading in a foreign language. However, when reading in English as a non- native language, the challenge of comprehension gets worse. Students resort to poor reading habits such as translation into the mother tongue or depending on the teacher to do the thinking process instead of them (Jom'a, 2013;Raslie, Mikeng \& Ting,2015).

Focusing on the product of reading, rather than the process itself is considered a key reason why students lack the abilities to apply the metacognition skills while reading (Komariah, et.al, 2015). The educational policies in general relate achievement only to the grades which students get at school. These force both students and teachers to follow poor habits in reading, which only hit the product of teaching reading. Therefore, struggling readers at high schools may pass the tests and join colleges, but still they take their poor reading with them to universities and the problem continues (Gruenbaum, 2012).

Research into RC has emphasized the need for more strategy teaching to assist learners read with understanding. Yet, it seems that the efforts in teaching strategic reading are still modest, and the National Reading Panel [NPR] (2000) has explained that RC was only brought into research in the last thirty years. In addition, teachers still almost focus on main ideas, retrieving facts and shallow understanding of the content. Obviously, comprehension involves other important skills, such as reading for details and main ideas, building clear mental representations of the ideas and understanding the text's purpose.

Moreover, the research into RC has recommended that students need assistance to develop effective reading habits. When students are being taught a reading strategy, and they find that the strategy has helped them understand, it would be unforgettable tool, which would facilitate their reading for life (Wagar, 2008).

Among the variety of social learning approaches of reading, which utilize strategy teaching for enhancing comprehension, Reciprocal Teaching (RT) comes to the view. The method depicts the classroom as context for teaching reading comprehension on the basis of strategy - teaching. It is a technique for enhancing and monitoring understanding that puts great emphasis on the process of reading rather than the reading final product (Komariah, et.al, 2015). Palincsar \& Brown (1984) suggested teaching four strategies of reading: predicting, questioning, clarifying and summarizing. They have asserted that these specific strategies were purposely selected among the wide variety of techniques because they function on two folds: fostering understanding and monitoring understanding. Students better understand the text via negotiating the meaning. Additionally, they can monitor their level of understanding after a while of a systematic practice.

Teachers and educators now seek to re-think the traditional processes of teaching RC and replace the conventional reading methods with more strategy-based, context- supportive methods. Moreover, there is still a need to study the impact of strategy-based reading on students' achievement, particularly in English as a foreign language (EFL) context. More instructional efforts are needed to explore the most suitable strategy that serves learning EFL and supports the learning of the struggling readers. (Wagar, 2008).

The current study was an attempt to teach RC through the use of RT strategies. These metacognitive strategies were explicitly taught to the eleventh grade students to facilitate reading comprehension. The study also investigated the impact of RT use on student's achievement in reading comprehension and explored the students' attitudes towards learning reading using RT as a teaching method. The group work context was also observed by the researcher.

## Theoretical Framework

Reciprocal Teaching (RT) and Cooperative Language Learning Approach (CLL) underpinned the theoretical framework of this study. Both methods are guided with the vision
and philosophy of the Social Constructivism. The three methods share the paradigm's consensus that learning in socially and culturally embedded context, fosters students learning, shapes their awareness about their learning and enhances their performances. In non- English speaking environments, reading is the main stimuli most learners use to interact with the target language. Under the constructivist spectrum, educators and teachers' role is to help learners comprehend and process what they read and train them to use strategies for making meaning out of reading (Leanne, 2003; Palincsar \& Brown, 1984). Constructivism attributes learning development to its construction, on the one hand, and its social context on the other. RT works on fostering the aware application of the reading strategies and monitoring the occurrence of understanding. To identify the cognitive and metacognitive processes set into work in such social, cooperative setting, and how they work to serve learning reading comprehension, it was necessary to review the philosophical and theoretical foundations of these methods. This chapter considers the relationship between these theories and how they interact to facilitate learning. Reading comprehension and its significance to students' success and progress is also be highlighted. In addition, the factors which support and improve reading comprehension are reviewed. More specifically, the chapter pursues the foundations of "strategy" concept and the strategies which are operated while meaningful reading.

## Social Constructivism

Reciprocal Teaching and Cooperative Learning Approaches strike their roots in the social constructivist theory by Vygotsky. As the name implies social constructivism stands for constructing learning in a social interactive context. The theory of social constructivism represents learning and development as inherent concepts; learning leads to development and vice versa. This orientation left no space for the assumption that development is the natural result of maturation. On the contrary, Vygotsky assumed that the learners' advance in education with the guidance of matures (teachers), and learning is facilitated through the social interactive means. Vygotsky viewed language as a social tool that enhances one's
cognitive abilities. When the learners use language to make dialogues, they socially interact and debate for what makes meaning for them. They also use it to think aloud in a try to regulate their thinking. As a result, the social interaction leads to their cognitive growth (Mishra, 2013).

According to the social constructivism, cognition grows and regulates itself through the "meaningful learning". The concept suggests that interacting with the teacher and peers fosters the chance in filing their comprehension gaps and actuating their cognitive processes (Cohen \& Lotan, 2014). That supports the belief that students learn better when they are actively engaged in the learning process. On account of that, social constructivism is an interactive, student- focused approach which considers students' needs and their current abilities before prompting them into the task (Wagar, 2008). In this type of instructional setting, two main factors are considered critical to the learning outcomes: the construction of teaching and the social context that nurtures the process of interaction. The instructional implication of such context suggests that the purposely administered interaction is a key condition under which reading can be effective. Further, it implies that learning is facilitated when students learn in a social active context, with the guidance and support of a more knowledgeable person.

Vygotsky believed that the internal developmental processes are stimulated and called into action only when the student is interacting with teacher and cooperating with peers (Cohen \& Lotan, 2014). The type of interaction promoted by the social constructivists is based on two main concepts: scaffolding and the zone of proximal development (Wagar, 2008). When learners encounter new complexities in their learning that need to be tackled, the teacher guides, monitors and scaffolds their current level of capacity to help them reach the desired optimal development in their learning and reach the new level of knowledge they are striving to reach. This distance between what learners already know and what they are striving to learn is called the zone of proximal development ZPD (Dolya, 2009). The
designing of such socially constructive setting enables the teacher "helps the students become more aware of themselves as learners who actively monitor their learning strategies and resources and assess their readiness for particular tests and performances"(Bransford, Brown, Cocking, 2001, p. 67).

The theory, in this context, has assumed a central role for the teacher in designing the settings of learning, the tasks and scaffolds which serve the natural development of the learners' abilities. That suggests designing reading activities which activate strategy -use and encourage negotiating meaning for full comprehension. Learners make sense of what they read through making connections between their previous knowledge and the newly taught one. Designing strategic reading activities serves making these connections and facilitates acquiring the new knowledge. Newman \& Holzman (1993) explained that meaning- making, according to the developmental process of Vygotsky, is only possible through the social process of interaction including speaking a verbal behavior (external monologue). Language takes the form of social representations that is fostered through repetition and becomes internalized and normal to be used in making meaningful language. Communicative monologue becomes by the time internalized as thoughts and ideas that are externalized again as soon as learners face something that needs explanation or difficult to understand. Students externalize their thoughts through "thinking aloud" and negotiating the meaning (Dolya, 2009). The teacher's role, from this point of view, is not simply to respond to the questions of the learners as much as providing them with tools to discover the answers and to guide their research process through modelling, scaffolding, and taking turns with students to help them to externalize the mental events in a collaborative context (Bransford et al., 2001). The pedagogical possibility of learning in that sense, assumes teaching reading a social action that promotes thinking while learning, leans on the learners' cooperation to construct the knowledge through making meaning, and fostering each other's understanding (Ojo, 2015). Reciprocal teaching premises that the distance between the students' current level of
comprehension and the upper levels of competence can be achieved through the collaborative action of an expert knowledgeable teacher and the internalization of the reading strategies that promote understanding. (Brown, 1992)

## Reading Comprehension (RC)

Reading is considered a key condition for learning at schools. It's the only mutual skill that all school subjects share. Therefore, teaching reading is seen as every teacher's craft and not just the language teacher's duty. This is considered the way to comprehension and building information across all levels of education (Afrizatama, 2016). When students develop good reading skills, they don't only show progress in learning and development, but they also possess a tool for life continuous learning and a skill for better interaction with life.

However, comprehension was considered the heart of reading. Mastering reading is not that decoding of the words in a correct way. It's about how meaning is engineered, how connections to learners' own experiences are established and how new knowledge is being structured. It was until late in the twentieth century, that reading comprehension instruction was viewed as a scientific subject that needs to be taught. Until the mid of the century, mastery in reading was measured by the fluent reading and the oral proficiency. The renaissance in reading instruction has shifted the focus of reading from the emphasis on coding into the emphasis on meaning (Pearson \& Dole, 1987). That renaissance started with a group of researchers who viewed reading as a complex process which needs to be broken down into components to be taught. Among and above those was Durkin, who regarded comprehension as the "essence of reading" (NRP, 2000). Since then, reading was treated as cognitively demanding load that needs to be facilitated, and was connected to three critical components for successful instruction. First, a vocabulary teaching was seen critical for making understanding. Second, interactive setting is necessary for building meaning. Third, teachers' intervention through modelling and strategy-teaching was important for preparing independent readers. (NRP, 2000)

The previous conception bases reading comprehension on the cognitive and social interactions. From this perspective, comprehension is seen as the outcome of interaction between the message that the text holds and the previous knowledge of the reader. The $\operatorname{NRP}(2000)$ has described reading with comprehension as the deliberate, intentional use of thinking while meaning is being constructed, as a result of interaction with the text. The process of interaction entails activating problem solving, thinking processes and building representations to construct meaning from the text. Resorting to the previous knowledge to build the meaning involves readers in two levels of processing: The level of decoding words and associating them to appropriate meaning and the communication level which involves the interaction between the reader and the writer. Through this process, reading enhances students' language skills and their perception of the text (NRP,2000; Wagar,2008; Wijayatiningsih,2013) .Based on this view, reading can be seen as a way of progressing in gaining knowledge, through making connections between what learners already know and the new information they are just receiving. Adapting the new information to the learners' previous one gives it a meaning, increasing the chance of progressing awareness, and accumulating learning experiences.

The research into reading comprehension field had provided an evidence that high percentage of students struggle with reading comprehension (Ness, 2016). When students grow up in learning without being able to develop good reading skills, they are more likely to fail in reading. The lack of reading skills makes them hate and avoid reading. Consequently, they find themselves delayed in learning as whole (Bruce \& Robinson, 2001). When student's reading skills fall behind their mates' skills, their vocabulary capacity falls too and they no more have the same access to the language experience. (Fevre, Moore \& Wilkinson, 2003) Unfortunate learning experiences of those learners can passively affect their future in learning and limit their future learning opportunities (Wagar, 2008).

RC research field has also provided educators with evidences that the direct instruction of comprehension reading strategies needs to be implemented in schools for reengaging and assisting struggling readers in comprehension. (Armbrister, 2010; Griffiths \& Oxford, 2014; Lestari, 2016; Lubliner, 2002; McHugh, 2016; Palincsar \& Brown,1984; Pesa \& Somers, 2007). Teaching reading strategies implies involving students as active readers who have central role in making meaning and creating understanding of their own, contrary to their role in some conventional teaching methods as passive recipients of teacher's knowledge (Winograd \& Hare, 1988). Effective strategy teaching and learning assists struggling readers with tools that help them comprehend. When these tools make a way to understanding the text, they become unforgotten and the learners will keep utilizing them to achieve better reading scores (Wagar,2008). The NRP (2000) stated that across research, students who received cognitive instruction on how to comprehend, have reported higher comprehension gains than those who were taught in the conventional methods.

Reciprocal Teaching was reported among the most successful reading strategies methods. It incorporates cognitive and metacognitive teaching of reading strategies through an interactive communication (Tartchi \& Pinto, 2016) The group of readers co-constructs the meaning of the text through questioning, clarifying, summarising, and predicting strategies. The consensus upon the collective understanding is made through dialogue, initiated by the teacher, who explains the strategies role and significance , and gradually withdraws, giving his role to the learners to practice meaning- making and monitoring understanding through the strategies, keeping his guidance role (Bruce \& Robinson,1999; Fevre et al,2003).

## Reading Strategies

Reading comprehension is described as complex cognitive process which bears serious challenges to the learners at the linguistic, cognitive and metacognitive levels. Searching meaning requires activating the previous knowledge at these three levels. Students need to activate language proficiency to understand words and sentences. They also need to
use all the available resources to engineer the meaning of the text and finally they have to resort to their metacognition processes to monitor their understanding and check if comprehension has taken place (Ahmadi \& Gilakjani, 2012). When the text is unfamiliar or of difficult level, students may fail to construct the meaning. They refer to specific procedures to facilitate their understanding. These techniques were called "reading strategies" in the National Reading Panel (2000), to refer to the mental tools used while reading to help students become aware of how they comprehend. These tools are claimed to help learners how to learn (Collins et al, 1988). Reading strategies were defined as "the intentional deliberate use" of a plan while reading and monitoring the outcomes of using it (Pressley \& Harris, 2008). Palincsar \& Brown (1984) has called these techniques "knowledge extending activities" to refer to the tactics that good readers use to comprehend any unfamiliar text. Good readers don't use single strategies to foster their understanding. They activate a repertoire of strategies like "prediction, question asking, imagery generation, monitoring and seeking clarification when confused, summarization" for confirming their comprehension (Pressley \& Harris, 2008, p.21). Moreover, they can extend these strategies to build knowledge in other subject areas. When it comes to the less proficient readers, comprehension may fail or still have gaps as a result of not using these "debugging" skills in dealing with reading (Palincsar \& Brown, 1984). So, why don't some students apply these strategies? Because they do not know these activities are useful or because they do not care, Brown (1992) answers. And in both cases, it is the instruction's role to design strategic teaching that makes students familiar with strategic reading. Strategy-based learning is a type of knowledge like any other subjects; it is taught and learnt. (Oxford, 1990).

The interest in the strategy development field has witnesses a breakthrough in the 60 's and 70's of the last century (Pressley \& Harris, 2008). This was connected with cognitive experiments by Flavell, Beach, and Chinsky who tested the kids' memory to memorize and recall. They have come to the fact that children's ability to recall matures as they grow up.

Lacking of ability to recall or rehearse was called production deficiency that can be overcome with instruction. Research in language teaching shares the consensus that learners can develop these strategies through repetitive practice and modeling the teacher. Therefore, it is necessary for teachers to teach these reading strategies in an explicit way and proper steps. However, there was a confession to the fact that teaching reading strategies is still very little occurring at schools (Pressley \& Harris, 2008). Seeing teachers teaching strategies or students learning reading strategies is something seldom to be noticed at school (Rosenshine \& Meister, 1994).

Teaching reading strategies has been part of the language teaching renovation worldwide. The positive impact of trying a repertoire of strategies has also been the topic of huge body of research, as tools that assist students' learning, keep them focus, enhance their critical thinking and have them work cooperatively on the content of reading with variety of tools (Ojo, 2015). Moreover, teaching the strategies and activating their use, while reading, promotes the repetitive practice and builds reading experience. Becoming more expertise, students internalize the strategy towards automatic rather than intentional use. This accordingly, decreases the cognitive burden needed to attend to the appropriate strategy use (Pressley \& Harris, 2008). Activating the appropriate strategy facilitates comprehension and involves students in the process of reading as active reader (Ahmadi \& Gilakjani, 2012; National Reading Panel, 2000; Palincsar \& Brown, 1984; Rosenshine \& Meister, 1994). More importantly, using the strategies helps students compensate the breakdowns in reading through applying this "fix up strategies" to correct their misunderstanding ( Palincsar \& Brown, 1984). Overall, students who are able to apply variety of reading strategies gain better in achievement and language proficiency (Aziz, 2005)

## The Cognitive Strategies

The term "cognitive strategies" was originally established in the information processing theories to refer to "the tools that learners use intentionally to regulate the learning
process" (Lubliner, 2002). These are mental tools which students apply through their direct interaction with the text, and were reported to facilitate and control comprehension. Further, these are the thinking plans that readers purposely select to apply in her/his own way to perceive the text (Pressley \& Harris, 2008). Language learning strategies were best defined by Oxford (1990) as specific tactics or actions that learners take to make their learning better acquired, retained and retrieved. Further, she explained that using these strategies facilitates learning and increases the chances of successful transfer of learning into new learning situations. While interaction with a reading task, good readers activate their previous knowledge, make use of the sentence clues, use dictionaries, use text markers, draw, summaries and skip complex parts of the text (Ahmadi, Ismail \& Abdullah,2013). The cognitive strategies were also associated with the reader's ability to set goals before reading, identify the meaning of words and the important ideas while reading and review or selfquestion the important parts in the after reading (Bilgi \& Ozmen, 2014). The National Reading Panel (2000) stated that teaching these strategies to students aids their independent reading, develops their understanding of their cognitive processes and enhances regulating their thinking and the processes used while reading. From the cognitive point of view, students need to be given the chance to practice a repertoire of these strategies in solving reading problems before being asked to generate or produce these skills. That implies teaching the strategies with scaffolding, and teaching in scaling from the lower to the higher order thinking skills (Collins et al, 1988).

There has been strong orientation towards teaching these strategies at schools to help students regulate their thinking while solving a reading problem or working out a task. There have also been a bulk of literature that investigated the impact of teaching these strategies; and made enough evidence that students gained better in comprehension when given cognitive instruction (Collins, Brown \& Newman, 1988; Lubliner, 2002; The National Reading Panel ,2000; Palincsar \& Brown ,1984)

## The Metacognitive Strategies and Strategy Teaching

While the cognitive strategies refer to the set of conscious operations used to carry out the task (Pressley\& Harris, 2008), the metacognitive strategies monitor if the applied cognitive option was the right one to use (Adkins, 2005). In other words, metacognitive strategies are responsible for controlling and monitoring the cognitive ones. These are higher order abilities that involve the reader in planning, monitoring and evaluating her/his learning (Casanave, 1988). Monitoring reading was assented over to be the reader's ability to detect the success and failure in making meaning from a text, and adjust the reading behaviour in accordance (National Reading Panel, 2000). Unquestionably, metacognitive strategies are more associated with language learning. "Metacognitive reading strategies refers to particular, deliberate, goal-directed, mental processes or behaviour, which control and modify the reader's attempts to understand texts" (Ahmadi, et.al,2013,p.4). However, it was suggested that the use of these strategies can be intentional or automatic depending on the degree of expertize the learners develop (Adkins, 2005). That indicates that the appropriate metacognitive strategy can be automatically applied to the text after a while of practice, and also successfully transferred to other areas of learning.

The different definitions of "Metacognition" have associated the word with thinking about thinking, knowing about thinking, or the control of learning (Adkins, 2005). It is the "knowledge about and control of one's own learning" (Brown, 1992, p.164). Whatever combinations were made to build a mental picture of metacognition, they have all related the word to two central components: (a) The knowledge and control of self, which connotes that the reader is able to build positive attitude towards learning, attends to the task and adjusts her/his attendance according to the task difficulty (Adkins, 2005). (b) The knowledge and control of process which implies that the reader is handling the text effectively through applying the variety of declarative, procedural and conditional knowledge (National Reading Panel ,2000;Pressley\& Harris, 2008). The knowledge of metacognition was classified into
these previous components by Marzona (1988) to refer to the specific type of knowledge which students use as they advance in learning the strategies. Declarative and procedural knowledge are associated with the learner's own awareness about her/his own cognitive abilities, how do these affect learning and how to apply them to enhance knowledge. The conditional knowledge was used to refer to the ability of recognizing when, where and why the specific strategy is used. It's the skill to appropriately select the strategy in its suitable setting and adjust its use where needed. Others referred to the three elements as the "metastrategic knowledge" (Tajalli, \& Satari,2013). No matter the classifications, metacognitive knowledge is a regulatory skill. Students who use these strategies can regulate their learning for better comprehension purposes. They plan what strategy could be possible for solving the reading problem. They also monitor if applying that strategy has brought about better comprehension. Finally, they evaluate their strategy use and adjust its use over time. The pedagogical possibilities of teaching metacognitive strategies, has an added value, more than having students solve the reading problems or engage in learning. The strategies bring students to reflect on what, how, why they have learnt in the light of their learning experiences (Ellis, et al, 2014).

The metacomprehension awareness was found fundamental for comprehension and even the most influential in teaching reading especially in foreign language learning (EFL). Therefore, instructors are encouraged to teach the strategies to promote better language learning. When students use the strategies, they will become able to reflect on their cognitive options and by time they will be able to make aware decisions about what makes their learning improves. However, Adkins (2005) reminded instructors that strategic training should be designed to be appropriate to age and competence. Appropriate, context-based instruction help students better control themselves, assess their learning needs and takes their hands towards independent strategy use that can be transferred to other areas of learning.
"The application of metacognitive strategies in contexts other than those in which they were learned is the primary goal of teaching thinking" (Adkins, 2005, p.4)

The National Reading Panel (2000) and other researchers recommended the explicit instruction of these strategies. Others found that teaching the strategies to poor readers has made difference in comprehension gains (Alfassi, 1998; Brown \& Palincsar, 1989; Hou, 2015; Palincsar \& Brown, 1984; Pressley\& Harris, 2008).

To remind, RT was among the pioneer methods to utilize a set of metacognitive strategies to teach comprehension .Palincsar \& Brown (1984) viewed reading as a complicated process which requires readers to split their mental focus. Readers need to focus on the text and on themselves, at the same time, to monitor if comprehension is taking place or not, and to recognize areas of comprehension failure .Students' inability to comprehend was diagnosed as strategic deficiency, usually found in novice readers or what Palincsar \& Brown called passive comprehenders (Alfassi, 1998). Such reading deficiency can only be overcome through instruction of strategies (Alfassi, 1998; Pressley\& Harris, 2008).

## Reciprocal Teaching (RT)

The instructional method implemented in this study is Reciprocal Teaching (RT) of Palincsar \& Brown (1984). RT is considered among the most successful instructional methods in teaching reading for the past decades (Tarchi \& Pinto,2016).The model came into light after research into a variety of strategies such as inquiry teaching, Socratic dialogue and theories, reasoning, explanation, and analogy models. The technique was designed to create a setting for "externalizing simple comprehension-monitoring activities and to provide a repetitive structure to scaffold student discourse" (Brown, 1992, p.148). Primarily, the technique aimed to train learners, especially the less proficient, to read with meaning, through promoting thinking while reading (Alfassi, 1998). RT is considered a multiple- reading strategy for teaching reading comprehension in the National Reading Panel (2000). The description implies the multi- purpose of applying the four used strategies. They are supposed
to work as comprehension fostering and comprehension monitoring skills at the same time. In RT class, students tackle reading texts in a systematic way (Alfassi, 1998), applying four thinking skills: clarifying, questioning, summarizing, and predicting (Afrizatama, 2016). Engagement in these strategies in the class is not only claimed to improve students' reading ability, but also their retention of what they have read (Oczkus, 2010). Palincsar \& Brown (1984) have justified choosing the four, namely, strategies to be taught as they apply to various types of learning contexts and considered these skills are the foundations of argument. Students use these mental tools to become active readers and gain deeper understanding of the text. Palincsar \& Brown (1984) had taught the four strategies concurrently to foster the reading comprehension skills of middle school students who were able to decode words, but reflected poor comprehension. When they first tested their method in the field, Palincsar \& Brown (1984) reported that an appropriate interaction between the learners, suitable text and the active strategies has yielded in better understanding of the reading. Additionally, learners reported higher retention and their comprehension-failures were evaded.

## How is Reciprocal Teaching Performed?

Reciprocal Teaching aims to promote understanding of the text, through monitoring comprehension while reading. It is a "reading comprehension methodology, in which a group of students is collaboratively applying four reading strategies (questioning, clarifying, summarizing, and predicting) to co-construct the meaning of a written text" (Tarchi \& Pinto, 2016, p.3). The model is activated in the classroom through the guided teaching of the strategies by the teacher. The teacher models the strategies while reading a text and thinking aloud, verbally demonstrating his mental processes to the students. Then students would take his role of playing a teacher, and showing their thinking aloud while reading. The students and teacher roles' reciprocating continues to facilitate understanding. The model allows
students with teacher to scaffold and construct meaning in a social setting through discussion, dialogue and thinking aloud activities (Oczkus, 2010).

## The Constructivist Nature of Reciprocal Teaching

Basically, Palincsar \& Brown (1984) announced that the strategy is brought into existence from the womb of the social constructivist theory, since it leans on the zone of proximal development and the expert's (teacher's) scaffold. The strategy focuses on the process of teaching comprehension more than on the product itself. In other words, RT is about spending time skilling students with strategies rather than spending it assessing their performance and giving feedback on their errors. The method is based on two principles: (a) teaching the four concrete, cognitive strategies prior to reading comprehension, and (b) teaching the strategies explicitly in the form of the dialogue between the teacher and learners (Rosenshine \& Meister, 1994) .Therefore, the teacher's role is then considered central in teaching the strategies. The teacher functions as a model for students to follow in negotiating the reading passage. Students later exchange roles with the teacher in leading the dialogues about the text. That explains why dialogue was considered the "heart of Reciprocal Learning" (Casanave, 1988).The constructivist nature of the RT context is considered a key element in scaffolding students' skills. The teacher guides the learners and gradually withdraws from the dialogue when students become more capable to apply the strategy for comprehending new texts (Palincsar \& Brown, 1984). Moreover, the think- aloud technique allows the students to imitate the teacher's style in showing his mental processes as she/he reads. Gradually, students integrate and adapt the teacher's behavior to their abilities. By the time, students receive the feedback which they use to monitor their thinking while they articulate and communicate their ideas. Eventually, students' reading monitoring improves and they gain higher awareness of their thinking processes. Scaffolding, by that meaning, is translated in the gradual transfer of leadership from the teacher to his students who by time become able to share the responsibility of monitoring their understanding (Raslie, et.al, 2015).

It is within this cooperative context, student's learning is assisted. Students are guided through making their predictions on the text, provided with helping words/hints to generate their questions and summaries. In addition, the teacher explains whether the applied strategy was the suitable one or not (Rosenshine \& Meister, 1994). Comprehension becomes more feasible, and students become more confident about their understanding due to sharing the cognitive load that the text loads (Chou \& Chan, 2016).

It is apparent that dialogue, gradual scaffold, thinking aloud and monitoring comprehension are authentic traditions of the process of teaching RT. These aspects highlights the method among the best strategies of teaching comprehension in social constructive environments (National Reading Panel, 2000).

## Reciprocal Teaching: A Comprehension Fostering and Comprehension Monitoring Model

The function of RT is not restricted to its cognitive role as comprehension fostering technique. Research has also considered RT's role as a metacognitive monitoring strategy. Brown (1992) explained that the primary focus on RT was the strategic reading. Palincsar \& Brown (1984) elaborated that the dual function of the four strategies was the reason why they were chosen to be taught among the repertoire of reading strategies available. For example, when students are required to compose questions, this entails focusing on the main ideas of the text (cognitive strategy), and checking their current level of understanding (metacognitive strategy). Similarly, clarifying strategy requires them to activate their critical thinking, make connections between the paragraphs they have read and connections to their previous knowledge. In predicting, students are involved in a process of anticipating the future content and get involved in drawing inferences and testing them. Summarizing is considered a selfreview strategy. It enables students to retrieve the most important points in reading and monitor if comprehension is taking place or not. When students are not able to highlight what they have read clearly, then comprehension is not adequately proceeding and remedial action
is needed (Palincsar \& Brown, 1984, p.121-122). RT, in this meaning is activated to increase understanding, as well as to monitor if understanding is taking place or not. When these four strategies are internalized, they work as metacognitive sensors to decide where understanding was successful and where the used tactic has failed. Therefore, these strategies were specifically chosen to be taught because they were considered as "comprehension fostering and comprehension monitoring" strategies at the same time (McHugh, 2016; Rosalia,2015).

## The Cooperative Learning Approach (CLL)

The approach of teaching a variety of reading strategies in small groups, where students work together to achieve individual goals is known as cooperative language learning (CLL) (NRP ,2000). The teaching and learning contexts in which the teacher scaffolds and peers support each other's, summarizes the theoretical vision provided by the cooperative language learning (CLL) approach. McCafferty, Jacobs, \& Iddings (2006) referred to the CLL as an approach which organizes learning on the social context of learners who work cooperatively in small groups to negotiate their learning and exchange knowledge in socially supportive context where every learner has accountability for her/his learning. Group work was defined by Cohen \& Laton (2014) to be "students working together in a group small enough so that everyone can participate on a clearly assigned learning task, ... without direct or immediate supervision of the teacher (p.1). Jacobs, Lee \& Ng (1997) reported that CLL is more than just group work. Cooperative learning involves preparing the setting of learning, planning the educational activities and monitoring how the groups are functioning. This explains the central role of the teacher in adopting and adapting learning environments which promote interaction over well prepared tasks and observing how the groups are progressing. The approach has brought advantages to ELLs/ EFLs through the key feature of the method: Interaction. Through interaction, the quality and quantity of language practices increase. It develops the use of language, as a result, develops cognition and skills. More importantly, interaction grants the learners the
chance to act as resources of learning for each other in an active learning environment that increases the motivation to learn and teach others (McCafferty et al, 2006). The "Positive goal interdependence" was stated as a fundamental principle for the group success. It assumes that each group member is responsible about his learning and the learning of other group mates, as well. This concept means that each one in the group works for the sake of the whole group. "Team spirit" is one important notion in CLL emphasized by Jacobs, Lee \& Ng (1997) as a strategy in its own. Students learn how to learn through interaction. Each learner has a role that makes him responsible about the success of his learning' and the team's. Academic, social and affective objectives are achieved when students help build each other's knowledge in an intimate context of interaction which indeed increases motivation to learning (Jacobs, Lee \& Ng, 1997).

The theoretical underpinnings of group work as a pedagogical strategy have been discussed by Cohen \& Lotan (2014) and summarized in three key principles. The first important key to group work is "delegating authority". The teacher allows the students to struggle with the task to find solutions and makes them responsible about their work, but this doesn't mean learning process is uncontrollable; simply because learners are accountable to the teacher of their final product. The second principle is "the need of the group members to each other's in the task". Students need one another to some degree, and no one can do everything alone. Learners, by this, share some of the teacher's missions by discussing, suggesting, listening to others, speaking and finding consensus on a solution within the task's and time's limits. The third important principle is the nature of the task: a well-prepared task maximizes the group abilities to work together cooperatively, while a not well- organized one may endanger the group functioning ability to work successfully. (Cohen \& Lotan, 2014)

Concerning better language learning gains in the cooperative learning, comprehension is facilitated when the content area is broken down from "teacher talk" to student talk
(NRP,2000). When students work together cooperatively, their production skills improve and score better in comprehension. Comprehension is definitely enhanced when students discuss, negotiate, paraphrase, and reshape the information until they achieve a collective understanding. In other words, they create a full understanding by filling the gaps in each other's perception of the idea (Cohen \& Lotan, 2014). Further, cooperative learning increases time on task and interaction over the use of the reading strategies. When students function as tutors for each other's, they become more independent readers, reducing the time the teacher spends with one learner. Moreover, cooperative learning increases motivation towards learning. Also, it gives the chance to learners of all abilities to be equal parts in the learning process (NRP, 2000). More importantly, there is an evidence that cooperative learning was successful in involving the less proficient students in learning and developing their language learning and their tests' scores (Cohen \& Laton, 2014; National Reading Panel, 2000).

## The Research Problem

## Statement of the Problem

Following the previous theoretical framework illustrated that reading comprehension is fundamental for building understanding in all school subjects. It also showed that teaching the metacognitive strategies which underlie the process of understanding can be taught. However, there is still a real need for teaching the reading strategies that facilitate reading rather than focusing on teaching the subject matter (Pressley \& Harris, 2008). When students are taught these strategies, they are prepared with thinking tools which help them regulate their thinking and get involved in the process of reading as active agents.

However, most studies in the metacognition field at the local level recommended teaching the metacognitive strategies at the school level and found that students lack the awareness of these reading techniques or don't apply them to reading because they were not
taught them (Aziz,2005; Jom'a, 2013). From a practical point of view, the researcher's experience in teaching EFL in the high school context revealed that big number of students face challenges in reading comprehension although they try hard to understand. Failing to comprehend a text affects their achievement and their attitudes towards learning English. Within their attempts to understand the reading texts, many students resort to the "word to word" translation or asking the teacher to explain rather than trying to make connections to their own experience or trying to test the strategies they already have.

This experience in teaching reading aroused the researcher's interest to practically teach a pack of reading metacognitive strategies represented in the Reciprocal Reading Strategies to help students facilitate their understanding of the reading passages. For students who already have good metacognitive awareness, RT helps them regulate their thinking and the repetitive strategy use may help them develop more experienced readers.

## Purpose of the Study

Within the attempts to overcome the intricacies that mar teaching EFL, the current study aimed to support students with group of reading strategies which they need in order to read meaningfully. The purpose of this study was to explicitly teach reading comprehension strategies. The study examined the effects of Reciprocal Teaching (RT) on students' reading comprehension in the Palestinian school context. The study also aimed to explore the attitudes of the $11^{\text {th }}$ graders who learned reading using this strategy -based approach. Moreover, it tried to reveal what skills and reading strategies these students were able to apply as a result of learning using RT. The study also investigated the types and features of interaction that dominated the group work context during learning comprehension using RT. The development of these interactions was observed within the experimental group over the period of teaching.

## Significance of the Study

There is a global and local shift towards preparing more independent readers, who are able to construct meaning out of the variety of information resources around them. The emphasis of reading comprehension is based on the fact the reading comprehension is the foundation of understanding in all school topics. Therefore, any trial to provide students with an instruction which fosters their understanding and enhances their comprehension achievement is considered a valuable addition to their learning experience and to the reading research. A limited number of studies have addressed the role of Reciprocal Teaching (RT) strategies in reading comprehension in EFL, in high school context. Most of the studies targeted the primary, intermediate classes, or the college level. The secondary teaching zone is still rarely tackled as a research aim. Nonetheless, few studies have addressed other types of metacognitive /cognitive strategies in Palestine at the college level. This gap in the research justifies the need more- strategy based research in the secondary teaching level.

Based on the literature reviewing, it was noticed the explicit teaching of RT has not been utilized in teaching reading comprehension in the Palestinian context. Very little studies have investigated the students' awareness of their knowledge and use of metacognitive reading strategies, but none of them tried to practically teach these strategies in the classroom context (Aziz,2005; Jom'a, 2013). Therefore, to the best of the researcher's knowledge the current study is the first in Palestine that couched RT strategies in a secondary school and taught the strategies in heterogeneous group work context.

It was also noticed that the scarce studies that implemented the strategy in the Arabic area has targeted college students, were limited in period, or limited to one measuring tool for drawing results. This finding has motivated the researcher to carry out this study and trace its impact on teaching reading comprehension outcomes among teenagers in the Palestinian schools.

The significance of the current study is that it has focused on the process of using the strategies and the product of the process as well, in an appropriate period of time (3 months) and with appropriate sample of 11th grade students ( 4 classes of $11^{\text {th }}$ grades $=165$ students). The researcher thinks the sample and the intervention period allow the results to be generalized to other 11th grade students in the Palestinian public high school settings, who learn using the same approach and the same text book and do the same type of tests. The teaching took place in cooperative group work setting with heterogeneous group - activation.

It is hoped this study was able to provide evidence into the usability of RT as a successful method for teaching reading comprehension. It is also hoped the study have participated in filling the gap in the strategic reading research in the Palestinian English learning classroom.

## Questions of the Study

The present study aimed to answer the following questions:
Q.1: What is the impact of using Reciprocal Teaching strategies on $11^{\text {th }}$ Graders reading comprehension ability?
Q.2: What is the effect of using RT on reading comprehension progression over the period of intervention?

Q 3: What strategic practices have students developed while reading using RT strategies?
Q.4: What attitudes do students hold towards learning reading comprehension with Reciprocal Teaching in a cooperative context?
Q.5: How do the process and the interaction evolve, within the group, over the period of using the Reciprocal Teaching?

## Limitations of the Study

A number of limitations needed to be acknowledged regarding the present study. First, the study was conducted in one Palestinian public school, with limited number of students who represent a small slice of the pie of high school students in Palestine.

Second, the sample of this research was intact students who didn't receive any form of metacognitive training before. This has affected the time and type of the training the teacher performed. The teaching of reading strategies in this study was only limited to teaching Reciprocal Teaching strategies (RT) of reading comprehension. The teaching was focused on using the four strategies of Predicting/Clarifying/Questioning and Summarising among many other strategies known in teaching reading comprehension and that would limit the students' use to these strategies only. More research in strategy based -teaching is needed to discover the best teaching strategies which best enhance students' reading performance.

In addition, some limitations need to be taken into consideration when interpreting this research's results. For example, the school tests upon which results were drawn were designed to include certain types of reading questions. Although these were purposely designed to contain the most frequent questions in the Palestinian standard tests, other types of reading questions could have affected the students' performance. More validated tools need to be developed to measure the effect of applying RT strategies to reading.

## Definition of Terms

- Comprehension: the ability of the reader to understand and construct meaning of the text, through activating previous knowledge. Comprehension is considered the top goal of any reading activity.(Palincsar \& Brown,1984)
- Comprehension Strategy Instruction: is the explicit teaching of techniques that are particularly effective for comprehending text. The steps of explicit instruction include direct explanation, teacher modeling ("think aloud"), guided practice, and application. (Reading Rocket,2016)
- Cooperative Learning: Cooperative learning involves students working together in small groups to achieve shared learning goal and complete tasks and assignments. A group can only be described as cooperative learners when they develop five fundamental elements of
group work: Positive interdependence, Individual accountability, Promotive interaction, social skills and group processing (Johnson \& Johnson, 2002).
- EFL: abbreviation for English as a Foreign Language: the teaching of English to students whose first language is not English. For example, Palestine, Turkey or China. (Cambridge Dictionary Online,2016)
- Metacognition: is the process of "thinking or learning about thinking. It refers to the aware and active participation of the reader in his own cognitive processes, including the knowledge of the strategy, task and one's own cognition. (Ellis, Denton \& Bond ,2014)
- Metacognitive Strategies: the learner's awareness of the utility, importance, and effectiveness of the cognitive strategies. They are the reader's knowledge about the reading strategies that are likely to succeed in achieving specific goals in different cognitive undertakings. This awareness includes planning, monitoring and self-evaluation. The direct instruction of the strategies enhances the metacognitive knowledge of readers and results in improved reading performance (El-Koumy,2004)
- Reciprocal Teaching: a multiple-strategy approach through which the teacher demonstrates his way of constructing meaning from the text using four strategies: asking questions about the text he is reading; summarizing most important parts of the text; clarifying vocabulary or ideas which seem complex or new; and predicting what might occur next in the text. Modeling the strategies takes the form of explicit teaching of strategies, teacher's "thinking aloud" and "dialogue" demonstrating his cognitive process to students at each step and gradually letting students practice towards independent use of the strategies. The four mentioned strategies functions simultaneously as tools for fostering comprehension and for monitoring and controlling of reading process.(NRP, 2000; Palincsar \& Brown ,1984)
- Scaffolding: Temporary guidance or assistance provided to a student by a teacher, another adult, or a more capable peer, enabling the student to perform a task he or she otherwise would not be able to do alone, with the goal of fostering the student's capacity to perform the task on his or her own later on. (Reading Rocket)
- Thematic Analysis (TA): A "data analysing" method, widely used in qualitative research ( Javadi \& Zarea,2016), seen as the "foundational method for qualitative analysis" (Braun \& Clarke, 2006), often called the interpretive thematic analysis since it aims to extract the meaning (Javadi \& Zarea,2016) and reflect the truth related to a set of data (Liamputtong, 2009; Tuckett, 2005), through searching repeated patterns or themes. This process of pattern recognition (Bowen, 2009) within the data, takes place through an iterative cycle of identifying, analysing, comparing patterns and reporting themes (Braun \& Clarke, 2006).


## Conclusion

This chapter has presented the theoretical foundations of Reciprocal Teaching method and the Cooperative Learning Approach and their connection points with the Social Constructivist Theory by Vygotsky. The chapter attempted to put clear the philosophical underpinnings of teaching reading through RT in a cooperative context, scaffolded by a teacher and supported by peers. The importance of the cognitive/metacognitive strategies for meaningful reading and their role in enhancing reading comprehension was detailed. In addition, RT components, its potentials for enhancing reading comprehension and the procedures of teaching the method were covered in the chapter. Regarding the research problem, the problem of research, its significance, purpose and questions were also stated. The meanings of the key glossary were also included. The studies reviewed in the following chapter expanded the variety of concepts presented in the current one.

## Chapter Two

## Literature Review

## Introduction

Palincsar \& Brown (1984) presented Reciprocal Teaching (RT) strategy as a model in fostering comprehension skills in reading comprehension. This took the way of the explicit teaching of four metacognitive skills: clarifying, predicting, questioning and summarizing. RT worked as a reading facilitating strategy with students who were considered average decoders but poor or at-risk comprehenders (Palincsar, 1986). Reading is facilitated when teacher and students take turns in leading the discussion about the text to achieve mutual understanding through implementing the four strategies. (Palincsar \& Klenk, 1991). Palincsar \& Brown (1984) work has functioned as framework for a repertoire of studies that followed and broadened the strategy scope and implementation. Later on, series of studies presented RT as a suitable approach for teaching comprehension to a wider audience: poor and strong decoders, native and non-native language learners, pre-readers, learners of other curriculum areas, students of special needs and learning difficulties (McAllum, 2014). Chains of studies like Brown (1992); Palincsar, Brown \& Campione (1993); Palincsar (1986; 1989; 2013); Palincsar \& Klenk (1991); Rosenshine \& Meister (1992; 1994); Rosenshine, Meister \& Chapman (1996) have addressed the method from wider perspectives. They inquired RT in its (a) primary features: the dialogue, meaning inference and question generating (b) sociocultural dynamics and cooperative contexts, (c) teacher's scaffolding and peer tutoring, (d) metacognition and monitoring comprehension, (e) RT and achievement and other features of the method.

Literature of Reciprocal Teaching (RT) provides perceptions of the metacognitive strategies that are called into interaction to engineer meaning from reading comprehension. Basically, most studies assert that for comprehension to take place, prior knowledge is to be
activated (Tarchi, 2010). Reading comprehension is the process of generating meaning from different sources. Therefore, making meaning is about interpreting information connected to the phenomenon, in the light of previous knowledge about it, rather than absorbing it as rigid or separate information. Through stimulating the previous knowledge, the reader creates a new meaning of the text through adapting and integrating what is written to what is known (Reutzel \& Hollingsworth,1988). Recalling previous knowledge for making meaning is a primary feature of RT. Decoding meaning along with generating questions and thinking aloud are the main characteristics of this "teacher play" method. In RT, the teacher and students reciprocate roles in guiding the discussions about specific aspects of the reading through questioning, clarifying, predicting and summarizing. With teacher's scaffold and guidance, learners progress from their current proficiency level to optimal performance level (Hartman, 1994; 2001). In this regard, Palincsar \& Brown (1984) considered teacher's role as a mediator or a bridge for students to approach the text with comprehension and regulate their strategy use. Collaboration between teacher and students and among students themselves exposes students to extensive modelling of strategies and grants them the chance for successive practices to bring meaning to the reading text. (Hartman, 1994; 2001)

Studies that have addressed these primary features of RT are reviewed in this chapter. In some areas, literature of other strategy- based construction that intersects with RT in its basic qualities was also reviewed to help clarify some aspects of the strategy. The chapter will present, summarise and discuss the related research of implementing RT in cooperative teaching context from different perspectives. Further, since this research is inquiring the effect of RT combined with cooperative learning context, the review will appear in two sections: the first will go over the research into the basic tenets of RT. It will review and compare studies that examined the effectiveness of RT to student's reading achievement. Moreover, the section will include studies on the impact of RT as a scaffolding strategy in teaching reading comprehension to students with learning difficulties. Studies of the strategy
teaching context and its relation to the reading outcomes will also be discussed. However, the second section of this review will go over some literature into the cooperative teaching, group work features and strategy teaching context.

## Section One: Reciprocal Teaching

## The Hallmarks of Reciprocal Teaching

There has been an immense of studies that elaborated on Palincsar \& Brown (1984) code for RT. The research investigated the features of RT beyond the four metacognitive strategies that Palincsar \& Brown have passed as recipe for helping struggling readers give meaning to the text. Research has pursued and examined the combined techniques that accompany the process of teaching the strategies. For example, teacher's scaffolding, thinking aloud, dialogue and vocabulary coding and other components form the process of teaching. Furthermore, research has examined the metacognitive elements that gear up for comprehension to take place such as activating prior knowledge, predicting, clarifying, selfreviewing ,self-questioning and checking comprehension( Hartman,2001). These primary tenets of RT and the ways researchers dimensioned them will be the core of the coming pages.

## 1. Dialogue: the Heart of Reciprocal Teaching

Dialogue is considered the primary feature of RT. Guided dialogues within RT classes enabled students who haven't mastered reading yet to engage in a meaningful learning from the text. For example, in Palincsar \& Klenk (1991), students were able to develop reading comprehension skills and comprehension monitoring skills in just twenty classes. The reason was attributed to the variety of roles the teacher assumed within RT. In addition to exchanging dialogue leading between teacher and students until joint understanding takes place. The study presented, in details, the observation of class dialogues between the teacher and students. The dialogue aimed to facilitate understanding of the theme through employing
the four RT strategies. After that, the teacher passed on her role to a student who played teacher in discussion leading and questioning.

Similarly, Palincsar (1989) reported how six first grade teachers were able to teach biological principles to kids who were in academic risk. Through dialogue and conversation over the reading, each teacher with five students was able to establish comprehension. The understanding that students were able to elaborate was not claimed to the knowledge presented by the teacher, nor by the kids. It was the result of scaffolding students' awareness, tolerating with their imagination and debating over the meaning until the correct principles of biology were built. RT provided the conversational tools needed to support the discussion, as well as, provided the chance of cooperative work needed to build the community of learners. A comparison between the results of the experimental and control groups showed that over a year of teaching, the experimental group had exceedingly outperformed the control.

## 2. Reciprocal Teaching as a Vocabulary Enhancing Strategy

RT was used by quite a number of researchers to help their students expand their vocabulary abilities such as word decoding, vocabulary attainment and meaning-inference abilities. Brown (2015); Bruce \& Robinson (2001); Fevre, Moore \& Wilkinson (2003); Hartman (2001) and Reutzel \& Hollingsworth (1988) have investigated the effect of RT on promoting students' decoding and inference abilities and enlighten teachers' strategic teaching. They aimed to help the low proficiency students to overcome their reading and vocabulary identification deficits. During their researches, it was found that the difference between good and poor readers has nothing to do with their memory abilities. Simply, good readers activate their cognitive/metacognitive skills to make connections between what they read and their prior knowledge. While, poor readers are unaware of the appropriate strategies to monitor and check their comprehension. (Fevre et.al, 2003). The mentioned researches have diagnosed the reasons behind students' reading deficiency. They have concluded that the deficiency in constructing meaning from the text refers to: (a) the absence of age -
appropriate, interesting texts results in degrading the contextual clues which help decoding process through activating cognitive/metacognitive skills (b) quality of instruction that focuses on teaching the word- level, (c) frustration that rises from unrewarded effort, (d) difficulties at the phonological level represented in analysing and synthesizing speech sounds,(e) concentrating on the coding task with all efforts, leaving little resources for making meaning,(f) failure in decoding skills at early age results in negative attitude towards reading which inhibits growth in vocabulary identification,(g) lack of self -efficacy specially in mixed classes. Based on the previous reasons, Reutzel \& Hollingsworth (1988) stated that failures in making inferences "can result from a child's limited background knowledge about the topic to be read", or lack of the fundamental strategic ability to attend or analyse relevant information (P.360). This breeds a lack of cultural, contextual and conditional catalysts which encourage applying these strategies and regulating them over time. The absence of the stimulating conditions, cause these strategies to remain inert, in spite of having the students learnt them. (Hartman, 2001)

In the light of previous findings, Brown (2015) applied RT to improve her primary school reading comprehension and vocabulary attainment. No significant differences were found in the means of control and experimental groups in the reading comprehension, but the experimental group excelled in the vocabulary attainment despite being basically lower in their growth mean compared to the control group. However, the development in her primary classes achievement may be attributed the explicit teaching of RT strategies and the convenient period of intervention which continued for a year.

Moving to the high school context, Bruce \& Robinson (2001) pursued the improvement of their upper classes' reading ability and word identification skills through three different teaching methods for three groups. The experimental group received metacognitive skill training to word identification accompanied with RT. The two other control groups received traditional teaching of word identification aided by RT or by
traditional comprehension teaching at other occasions. The results were in favour of the experimental group who were basically poor readers (multi-syllabic and depends highly on the text). With the intervention they became able to identify and decode words in new texts. The research recommended examining RT in a peer tutoring or cooperative learning context with optimal teaching period and adequate teachers' training. Similarly, Fevre et al (2003) challenged the comprehension failure and motivational difficulties of their poor readers by combining RT with tape assisted reading to compensate the fluency problem. The researchers aimed to examine the effect of this modified RT teaching on their students' decoding ability. Two studies were conducted with four groups; the first had one experimental and three controls, while the second contained three experimental groups. Students in the experimental groups were made in heterogeneous groups of six with poor and average coding skills, but all were diagnosed as poor comprehenders. The cassette assisted RT along with highly motivating expository texts were claimed to enhance students' decoding ability. As a result, students naturally grew in their comprehension ability, as well as their capacity of retention and transfer.

In an interesting study by Reutzel \& Hollingsworth (1988), it was found that teaching RT techniques with highlighted vocabulary have improved third graders ability to generate their own inferential passages. Text's vocabulary highlighting, with visual illustrations and textual clues were utilized in teaching. This way, they were able to scaffold learners' abilities to generate their own copies of the target texts. Moreover, learners were able transfer these strategies to unfamiliar texts. Despite that the near, far and delayed transfer was assessed; the study had few limitations related to texts' types used in assessing the transfer on the one hand. On the other hand, the study didn't reveal the strategy training type that was more effective to students' achievement in such combined strategy teaching context.

Very similar results were reported by Mandel, Osana \& Venkatesh (2013) who applied the RT generative techniques to first grade students. Students were taught new
vocabulary through illustrated pictures. Then, they were delegated the responsibility to apply the newly learnt vocabulary in meaningful ways and create their own narratives. A comparison of assessment results' of the experimental and control group-who traditionally studied an interactive text book - showed greater attainment of vocabulary in the experimental group.

## 3. Monitoring Regulations and Thinking Aloud

Despite being a premise technique in building knowledge in reading, there is not much recent research that attends to comprehension -monitoring (self-checking) in reading (Dent \& Koenka ,2015), especially in empirical literature and in non- native context. Comprehension monitoring is associated with reading, since it implies "the ability of a reader to be aware, while reading, whether a text is making sense or not" (Gomez, \& López, 2012, P.88). Casanave (1988) described self- monitoring technique while reading as a "neglected essential" in ESL reading. She referred to that essential as "one kind of activity under the umbrella of metacognition, consists of any behaviors that allow readers to judge whether comprehension is taking place and that help them decide whether and how to take compensatory action when necessary"(P.288). She divided these strategic behaviours into three main facets: evaluating, planning, and regulating. In the first stage, learners monitor their current level of comprehension, following, they attend to the reading problem and plan the suitable strategy that applies, and then they check their understanding through selfquestioning to reflect on their performance.

These reading behaviours were the focus of Dent \& Koenka (2015) who examined the relationship between self-regulating strategies (cognitive and metacognitive) and academic achievement. Among other factors they have investigated in their meta-analyses study, the strongest correlation to academic success was correlated to engaging these metacognitive processes. The use of these composite strategies has helped students to regulate themselves for better academic achievement. The research has extended the metacognitive components
of Casanave (1988) into five. These included "goal setting, planning, self-monitoring, selfcontrol, and self-evaluation" (P.428). Metacognitive strategies were described to be of higher impact than the cognitive ones since they allow students to control and monitor their cognitive application of the learning strategies. Without activating them, students will not be able to decide when to use different cognitive strategies. Moreover, metacognitive processes allow students to regulate their task from the beginning to the end for higher achievement. Provided that these strategies were used simultaneously as composite measures, they will definitely have stronger correlation to success over single strategy use.

Dent \& Koenka (2015) confirmed that these strategies can be internalized as automatic processes for students who read in their native language. However, to monitor comprehension in classroom context, the less- proficient learners need to talk about these processes with the teacher. The thinking aloud technique is a necessity here, especially in non- native contexts- to enable students articulate their mental processes, their plans and decisions. In addition, thinking aloud gives students the chance to monitor specific aspects of reading, at the same time, teaches them how to do so (Casanave, 1988). Reciprocal Teaching, she clarified; allow those less proficient learners and novice learners to behave like experts. RT's aspects such as the teacher- student dialogue, generating the teacher-like questions or focusing on the main ideas for summarization activate monitoring reading. Moreover, the continuous error and trial enables students bit by bit to enhance their awareness. On the other hand, students by time adapt part of the teacher's behaviour to their current competence and take the teacher's role in leading the dialogue which is the heart of RT. The researcher advocated RT implementation in non-native context despite the challenge of the individual and group contact.

In a relative context, Kucan \& Beck (1997) defined the thinking aloud as verbalizing the cognitive processes readers resort to while reading. RT involves students in explicitly demonstrating their mental processes through reciprocal dialogues with teacher and
classmates. In this process, the teacher tracks students' dialogue to monitor their reading discussions. With this consistent dialogue about the reading, students' ability develops at the level of managing the dialogue skill itself, and at the comprehension monitoring level. Therefore, the teacher's modelling and the students' verbalization provide a positive impact for teaching the strategies. However, the study called for extra research to determine the real reason behind the success of Palincsar and Brown (1984) model. Does the success of RT refer to training students systematically to the four reading strategies or to the dialogic nature of process and the thinking aloud technique? (Kucan \& Beck ,1997)

## 4. Reciprocal Teaching a Scaffolded Strategy

Reciprocal teaching is a scaffolded strategy, "which combines expert scaffolding, guided practice in applying simple concrete strategies, and cooperative learning discussions, is a successful method of improving both listening and reading comprehension". Brown \& Palincsar, 1989, P3). When the word scaffolding is mentioned in RT, it directly connotes the role of the teacher, in providing help to learners through dialogue or conversation. Palincsar (1986) stated that scaffolding is the assistance provided by the adult to the novices, supporting their inchoate learning to enable them accomplish the task or solve the problem. However, Palincsar (1998) warns that not every classroom interaction can be considered as scaffolding. Moreover, scaffolding is not simply summarised in providing the same type of assistance and support to students doing the task. RT is a method that was basically designed to boost scaffolding though its diversity in techniques and richness with teaching procedures.

Trif (2015) presented a review of the concept of scaffolding across the various theories under the social framework of learning. In a social constructivist environment, dialogue is an apparent feature which helps students build knowledge and develop problemsolving strategies through observing and modelling their mature teacher or peers. The teacher's role as a scffolder is summarised in (a) encouraging participation and cooperative learning, (b) designing appropriate learning activities, (c ) providing training that is suitable
to learners' and adjust it to their current skill, and (d) monitoring learners' progress with focusing on the mental activities. Despite having various concepts of scaffolding, it refers, in general, to the support provided by teacher to student while performing a task that can't be accomplished with his current level of skill. The teacher adjusts the quality and amount of scaffold and gradually withdraws it when the students reach the optimal performance of the task. (Trif, 2015; Van de Pol, Volman \& Beishuizen, 2010).

In a meta-analysis study, Van de Pol et al (2010) analysed 66 studies that examined the concept and its effectiveness in different subject areas and came to the result that scaffolding is effective. The mentioned study is important since it revealed the following:
(a) Most scaffolding studies are small -scale studies, mainly descriptive without intervention and when intervention occurred, it was one to one interaction that focused on literacy. Very little studies aimed to investigate the effectiveness of scaffolding.
(b) There is no consensus on defining scaffolding since every student's building of knowledge is different. However, it is the amount of support provided by the teacher to the student doing the task to enable him/ her accomplishes it.
(c) Scaffolding is best performed and presented within broader frameworks and RT is the best example of this.

The latter point regarding scaffolding appears clearly in Palincsar (2013), one of the RT theorists. She traced the different applications of the method along those years and the types of modifications conveyed by the researchers to the original Palincsar \& Brown (1984) model. Moreover, she compared various contexts and techniques in teaching RT. She concluded that the most powerful aspect of RT as a reading promoting model is teaching the four premium strategies concurrently, in an assertion that the four strategies are needed to improve the comprehension abilities of the learners. Conducting another comparison between several mono-strategic programs (which implement one of the RT strategies separately) and the original program, that stands on integrating the four strategies, supports Palincsar's claim.

The writer credits the superiority of RT to its dialogic nature in teaching students to be selfregulated learners. Palincsar (2013) intensive trace to several school context applications of RT, showed that teaching the four same strategies- questioning, summarizing, predicting and clarifying- in non -dialogic context was not effective in bringing large ,reliable changes in students' performance as the traditional RT procedures ,incorporating dialogic instruction did.

## 5. Reciprocal Teaching a Question Generating Strategy

Ems (1988) has demanded teachers to teach the less- talented students how to generate questions through RT strategy. Her call stems from the idea that teachers are busy with generating questions that focus on the themes, characters, plot ...etc. of the literature they read. Consequently, they end up doing the metacognitive work, their students are supposed to do. The point is that students who are called good readers are already able to predict, summarise the important points, and use them to ask questions later on. Less talented students don't have these skills internalised. Reciprocal teaching gives them the chance to develop these skills through social interaction with the teacher and classmates. This interaction takes the form of dialogue and teacher will evaluate the relevancy and importance of the question, either to correct errors or to encourage and praise. When learners are given this chance to interact, it takes place within the zone of their proximal development and the social interaction will by the time become internalization of the skill.

In a well-established study, Rosenshine, Meister \& Chapman (1996), aimed to investigate the effectiveness of different types of question- generating strategies through a review of an immense of studies. It also aimed to evaluate the effectiveness of different prompts that teachers use to help students generate questions. In addition, the study has discussed some further scaffolds which contribute to the success of this cognitive strategy teaching. The research has compared teaching questioning using traditional skill-based instructional approach via the RT approach. Moreover, the study has compared the results of
generating questions in standardized tests, experimenter- developed tests and summarizing tests of the chosen studies. The effect size of both types of tests was compared in seventeen traditional teaching studies and nine reciprocal teaching studies. Unexpectedly, the study revealed that:
a) Teaching students to generate questions while reading resulted in gains in reading comprehension. Despite the fact that traditional studies taught the single strategy of questioning and RT taught four cognitive strategies, the results of all types of tests were very similar.
b) The effect sizes were larger in studies where teachers provided scaffolds as question generating prompts compared to studies that didn't provide prompts or asked students to generate their owns. Students who received prompts made considerable difference in reading comprehension compared to those who didn't receive any prompts.
c) The most successful prompts used as facilitators to generate questions were (1) single word prompt, whereby teacher provides students with question words like what, who, when, where ...etc. to generate questions. (2) generic questions where by teacher ask detailed questions that stems from the main idea and (3) story grammar prompts which focus on the story elements such as characters ,setting, plot ,problem and ending. However, using the main idea to generate questions was the least effective prompt.

## The Reciprocal Teaching Context

A historical narration of how RT has conceptualised the learning context, was presented by Brown (1992). The article reviewed the theoretical and methodological challenges that accompanied learning in the second half of the $20^{\text {th }}$ century. The absence of appropriate strategy training has resulted in passive learning and inert knowledge. As a result, a shift into more strategy training with contextualised texts and cooperative environments, have become a classroom necessity. Summarizing the gist of ten years of work, the writer found that metacognition can be trained; strategy training improves memory processing and
monitoring processing. Training enables students to regulate their thinking plans and revise their learning, changing them from passive into active learners. Still, students wouldn't be able to put these strategies into work out of social collaborative context of learning. RT provides both, the strategy training and the context. It takes place in social groups of learners who exchange roles in leading the group, discuss and interpret the possible meanings of a text, cooperatively clarify the difficult points and finally give the main idea of the reading. These primary features have been extended over time to work as more complex classroom dynamics. Students over time, appropriate RT as a tool to check comprehension and enhance monitor comprehension.

Excluding the rich theoretical framework, the article gave an impressive example of designing classroom contexts. These contexts activated RT to develop functioning learners rather than passive audience. In one example of Brown (1992), RT was combined with jigsaw method to create expertise learners. Seventh and eighth grades students were divided into groups of five. Each member was given a theme to search on. When students were done, each student became expert in his subtopic and owned fifth of the knowledge needed to complete the missing parts other learners needed. When students were regrouped, each learner offered his information through RT seminars to come up with the whole unit done. The researcher here refers to RT context as a key component of forming the community of learners in which students get involved in extensive reading for research, using computers, writing, editing and illustrating their knowledge and so on. This means that learners create their learning and hold the accountability about what they produce. The result of this experiment revealed that the RT context gave the learners the chance to become data generators who read, select, edit and revise their research. In such a process, a massive deal of cognitive monitoring takes place, in addition to the radical change in the teacher's role and his assessment tools.

The efficacy of RT as cooperative meaning - generating context was recently examined by Tarchi \& Pinto (2016). The study aimed to discover the impact of RT on two
groups of different instructional backgrounds. Two third -grade groups were compared. The first was (student-centred) made out of students who practiced cooperative learning before; the other was (teacher-centred) group who usually worked individually. The contextual elements of RT, such as the interactive dynamics, discourse moves and communication styles were coded and analysed. Surprisingly, no differences in the results of the two groups were found. That means both groups were able to make meaning of the text at the same level. This finding indicated that RT was able to create rich interactional environment by itself without the need of previous training of the student- centred group. The research results indicate that RT is a purely context independent method which was able in this case to activate the same processes in the two groups. Nevertheless, the only mentioned difference was that the student- centred group are more accepting of the interaction and better understanding for the support their mates need.

## Issues in Reciprocal Teaching Strategy Training and Teaching

For positive learning outcomes to be attained, teachers and students need to receive the appropriate training of applying the RT strategy. In an eye catching case study by Seymour\& Osana (2003) the researchers warned against the awry practice of reciprocal strategies by teachers who get undertaken by the procedures, and forget about the basic principles of RT. The study investigated the development of conceptions and beliefs of two teachers as they refined their understandings of the fundamental principles and techniques of Reciprocal Teaching during a 6 -week training intervention. The intervention consisted of a series of interactive workshops to link the teachers' developing conceptions to their classroom practice. The research sought to answer the questions concerning the meanings that the two teachers hold towards the strategies used in RT. It also examined the teachers' evolvement of the strategies upon which Reciprocal Teaching is built. The teachers received training on the main concepts of RT such as cognitive apprenticeship, scaffolding and ZPD. Then, the conceptual change of the teachers' practices was observed over the course of
training. Four training sessions were conducted, followed by three rounds of classroom observations and individual interviews with the participants. The results suggested that the evolution of teachers' conceptual development revealed misinterpretation of principles and procedures. By the end of training, conceptual growth was detected in beliefs about procedures and beliefs concerning RT principles

Pesa \& Somers (2007) found that the absence of explicit instruction of the reading strategies has resulted in difficulty in transfer of reading strategies to content area subjects. Their findings were supported by a report that reviewed 19 studies of Reciprocal Teaching approach. Rosenshine \& Meister (1994) have analysed the results of different experimental studies that investigated the efficacy of RT. Their review revealed that the results were usually more significant when the explicit instruction of the cognitive strategies took place before the reciprocal teaching began, compared to the results when RT was used without prior training. Results were mostly non-significant when below-average students were taught, yet usually significant when all other students were taught. Moreover, results were usually significant when experimenter-developed tests were used, yet usually non-significant when standardized tests were used. RT was found to be effective with all students' types who varied in their quality from poor to good students to all students in some studies. In their answer to the question about the most effective reading procedures in teaching RT in reading, the researchers advised teachers to:
a) Regulate the difficulty of the materials by starting with materials below the grade level of the students and regulate the difficulty of the instructional task by starting with the teacher modelling the first part of the task.
b) Provide cue cards giving the prompts (i.e., teacher-generated questions or question-signal words), which students can refer to during the dialogues.
c) Model the process of using the procedure in developing questions and summaries.
d) Provide models of good questions and summaries.
e) Increase student responsibility during the dialogues by gradually diminishing the prompts and models, increasing the complexity of the material, and putting all the component parts or steps together.

Further, Bruce \& Robinson (2001) aimed to assess the effectiveness of a metacognitive and RT approach for improving the word identification and reading comprehension skills of upper primary poor readers in a regular classroom situation. The researchers conducted pre, mid and post-tests to the experimental and control groups. Their findings suggested that the combination of metacognitive word identification strategies and reciprocal teaching of comprehension was clearly more effective than normal classroom word study and comprehension activities. It was also more effective than reciprocal teaching of comprehension with traditional methods of word identification. The results of the study also indicated that classroom-based model of implementation appears to be more successful when teachers have the responsibility for its implementation on their own.

From a wider perspective, beyond the boundaries of RT, the efficacy of strategy based context in general, has been explored by Gibson (2009). He explored the effectiveness of strategy- based reading instruction for improving student's reading comprehension. At the same time, he questioned the teachers' perceptions of the effectiveness of implementing strategy based reading instruction in their classrooms. Gibson's study presented a seven- key strategy program to be applied to reading comprehension classes for school learners' age from kindergarten to the $8^{\text {th }}$ grade. The strategies included making connections, questioning, making inferences, determining importance, synthesizing information, visualizing and selfmonitoring while reading. The program was delivered to teachers who applied them to their classes without any intervention from the researcher, who at the end encompassed the perception of the participant teachers toward them.

Teachers' perception of the effectiveness of the program was investigated through an online survey of eight questions answered by nine teachers. Results of the study suggested
that the participants were in favour of strategy- based reading instruction, and enjoyed teaching with strategy based reading instruction. The participants in this study all agreed that strategy -based reading instruction is an effective way to improve reading comprehension.

Despite being very important study that provided a package of strategies to cope with different learning styles and needs, the study sample consisted of 9 teachers which is relatively small to be representative. In addition, the researcher didn't train teachers to the program and only depended on choosing teachers with good teaching experience. That would limit the results to the perception of some experienced teachers, which may affect the results in a way or another. Finally, it would be more influential if the questionnaire encompassed learners' perception of the strategy-based teaching instead of teachers'.

However, it is finally clear that strategy based instruction creates a context for more meaningful reading. Strategies, when trained, activate learners' hidden abilities to explore the meaning, build mental relationships and present their reasoning.

## The Educational and Affective Panorama of Reciprocal Teaching

RT as a rich strategy based method was widely used by educators of all learning levels. Teachers who wished to improve their students' language competence, performance and achievement, have tried RT. The strategy was also implemented by teachers who rebelled against the traditional low- affective contexts. RT was applied for the purpose of improving enhancing motivation, self- esteem and other affective factors. Moreover, RT was applied by instructors who hoped to skill their students with reading strategies that may work as comprehension tools for life. In short, RT was considered a form of the reading comprehension reform in teaching.

At the university level, Gruenbaum (2012) called for more RT strategy-based teaching of the university students in transitional courses. She claimed that many college students lack the meta-comprehension skills to figure the meaning of texts. The researcher's students faced difficulties in bringing meaning to the text in order to succeed in other tasks they are required
to do, most necessarily, writing. The research found a need at college - level students to analyse and evaluate what they read in the age of information, think critically about the text, connect ideas and concepts and solve problems they face while reading. Reciprocal teaching was taught to help students to encounter the previous challenges. The research results showed a real need to teach the strategies of prediction, questioning, clarification, and summarization to improve reading comprehension at college level. The research recommended that teaching RT method to teaching reading strategies to college students, providing scaffolding through modelling, encouraging interaction through couching students to lead the discussions.

In addition, Stygles (2014) offered a chance for his 6th graders to acquire and practice reciprocal learning through lyrics study. In this experiment, the teacher scaffolded the learners' comprehension skills through discussion of the lyrics towards mastering the meaning. The scaffolding took different forms in different texts towards being independent readers.

The researcher used the gradual release model, broke the songs up by stanzas to scaffold readers' independence and used reciprocal teaching to model the way students need to approach meaning, in the first stanza. Guided reading was used with the second stanza. Small group work was used with the third stanza to give learners the chance to think aloud and provide support to each other. In the fourth, students worked independently. In the following stanzas, learners shared predictions and expanded thinking through conversation. The writer collected his data through observation and students' reflections and found that RT and strategy training in general is critical in building learners' concepts. Strategy provides a scaffold for learning even with "boring" social studies concepts and themes. In addition, it was found that using "easier" texts builds the readers curiosity to find a new purpose for reading non-fiction, linking texts together to clarify, find answers, confirm predictions, and expand the knowledge base of the learners.

Following the same route, Wijayatiningsih (2013) implemented reciprocal teaching to improve the eleven grade students' reading comprehension achievement. The researcher used quantitative and qualitative research methods. The quantitative research is a case study. It means she chose only one class and gave them the treatment. Firstly, conventional teaching was done. Secondly, reciprocal teaching was done. Tests were given to the students using same text after every teaching. She also observed the process of every teaching. The researcher found that the achievement of reciprocal group surpassed the conventional group in the tests results. Although the period of training or number of class periods weren't mentioned, she concluded that:
a) The strategy training allowed students to gain more self-confidence and motivation to read and even expertise as they apply the four strategies to a variety of texts.
b) RT involved students in the discussion of text and increased cooperation and the leadership skills when students played the role as discussion leaders.
c) RT left a positive effect on students' reading comprehension achievement.

Murray (2010) implemented two approaches of teaching to teach summarization to college freshmen students. Reciprocal Teaching and Peer Tutoring were used. The study examined students' reading level and their use of strategies for summarizing narrative texts in two different cooperative teaching approaches for 77 college students from four remedial reading classes with different social and lingual backgrounds. Each two classes were using different approach: two classes were taught by RT. In the other two, peer tutoring was the teaching approach.

The RT approach was made of small groups in which the students worked together summarizing, questioning, clarifying, and predicting. In turn, played the role of teacher and kept their own group on task. The role of the teacher was a facilitator, who with the use of think-aloud, engaged in reciprocal modelling and encouraged student interaction. The peer tutoring approach engaged two partners who, under the supervision of the teacher,
alternatively played the role of tutor and learner. The two asked each other a set of cognitively developed questions based on generic question stems.

This study generated attractive results, among which:
a. Students' reading level affected their ability to determine the main idea. The high-level readers in both the RT and the peer tutoring approaches were significantly stronger in identifying the main idea in a reading.
b. Low-level readers in the RT group were significantly stronger in problem identification than the high-level readers.
c. RT approach appeared to be especially beneficial in influencing and enhancing students’ ability to identify the problem in a reading.

Moreover, Lestari (2016) investigated the effect of RT on the critical thinking ability of the second graders, and their perception of the method. RT was used to help students to obtain information from a reading text and to solve the problems of reading. Students were encouraged to present their reasoning with reference to their own experience, knowledge or believes. At the same time, they were required to justify their answers. It was found that students' ability to communicate their reflections is related to their vocabulary mastery. The more vocabulary they knew, the more they were able to express their ideas clearly. The research's positive results regarding the student's critical thinking ability and perception were associated to the teaching of RT strategies.

## Reciprocal Teaching as a Remedial Intervention with Underachievers

There is an immense of research devoted to foster self-monitoring and comprehension monitoring while reading. A bulk of this research aimed to reveal the impact of strategy- use on the overall process of comprehension, especially with learners labelled as poor comprehenders, poor readers, underachievers, at -risk learners or reading disability (Aaron, 1997). Whatever designations are given to those learners, they are diagnosed as barely good or adequate decoders, but unable to read with meaning (Alfassi, 1998). Many researchers
drilled for the tangible reasons that may attribute to underachievement in comprehension, claiming that even in the native language where students are fluent readers; there is a deficiency in comprehension. McHugh (2016), for instance, refused the claim that underachievement may attribute to the fact that students put effort on decoding the words and that leads them to fluency at the word level, leaving little cognitive space devoted to comprehension. She believed that underachievement in reading is not just connected to poor decoding ability. Instead, she attributed underachievement to reasons such as the lack of selfefficacy, lack of explicit reading strategies, the interest in the text itself and the absence of thinking aloud and conscious practice of the strategy while reading. In her action research, McHugh (2016) investigated the effectiveness of RT program on five underachievers in comprehension for six weeks intervention. The results of the research showed an increase in the learners' self- efficacy and better class interaction as the thinking aloud strategy was used during reading.

However, Raslie, Mikeng \&Ting (2015) reported that a sufficient duration of RT intervention, and guiding the reading groups to share their monitoring of comprehension are crucial conditions in implementing RT with struggling reader.

Aaron (1997) has recommended RT as a reading model for learners with reading deficits, regardless to the classifications given to their disabilities. In this meta- analysis, he went over different researches which consequently outlined the reasons behind reading disability in poor decoding ability, poor comprehension ability or both. Whatever was the problematic component that impedes acquisition of the reading skill, it is critical to apply the strategy that makes up for that weak component. Among the findings of some studies he reported, some showed that poor readers who were taught metacognitive strategies have surpassed their normal mates who received traditional teaching, in the test performance. According to this finding, it's recommended to teach comprehension in regular classrooms instead of special need rooms. This being under the framework of RT, provided that the
teachers of these classes receive "special training in remedial reading methods that are designed to improve skills such as phoneme awareness, decoding, vocabulary knowledge, and comprehension strategies". (Aaron,1997, p 489). A similar suggestion was made by Mothus \& Lapadat (2006). The researchers suggested that strategy teaching approach is the best alternative to all learning assistance approaches, since it hits cognitive and metacognitive elements in a socially supportive setting. These strategies help learners plan, make decisions, select and monitor their use.

In a similar context, Alfassi (1998) investigated the efficacy of RT in teaching comprehension compared to the conventional methods of skills acquisition in high school context, during eight -week intervention. The sample consisted of 75 students who were adequate decoders but poor comprehenders. The control and the experimental groups were exposed to two types of assessment: the teacher- developed tests which aimed to test the difference in achievement along the intervention period and the standardized test which was given prior and post the intervention to reveal the change in achievement in the two groups. The results of four school tests indicated a difference in performance for the sake of the experimental group from the first to the last round. This significant improvement in the experimental showed that RT instruction was able to support students with the tools they need to dominate reading texts in a context that was more challenging before the intervention. Yet, the results of the standardised test showed no significant effect for either of the groups in comprehension or vocabulary sections.

Contrary to the previous findings, Lysynchuk, Pressley \& Vye (1990) found that $7^{\text {th }}$ and $4^{\text {th }}$ grade poor readers have made great improvement in the standardized test, and their results were significant in both the experimental and the control groups. However, their vocabulary performance did not.

On the other hand, Rosalia (2015) has implemented RT strategy for teaching comprehension to his eighth grade students, who have showed problems in reading
comprehension since the previous year. In this action research, he examined the ability of the technique to improve his students' reading competence, and to what extent. Indications of performance were collected through checklist and field notes. Students' achievement was tracked through cloze tests. The findings of the qualitative data showed that despite the teamwork settings and the collaborative environment, some students didn't understand the technique and were inattentive to the activities. A number of students didn't react positively in the first stage of the research. Yet, the majority paid good attention and were able to respond to the reading and the teamwork positively. The quantitative data revealed a significant improvement in the reading achievement. The researcher concluded that RT had the ability to enhance the students' ability to predict, clarify, summarize and question about the text. In addition it had positive impact on students' enthusiasm for reading, in spite of the challenges in class management.

Finally, Englert \& Mariage (1991); Klingner \& Vaughn (1996); Mothus \& Lapadat (2006) have all reported positive results of their RT interventions with reading disabilities.

## Applying RT in Non-Native Contexts

In the non-English speaking classrooms, several studies have aimed at scaffolding students' cognitive/metacognitive awareness, enhancing reading comprehension competence or both through applying RT. Dabarera, Renandya \& Zhang (2014) have sought to raise their first - year college students' metacognitive awareness and reading comprehension through teaching reading with RT strategies in the university of Singapore. The teaching of the strategies followed the explicit way and the results of qualitative and quantitative data revealed a positive relationship between using RT and raising the students' reading competence and reading awareness.

In this regard, Komariah et al (2015) has focused on the process of performing RT activities in an Indonesian classroom setting. They collected their data through classroom observation, school tests and interviews with the students. Their findings showed active
classroom dynamics attributed to the strategy instruction. Students became more active, cooperative and gained higher self -efficacy as a result to their roles in the groups. Furthermore, students were able to apply the four RT strategies successfully and gain strategic awareness. Students found summarizing a difficult strategy to apply. However, predicting and questioning were the most favourable to them.

Armbrister (2010) tried to know how RT may impact 3rd through 5th grade ELLs' reading comprehension in a Florida rural county intermediate elementary school. The researcher explored how the use of the four strategies of reciprocal teaching would help ELLs construct meaning from any given genre and transfer that into independent performance. The data of the research were collected through observations, interviews, field notes, and interpretations of how students interact with this particular reading strategy. The results of this study demonstrated the positive effects on the reading comprehension of ELLs as a result of the introduction, study, and practice of reciprocal teaching. Improvement in student performance produced self-sufficient and confident second language learning readers. The strategies implemented in this collaborative reading approach proved progress with students reading comprehension.

In the Arab area, Al Debes (2005) had investigated the effect of using reciprocal teaching with semantic mapping strategies on developing the reading comprehension of ninth grade students. 176 male and female students were chosen according to their conveniences to participate in the study. The participants were distributed into two control and two experimental groups. Pre and post tests were used to reveal the change in students' performance. The findings of the research showed that students who received strategy instruction have outperformed students who received traditional teaching. The experimental group showed a progress in the reading comprehension and the reading sub skills.

Additionally, the effect of RT on enhancing the critical thinking ability was discussed by Al-Qatawneh (2010). The research agrees with the doctrine that reading is all about
reasoning and building meaningful relationships rather than decoding words or sounds. Unfortunately, little effort is given to support beginner readers with cognitive strategy to help them read meaningfully. In his research, RT strategy teaching was used with seventh grade students, with the goal to develop conscious reading practices and metacomprehension skills. After the teaching period was finished, a posttest was administered for the experimental and control groups. The results indicated that the experimental has performed the control in the three domains of the reading comprehension test, literal, inferential, and critical reading skills. The researcher recommended studying the effect of RT in a cooperative context to reveal if teamwork context can be more effective than the individual one

The issue of comprehension deficit among the Jordanian students was also questioned by Hasan (2006). The researcher referred the poor reading gains to the lack of strategic teaching of comprehension. Learners are provided with little chances to draw analogies, inferences, explanations and summaries of the reading materials. Yet, meaningful learning takes place when the instruction succeeds in creating cognitive representations in the working memory. RT with its sub strategies is claimed to relate learners' previous experiences with the new ones and build schemas that enables better retention of the reading. The research investigated this claim, through designing a teaching content built on RT activities. The participants of the study consisted of eighty four $11^{\text {th }}$ graders; equally males and females, classified into experimental and control groups, two groups each. The data was collected via reading test and a questionnaire to reveal students perspective towards learning with RT strategy. The findings of this study showed significant differences in the mean scores of the four groups in favour of the experimental. The questionnaire answers showed a positive impact of the strategy use. In addition, a significant difference in achievement was reported in favour of girls. The research recommended holding workshops for teachers and supervisors for extensive RT training.

## Reciprocal Teaching and Students with Special Needs

Strategy instruction wasn't limited to teaching students with low reading abilities. RT was also implemented and revealed positive results with students of other special needs, such as students with hearing problems or mental issues. In an emphatic study, Bilgi \& Ozmen, (2014) tested the impact of strategy use to reading comprehension with mentally retarded students in a six- month study. The sample consisted of three students (one-5th grader female, two 7th grader males) from inclusive classes. The researchers designed descriptive texts to teach to kids with mild mental retardation. The intervention took the form Cognitive Strategy Instruction. These strategies included: setting a goal for reading and motivating the students for reading, activating the background knowledge about the topic and predicting the text content, placing the predicted ideas and information units on a graphic organizer for before reading, comparing the predicted ideas with ideas in text and summarizing the text in writing for after reading.

The study used a qualitative method. Semi-structured metacognitive interview were conducted for data collection. Metacognitive interviews in comprehension examined the processes used by readers while reading. The results of the study are typical examples of the reading behavior of readers who lack sufficient cognitive and metacognitive skills. The results of the interviews showed that students had had inadequate meta-cognitive knowledge about text comprehension strategies before the instruction. Moreover, mental retardation learners directly begin to read without setting the goals of reading in advance. They begin to read without predicting or thinking about the content. They do not know what to do when they cannot comprehend what they are reading. In addition; they cannot determine which strategies to use in order to comprehend the text, nor establish links between background information and new information.

After being instructed, participating students acquired the strategy knowledge before, during, after reading that is used by competent readers. They started predicting the text,
setting a goal for reading, monitoring comprehension processes, underlining important ideas while reading, and writing a summary of the text after reading. The study has obviously highlighted the significance of training students to metacognitive strategies in reading comprehension. Even though, the sample is very small and the community of research is mentally retarded, it can be assumed that lacking cognitive and metacognitive strategies of reading is really the challenge that normal poor comprehenders face.

Likewise, Tajalli \& Satari, S. (2013) examined the impact of using a combination of RT and self-instruction program on ten learners with hearing disorders. The students' reading ability was assessed after eight sessions of intervention and a significant difference was reported in the reading skills of the experimental group.

Furthermore, Doganay \& Ozmen (2014) have experimented the effect of a modified program of cognitive strategy on developing the metacognitive awareness of three mentally retarded students. The components of their program included modelling the strategy, thinking aloud, guided and independent dialogues. In addition, graphic organizers were used to illustrate the comprehension passages. Predicting and summarizing were basic practices elements of the teaching, too. The qualitative results showed that the three students were able to develop metacognitive awareness and they showed a positive change in their reading comprehension.

At last, Todd \& Tracey (2006) has used the reciprocal teaching strategies to train four at -risk students in an inclusive class to vocabulary acquisition and reading comprehension. During a six -week training, two types of intervention took place alternatively; reciprocal teaching and guided reading. The intervention resulted in a noticeable improvement in vocabulary acquisition and reading comprehension skills in three of the subjects of the study and no significant change in the fourth. Overall, reciprocal teaching was found to be an effective method to use with at-risk students. Participants succeeded in reaching their literacy goals as well as in their own personal growth.

## Section Two: Cooperative Learning

This study has paired RT technique with cooperative learning. It was an attempt to relate the learning outcomes equally to the teacher's scaffold on the one hand, and the cooperation between learners, on the other. RT was intentionally taught in cooperative groups, since most students in foreign language classroom lack confidence, participation skills and motivation (Nilsson \& Hay, 2016). Therefore, the current study has taken place in a cooperative group work that may offer more social support to learners. At the same time, these groups had a heterogeneous structure to realise higher social equity. The sensitive point here is that not all students sitting around a table are doing cooperative learning (Johnson \& Johnson, 2002). The way the interaction patterns are structured, is deeply connected with shaping the learning outcomes. However, the way students interact and perceive each other's is according to Roger \& Johnson (1994) a neglected area in instruction. To be consistent with the cognitive psychology and social learning theories that underpin the current study, this section will cover different studies on cooperative learning and group work in the classroom. It is in the light of these studies, the research assumptions will be examined and findings will be discussed.

## Elements of Cooperative Learning

Cooperative learning as a social learning context has been presented in many studies. Roger \& Johnson (1994), for instance, have put instructors in front of two structures of their classes: The competitive class, where each student competes to be the best; and the cooperative, where students encourage each other's, celebrate each other's success and share the tasks, regardless to their social backgrounds. However, the first way of classroom interaction is still the dominant in the worlds' classrooms and studies to the second are still rare. In spite of the bright picture of the second way, the research has warned the teachers of the trap of cooperative learning concept; putting students in groups doesn't necessarily
produce a cooperative work. That could be individual work with talking, some students are working and the others are just doing nothing. The crucial point in deciding whether the group are working cooperatively or just individually, while sitting together is: the goal. That is when all group members work together to achieve the task and feel responsible about the team success. The elements that make a group really constructive and productive were summarised by Johnson \& Johnson (2002, 2009); Roger \& Johnson (1994) .

1. "Positive interdependence", which refers to the idea that each group member is linked to others, and can't achieve his goal unless the others were able to. Such interdependence requires sharing a goal, rewards, and resources.
2. "Personal accountability", which is tightly connected with the previous factor, and is realised when the group is assisting each member to be stronger learner.
3. "Face to face interaction" is recommended to promote support among group members, through verbal and non-verbal actions. Through interaction, members provide explanations of how to solve a problem, help in drawing conclusions and reasoning. In sum, face to face interaction promotes higher order thinking skills among groups’ members.
4. "Interpersonal and small group skills". Group members need to be taught how to communicate in appropriate way to achieve the mutual goal. These skills imply mutual trust, clear communicative language, accepting others, and solving problem cooperatively.
5. "Group process". This is realised when members assess each other's actions, evaluate other members' decisions, and whether to continue or change their tactics towards achieving the group's goal.

These elements are basic conditions for organizing cooperative work. Still, teachers need to create lessons with tasks that can address the multi abilities in the group. A task that targets the wide range of abilities conveys a message to the group that every contribution is needed to accomplish the goal. That may also solve the issue of "status ordering" in the group. Status
issues appear when a high ability in a student is assumed as high competence by the teacher. Heterogeneous groups are considered a chance for those students elaborate other abilities; and for low achievers to advance their current cognitive level.( Cohen\& Press,2015)

## The Impact of Cooperative Learning

The effect of cooperative learning on achievement has been explored by Slavin (1990). He analyzed 60 studies that compared the results of cooperative learning to control methods. The findings of this meta-analysis revealed a strong correlation between implementing cooperative learning and achievement. Slavin commented that this finding was excluded to grades 2-9 and that the strategy effectiveness in grades $10-12$ was rarely explored. Moreover, the research went over the conditions, under which cooperative learning, adds fat to achievement. These have highlighted group's goals and group's accountability as key elements of cooperative learning. However, analysed studies, at college level, have showed positive impact of cooperative learning on achievement in reading comprehension strategies, without establishing group goals or individual accountability.

On the other hand, the effect of group's structure on the language development in the non-native classrooms has been discussed by Nilsson \& Hay (2016). In a non-native classroom, the group is needed as a tool to encourage students talk and reveal the ambiguity of the text. Providing each other's with clarification and feedback, students unlock higher level potentials. Though, the research pointed out that realizing the social and cognitive growth in a group should necessarily entail: a good preplanning and stemming from the cooperative learning theories. Yet, this is not normally the case. To investigate this claim, Nilsson \& Hay (2016) investigated how teachers structure their groups and whether their practices stem from the cooperative learning theory. They collected their data through a questionnaire and interviews with six EFL teachers who taught classes 4-6 in cooperative context. Their findings declared that the majority organized their groups according to their students' developmental level, and they construct the group work without reference to any
certain method, "Many teachers believe that they are implementing cooperative learning when in fact they are missing its essence" (Johnson \& Johnson, 2002.p 12).Regarding the group size, $50 \%$ of the teachers used pair work, and they didn't use more than fourparticipant groups.

Nilsson \& Hay's findings were correspondent to Johnson \& Johnson (2009) regarding the group size. Johnson \& Johnson indicated that large group size negatively affects their ability to communicate and reduces the amount of information needed to reach a joint decision. On the contrary, when students work in small groups, their social accountability increases and they believe their participation is more important.

While Nilsson \& Hay's teachers preferred to construct their groups out of same -level students, Cohen, (1994) advocated heterogeneous structure because she found an evidence of the positive impact of this structure on the low- achievers. There was also evidence that average achievers were more benefited when working in homogeneous groups; contrary to high and low achievers. In addition, Cohen pointed out that teachers are all the time worried about the types of groups they structure, paying little attention to the type of interaction that takes place within the group. In a comparison between the post test results of $8^{\text {th }}$ graders, who worked in both homogenous and heterogeneous groups, it was found that low achievers had benefited from working cooperatively with the high achievers. More importantly, she elaborated that low achievers scored higher in the recall questions, whereas high achievers scored high in the problem-solving questions. The reason behind that, she explained, is not attributed to the group structure, rather than to the roles' division within groups. Labour in groups is always divided in a way that associates tasks of reasoning, problem -solving and high- order thinking skills to high achievers, while low level thinking tasks are associated with the low - achievers. She concluded that mixing high and low achievers can certainly enhance the high order thinking abilities of the low achievers. Mixing the medium and low
achievers will only result in the medium achievers giving explanations that wouldn't motivate higher cognitive levels of the low achievers.

The nature and impact of cooperative, reciprocal teaching groups were discussed by Brown \& Palincsar (1989). The cooperative feature of RT according to them is attributed to the type of scaffold and interaction within the group. Debating over meaning allows learners to come to consensus over meaning. The discussion among the group' members regarding the meaning or the information relevancy, allow decisions to be made. This provides novice learners with the chance to practice their raw skills. In addition, they would feel that the comprehending everything isn't their responsibility alone. These learners wouldn't feel let down, for example, when they are given the role of group leader because other group members and even the teacher will lead them and continue the discussion when they fail to continue. As a result, tension and anxiety will be revealed as the responsibility of thinking is shared among all. This direct supervision by the teacher was refused by Cohen \& Lotan (2014) who suggested delegating authority to the students, by giving them the chance to struggle with the task and suggested teacher's control to be delayed until the final product is ready.

It is believed that one of the most important positive outcomes of working in a group is making decisions. Decisions taken cooperatively at the group level are considered more accurate and efficient, compared to those taken individually, because group discussions allow gathering expertise and producing a consensus. Furthermore, decisions taken cooperatively are fairer since each member controls the other members' biases. Moreover, when decisions are taken collectively, they are more applicable and easier to implement. (Levine \& Moreland, 2006).

## The Primacy of Cooperative Learning

There is evidence that the outcomes of group work are bigger than the sum of its parts. (Cohen \& Lotan, 2014; Forsyth, 2009; Johnson \& Johnson, 2009). That's because the
final product of the group is smarter than that presented by any of its individual members. Individual member doesn't provide a perfect or creative solution to the task, when students present their minds face to face, they stimulate each other's thinking and together they can offer new representations or solutions to the problem. As a result, the final solution is a right to every group member, but beyond his own individual abilities. Moreover, in cooperative learning, resources to learning are more available to members. For example, students can ask and receive help, feedback and adequate challenge to their reasoning and social behaviour as team members. In addition, positive impact on achievement has been reported in big number of studies (Johnson \& Johnson, 2009). Cooperative learning is also a sensitive tool for promoting conceptual learning. Cohen \& Lotan (2014) suggested that mixing the low achievers with more knowledgeable mates, gives them the chance to discuss the problem and receive illustrations from those who understand it better. Interaction helps low achievers understand and build representations for abstract concepts from the peer's process. More importantly, they added that cooperative learning is an effective tool for escalating language acquisition, especially in ESL classes. Interaction in the group enhances the verbal exchange because students talk to each other's. Students receive help from other peers to complete the task and correct each other's utterances. Even in the writing tasks, students cooperate to fine the final product as they exchange ideas about the content and the style. At the psychological level, cooperative learning promotes higher self -esteem, motivation and talking ability. (Johnson \& Johnson, 2009). Additionally, at the social level, cooperative learning fosters helping others, cooperative behaviour, interpersonal relationships and the feeling of social equity since everybody in the group contributes to solve the problem.

## Conclusion

This chapter has attempted to highlight a selected literature review concerning RT and metacognitive reading strategies. A review of the previous studies indicated that reciprocal teaching was effective in drawing the meaning from reading passages. Many of the studies have proved RT's ability to foster understanding of the reading texts. Understanding is made accessible through dialogue as a primary aspect of interaction, guided by the teacher as a model and facilitator. Furthermore, the studies have drawn on the importance of modelling as scaffolding technique to help students incorporate self-regulating strategies at a metacognitive level. Studies have also showed that RT is applicable to different age students and different learning contexts. Applying the approach to scaffold reading comprehension skills of students with reading disabilities clarifies the basic goal of RT as a model to foster reading comprehension of struggling and poor comprehenders. However, the studies suggested that teachers, like students, require a suitable training to RT before implementing it in their classes in order to achieve optimal performance of their students. Moreover, these studies were in favour of teaching metacognitive strategies explicitly before implementing the reciprocal teaching approach since this may increase learners' awareness of self and task. On the other hand, it worth saying that most of the previous studies were limited either in period of intervention or the sample upon which results were drawn.

The chapter has summarised a body of literature to the cooperative learning and group work. These studies have presented cooperative learning as tool for positive learning outcomes. Interaction within peers has positive impact on achievement, productivity and building the community of learners.

Finally, it's worth mentioning that the researcher has noticed that
A. None of the previous studies was conducted in the EFL/ESL contexts in Palestine.
B. To the best of the researcher knowledge, no intervention studies either in Palestine or in the Arab World have investigated the impact of RT aided by cooperative learning in a heterogeneous group context.

The researcher contemplates these facts strongly justifies the current study, which investigated the impact of teaching RT strategies on the $11^{\text {th }}$ Palestinian graders, in a cooperative learning context for a long school semester . As well, the study explored the learner's attitudes towards learning English using this method. The analysis of several tests' results over this period tended to reveal the evolvement on the students' strategy use after training. Applying mixed methods in analysing the data and investigating the approach in an authentic context is another factor added to the rationales of this study.

## Chapter Three

## The Research Methodology

## Introduction

Strategy teaching in reading is becoming an educational demand all over the world. There is evidence in literature that reading strategies assist learners with tools to read with meaning. Reciprocal Teaching is considered one of the most successful methods in supporting the cognitive and metacognitive abilities of the readers. The method helps readers to learn a set of strategies to read with understanding and develop more independent reading habits. In the current study, RT was used with $11^{\text {th }}$ grade students who study EFL. The intervention took place in cooperative, group work context. The supportive cooperative context of learning was consistent with the philosophical foundations the research embedded. Social Constructivism stems from the idea that learning in a social supportive context scaffolds learning helps learners learn through interaction and reduces the cognitive load through the mutual understanding. Based on these facts, the current study investigated students' comprehension gains as a result of utilizing RT. The research has also investigated the reading skills that students were able to utilize as a result of learning with RT. Moreover, students' attitudes towards the learning contexts were questioned. The nature of group work was observed by the teacher and analysed by the end of the intervention to provide deeper insights into the intergroup relationships and the themes that controlled the group work

The current chapter presents the design and methodology of the study. It represents the population, sample, location of the research. It also elaborates on presenting the implementation of RT strategies in the classroom. Data collection instruments, their validity and reliability, as well as the study procedures, are explicated. Analysis procedures for the research questions will appear at end of this chapter.

## Research Design

The main purpose of this study was to examine the impact of using Reciprocal Teaching Strategies on the Reading Comprehension Ability of $11^{\text {th }}$ Grade students. It also aimed to reveal the reading skills that students were able to gain after learning using RT, and their attitudes towards learning English using the RT strategies, too. The study is quasiexperimental research. It was designed with experimental and control groups, randomly assigned by school administration. The study used mixed methods since qualitative and quantitative methods were needed, each to tackle different aspects of the research questions. Quantitavely, a pretest/posttest in reading comprehension were used to trace the effect of intervention on students' achievement. The use of these two tests aimed to find the difference in comprehension achievement between the Reciprocal group and the Non- reciprocal one. The pretest was conducted for the experimental and the control groups before the RT began. The same test was repeated for both groups after the teaching ended. To measure the progress in the students' achievement in the experimental and control groups along the period of teaching, five comprehension school tests were also conducted along the period of teaching. In addition, a binary- function questionnaire was used to reveal the strategies and reading skills which the reciprocal group students employed to overcome the difficulties in reading. The second part of the questionnaire aimed to explore the same group's attitudes towards leaning in cooperative groups using RT.

Qualitatively, Group work interactions were intensively observed by the teacher along the period of teaching. The teacher wrote every noticeable detail or situation that would interpret how the relationships and interactions evolved along the period of teaching on the group level.

## Population and Location of the Study

The population of this study included all $11^{\text {th }}$ graders who study in the public schools of Ramallah \& AL-Bireh district for the scholastic year 2015/2016. According to the last report by the Palestinian Central Bureau of Statistics (2011), the number of these schools was 109, in the two cities and the surrounding, teaching about 4000 male and female eleventh graders. Al-Bireh Secondary School where the study was performed is considered the biggest secondary female school. The school usually has eight to nine classes of the 11th graders. More than half of them join the literary stream; the others choose the scientific stream. All of them join the school for their first time after they finish the $10^{\text {th }}$ grade in other basic schools. They come from several basic schools in Ramallah, Al-Bireh, Jerusalem and the surrounding villages and refugee camps. The number of the $11^{\text {th }}$ graders who joined the literary stream was 156 students distributed to four classes.

## The Study Sample

The study sample of this study consisted of (165) students. These were distributed to four classes. The researcher taught the four of them. Randomly chose two as an experimental group (classes $\mathrm{B}+\mathrm{D}$ ) and the two others were the control (classes $\mathrm{A}+\mathrm{E}$ ). Based on this fact, all the 11th literary classes were a sample of this study. The experimental group consisted of (84) students in two classes, while the control group's students were (81). The experimental group was called the Reciprocal group and was taught comprehension using RT strategies in heterogeneous group context. Whereas, the control group (the Non- Reciprocal) one was taught using the traditional methods of teaching reading comprehension. In the Palestinian context, students- at least the researcher's students- were encountering difficulties in meeting the grade level's expectations in English and depending to a high degree on the teacher's explanations of the reading texts. At the same time, they were struggling to develop their performance and become better language learners. Generating meaning from higher-level texts was the most challenging for the majority, whose attitudes towards learning English
were also disappointing. This fact was the major reason which called the researcher to invest in the strategy - based teaching as a tool that may positively affect students achievement and attitudes in EFL.

Choosing this specific study sample was not a coincidence. The researcher had various considerations to perform the study in her place of work. From the logistic point of view, the researcher is a teacher at the same school, who is not allowed to leave her teaching load to randomly teach any other sample. In addition, being familiar with the school and its students made it easier to understand much about the students' needs and their social and educational backgrounds. Second, the school has a team of four English teachers and that made it easier for the researcher to choose the four literary classes to teach as long as other colleagues are ready to teach the scientific stream. From the spatial point of view, the issue of crowded $11^{\text {th }}$ grade classes was another reason that encouraged the researcher to organise her students in groups to fit with the limited classes' space. The small groups' context created more organised setting for learning, where students negotiated and disseminated their answers inside their groups instead of whole class individual answers which usually caused mess and interruption in the class. Sitting in groups was a good investment of the space and made students feel they are all at the same distance from the teacher and from each other's in the group. The final reason for choosing $11^{\text {th }}$ grade students as an experimental group was a social reason. Students of $11^{\text {th }}$ grade come from different schools and have different social and educational backgrounds with much misunderstanding about the school. Most of these students feel strange in their first year, they usually don't know each other's, and in some cases, they discriminate against each other's based on achievement, background and social status. Therefore, having them to work cooperatively in heterogeneous groups was a good chance to have these students remove the barriers they raised between them, understand that learning is better done cooperatively not competitively and understand that "two heads are better than one". Lotan \&Cohen (4014) stated that group work has impressive social
implications. Students who work together come to understand, help and support each other's learning. "When groups engage in cooperative tasks, they are more likely to form friendly ties, to trust one another, and to influence one another, than when the tasks simulate competition among members" (P.18). Roger \& Johnson (2009), Slavin (1989) assured that embracing the cooperative learning, regardless to achievement outcomes, yields a spectrum of social positive outcomes. For example, Students from different backgrounds work for one goal, they foster their friendships and respect, and they enhance their acceptance of others. Cooperative learning enhances their ability to work in team with others and fosters their creativity and self-esteem.

## Eleventh Grade English Curriculum

Both the experimental and control groups studied the same English textbooks distributed to the public schools by the Palestinian Curriculum Centre and designed by MacMillan Ltd. Students go over two textbooks during the scholastic year. The first is a basic book that integrates the four skills of reading, writing, listening and speaking in each unit underpinned by the functional approach. The second is more advanced that focuses mainly on reading comprehension and essay writing. Both books include reading comprehension passages with various cultural, educational, scientific,....and historical dimensions. In both books the reading comprehension skills win the lions share, either in the books focus or in the marks distribution on the four skills ( 65 marks out of 150 averages). A report issued by General Administration of Curricula for Public Schools Grades 1-12 (2015) asserted that reading is the most important skill needed to be taught in the Palestinian schools. The Ministry of Education has determined three areas students need to practice while reading: "information and understanding" (P.18), "aesthetic response and critical analysis" (P19), and "evaluation" (P.19). The first point implies students to generate information from the text, through finding analogies and differences, drawing relations and finding facts. The second point entails appreciating the reading relating it to self and context. The third requires
students to judge and evaluate the text. This general view to the curriculum aims shows that students are required to apply their high order thinking skills for building understanding. Further, students are required to apply their critical thinking and recall their previous experiences to interpret the text's purpose. Corresponding to this overarching framework of the curriculum leaves teachers with a challenge to create more interactive teaching which engages all learners of all reading abilities. On the other hand, teachers are demanded to train students to reading skills to enable them approach the text with understanding and elaborate on it critically. These skills were considered essentials for preparing global learners who understand and use English as a universal language.

## Reciprocal Strategies Training of the Experimental Group

Training the experimental group to use the RT strategies continued for two weeks before teaching the authentic texts of the textbook started. The instruction took the explicit, verbal, directive form. The aim was to scaffold students' awareness of the four strategies through providing a model which they can replicate. Strategy research stated that most students cannot attain academic concepts at the formal level unless they receive explicit instruction of it (Marzano, 1988). For that purpose, various reading passages and worksheets were chosen to be appropriate to their level. The teacher explained the declarative, pprocedural and conditional techniques in each step. Palincsar \& Klenk (1991) noted that when teaching a tool to students, it is not enough to teach what it is, they need to learn how and when to use it.

The teacher taught each skill separately, articulating its name and time in the reading, trying to equip students with the skills needed to deal with the reading task. For example, the teacher read a short paragraph aloud, stopped by some new words trying to clarify their meanings from the context or through making analogies to other known words, then asked herself questions about the text, after that tried to summarise the main idea and at last looked at the pictures and subheadings trying to predict what is coming next in the text. All the
previous steps were done by the teacher aloud. She read and questioned herself aloud; so that students get able to replicate her strategic behaviour and understand how the dialogue was built.

When using each strategy, the teacher announced the name of the strategy she was using. Along the training period students were reminded in every lesson with the four strategies and the purpose of each one. A poster that illustrates the four strategies was fixed to the wall to remind students of them all the time. Students were also shown some video lessons of other teachers using RT with their students to make the four concepts even clearer for them.

## Teacher's Modelling of Reciprocal Teaching Strategies

The four strategies were modelled to the experimental group by the teacher during the training period. She led the class dialogue after scaffolding the use of the strategies as the following

## A) Predicting

The predicting strategy was modelled in front of the class using the text pictures, visuals, maps, layouts, diagrams, titles and subtitles. Students were shown how to build connections to their previous knowledge or experience about the topic. They were also encouraged to participate and try to make predictions about the text content and theme. Predicting training took the form of thinking aloud to guide the discussion into more true, reasonable predictions. A student from each group was coming to the board together writing their predictions under the numbers of their groups and going back to their circles letting the rest see each other's predictions on board to discuss and compare them. Tarchi (2010) have found that prior knowledge is crucial to successful reading, since it fills the knowledge gap the text didn't detail explicitly.

## B) Questioning

Question generating is a cognitive, self-regulatory strategy that makes students dig deep in the text for better understanding of the ideas; recall information and check the current
state of understanding (Palincsar \& Brown, 1984; Rosenshine et.al ,1996). The researcher modelled questions generating strategy by reading a short paragraph aloud and stopping at each questionable point asking herself questions about the main ideas, the information she read, the meaning of a word or the event she passed by. Meanwhile, students were watching and listening, and more questions were also growing in their heads. At the same time, the researcher encouraged them to help her find the answers through recalling their previous knowledge or experience about the topic. As the reading was advancing, she started to ask herself more reflective, evaluative questions, then more complex opinion questions. The students were becoming more confident and eager to take part in class discussions as they were gaining a better understanding of how the reading process works. (Foster \& Rotoloni, 2005)

## C) Clarifying

When students became familiar with the topic and theme, teacher read aloud again, highlighting on board some new words or unclear points she wanted to demonstrate to the class. The researcher tended to use different strategies like tapping students' previous knowledge, trying to guess the meaning from the context, the sentence clues, or derivations that the students have learnt before. She also used the dictionary when the previous tools didn't work. Each group of learners was provided with a dictionary to help them check words' meanings.

## D) Summarizing

The last strategy taught was summarizing of the reading texts. Students were encouraged to find the topic sentence in a paragraph and retell it in their words. The strategy was modelled through writing a topic sentence, supported by sub ideas and asking students rewrite it into a short paragraph. Students were reminded to drop any marginal, trivia details or examples when summarizing. Further, they were instantly reminded to write summaries that they themselves understand. Thus, they were encouraged to use their own words and
reflect their own understanding. Students were asked to use colourful markers to underline key sentences or highlight words which can form a thread of their summaries. To help students always remember what summarizing is about, the researcher prepared a class poster of the most important points to remember when summarizing, and kept it in front of the students to look at it often. Students by the time were asked to summarize general ideas of the text, and give their own point of view. Modelling the strategies continued for two weeks until students become familiar with them.

## Forming the Heterogeneous Cooperative Groups

Once the formal teaching began, students were seated in heterogeneous groups of four. Group members were chosen according to their grades in the diagnostic test, trying to mix all reading abilities in each group as possible. In each group, each student chose to represent the group in one of the strategies. Every group had a Summarizer, Questioner, Clarifier, and Predictor, with a card to label the member's role. Assigning roles didn't aim at strictly limiting each student's role to practicing one strategy, as much as it aimed at giving formal feeling of sharing accountability in the group, promoting order, and fostering the team spirit. However, members of the group exchanged the RT roles each reading class. Distributing a variety of roles to the group fostered their cooperation. Each strategy contributed to make members understand the text at different level. This cooperation in making meaning shifted the learning responsibility gradually from the teacher to the learners. Palincsar et, al. (1991) supposed the direct central role of the teacher in the process of RT, suggests more emphasis on the cooperative spirit in the whole class to help students decode meaning and comprehend the text.

There were various reasons that justify grouping students according to their abilities. First, there was a large number of these students with reading challenges and needed social support to foster their understanding. Therefore, from the educational perspective, this was a chance to put students with high, medium and low abilities in one group, so that good readers
support and scaffold their peers' use of the strategy. Mixing the abilities provided the students with a chance to observe the strategic behaviors of their peers while reading and imitate these behaviors. High and medium achievers will recognize that no one in the group has the superiority to the others, and that every member is important to the success of the others as long as she has distinctive role. The teacher explained the philosophy and aims of the group work at the beginning of teaching. "Swim Together or Sink Together" was written clearly on a large sheet and fixed over the board as a class logo (Appendix J) to guide the class into the aim of their cooperation. Students were told that their cooperation can be successful on the bases of positive interdependence. That is when the group members agree on common goal to achieve, receive same rewards when they reach the goal, share their resources for completing the task and when every member has a distinctive role, necessary to achieve the task.(Roger \& Johnson ,1994;2009). Second, the researcher wanted those "left behind" learners to feel secured with others who can support and help and not feel neglected as in traditional teaching. Students become stronger when their abilities are considered. Trusting learners' abilities encourages them get more responsible about their learning. In addition, giving roles to every group member enhances learners' feeling of equality. Promoting social equity was a strong case for grouping students heterogeneously. When engaged in the group, the less proficient students will find it normal to share what they know with the group. By communicating their ideas, students can find others in the group to correct the errors they commit. In such context, students feel accountable for their individual learning and the success of other group members.

Third, the researcher is concerned with the issue of increasing achievement and higher order thinking skills of the whole class through mixing abilities together. Johnson \& Johnson (2009) found that positive interdependence in the group enhances achievement of the individual and other group members when each feels responsible about the group success as his. a positive correlation was found between working cooperatively in small groups and
achievement (Davidson \& Major, 2014). Overall, researcher were in favour of group work over individual memorization or drilling since students in groups talk to each other's and exchange their thoughts and ideas using contextual language which accelerates their language learning.

## Groups' Processing and the Role of the Teacher

The teacher has assumed different roles in the RT classes. Social constructivist approaches place the teacher as one of the central tools in scaffolding and monitoring learners' development. It is teacher's responsibility to scaffold and guide learners to the optimal performance. This is done by guiding and monitoring their current level of performance until they reach the desired level. In the current study, the teacher was responsible about organizing and monitoring the newly formed groups. These groups didn't directly get organized and active. They needed sometime to stabilize. Moreover, the study was performed with intact sample of learners who didn't receive RT training before and are not accustomed to the systematic group work. Therefore, the teacher needed time to train them to the necessary social values to run their groups. Moreover, RT strategies needed time and modelling to enable every group members to perform them correctly. In addition, the teacher was processing the groups at the formation level. She was forced to replace some students with others who were expected to get on well with the group's members. That step was necessary to raise the harmony among the members of the one group. The teacher took in consideration replacing some members with others of the same proficiency level to keep the heterogeneous formation of the groups. When every student became satisfied with her place, groups were asked to work cooperatively on the textbooks' reading tasks. The teacher continued scaffolding students' awareness of the strategy use and helping them internalize the strategies. In an advanced stage, students became more familiar with RT roles and most of them were able to use them independently. However, there were some poor readers who kept asking for the teacher's help until the end of the intervention period.

The teacher has utilized different contextual and conditional resources to engineer and construct a social supportive context, through which all learners will receive equal logistic and social support. For example, the teacher performed the strategies directly and verbally to the students and gradually withdrew from the scene, giving the students the chance to play the teacher's roles. Then, the teacher designed four labels that hold the four roles of the group members. Students exchanged these labels each time they changed their roles in the group. Moreover, the teacher distributed graphic organizers to help each group members cooperate but at the same time every member was doing one of the strategies to complete the task. That is one of them was a predictor, the second was questioner, the third was a clarifier and the last one was a summarizer. Graphic organizers (Appendices G+ H) were used as cognitive tools to help student visualize their ideas into ready- to use forms. The strength of the organizer was to encourage students think dissimilarly, to make best use of the RT strategy they have learnt, but to come to the same conclusion. (Rasinski \& International Reading Association, 2000). Students were also given a hand-out to remind them of each strategy use. Teacher's practices were also illuminated by Oczkus (2010) who suggested the four-door chart which incorporates the four strategies in one sheet to make it easier for students to fill in as they read.

After the groups were ready to work independently, the teacher still had many roles to play in the class. Sometimes, she was a facilitator. When new topic was presented, teacher needed to make connections by recalling students' previous knowledge. Students made great recalls to their previous knowledge and experiences when they were asked. That helped them very much in building cognitive schemata to connect the new knowledge. The researcher monitored the group work, making sure every group was adhering to the task, applying the strategies toward achieving the goal of reading. At many other times, the researcher was a group participant. She joined a group and played one of the RT roles within of the group. That was of a great impact on the students, especially when they felt really trapped and
needed a hand. It was a chance for the teacher, too, to scaffold students' current knowledge and leave them more confident, into the next step. From time to time, students were asked to write their feedback and comments on the work of the group and their feelings towards the process and the cooperation in the groups. All notes were taken in consideration by the researcher who made her best to solve problems of groups' cooperation or even acceptance of certain members. At other occasions, when all the groups were working well, the teacher's role was confined to supporting students, reinforcing the correct practices and encouraging those hesitant or shy learners.

## Teaching the Control Group

On the contrary to the experimental group, the control group didn't receive any type of strategic training. They were taught reading comprehension in a traditional setting. Students sat in rows not groups and worked individually. Students read the passage silently and took notes. Meanwhile, the teacher would highlight some new words on the board. Students usually copied the meaning of these words in their notebooks, but definitely, there were always active students who prepare at home and negotiate the teacher about the meaning. It is worth mentioning that the same worksheets in reading were given to both groups. However, in the reciprocal group students were seated in groups and worked cooperatively to discuss the questions and apply the four reading strategies to them. In the control group, students worked independently to answer the reading questions. The text was discussed and the answers were collected after giving a suitable time to think about them. In the control group case, there were discussions in the class, but were led by the teacher. Sometimes, students themselves asked the teacher to gather for short time and discuss some points. These gatherings were spontaneous and contained from five to ten students, but the teacher didn't observe their processing. When the task time was finished, students raised their hands to discuss the answers. On the contrary, reciprocal students didn't raise hands to
answer because every group had a turn to discuss, every group was given a different paragraph to discuss and every group member had a role to perform.

## Instruments of the Study

A major purpose for this study was to reveal the change in reading comprehension ability before and after the intervention. For that purpose, students in the experimental and control groups were exposed to types of tests. Both groups did a pre and posttest in reading to compare their achievement before and after the intervention. Additionally, participants of the two groups did five school tests in reading comprehension along the period of teaching. The five tests investigated the differences in the reading progress of the two groups. The third instrument of the study was a questionnaire of two folds. The first part aimed to recognise the reciprocal students' adaption of the reading strategies while reading, after being taught with the RT approach. The second has considered the learners' attitudes towards learning reading using the RT method. The qualitative tool of the research was the researchers' journal. This was used to pursue the classroom interactions while working in heterogeneous cooperative groups. The qualitative measure used in analysing the journals was the thematic analysis protocols which were applied to the data to extract the main themes. Findings related to the mentioned tools were used to explain the impact of using RT in a cooperative context, and its implications to teaching strategic reading in the Palestinian high school context.

1) Pretest/ Post Comprehension Tests: The same standard test was conducted for the experimental and control groups prior and posts the reading intervention (for the pre/ post-test, see appendix A). The test was adapted from TOEFL Tests for juniors. TOEFL tests are standard tests, well- known about their validity, reliability. They are also known with their content and construct related evidences. The test included three parts of reading texts appeared according to their complexity level. The test starts with a "festival announcement" passage followed by four questions. The second passage is a short dialogic story followed by seven questions and the last part a short historical narration
followed by eight questions. All the questions were multiple choice answers accompanied with an answer sheet. The total number of the questions was twenty and scored out of twenty points. The original test consisted of three parts that target listening comprehension, language form and meaning and reading comprehension. The first part of the text was excluded due to its irrelevancy to the teaching goals. RT implemented in this research is basically based on the relationship to the written text. Students read for decoding meanings of the text in order to achieve understanding. Hence, the meaning and reading comprehension part was only included for the purpose of this study. Analysing the cognitive levels of the test items showed that ten of the questions belong to the high order-thinking skills (mainly reasoning) and the other ten represented loworder thinking skills (mainly comprehension). Students of both groups sat to the test again after three months when the period of teaching had finished.
2) School Tests (Teacher's Designed Tests): students of the experimental and control groups were exposed to five school tests (for school test sample, see appendix B). Students used to get ready for a test every two weeks. Every test was marked out of thirty points. The tests' questions were written by the researcher herself. The researcher tried her best to design reading tests which simulate the themes and vocabulary covered in the English textbooks. Moreover, each test was designed to include the same questions' patterns every time. That means every test included a reading expository text followed by same question rubric in all tests. The questions started with information questions, followed by information completion question, true/false question, reference questions and meaning -generating questions. Two purposes were behind giving the tests the same structure, and using the same question rubric each time. First, the teacher wanted to train students to apply the strategies to most the common types of questions on the reading comprehension. Moreover, she hoped the students will get more confident and secured
when they are familiar with types of questions in the test. It was expected that students will get more independent in dealing with such questions and better prepared for their final year tests the following year.
3) Students' Questionnaire: By the end of the intervention period, the experimental group was called to fill in a questionnaire of two- parts (Appendix C). This instrument aimed, in its first part, to trace the frequency of strategic practices in handling the reading passages. In its second part, it aimed to explore the learners' attitudes to the learning experience they had. A closed- responses' questionnaire was found the best tool for exploring students' opinions since their verbal abilities were limited and it was found difficult to ask them to report their reading practices through open questions. Therefore, closed responses questionnaire was found the best solution to overcome any fluency obstacles. Moreover, the questionnaire revealed the students' knowledge about self as readers and their knowledge on the reading strategies they implemented. The first part of the questionnaire (items 1-18) was adapted from Mokhtari \& Reichard (2002) who has developed their instrument of Metacognitive Awareness of Reading Strategies Inventory (MARSI) as a selfreport instrument. This targets assessing metacognitive awareness and perceived strategy use of school students from $6^{\text {th }}$ to $12^{\text {th }}$ grades, reading school materials and subjects. The primary tool (MARSI Version 1.0, Appendix E) is made of thirty items that groups the strategies into three subcategories: global reading strategies, problemsolving strategies and support reading strategies.

## Table (3-1)

# Distribution of the MARSI Subcategories in the Questionnaire 

| MARSI Subcategory | Questionnaire Items |
| :---: | :---: |
| Global Strategies | $1-6$ |
| Supportive Strategies | $7-12$ |
| Problem solving Strategies | $13-18$ |

As illustrated in table (3-1), this questionnaire has included only eighteen of the original survey items. Items (1-6) were global subcategories, taught as general strategies, used intentionally to predict reading or set a goal for reading. Items from (7-12) represented reading -support strategies, such as tactics used when the text complicates. Items (13-18) were problem- solving strategies. These refer to the functional or logistic tools, learners use to overcome reading problems. (Mokhtari \& Reichard, 2002).

It is worth mentioning that the (MARSI Version 1.0) has been adapted and used by several researchers to assess students' metacognitive awareness and increase their monitoring to their own practices (Dabarera et al,2014; Fitrisia, Tan \& Yusuf, 2015; Henter, 2012; Hong-Nam, Leavell \& Maher, 2014; Shikano, 2013). The second part of the questionnaire was designed by the researcher herself and revised by referees to guarantee its validity and to refine any ambiguous or odd items that can be irrelevant or indirect. This part aimed to explore students' attitudes towards practicing RT strategies, enthusiasm regards working in groups and working with different -levelled students. Summers (1977, P. 153) confirmed that "Attitude research will add an important dimension to the study of affective functioning,... similar pattern will evolve in education and the study of reading attitudes, in particular, could play a significant role in such research". The whole tool was validated after several revisions of its items, suitability of language and closeness to the students' learning context.
4) Teacher's Journal: the researcher's journal (Appendix F) was used to offer a thorough description of the groups' interactions and the way these interactions evolved over the period of teaching. Every interesting event, action or note by students was recorded to provide deeper insight on how the groups' dynamics developed and matured over the period of teaching with RT. Writing the journal was about recording the noticeable features in the groups' interaction and growth. The process of writing accompanied the process of teaching. Since it was the first time the teacher performed a research with systematically -organised groups, there were no prior intentions to record specific aspects of neither the process, nor any outcomes regarding the group work. On the contrary, classes' routines and students' activities during reading were recorded, in the hope of being analysed by the end of intervention, without anticipating much assumption about the themes that may appear in the analyses. Predictions about later themes were not easy to make.

## Instruments' Validity and Reliability

A) The Pre/posttest: The main instrument in this study was a multiple choice reading comprehension test adapted from TOEFL tests for juniors. The test consisted of twenty items; each with four options. Students needed to decide about one of them as the right answer. TOEFL tests are international standardized tests known about their validity. However, different steps were taken to confirm validity. AMIDEAST office in Ramallah had been consulted on the tests' content appropriateness and relevance to the target age group. Moreover, the test was also reviewed by the researcher's supervisor and English teachers' committee at the school to prove its face and content validity. Test validity was introduced by Brown \& Abeywickrama (2010) as the extent to which results drawn from the assessment are suitable and meaningful, in the light of the test's purpose. They have also conveyed that a valid test of reading ability should actually measure the reading skills not any other related abilities. Therefore, the test was found valid as long as it only promoted the use of the reading strategies taught in RT.

The internal consistency of the test items was also investigated through using the SPSS one factor- analysis to check the correlation between the test items. Previously, the test items were grouped according to their cognitive levels. Ten of the questions were found to measure low- order reading skills. For instance, items that hit skills like knowledge, comprehension and recalling. The other ten items were analysed as high- order reading skills. These were questions that required reasoning, analysis, synthesizing and evaluating skills.

Table (3-2)
The One- Factor Analysis Value for Each of the Test Items and Its Cognitive Level

| Question <br> No | Cognitive <br> Level | One-Factor <br> Analysis Value | Question No | Cognitive <br> Level | One-Factor <br> Analysis Value |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 1. | Low-order | 0.30 | 11. | High -order | 0.48 |
| 2. | Low-order | 0.65 | 12. | High -order | 0.47 |
| 3. | Low-order | 0.49 | 13. | Low-order | 0.57 |
| 4. | Low-order | 0.61 | 14. | High -order | 0.49 |
| 5. | High -order | 0.57 | 15. | Low-order | 0.53 |
| 6. | Low-order | 0.43 | 16. | Low-order | 0.60 |
| 7. | High -order | 0.45 | 17. | High -order | 0.68 |
| 8. | High -order | 0.43 | 18. | High -order | 0.41 |
| 9. | High -order | 0.48 | 19. | Low-order | 0.47 |
| $\mathbf{1 0 .}$ | High -order | 0.49 | 20 | Low-order | 0.48 |

Table (3-2) shows that the test has good correlation between the variables. The one factor analysis indicates that the tool measures the purpose it was established for. Despite the medium coefficient of the correlation, it was considered sufficient for the study purpose.

The Pre/post-test's reliability was tested as well, using the split -half technique and KuderRichardson Formula 21 calculation for test reliability. Kuder\& Richardson (1937, P. 151) assumed that "most test technicians use the split -half method of estimating reliability" "The correlation coefficient thus obtained is taken as an estimate of the reliability of either half, and the Spearman-Brown formula for double length is then used to estimate the reliability
coefficient of the whole test", they explained (P.52). The correlation coefficient appeared using the split half. The odd items of the test $(1,3,5, \ldots 19)$ and the even $(2,4,6,8, \ldots 20)$ of the test were analysed and compared. The comparison of the two halves yielded consistent results which indicated that the reliability of the test is acceptable. Odd items coefficient value was (70\%) and for the even items was (80\%) which was a statically acceptable percentage and indicated good reliability of the test. Kuder-Richardson Factor for reliability of the whole test items (20 items) in its final edition revealed high reliability of the test ( 0.845 ) which confirms that the test is reliable and suitable enough to be used on the study subjects.
B) The School Tests: The validity of the school comprehension tests were also established through showing the first test as the primary instrument to the General Directorate for Assessment and Examinations in the Palestinian Ministry of Education. Depending on analysing the most common used questions in the secondary level tests, five high frequency questions were agreed to be used in these tests, and was described earlier in the chapter, thus experts' validity was established for the tests. Moreover, English language committee members at the researcher's school and two of the school English supervisors evaluated the tests' content and relevancy to the curriculum topics and the school teachers also used some of them in their classes. Using these tests, by other English language committee members at school served the inter-rater's reliability to be established. The colleagues' suggestions were discussed until consensus upon the sample answers was held. In addition, tests papers were exchanged with other colleagues to check the correction. It was through the colleagues' evaluation, the face and content validities were also established. The one factor analysis of the five test results showed that the tests items were reliable and consistent since the one factor analysis value for the five tests was ( $96 \%$ ) and considered a high reliability percentage in researches.

Table (3-3)
The Five School Tests Correlation Coefficients

| Test No | Value of One -Factor Analysis |
| :---: | :---: |
| $\mathbf{1}$ | 0.87 |
| $\mathbf{2}$ | 0.87 |
| $\mathbf{3}$ | 0.90 |
| $\mathbf{4}$ | 0.87 |
| $\mathbf{5}$ | 0.85 |

Table (3-3) shows high correlation between the five test items and high internal consistency which indicates that the tests were reliable.
C) Student's Questionnaire: In order to confirm the questionnaire validity, its first version was put under the supervisor's and the committee members' evaluation. Upon their recommendations, some changes were made in the language, order of items, number and domain of items to finalize the questionnaire in its current edition. Items that were considered complex, duplicating other items or irrelevant to RT strategies were excluded or replaced based on the supervisor's recommendations. Language was simplified to suite the students' proficiency level. Clarity and punctuation marks were also noted. The first part of the questionnaire adapted from Mokhtari \&Reichard (2002) was supposed to measure the metacognitive practices of the $11^{\text {th }}$ graders during reading and the second part was designed to reveal the attitude students hold toward learning by RT strategies.

The second part of the questionnaire (items 19-33), was also refined in language and order of items based on the committee recommendations and the pilot study results. Ambiguous and difficult items were removed or replaced until consensus upon the current tool was reached. The language of the questionnaire as well as the Arabic version were revised and edited by two of the researcher's colleagues at school. The reliability of the first section of the tool is basically high (Cronbach's Alpha $=89 \%$ for the whole subcategories), since it is considered an international tool used by many researchers and was validated after
many cycles of testing its items on different grade levels. However, Reliability of the new tool was provided using Cronbach Alpha analysis as the tool was piloted to twenty students, ten from each of the two classes who were practicing RT, chosen according to their names appearance in the school records. Reliability of the applied instrument was tested using the one factor analysis of the questionnaire items.

Table (3-4)
Values of the One -Factor Analysis of the Questionnaire Items

| Item No | One-factor analysis value | Item No | One-factor analysis value |
| :---: | :---: | :---: | :---: |
| 1. | 0.76 | 20 | 0.66 |
| 2. | 0.76 | 21 | 0.59 |
| 3. | 0.66 | 22 | 0.62 |
| 4. | 0.62 | 23 | 0.85 |
| 5. | 0.62 | 24 | 0.74 |
| 6. | 0.69 | 25 | 0.78 |
| 7. | 0.71 | 26 | 0.74 |
| 8. | 0.81 | 27 | 0.68 |
| 9. | 0.62 | 28 | 0.66 |
| 10. | 0.77 | 29 | 0.78 |
| 11. | 0.69 | 30 | 0.58 |
| 12. | 0.80 | 31 | 0.74 |
| 13. | 0.63 | 32 | 0.77 |
| 14. | 0.65 | 33 | 0.71 |
| 15. | 0.70 |  |  |
| 16. | 0.63 |  |  |
| 17. | 0.49 |  |  |
| 18. | 0.71 |  |  |
| 19 | 0.63 |  |  |

The factor analysis provided in table (3-4) above shows medium - high internal consistency of the questionnaire items and that proves its validity to be officially used as a study tool. The reliability of the tool was also tested by computing Cronbach Alpha after applying the tool on the experimental group. The overall reliability of the questionnaire seemed statistically acceptable (86.4\%).

## Table (3-5)

## Cronbach's Alpha Analysis of the Questionnaire



## D) Thematic Analysis Validity

The validity of the researcher's journal stems from the fact it is a primary source of data, collected on a day to day bases through watching and interacting with the agents in their authentic learning context. On the other hand, the journal was written by the researcher herself and sought to record the events, behaviours, actions and learning processes without any prior assumptions or expectations regarding the outcomes. Moreover, three outside reviewers have evaluated the emerging themes through comparing them to the original text. Their feedback was important to reveal any conflicting results and modify them to reach a consensus regarding the problematic themes. Thus, the reliability of the thematic analysis was established. (Alhojailan, 2012). In addition, the TA has followed the six phase analysis presented by Braun \& Clarke (2006). Therefore, the researcher communicated with Mrs Virginia Braun, one of the TA six-phase analysis pioneers, via email. Braun confirmed the correct procedures that the researcher has followed in analysing the data. She has also conveyed the correct way in presenting the themes in its final report.

## The Study Procedures

The first step of this study was getting the approval of AlBireh Secondary School principal and the Directorate of Education in Ramallah to conduct the study and consider the students as subjects of the research. The school helped the researcher in distributing the students of 11th grade to the four classes and authorised the teacher to teach two of them as an experimental group and two as control. The study completion and data collection were possible through the following procedures. First, a random class was chosen for piloting teaching RT at the beginning of the year, then directly all 11th graders of the literary stream at the school were doing their pretest in reading comprehension. Second, all the students in the experimental group were trained to the Reciprocal Teaching strategies for a two-week period through explicit construction of RT strategies before teaching the authentic textbook topics. Third, the students of the experimental group were assigned to heterogeneous groups of four according to their results in a diagnostic test in comprehension. After that, students in each group exchanged roles to be able to practice the four strategies in a cooperative environment. The teacher's guidance was present all through the process, scaffolding student's abilities and holding their hands to overcome the difficult skills by providing a good model, and encourage cooperation at the group level. Students in both groups were exposed to the same comprehension test after each unit was finished. A rubric for each test was used by the researcher in her classes to guarantee reliability. By the end of the intervention, students of both groups were exposed to a posttest to detect differences in performance between them. The experimental group was also called to reflect on their learning experience and attitudes towards the reading techniques and strategies they used through a questionnaire. Finally, the researcher's journals were an additive resource of data to enlighten the description of group work atmosphere and the types of interaction in the classroom while learning with RT.

## Data Analysis

This quasi- experimental study used mixed methods for analysing and interpreting its data. Quantitative and qualitative protocols were followed for answering the five questions of the study.The Statistical Package of the Social Sciences Program (SPSS) was used to analyse the pre/ posttest data, the school tests and the questionnaire as the following:

First, the independent sample T test was used to compare the means of the experimental and control groups in the pre/posttest and reveal the effect of using RT strategies in reading comprehension. The means of the two groups in both tests were compared to find any difference in their reading performances. Moreover, to elaborate on the first research question, the test's questions were categorised into two groups after being analysed to their cognitive levels. Questions that included recall or understanding were labelled as low- order cognitive skills. Those were questions (No.1,2,3,4,6,13,15,16,19,20). Questions which involved problem-solving, analysing and reasoning were labelled as High order thinking skills (questions No.5, 7, 8, 9, 10, 11, 12, 14, 17, 18). Accordingly, the performance of the experimental group's subjects was compared in these two specific domains. In addition, the $\eta 2$ - Eta square was applied to the tests' results to examine the effect size of using RT. In fact, this statistic analysis was used to elaborate on the effect of using RT as a method. It aimed to discover whether the method's impact on students was small, medium or large. Second, the independent sample T test was also used to answer the second question of the study. Five unit tests were analysed in means and frequencies to reveal the change in the two groups' achievement over the period of the study.

Third, the questionnaire was also used to answer the third and fourth questions of this research. The third inquired the strategic practices and reading skills that the experimental group students were able to apply as a result of learning by RT. Students' responses on this part of the questionnaire were coded as: $1=$ never, $2=$ occasionally, $3=$ sometimes, $4=$ often and $5=$ always. The second part of the questionnaire answered the forth question concerning
the students' attitudes towards learning by Reciprocal Teaching strategies. To answer this question, the second part of the questionnaire elicited students' answers on fifteen items that focused on the attitude towards using RT, working in cooperative context and heterogeneous groups. The researcher tried to reveal the attitude towards different aspects of learning. Responses on this part were also measured through five Likert scale that started from (1) strongly disagree,(2) agree, (3) undecided, (4) agree and ended with (5) strongly agree. Reverse coding was applied to negative items. Means of responses were calculated using the same key used in part one of the questionnaire, and descriptive analysis were provided through calculating the means, standard deviations and percentages of items. Likert scale was used to elicit the responses from the questionnaire and analysing them by the SPSS. In agreement with this five Likert scale, the following key was implemented to interpret the means:

Table (3-6)
Analysis Key of the Questionnaire

| Mean | Degree |
| :---: | :---: |
| less than1.8 | Too low |
| $1.8-2.59$ | Low |
| $2.6-3.39$ | Medium |
| $3.4-4.19$ | High |
| 4.2 and higher | Too high |

Table (3-6) represents a key of how the questionnaire's means were described. Means of the responses that were less than 1.8 is considered too low and connotes negative responses on the item. Whereas, items means which ranged between 3.4 and 4.19 were considered high strategy use or practice or high attitude in the attitudes section. Means, which were higher than 4.2 , were considered very high.

Finally, the thematic analysis of the researcher's own journal answered the fifth question of the research concerning the groups' dynamics and interactions. The step by step
analysis has followed the six phase process by Braun \&Clarke (2006). In phase (1) which is known as the reduction phase, the researcher went back to read and reread the journals that have been written six months prior to the analysis, making herself more familiar with the content and the aspects it covers in the group work features. It was in this phase, the researcher was, unintentionally, driven to the literature of group work dynamics, interactions and protocols. Thoughts about what ideas can emerge from the journals and what codes will appear, guided her towards the related literature. Literature made some ideas in the journals speak, revealing few initial codes and some codes were actually allocated, whereas a mass body of the writing was still undecided. In phase (2), the initial coding stage, the journals were read again and again for the purpose of finding consistencies or differences regarding some codes such as group's identity, interdependency, cooperation' responsibility, motivation, etc. Paragraphs or sentences that served certain patterns were marked. Since the journals were a word document, paragraphs that support each code, were given different font colour to be distinguished. Cut and paste was applied to same colour extracts and under each code each went. In phase (3) code analysing started, broader chunks of information were attached to each code, elaborating the codes into meaningful themes. For example, all ideas, details or narratives that were evolving around the theme "group's interdependency" were written on the same paper, in search for meaning of this theme. This stage was the beginning of creating links between the codes and their references in the text, trying to give meanings for each that would help in elaborating a theme around each. Themes were revised in phase (4) seeking coherence and refining them in relation to the authentic text and excluding themes that don't contribute to the research question or don't fit the concept of groups' dynamics. In the next step, writing of a full meaningful themes started by naming the themes and supporting every theme with the narrative details which reasonably serves the research question. In phase (6), the final, fully written themes were presented, supported with necessary evidences and examples, ready for the illustrative analysis in chapter four. The
inductive and deductive approaches were both used in reading the data. This is a process for obtaining themes from the text through moving forth and back and between, as continuous process which guarantees comprehensive rich description of the themes. The back and forth interplay with the data allows the researcher to check and recheck the codes and concepts (Bowen, 2009).

## Conclusion

The current chapter has presented all the logistics involved in implementing and testing RT as a reading- fostering approach in school context. It discussed the research methodology, presented the rationale for choosing the mixed method design of the study. Then, the setting of the study was featured through describing the population, the sample, location and time of the research. The chapter has described the actual process of teaching RT for the $11^{\text {th }}$ grade students, the preparation that preceded the actual teaching of RT. In addition, instruments of the study, their reliability and validity were established through testing the correlation of the tests items and using the one factor analysis for the questionnaire items. The journals reliability was established through an iterative process of decoding, identifying and validating the themes, then comparing them to the authentic script. Protocols followed for validating each tool was discussed in details. Finally, the data analysis process was described in preparation for the results in the next chapter.

## Chapter Four

## Results

## Introduction

The overarching intent of the current study was to investigate the impact of teaching Reciprocal Teaching (RT) in $11^{\text {th }}$ grade context. Reciprocal Teaching is a reading instruction method, developed by Palincsar \& Brown (1984). The strategy is based on training students to cognitive/metacognitive strategies through promoting four thinking skills: clarifying, questioning, summarizing, and predicting. Another major aim of the study was to discover the reading practices that students have developed following the instruction, and to reveal students' attitude towards learning using RT technique. Hence, the qualitative part of the research has examined the impact of the intervention on $11^{\text {th }}$ grade students' achievement, strategic practices and attitudes. Student's achievement was calculated through two types of comprehension tests. Reading practices and attitudes were collected through a questionnaire. The Statistical Package for the Social Sciences Program (SPSS) was applied to the mentioned data sources to answer the first four questions of the study. The independent sample T- test results indicated a significant impact of RT on the $11^{\text {th }}$ graders reading skills. Further, question number five answered the qualitative part of the study. It shed the light on the group's interaction and group work features which were recorded through the teacher's journals. The thematic analysis of these notes revealed much about the RT instruction in a cooperative heterogeneous groups' context. The composite outcomes of both parts will be discussed thoroughly in chapter five to generate deeper insights of using Reciprocal Teaching in a cooperative group context. However, this chapter is going to present the analysis of the five research questions respectively.
Q.1: What is the impact of using Reciprocal Teaching strategies on 11th Graders reading comprehension ability?
Q.2: What is the effect of using RT on reading comprehension progression over the period of intervention?

Q 3: What strategic practices students developed while reading using RT strategies?
Q.4: What attitudes do students hold towards learning reading comprehension with Reciprocal Teaching in a cooperative context?
Q.5: How do the process and the interaction within the groups evolve over the period of using the four strategies of Reciprocal Teaching?

## Effect of Reciprocal Teaching on Reading Achievement

The study aimed to reveal the effectiveness of using RT on reading comprehension abilities and its impact on students' achievement. For that purpose, two types of tests were conducted. A pre/posttest and five school (teacher- designed) tests. The pre/ posttests have mainly aimed to reveal the difference in achievement between the experimental and control groups prior and after the intervention. The five school test tracked the progress in the reading abilities along the period of intervention. For comparison between groups, this current study used two independent groups drawn from the same population. The reciprocal group consisted of 84 students and the Non-reciprocal was 81.

To answer the first question, the independent sample T test was applied to the results of the pre and post-tests for both groups. The means and standard deviations of the control group and the experimental group before and after the intervention were compared.

Table (4-1)
Results of the Independent Sample T- Test of the Experimental and Control Groups in the Pretest and Posttest

| Group |  | N | Mean | Std. <br> Deviation | T | Sig. (2-tailed) | Eta <br> Squared |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pretest | Exp | 84 | 6.98 | 3.77 | 1.11 | 0.27 |  |
|  | Cont | 81 | 6.28 | 4.25 |  |  | $\mathbf{0 . 1 5}$ |
| Posttest | Exp | 84 | 11.42 | 5.28 | 2.97 | $0.00^{*}$ |  |
|  | Cont | 81 | 9.27 | 3.84 |  |  |  |

[^0]Table (4-1) presents the results of the control and the experimental groups in the pre and post-tests. Comparing both groups' results in the pretest shows that the means of the two groups' scores were very similar. The experimental group's average mean was (6.98), whereas the control group's mean was (6.28) before the RT instruction began. This comparison shows that there was no significant difference in the mean scores of the two groups prior the intervention. It also indicates that both groups were almost similar in their reading achievement before teaching began. Comparing the mean scores of the two groups in the posttest shows the experimental group mean was (11.42), while the control group' mean was (9.27) for the same test. Table (4-1) also shows that there was no difference in the two groups' performance in the pretest. $(\operatorname{Sig}=27 \%)$ in the pretest indicates that the difference is insignificant at ( $\alpha \leq 0,05$ ). However, significance level was ( 0.00 ) which is less than ( $\alpha \leq 0$, 05 ) in the posttest. The level of significance shows that there was a difference in performance for the benefit of the experimental group in the posttest.

Comparing the results at the one group -level shows that the mean average of both groups has increased from the pretest to the posttest. The control group's average was (6.28) in the pretest and rose to (9.27) in the posttest. Whereas, the experimental group's average mean was (6.98) in the pretest and rose to (11.42) in the posttest. Yet, there is a significant
difference for the benefit of the experimental group when comparing the two groups' means in the posttest. In other words, the experimental group who studied reading comprehension using reciprocal teaching strategies outperformed the control group in the posttest. However, the statistics shows an advance of the control group reading achievement along the period of teaching. Furthermore, table (4-1) shows the effect size of reciprocal teaching (RT) on the reading ability. This was calculated through applying the Eta square statistics to the test results. The table shows $\eta 2$ Eta square value was (0.15). This percentage suggests that the effect size of RT on students' reading ability was big, since it is higher than the average (0.14). It should be noted that according to Cohen's rules of thumb (1988), the Eta square for the effect magnitude is considered small at (0.2), medium (0.13) and large at (0.26).

The previous findings clarified the overall achievement differences between the two groups. However, the research has investigated the effect of the RT at deeper level. Provided the claim that RT instruction enhances the cognitive/metacognitive abilities of the learners, the statistics were used to trace the method's impact on the cognitive growth of the subjects. It investigated the impact of RT on developing the different cognitive abilities of the experimental group learners. For that purpose, the same previous test items were classified into two cognitive levels. Ten out of the twenty multiple choice questions represented highorder thinking skills. The other ten questions required low- level thinking abilities. Analysing the test items, higher level thinking skills that the test promoted were reasoning, inferring and problem- solving questions. Meanwhile, the low-order thinking skills were mainly recalling, knowledge and comprehension questions. To examine the difference in the experimental subjects' performance in the two cognitive levels, the score of every student in every question was recorded. This implies that every cognitive field is made of ten questions and marked out of ten points for every student. Results of the experimental group were compared in the pre and post-tests using the independent sample T- test and the Eta Square, as shown in the flowing table.

## Table (4-2)

Pretest and Posttest Results in the Low and High -Order Cognitive Levels

| Comprehension Cognitive Level |  |  | N | Mean | Std. <br> Deviation | T | Sig.(2- <br> tailed) | Eta <br> Squared |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exp. | Low-Order |  | 84 | 4.9 | 0.25 |  |  |  |
|  |  | Pre |  |  |  | -2.91 | 0.00** | 0.12 |
|  |  | Post | 84 | 6.1 | 0.27 |  |  |  |
|  | High-Order | Pre | 84 | 2.1 | 0.20 |  |  |  |
|  | Thinking Skills | Post | 84 | 5.3 | 0.31 | -7.70 | 0.00** | 0.32 |

** Statistically significant at the level of statistical significance ( $\alpha \leq 0.05$ )
Table (4-2) shows the mean scores of the experimental group in the pre and post-tests in different cognitive domains. The independent sample T-test shows a significant difference between the mean scores of the high - order cognitive level and the low-order cognitive level in the pre and posttest. The low- order reading skills means was (6.1) in posttest, whereas it was (4.9) in the pretest. That suggests a slight improvement of the students' low-order thinking skills such as recalling, comprehension and remembering levels. Regarding the performance at the higher- cognitive level, experimental group's means was (2.1) in the pretest which is considered very weak performance. This have improved to (5.3) in the posttest which a very noticeable advance in the experimental group's performance. The result indicates a significant difference in the results of the experimental group in their pre and posttest. The difference was clear in the students' performance in the high cognitive level questions despite the slight difference in their performance at the low-order thinking level.

Comparing the performance of the subjects in the two cognitive levels, the means show that students performance have increased in both levels. Both means had a ( $\operatorname{sig} .0 .00$ ) which are considered significant at ( $\alpha \leq 0.05$ ). Yet, the differences in means indicate that
students have advanced better in their performance in the high- order thinking skill than in their performance in the low order thinking skills.

To investigate the impact of RT on students' performance in the both cognitive levels, Eta Square statistics was operated, the difference between the two levels' means was calculated to check the effect size of the method in both levels. The results show the effect size of RT on the high -order thinking skills was greater than its effect size on the low-order cognitive level. To elaborate, Eta Square for the low-cognitive level was ( 0.12 ) which less than (0.14). This is construed as a medium size effect of the method on the low-order thinking skills of the subjects. However, the size effect was great regarding the high-level skills like reasoning and problem-solving, since Eta Square was (0.32), which is much higher than (0.14). These results indicate that due to the extensive RT practice, students high thinking skills have developed higher than their low order cognitive skills. They also indicate that the same subjects have more applied the low order thinking skills to the test questions in the pre and post conditions. However, their high order thinking skills have grown much better in the posttest.

To conclude, the results show a significant difference in the performance of the reciprocal group in both cognitive levels. Yet, the same groups' performance has enhanced in the high order thinking skills more apparently than their performance in the low order thinking skills. These results were supported by the Eta Square statistics for calculating the method's effect magnitude. The size effect of Reciprocal Teaching was found higher in the high order thinking skills case. This implies a positive impact of the strategy on promoting the cognitive/metacognitive abilities of the experimental group.

## Tracking the Progress in Achievement during the Reciprocal Intervention

To answer the second question of the study, the research tracked the performance of the experimental and the control groups along the period of the intervention. The study aimed to find the difference between the experimental and control groups in their performance in reading comprehension through five school tests. Those tests included the five most frequent prompts in the secondary stage tests and were scored out of thirty marks for each. After administering each test; scores of students in the two groups were recorded. By the end of the teaching period, mean scores and standard deviations of the five tests were analysed for the both groups. The analysed data appear in table (4-3) below, show the mean scores, standard deviations and the independent T test values for the five tests of the experimental and control groups.

Table (4-3)
The Experimental and the Control Groups' Means and Standard Deviations in the Five School Tests

| Group |  | N | Mean | Std. <br> Deviation | T | Sig. (2- <br> tailed) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Test 1 | Exp. | 83.00 | 13.43 | 7.54 |  |  |
|  | Cont. | 80.00 | 11.44 | 7.51 | 1.69 | 0.09 |
| Test 2 | Exp. | 84.00 | 14.99 | 7.14 |  |  |
|  | Cont. | 79.00 | 14.38 | 7.12 | 0.54 | 0.59 |
| Test 3 | Exp. | 81.00 | 18.35 | 7.37 |  |  |
|  | Cont. | 79.00 | 16.66 | 7.54 | 1.43 | 0.15 |
| Test 4 | Exp. | 82.00 | 19.39 | 7.07 |  |  |
|  | Cont. | 80.00 | 17.40 | 7.31 | 1.76 | 0.08 |
| Test 5 | Exp. | 83.00 | 20.73 | 6.74 |  |  |
|  | Cont. | 80.00 | 18.09 | 7.57 | 2.36 | $0.02^{*}$ |

* Statistically significant at the level of statistical significance ( $\alpha \leq 0.05$ )
** Maximum Test Grade $=30$ Pts, Minimum Grade $=15$ Pts.
The table shows the Independent Samples T- Test results for the two groups in five school tests. The independent sample T- test clarifies that there was a difference in the mean scores
of the two groups in favour of the experimental in the fifth test. The mean score of the experimental group in this test was (20.73), whereas the mean score of the control was (18.09). The Significance level of the first, second, third and fourth tests of the two groups as (0.09 0.59 0.15 ، 0.08), which is higher than (0.05) for both groups. This indicates no significant differences in the two groups reading achievement in the first four school tests. Whereas, the Sig value of the fifth test $=(0.02)$ which is apparently significant at $\alpha \leq 0.05$ and reveals a significant difference between the two groups for the favour of the experimental. In other words, the results of both groups in school comprehension tests had no significant difference until the fifth and final test. This suggests that the students of the experimental group have outperformed the control group in the fifth comprehension test. Despite the fact that difference between the two groups only appeared in test five, the achievement scores of the experimental group gradually rose from the first to the final test. However, a look at the mean scores of the experimental group shows that their achievement in the tests was gradually rising along the five tests. The means scores of the tests appeared as (13.43, 14.99, 18.35, 19.39 and 20.73) respectively. These means show a continuous rise in the experimental group achievement from one test to the other. Similarly, the control group's means were (11.44, 14.38, 16.66, 17.40 and 18.09) respectively. This finding indicates that the control group subjects -who were learning using the conventional method - were also progressing in their reading comprehension performance along the intervention period. The different performances of the experimental and control groups in the five school tests are made clear in figure 1 below.


Figure 1: The Results of the Experimental and the Control Groups in the School Tests
Figure (1) shows a comparison of the two groups' performance in each test. As clarified the experimental group tests' means were higher than the means of the experimental from the first to the fifth test. The means indicate that the reciprocal subjects performed better in the school tests than their mates in the non- reciprocal group. The figure shows that the experimental group's means were higher than the control group means from the first school tests and continued higher until the end of the intervention. When comparing any two means in any of the five tests, the experimental group's mean was higher, but insignificant in the first four tests. These means clearly show that students who studied reading comprehension through the RT reading strategies have made progressive improvement in their mean scores in the successive reading tests at school. In conclusion, the statistics clarifies that comparing the mean scores of the experimental and control groups in five unit tests was for the favour in the experimental. The difference wasn't significant in the first four tests and didn't appear until the fifth. That suggests that the RT effect on the reading ability progress didn't make a significant difference until late stage of the instruction period. Moreover, it suggests that the experimental group reading ability has grown, yet at slow pace.

## The Impact of Reciprocal Teaching on Students' Strategy Use

Concerning the third question of the study regarding the impact of RT on students' strategy use, the questionnaire was statistically analysed to provide a clarification of the reading practices that the experimental group students implemented while reading.

The first part of the questionnaire was under the title of "Practices of Reading" to refer to the reading strategies that the experimental group used while reading. The part was adapted from "MARSI" questionnaire by Mokhtari \&Reichard (2002) which was designed to assess reading strategic awareness for academic purposes, but items were chosen to correspond to the closet practices of RT. The questionnaire included three subscales of strategies that students resort to while reading to foster their understanding. The first part covered the Global Strategies, followed by Support Reading Strategies and then the Problem Solving Strategies. In order to answer the question, descriptive analysis was operated to calculate the means, standard deviations and percentages of the items.

Table (4-4)

## Descriptive Statistics of Eighteen Reading Strategies

| No | Item | Mean | Std. <br> Deviation | Percentage |
| :---: | :--- | :---: | :---: | :---: |
|  | Global Reading Strategies |  |  |  |
| 1 | I read the heading and sub-headings of the passage first. | 4.17 | $\mathbf{0 . 7 3}$ | $\mathbf{\% 8 3 . 3 3}$ |
| 2 | I refer to the diagrams / illustrations when they are available <br> to help me understand the topic. | $\mathbf{3 . 9 2}$ | $\mathbf{0 . 7}$ | $\mathbf{\% 7 8 . 3 3}$ |
| 3 | I try to make connection between the text that I am reading <br> and previous knowledge / experience. | $\mathbf{3 . 8 3}$ | $\mathbf{0 . 7 3}$ | $\mathbf{\% 7 6 . 6 7}$ |
| 4 | Before reading, I ask myself what I already know about the <br> topic and predict what will come next in the passage. | $\mathbf{3 . 9}$ | $\mathbf{0 . 6 7}$ | $\mathbf{\% 7 8 . 1 0}$ |
| 5 | I skim the text first to find out its type and the way it is <br> organized. | $\mathbf{3 . 6 5}$ | $\mathbf{0 . 9}$ | $\mathbf{\% 7 3 . 1 0}$ |
| 6 | I try to figure out the meaning of new words or phrases from <br> the context. | $\mathbf{3 . 8 8}$ | $\mathbf{0 . 7 7}$ | $\mathbf{\% 7 7 . 6 2}$ |
|  | Support Reading Strategies |  |  |  |
| 7 | I look up unknown words in the dictionary. | $\mathbf{3 . 6 1}$ | $\mathbf{0 . 8 8}$ | $\mathbf{\% 7 2 . 1 4}$ |
| 8 | I underline or circle information in the text to help me <br> remember it. | $\mathbf{3 . 5 7}$ | $\mathbf{0 . 7 5}$ | $\mathbf{\% 7 1 . 4 3}$ |


| 9 | I discuss what I read with the group to check my <br> understanding | $\mathbf{3 . 6 3}$ | $\mathbf{0 . 9 8}$ | $\mathbf{\% 7 2 . 6 2}$ |
| :--- | :--- | :---: | :---: | :---: |
| 10 | I ask myself questions about the text during reading. | $\mathbf{3 . 1 8}$ | $\mathbf{0 . 7 6}$ | $\mathbf{\% 6 3 . 5 7}$ |
| 11 | I summarize what I read to reflect on important information <br> in the text. | $\mathbf{3 . 0 4}$ | $\mathbf{1 . 1 5}$ | $\mathbf{\% 6 0 . 7 1}$ |
| 12 | I go back and forth in the text to find relationships among <br> ideas in it. | $\mathbf{3 . 2 3}$ | $\mathbf{0 . 8 8}$ | $\mathbf{\% 6 4 . 5 2}$ |
|  | Problem- Solving Strategies |  |  |  |
| 13 | When I don't understand, I keep on reading hoping for <br> clarification further on. | $\mathbf{3 . 5 8}$ | $\mathbf{0 . 7 6}$ | $\mathbf{\% 7 1 . 6 7}$ |
| 14 | I stop from time to time and think about what I'm reading. | $\mathbf{3 . 7 7}$ | $\mathbf{0 . 8 1}$ | $\mathbf{\% 7 5 . 4 8}$ |
| 15 | I skip words or parts I don't understand. | $\mathbf{3 . 1 9}$ | $\mathbf{1 . 0 6}$ | $\mathbf{\% 6 3 . 8 1}$ |
| 16 | I give up and stop reading when I don’t understand. | $\mathbf{2 . 1 5}$ | $\mathbf{1 . 0 5}$ | $\mathbf{\% 4 3 . 1 0}$ |
| 17 | When text becomes difficult, I reread to increase my <br> understanding. | $\mathbf{3 . 1 3}$ | $\mathbf{1 . 0 3}$ | $\mathbf{\% 6 2 . 6 2}$ |
| 18 | I try to guess the meaning of unknown words or phrases <br> when reading. | $\mathbf{3 . 3 9}$ | $\mathbf{1 . 0 5}$ | $\mathbf{\% 6 7 . 8 6}$ |

Table (4-4) shows the means, standard deviations and frequencies of three categories of reading practices. It is clear that the first subcategory of the strategies was dominant in the students' practices while reading. The percentages of using them were between $83.33 \%$ and $73.10 \%$, and both are considered high percentages. Initially, it seems that the majority of students attended to headings and titles when reading. Among the six used strategies, the highest mean (4.17) went to the item (No.1) "I read the heading and sub-headings of the passage first". Further, responses showed that pictures and illustrations combined to the reading were also a source of help. That is clear from the high mean of strategy (No.2)( $\mathrm{M}=$ 3.92 )"I refer to the diagrams / illustrations when they are available to help me understand the topic". Self-questioning/checking was also a present during reading, as strategy No. 4 came third in its mean ( $M=3.9$ ) "Before reading, I ask myself what I already know about the topic and predict what will come next in the passage". Strategy (No.6) mean was (3.88) "I try to figure out the meaning of new words or phrases from the context" and strategy No. 3 ( $\mathrm{M}=3.83$ ) "I try to make connection between the text that I am reading and previous knowledge / experience". However, the least attention was paid to structure and organisation
of the text as a reading technique. Therefore, responses to item (No.5) calculated the lowest mean (3.65) among the six global strategies used "I skim the text first to find out its type and the way it is organized". To sum, the means of the responses to the six items were high which suggests they were commonly used during reading.

In addition, a look at the second subscale shows the percentages and mean scores of responses on using the Support Reading Strategies. Item (No.9) "I discuss what I read with the group to check my understanding" got the highest mean (3.63) among the six supportive strategies that students adopt. The mean of item suggests that dialogue and debates on the text were found useful to arrive to common understanding of the text, give meaning to reading and confirm understanding. Strategy No. 7 ( $\mathrm{M}=3.61$ ) "I look up unknown words in the dictionary" and No. 8 ( $\mathrm{M}=3.57$ ) "I underline or circle information in the text to help me remember it" also appeared as high frequently used while reading. However, item No. 10 "I ask myself questions about the text during reading" was ( $M=3.18$ ). Still, it indicates that nearly half of students have developed self- questioning strategy of RT while reading. Strategy (No.11) "I summarize what I read to reflect on important information in the text" came with the lowest mean (3.04), among the support reading strategies which students use to overcome their reading problems. Compared to other responses, it could be considered a mediocre use of the strategy. However, according to the used scale, it still belongs to the high frequently used strategies.

The third part of the table covered the strategies that students utilized as problemsolving techniques. Foremost, the highest mean $(\mathrm{M}=3.77)$ of item (No.14) "I stop from time to time and think about what I'm reading" suggests that thinking about reading was the most frequently followed by students to check whether the text was meaningful or not. Then, the mean responses on item No. 13 ( $\mathrm{M}=3.58$ ) "When I don't understand, I keep on reading hoping for clarification further on", show that students continued reading and didn't give up when they didn't understand a certain part, hoping for understanding as they move on in the text.

Text clues and previous word knowledge were also frequently used to solve the reading problems. This idea was clear through the means of item No $18(\mathrm{M}=3.39)$ "I try to guess the meaning of unknown words or phrases when reading". The lowest mean of responses (2.15) was on item (No. 16) "I give up and stop reading when I don't understand". The item's mean indicates that low number of students quit reading when they didn't understand and continued the task. However, not a high percentage of students did this because items (No.15) "I skip words or parts I don't understand" and (No.17) "When text becomes difficult, I reread to increase my understanding" were reported of medium frequency. The two items' means were $(M=3.19)$ and $(M=3.13)$ respectively. These means show that these two strategies were not among the high frequently used. However, they mean that almost half of the students didn't get stuck when they did not figure the meaning of a word and read again to foster understanding.

In general, comparing the total score of each subcategory shows that the global reading strategies appeared first as the most frequent skills used, followed by support reading strategies and the problem- solving strategies. The comparison between the three subscales overall use appears in the following table:

Table (4-5)
Means, Standard Deviations and Percentages of Reading Strategies' Total Score

| Strategy -Subscale | Mean | Std. | Percentage | Degree |
| :--- | :---: | :---: | :---: | :---: |
|  |  | Deviation |  |  |
| Global reading strategies | 3.89 | 0.75 | $77.86 \%$ | High |
| Support reading strategies | 3.38 | 0.9 | $67.50 \%$ | Medium |
| Problem- solving strategies | 3.2 | 0.96 | $64.09 \%$ | Medium |
| Total Score of "My Reading Practices"" | 3.49 | 0.87 | $70 \%$ | High |

Table (4-5) shows a comparison of the means of each subcategory of the strategies. The three are compared in their total means, percentage and overall degree of use according to Likert scale. Global reading strategies were the most used by students with ( $\mathrm{M}=3.89$ ). The percentage of using these strategies was (77.86\%). That indicates students resorted to these general, low level cognitive or surface skills with a high degree of frequency. Support reading strategies (M-3.38) fell within a medium or moderate level of frequency. This means that learners "sometimes" made use of these strategies. The overall percentage of using them was $(67.50 \%)$, which is considered a of a medium use degree. On the contrary, problem- solving strategies came last $(M=3.2)$ with a ( $64.09 \%$ ) percentage. This pointed to a moderate use or frequency of these strategies; however, less than the supportive strategies.

To conclude, the overall mean of "The Reading Practices" part was $(\mathrm{M}=3.49)$ which falls within high degree of frequency. These statistics indicate that students in general resorted to reading strategies to a high degree. However, the highest percentage of their reading strategies went to the global strategies, followed by support reading strategies and finally to the problem solving. The subscale means and percentages showed that in spite of using reading strategies while reading English texts, their use was decreasing as the subscale was advancing.

## Students' Attitudes towards Reciprocal Teaching

Students' own perception of RT and their attitude towards reading in cooperative, heterogeneous group context was also investigated in this study. The second part of the questionnaire aimed to answer the research's fourth question to explore the experimental group's attitudes towards the learning context. Means of responses were calculated using the same key used in part one of the questionnaire, and descriptive analysis were provided through calculating the means, standard deviations and percentages of items as presented in the table below.

Table (4-6)
Descriptive Analysis of Students' Attitudes towards Reciprocal Teaching

| Item | Mean | St. <br> Deviation | Percentage | Degree |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 19 | The reading strategies I learnt in the <br> English reading lessons using the <br> Reciprocal Teaching Method can be <br> applied to other reading contexts. | $\mathbf{3 . 3 3}$ | $\mathbf{0 . 9 4}$ | $\mathbf{6 6 . 6 7 \%}$ | High |
| 20 | The summarizing strategy was very <br> helpful in understanding the passage. | $\mathbf{3 . 7 1}$ | $\mathbf{0 . 7 8}$ | $\mathbf{7 4 . 2 9 \%}$ | High |
| 21 | The predicting strategy was very helpful <br> in understanding the passage. | $\mathbf{4 . 0 4}$ | $\mathbf{0 . 6 5}$ | $\mathbf{8 0 . 7 1 \%}$ | High |
| 22 | The clarifying strategy was very helpful <br> in understanding the passage. | $\mathbf{4 . 6 9}$ | $\mathbf{0 . 5 6}$ | $\mathbf{9 3 . 8 1 \%}$ | Too high |
| 23 | The questioning strategy was very <br> helpful in understand the passage. | $\mathbf{3 . 7 1}$ | $\mathbf{1}$ | $\mathbf{7 4 . 2 9 \%}$ | High |
| 24 | Practicing reading strategies improved <br> my reading skill. | $\mathbf{3 . 7}$ | $\mathbf{0 . 7 7}$ | $\mathbf{7 4 . 0 5 \%}$ | High |
| 25 | Cooperative group work in Reciprocal <br> Teaching (RT) helped me participate in <br> the discussions. | $\mathbf{3 . 2 5}$ | $\mathbf{1}$ | $\mathbf{6 5 . 0 0 \%}$ | Medium |
| 26 | Communicative activities used in <br> Reciprocal Teaching (RT) encouraged <br> me to communicate in English. | $\mathbf{3 . 2 3}$ | $\mathbf{1 . 0 2}$ | $\mathbf{6 4 . 5 2 \%}$ | Medium |
| 27 | I didn't like group work. I prefer to read |  |  |  |  |
| quietly alone. |  |  |  |  |  |

As illustrated in table (4-6), students were asked about the most useful RT strategy among the four they practiced. Items ( $20,21,22$, and 23 ) reflected students' perception of the four strategies. The mean of Summarising Strategy was ( $M=3.71$ ), Predicting Strategy ( $\mathrm{M}=4.04$ ), Clarifying Strategy (4.69) and Questioning Strategy (3.71) respectively, as appeared in the questionnaire. It's clear that the four strategies were appealing for students to use, and their attitude towards the strategy was very positive, especially the Clarifying strategy that holds the highest mean. In fact, (4.69) is the highest mean among all the items of the questionnaire and the only item that is interpreted as "very high" compared to overall items and to the rest three RT strategies' means. That is to say students found "Clarifying" the most useful among the four strategies. Predicting and Questioning strategies came next with very close means. Summarizing was found the less helpful in supporting understanding despite that its mean is interpreted as high and that students agree that the other three strategies facilitated their understanding.

Furthermore, students were asked about their perception of RT instruction in relation to their learning, and the way RT affected their ability of reading. The statistics showed that most students agree that the reading strategies they learned this year helped them read better. This appears in the item $24(M=3.7)$ "Practicing reading strategies improved my reading skill". Students also "agree" that they can transfer the strategies to learn new texts, and that is clear in item $19(\mathrm{M}=3.33)$ "The reading strategies I learnt in the English reading lessons using the Reciprocal Teaching Method can be applied to other reading contexts". Further, students' perception of the learning settings was also questioned. Item 25 ( $\mathrm{M}=3.25$ ) "Cooperative group work in Reciprocal Teaching helped me participate in the discussions" and item 26 ( $\mathrm{M}=3.23$ ) "Communicative activities used in Reciprocal Teaching (RT) encouraged me to communicate in English" reflect that nearly half of the students agree that RT affected their ability to participate, take part in discussions and use English in their dialogues. These two means suppose that working cooperatively, using RT and engaging in
communicative activities have helped almost half of the students to participate and engage in reading discussions. Moreover, students' opinions on the context of learning, attitudes towards reading in cooperative heterogeneous groups were also covered. It is clear that students have enjoyed using RT strategies in their reading. Item 31 "Using the RT strategies in reading English made it more enjoyable" got ( $\mathrm{M}=3.27$ ), which suggests that almost half students agree they enjoyed learning using this strategy. This fact is reinforced through calculating the mean of item $30(\mathrm{M}=2.2)$ "Using the RT strategies in group work was boring", which falls within a low degree of attitude and suggests that low number of students didn't enjoy learning with RT. Item 29 ( $\mathrm{M}=3.17$ ) "Using RT strategies made me more enthusiastic in the reading class", indicates that RT has promoted enthusiasm towards reading and made the class more active when they were using the strategy. Besides, intermediate percentage of students reported that RT gave them the chance to ask for clarification when reading became complex. That was clear from the responses to item 28 ( $\mathrm{M}=3.26$ ) "Using RT strategies encouraged me to ask for clarifications". Further, item 32 ( $\mathrm{M}=3.14$ ) "I like my teacher to continue using RT method in all reading classes for the rest of the year", item 27( $\mathrm{M}=2.77$ ) "I didn't like group work. I prefer to read quietly alone" expressed that more than half students have positive attitudes towards using RT and preferred to continue their reading classes using the strategy. They believed that the strategy helped them to ask the teacher and the group about unclear points in reading and preferred to use RT technique in the reading activities for the rest of the year. On contrary to these findings, item 33 ( $\mathrm{M}=$ 2.19) "Using RT method didn't affect my reading ability", shows that high percentage of students agree that RT has positively affected their reading ability. However, the final degree of students' opinions towards the context of learning is interpreted as medium. To conclude, the highest mean was item (4.69) that indicates students made use of the clarification strategy best and the lowest mean was $(\mathrm{M}=2.2)$ "Using the RT strategies in group work was boring".

From the statistics presented above, some conclusions can be drawn. First, students have developed positive attitude towards RT and enjoyed using the strategy in reading, hoped to continue using the strategies for the rest of the year (items, $30,31,32$ ). Second, students' responses show that they have found predicting, clarifying, questioning and summarising strategies helpful in understanding the text and generating the meaning of reading. They found clarifying strategy the most helpful to them in comprehending the text. However, questioning and summarizing were the least attractive for them to use (items, 20, 21,22,23). Third, students thought that that using RT has promoted better reading skills, positively affected their ability to extend using RT to new reading context.(items 19,24,33). Students, in general, also believed the cooperative reading context gave them the chance to participate and engage better in discussions using English (items 25,26). That attitude attributes to their perception of items $(28,29)$ which indicates RT gave students the chance to ask teacher and peers for help when needed. Finally, the statistics showed that learners preferred working in groups over working individually (items $25,27,28$ ). So far, the mean of the attitude overall items was (3.43). This mean indicates a positive attitude towards reading using RT in a cooperative group context. The overall percentage of the responses was considered high ( $68.50 \%$ ). In conclusion, the findings of this questionnaire in its two parts are reinforced by the pervious findings of the tests results. As well, they will be better understood in the light of the qualitative data. The thematic analysis of the classroom interactions will help understand the spirit of learning and the patterns of relationships that dominated RT classes during the intervention period.

## Results of the Thematic Analysis on the Group Work Interactions

The final and fifth question of this research aimed to provide deeper insights into the group work dynamics and interactions. It aimed to discover the themes that ruled the group work with regard to values that students developed within their groups. The analysis also dug deep to depict students' own perception of heterogeneousness, cooperation and adaption of

RT strategies. This question was qualitatively answered through applying the Thematic Analysis (TA) to the teacher's journals. The journals were written along the period of intervention to record observations on the classroom context, interactions and the way students perceived the values of RT group work. The thematic analysis of (Brown and Clarke, 2006) model was carried out on all the qualitative data, collected by observing students during reading lessons and the teacher's field notes and observations. Six major themes appeared throughout the data. These included: Harmonious relationships, Socialization, Cooperation, Interaction, Interdependency and Motivation. The codes have been developed into subthemes and initial themes which were allocated and justified for writing the final themes. A report and description of each theme will follow with supporting evidence and examples from the journals to weave the full story of the relationships and interactions in the RT classroom.

Theme 1: "From sensitive heterogeneity to harmonious relationships at the group level"
Preparing students to work in heterogeneous relationships was a challenge at the beginning of teaching. Grouping students according to their language competence was also sensitive for both categories of students: the high competent students and the low competent students. For example, it was reported that "friends wanted to be grouped together but due to the research purposes, I distributed them according to their abilities to heterogeneous groups" and "I am still receiving complaints from some members who don't feel they want to stay in their groups". For a period of time, at the beginning, some proficient students didn't get on well with the rest of group members. They didn't take things seriously and thought they don't have to put serious effort in cooperating with their peers, "but some students who have good English competence don't participate as they should". They sometimes showed superiority to their group member, basically the less proficient ones. One of the students told the teacher: "I think we now learn better, but X in my group thinks she is perfect in English and doesn't want us to explain everything, she thinks we should hurry in doing the task and
she thinks she's perfect in English!!'". With efforts paid to promote the idea of heterogeneous groups and how this will enhance the whole class performance, positive relationships began to grow. Encouraging both types of students to be positive towards their group members and rewarding the cooperation of some groups helped much, though. For example "Harmony and friendship between the one group members were noticed to be an effective factor to scaffold low achievers skills, they were imitating their competent partners who have mastered the strategy, without feeling embarrassed and they ask for help with higher attendance". Adaptation of students to work together and accept each others as they are, worked at last, but with effort and at slow pace. "Students interact in their groups comfortably as friends now. Drilling the reading strategies each reading class made them follow the routines smoothly; they don't need much time now to prepare themselves for the class. Moreover, they scaffold each other's to be ready for their roles as predictors, clarifiers, questioners and summarizers". Finally, it is concluded that students were able to accept each other's, avoid floundering that appeared in some groups' cases at first. For some, it was a real chance to build friendships with others who didn't really know before and for others it was actually a great chance to advance their skills.

Theme 2: "Group work the route to social values"
Group work has offered a chance for students to expand their social and learning opportunities. In clarifying how group work was a chance and challenge simultaneously, many students told the teacher "I have never engaged in group work before". The picture was even worse when other students reported that even when they were in groups, they were not given any responsibilities. "When we were in a group, we were used to copy the answers from the clever girl and that's it!!", some said. The previous statements can manifest the challenge in getting the students to work in systematic groups with definite task for each member. Even structuring the groups at beginning was a challenge. Students didn't adapt to organizing and regulating themselves in neat groups within the class space. For instance, it
was reported that "It was not easy to train students how to sit in their groups and organize themselves quickly before the class started/ I used to go to the class and find them still moving here and there looking their group members and moving their chairs to join in". However, these obstacles were minimized over time. "Students now understand the meaning of working cooperatively, the group has become more stable, and students recognise their group member very well. They also use badges that hold the role of each member during that class". Beyond the values of organization and labour division, students became better aware of each others social conditions, even better understand the type of help their groups peers need. For example, "Students needed to feel closer to each other's; they suggested making same $T$-shirts for all of them. They worked actively and happily to search the net for ideas, colours and designs to make special thing, collected money and donated for those who can't pay. In two weeks, the whole classes of 11th grade were wearing the same $T$-shirt even me and that really gave us a positive feeling of being friends who have many things in common. In addition, sensitivity built on achievement differences has reduced as students recognised that group work assumed equal roles for members. In the reading class, every group member was equally charged with a task regardless to her achievement in tests. "Students feel more equal now; there are no biases against any of them based on their test grades. They understand they receive appreciation and reward according to their commitment to the cooperative task and the effort they pay". To sum up, group work was not only about improving in reading skills. It was also about developing social values such as self and group organization, commitment to group members and group tasks, in addition to appreciating others based on who they are, not on what grades they receive.

Theme 3: "Cooperation the anchor to the group's survival"
Cooperation among the group didn't automatically regulate. "It was noticed that some students especially the less competent, are still reluctant to share. Sometimes, some highachievers came to me complaining that their colleagues are not completing their tasks".

More effort was paid from the teacher to overcome this obstacle and enforce the mutual assistance between the one group members. First, more teacher intervention was paid to the ill groups. "I sat with the group as a member of them, doing the task of the low- achiever, asking her to repeat what I did". There was a need to encourage the less competent students by praising what they did in front of others. That made difference in their contribution in the group. Second, some side meetings with individuals who complained about the group's performance were needed to debug their conceptions about the group work. For example, "It took time and patience to talk to some high achievers. I wanted them to feel comfortable as possible. I needed them to understand that improving the group's performance depends highly on their cooperation with mates. These conversations helped them understand that their groups improve when they share knowledge and skills with the team instead of nagging. I notice they more now enjoy the work with others, instead of thinking of beating or excelling them". Finally, to achieve optimal collaborative performance, more effort was paid to task's administering and missions' distribution. The teacher needed to modify the way tasks are presented and distributed among group members. "I brought in the four-door chart that visualizes the four RT strategies. This will help each member of the group recognise and remember her role. I made many copies, so that students use new papers at new tasks". In addition, "every group was given four badges, holding the four strategies names. Students needed to exchange them every class in order to play all RT roles. After all, it can be concluded that cooperation between members worked very well by time. Tasks were noticed to become more automatically distributed. For example, "some less competent members were charged in using the dictionary for finding the meanings of new words. I notice they are happy to function as clarifies for students who are used to achieve higher than them". Students have qualitatively improved their shared efforts for the sake of the whole group. "I was proud to see that groups' leaders have prepared their lists of new vocabulary and distributed them among their group to confirm reading with understanding for their less
proficient mates". For example, students were noticed to "correct the inaccurate summaries of their partners". "Their cooperation is transforming the class into bees' cell. They are all busy. That showed me that students are now taking the ownership of their own learning".

## Theme 4: "Task- directed interaction has replaced the chaotic one"

Interaction among group members was high, but the teacher found that sometimes it wasn't panned or controlled. For example, "some enthusiastic readers were gushing their answers without consulting the others". At other occasion it was stated "some groups weren't that active/ Some group members didn't get on well with the rest'". That is interpreted in having hasty students who were keen to give answers, paying no attention to their roles in the group or to their turn. In the contrast, there were students who were hesitant to talk. Teacher reported she needed to make some modifications some group's structure to realize balanced interaction among them. It was stated "I added another member to the group so that the group will interact and function better. Usually the member was of intermediate level. This was found the mean of both low and high achievers. Both can find their ways to interact with her". Time was needed to make students commit to their roles in the group and better understand the needs of their less competent mates. However, things turned on much better as a result of understanding that no group member can move to the next task until others have achieved theirs. "we exchange the roles each class. When I predict about the text, another friend prepares the questions, another one uses the dictionary to tell us the meanings and a fourth one summarises. But we consult each others of course before we declare our answers". One student has told the teacher. It was also noticed that the level of interaction was decreasing or increasing following the topic of reading. Therefore, when some topics were very culturally related, students showed a high degree of interaction. It was mentioned that when the unit about global folk tales were presented, students were very attentive, active and every group's members were working hard together to produce the writing task. Every group was asked produce their folk tale, considering the elements of that type of writing. In
that regard the teacher wrote: "every group was given a story map to establish their own folk tale; they consulted me often about the logic in their stories, and then ran back to their groups to continue". On the same idea, she commented, "groups were competing in a fantastic way to give their best; they gave me more than what I asked them to do. They had made their folk tales clear by attaching pictures and illustrations of their drawings. The collective effort of the group has produced very well written tales which decorated the walls of the class".

Theme 5: "Interdependency among group members has yielded more independent readers" Despite the labour division among the one group, there were students who depend on their colleagues to explain to them what to do. It was noticed that "Students use the graphic organizers to divide the task and roles, but still we have students who depend on their group members to help them read and perform their tasks". Those were generally the very poor readers. However, some average achievers have very well improved as a result of sharing the task with other group members. For example, one student told the teacher "when I read the text at home I feel happy I understand what is written there. Because I write all the meanings and main ideas at class, I understand better when I reread". It was also found that interdependency among group members have helped less confident students to share. High and average achievers can do what the teacher couldn't do "they have succeeded to push their less proficient reading partner to overcome her shyness, stand up and read her summary. She didn't stop reading when she committed mistakes in reading". Despite having successful cases, teacher reported that some members were still encountering difficulties in acquiring the four strategies. For example "students are still facing a problem with the strategy of summarising. Some groups are still giving the role of summariser to the high achievers". In addition, mutual feeling of responsibility toward each other's has matured. Dialogue as a target of teaching found its way among group members. For instance, it was stated"sometimes I saw them in the playground gathering in a group preparing for the class
and that really gave me the ultimate happiness". Regarding the mutual sense of responsibility, the teacher wrote "good readers feel more now about the concerns and challenges "weak readers" face. They became aware of the importance of their roles as facilitators to their colleagues". It is clear that positive relationships and sharing the task has improved along the period of intervention. The teacher concluded that "learning ownership is improving. More positive behaviours are replacing the competitive feeling they used to have at the beginning". At the same time, responsibility towards each others grew. It was found that they continued scaffolding their less talented peers to give them the chance to share during the class. It was reported for example, that "when I asked groups to send one predictor to the board to write the group's predictions, I was surprised to find that most groups have delegated one of the low achievers to do the task". That implies that groups had structured dialogues prior the task to write initial predictions. It also implies that they have arrived a consensus regarding the titles and illustrations before sending one of each to write the prediction points.

Theme 6: "Motivation to read peaked when texts were non-textbook"
Motivation towards reading using RT was great. At the beginning of the intervention, the teacher used some texts from outside the text book as model to illustrate the four strategies. When she was reading and questioning her self-aloud, students were very attentive, focusing and interactive. They were answering her when she asked herself a question. She commented "Students always showed their enthusiasm when I was doing this, they even hurried to help me predict, answer questions or recall a background of a word or its meaning. They were so happy to help me understand!!'".

Motivation to learn was apparent in students' plans to change their reading habits. They desired to become better readers. For example, it was reported "some of them kept coming and telling me their plans and strategies to organise themselves and become better readers. In other occasions students came to me before the class started. They wanted to show their
preparation for the lesson. It was an effort they did at home to function higher during the class. ... of course I kept encouraging and supporting their efforts".

It was noticed that motivation towards reading has increased when students were asked to read a book from the library. Each student was given a book appropriate in level to her abilities, on a reading level from 2-5. Students were also given a reading log to write the meanings of some new words, main characters, ideas, and a summary. Students showed great interest in reading, filling the $\log$ and returning it to the teacher. To elaborate, the teacher commented "When I collected the logs for evaluation, I noticed the amount of effort done (especially by the low achievers) to complete and return them in time. This experience increased my trust in my students and their abilities. Some low-academic achievers reported to me that they were reading for long time at home to complete their logs. They were using the dictionaries to continue reading. I guess they wanted to show me they are not stupid and can function well to fill in their logs".

At the level of classroom setting, competition between groups was a motif to combine each group's efforts. Every group members wanted to show that they were the best in doing the task to receive the teacher's reward. It was stated that "students in the class are like bee cells, whispering, discussing and writing down their answers quickly. They are making use of the available time to prove their group is the best".

To summarize, the previous themes were the most standing out in the researcher's journals. These journals, as stated before, emerged from the teacher's observation of the RT class settings and contacting with individual students. They have also contained the researcher's personal reflection on the way interactions and relationships have evolved over the period of teaching.

Analysing these journals using the TA approach has demonstrated a positive trend towards cooperative group work in general.

A look at the previously stated themes has generated different conclusions. First, students were not accustomed to group work norms before. They were intact subjects who were never grouped heterogeneously to practice RT. Though, they have shown great willingness to cooperate and learn. Second, groups were dynamic structures that can be modified either in their nature or tasks to achieve optimal performance in reading. No rigid rules were applied to the group structure. Modifications were made all the time to make them function better in reading and demonstrate healthy interaction. Third, groups in general were able to accept the differences among them, adapt better social values, cooperate for the sake of whole group, and improve their positive interaction. They have also showed high motivation, shared their responsibilities and were interdependent at the group level. However, time factor was crucial for students to develop the previous themes. Students needed time, training and patience to get adapted to these values and to integrate them as bases of their reading groups.

## Conclusion

The current chapter has presented the results of data analysis. Quantitative sources included the results of a pre/post tests, five teacher designed tests and the results of the students' questionnaire. The qualitative data was represented through the thematic analysis (AT) of the teacher's journals. The independent sample T test was used to compare students' performance in the pre/post-tests. Comparing the means and standard deviations of both tests revealed that the experimental group has outperformed the control in the posttest despite having no significant differences among them in the pre-test. Further, $\eta 2$ Eta square for calculating the effect size of RT was used. Its value was (0.15) which indicates a large effect size of using this approach in promoting strategic reading. Independent sample T- test was applied again to measure the differences in the experimental group's performance in two cognitive levels in the pre and post-tests. Means and standard deviations of the tests were compared. Results revealed a difference in the post test results in both: the low- order cognitive skills and high- order cognitive skill, in favour of the post. In addition, the results of
five school tests were compared for the experimental and control groups. The independent sample T test showed no significant difference between the two groups in the first four tests. However, the experimental has outperformed the control in the fifth test. Result of the five tests also revealed a gradual advance in the both groups performance throughout the five tests. The mean scores of the experimental group were higher than those of the control group, though, didn't reach a statistical significance until the fifth test. Moreover, the results of the questionnaire was analysed to demonstrate the reading practices of the experimental group students, in addition to exploring their attitudes towards learning using the RT approach. Means, percentages and standard deviations of the subjects' responses indicated that students have resorted to a repertoire of reading strategies while reading and students had positive attitudes towards reading using RT strategies. Finally, applying the TA approach to the qualitative source of data resulted in six themes which triangulated the quantitative findings. Themes showed that students were developing positive social and learning values along the period of learning by RT and started adapting the cooperative group work values despite being novice strategic learners.

## Chapter Five

## Discussion, Implications and Recommendations

## Introduction

The dominant aim of this quasi-experimental study was to evaluate the effect of RT on the $11^{\text {th }}$ graders reading ability. RT strategies were explicitly taught prior to teaching the authentic passages of the textbook. The four strategies were verbally and directly modeled by the teacher. Then, students were guided to clarify, predict, question and summarize the reading text. Students' strategy use and their attitudes towards RT were also explored in this study. This chapter is devoted to provide a summary of the findings, an interpretation of these findings, and implications for theory and practice. Recommendations for future research are provided, as well.

## Discussion of the Results

In this section, the intervention's impact on achievement, reading strategic practices and attitudes are discussed and on the basis of the research questions in chapter one and the data analyses presented in Chapter four.

## Impact of Reciprocal Teaching on Reading Achievement

The first research question of this study investigated the impact of RT on the students' achievement in English as a foreign language. The findings in chapter four provided a statistical evidence (Table 4-1) of the positive impact of the method on the students' reading ability. The results from independent sample T-test analysis revealed that the experimental group performed significantly higher than the control group in the posttest. This statistical evidence indicated that students who received the RT training achieved higher percentage grades than those who didn't receive any strategic training. The positive impact of the RT training was also supported by the data from the pretest. The results analysis showed that the two groups were almost equivalent in their pretest results. This suggests that the two groups
were almost equal in their reading skills prior to the intervention. The findings from this study on learners' achievement are consistent with results from studies conducted by several other researchers who enquired the role of RT on enhancing the cognitive /metacognitive abilities of the learners, consequently, established the legitimacy of the approach in teaching reading (NRP, 2000). In general, these findings are in line with Palincsar and Brown's (1984), who trained students to apply the four metacognitive strategies of RT to the reading texts. Their study found the RT has enhanced the standardized reading of the students who were adequate decoders, but poor at comprehension. Their 7th graders achieved better comprehension gains, maintained the RT strategies for long time and they became more able to apply the strategies to more sophisticated texts. The findings of the current study are in the same direction of Palincsar and Brown's (1984) in its findings since the reciprocal group of this study has outperformed their mates in the non-reciprocal group and results showed that students have improved in their performance in the reading achievement as well in their application of the high order thinking skills to the texts. However, the current study has longer training duration and utilized the cooperative environment of the group work rather than the individual teaching. Further, the finding of the present study is consistent with the findings of Armbrister (2010); Dabarera et .al (2014); Hasan (2005) that applying RT to the non-native contexts enhances students' awareness of the metacognitive strategies and improves their performance in reading. These results are also in the same direction of Brow (2015); Moore \& Wilkinson (2003) in confirming the utility of strategy teaching in improving the vocabulary attainment and meaning inference abilities of the learners.

Although the results of the current study provided evidence that the experimental group surpassed their mates in the control in the posttests, the calculation of their test results shows that their performance wasn't high $(\mathrm{M}=11.42)$. Knowing that the highest mark of the test was twenty, suggests two points: first, the students were basically poor comprehenders who possess little reading strategies. Second, students became able to overcome their reading
deficits due to their use of the RT strategies. As a result, they were able to make the difference in their means in the posttest. Reciprocal Teaching as a remedial method was used with learners who were considered as low- achievers or low- comprehenders by Alfassi (1998) and McHugh (2016). Both studies reported similar results in the utility of RT in assisting less proficient student to read with meaning and in increasing the classroom interaction. Moreover, Aaron (1997) reported some studies in which poor readers who were taught metacognitive strategies have surpassed their normal mates who received traditional teaching.

The results of the first question also indicated a large effect size of the RT strategies on the experimental group. The magnitude of the mean differences of the two groups was big (eta squared 0.15) and suggested a significant impact of the method on the reciprocal subjects' reading abilities .A further analysis of the performance of the reciprocal group on the different cognitive levels revealed an upturn in their use of the high -order thinking skills in the posttest. The research best interpret this change in the strategic behavior of the learners by the explicit training of the strategies and the scaffolding provided by the teacher and the peers along the training period. When the strategies were explicitly replicated by the teacher, a bit by bit students were able to adapt them to their current competence level and started applying them to new texts. Even when students failed to apply them, the errors and trials with the teacher's and peers' scaffold helped students monitor their application of the strategies and enhanced their awareness of the strategies' use. These findings are in line with Casanave (1988); Dent \& Koenka (2015) statements that the teacher's articulation of these mental processes through guided dialogues and the think- aloud techniques, help the less proficient learners to monitor specific parts of reading and regulate their thinking. The finding that students' high order skills was enhanced is in the direction of Collins te.al (1988) statement that offering the students the chance to practice the strategies explicitly scaffolds their awareness of the strategies, helps them produce these skills and scales their strategy use
from the low order to the high order thinking skills. Similar results were reported by Palincsar, Brown \& Campione (1993) and suggested that students improve in reading when they study with RT because they are offered the chance to practice the strategies that successful readers utilize. Training the students of this study through using the explicit strategy teaching helped students observe the way the teacher thinks in her dealing with the text using the four strategies. When the teacher modeled the strategies, for a sufficient training period, students were given a good chance to imitate her behavior in questioning, predicting, summarizing or clarifying the text. The articulation of the strategies while using helped students monitor the researcher's use and internalize these processes of reading into their own behaviour. Similar results were reported by Lysynchuk, Pressley \& Vye (1990), who taught the four strategies of RT to students with reading difficulties and reported measurable gains in their standardized reading competence. They found that when the four strategies were modelled by knowledgeable person the chance increased for the students to ask questions about the strategies and about the text of reading. Consequently, along the period of training, students can internalize these strategies towards more independent cognitive/metacognitive behaviours.

Another important factor that may interpret the change in the students' high- order thinking skills is the length of the intervention period. In fact, two weeks training and three months of teaching were barely enough to make a difference in the students' strategic behavior. It was clear that students need sufficient time to replicate the teacher's method, adapt the strategies, practice them and adjust the use of each strategy. Moreover, with a sample of 84 students, the time factor was critical to spend some time with each student and observe her performance. In fact, the teaching period which was needed to make the difference the current study raises a question mark about the truthfulness of some studies which reported positive results in very short time of teaching. This finding is consistent with Raslie et.al (2015) that a sufficient duration of RT intervention, and guiding the reading
groups to share their monitoring of comprehension are crucial conditions in implementing RT with struggling reader.

However, the current research strongly attributes the positive results of the experimental group to the teaching context that accompanied the process of teaching. For example, Brown (1992) found that when learning takes place in cooperative, contextualized environments, students are more likely to activate the strategies they learnt. Practicing the strategies regulate their thinking and enhances their metacognitive abilities. However, students wouldn't be able to put these strategies into work out of social collaborative context of learning. RT intervention of the current study has provided both: The strategy training and the cooperative context necessary to articulate these strategies through interaction.

Subjects of the current study exchanged roles in leading the group, discussing and interpreting the meanings of texts, and cooperatively clarified the ambiguous words and ideas, and finally gave summaries of the basic ideas of the reading. In the heterogeneous groups, the meaning was cooperatively produced. The clarifying strategy helped the less proficient learners monitor how the meaning is produced through the shared understanding of the members. This is consistent with the finding of Lubliner (2002) that teaching children to deliberately use their memory in learning the new words of the text made the difference to their vocabulary acquisition. Instead of Lubliner (2002) concluded that teaching children to deliberately use their memory in learning the new words of the text made the difference to their vocabulary acquisition. Instead of leaving vocabulary learning to be randomly learnt through reading, clarifying was taught in the current study to help students retrieve words in a systematic learning to develop the word learning proficiency. The fact about the importance of the clarifying strategy in increasing the students awareness was confirmed by the questionnaire responses in this study. Students' responses showed that they found clarifying strategy more useful to their learning than the rest of the strategies. In addition, task distribution in the group context reduced the cognitive load that each students need to spend
when working independently and made each member purposely focus in the strategy she is using. Moreover, when the meaning is made collectively, students fill the gaps in each other's understanding. This finding is also in line with Nilsson \&Hay (2016) that students who work in group are provided a tool to encourage them talk and reveal the ambiguity of the text. Group work provides the clarification and feedback to unlock higher level potentials of thinking.

One last result of the first question is about the performance of the control group. A comparison between this group and the experimental showed that the experimental group has outperformed the control significantly in the posttest. Yet, comparing the performance of the control group in the pre and posttest revealed that the control group has also made a progress in reading along the period of teaching. This indicates that the students who learnt reading using the traditional method have also improved in their learning performance. From the researcher's perspective, the control group's subjects were taught by the same teacher of the experimental group and were exposed to the same reading content, same exercises and same tests. This clarifies the equivalent performance of the two groups in the pretest prior the intervention. In the case of this group, the necessary conditions for learning were available through the teacher's facilitating of the reading, the discussion with students and the content. Being exposed to the same content and exercises implies that students practiced some reading strategies during their reading activities and naturally with the repetitive exercise they were able to improve their performance. What was missing in the control group's case was the explicit teaching of the strategies and the cooperative context. That means that the control group's subjects possessed some cognitive /metacognitive strategies, but they were not exposed to a regular strategy training to regulate their strategy use. Moreover, the absence of the cooperative context deprived the poor readers from the cultural and social catalysts which are necessary for constructing the meaning cooperatively or the chance to acquire and
develop some of the reading habits that their mates utilize. Based on this fact, the explicit teaching of the RT strategies attributed to the difference in favor of the experimental.

## Impact of Reciprocal Teaching on Reading Progress

The second research question in this study aimed to track the progress that the two groups made over the intervention period. The findings of the five school tests revealed no significant differences between the means of the independent sample T- test until the fifth test was done. However, a significant difference in the comprehension gains appeared in the fifth test, for the interest of the experimental group (Table 3-4). Moreover, the experimental group's means continued rising from the first to the last school test. That indicates a positive effect of RT on the learners reading ability along the period of the intervention. Yet, the control group has also showed an advance in the means of the independent sample T test, but the reciprocal group's means were higher along the five tests.

Different conclusions can be drawn from these findings. First, Reciprocal teaching is a successful method in enhancing reading skills and increasing the comprehension gains. However, the results from the school tests show that RT is a time consuming method which required students a period of three months learning to show a difference in their reading performance. Such finding explains that the explicit teaching of the strategies can be fruitful with a sufficient period of teaching, especially with intact learners who haven't been exposed to strategic training before. In addition, having no difference in the performance of the two groups in the first four tests implies that RT practice was essential condition for students to adapt the strategies to their own reading behaviours and adjust the use and appropriateness of each strategy in the reading text. Students needed time to activate the strategies they learned in solving the reading problems they face and to transfer these strategies to new unfamiliar texts. The difference in the fifth reading text illustrated that practice and time factors are sensitive components for the success of any strategic training. The reciprocal group was only able to make the difference in reading performance with the intensive practice of the
strategies in a suitable learning period. That enabled the students to enernalise the strategies slowly and according to the cognitive perspective change their deliberate strategy use to the more spontaneous use. Thus, the strategic behaviour of the subjects transformed into more automatic one after a time of practice. This result implies that longer teaching period would have generated more significant difference in the two groups learning. If there were sixth or seventh tests, the reciprocal subjects would have been given extra chance to show a change in their reading abilities.

The findings of this question also showed that students were progressing in their performance from one test to the other along the five tests in both group. The researcher refers the previous result to the nature of the five tests' content. It was mentioned earlier that the five tests included the same type of questions each test. That may have helped students to retain the tests' rubrics and get familiar to the type of questions. From test to the other students recognized that questions were the same but with different reading text and that may have limited their strategy use to a set of strategies and constrained their thinking to specific areas in the text. If the researcher have used a repertoire of questions which are different from one test to the other, results may have been different. However, this finding is consistent with Rosalia (2015) that students were progressing in their reading achievement from one test to the other along three successive tests in reading comprehension. In addition, the higher means of the reciprocal group and the significant difference in their fifth test provides evidence that RT has the power to skill students with reading techniques which enable them progress in their reading performance.

Second, a comparison of the students' performance in the standardised pre/post-tests and the school tests shows that the students' performance was more apparent and significant than their performance in the teacher- designed tests. There are various factors that may justify such results. For example, (a) the lack of same level texts' difficulty, (b) the nature of required responses and (c) the quality of the texts in the teacher designed tests may have
contributed to the absence of difference at first. It was impossible to include texts of the exact difficulty level throughout the five tests. Further, the responses required in the teacher designed tests were open answers. Students needed to read and write the answers they find suitable. Moreover, the tests included a variety of expository and narrative texts. This was contrary to the questions in the pre/post tests which required closed responses and provided four multiple choices for each question. This type may have been easier for students since it provides limited choices. Students in this case can make proximities to the text for choosing the best answer. Moreover, the three texts which were included in the pre/posttest were all of expository type. The current findings coincided with Leung's (2005) who declared that maintaining the same text level was not possible throughout all the tests. Further, he added, students' gains in the expository texts were higher than those in the narratives. In contrast to results of question two, the findings of Alfassi (1998) have revealed a significant difference in the reading gains when students did the teacher's designed tests; whereas, no significant differences were reported when they did the standardised test. The nature of the texts in the two types of tests could highly contribute to the results of both. Alfassi's designed tests included only expository texts, while the standardized tests have only included narrative texts. The current research school tests incorporated both. It seems that narrative texts hold higher challenges to the readers since they require higher attendance of imagination and critical thinking. Further, narrative texts require digging the hidden meanings of reading rather than the surface one or facts like the expository ones. Finally, Pearson \& Dole (1987) have discussed the centrality of content in some texts over the successful application of the strategies. That is to say, some social or scientific texts emplace making meaning on reader's previous knowledge and the ability to use linguistic clues. If these were unfamiliar to the reader, strategies will find little space to work.

Students' varied performance in the school tests and the standardised tests was justified by Raslie, Mikeng \& Ting (2015) who stated that RT has proved its potential in
scaffolding students who are reading expository texts. Whereas, the effectiveness of RT in improving students' comprehension of narrative texts is very little explored. However, the researcher tends more to the opinion that the issue is not only about the texts' type. It is more about the degree students have developed independent reading practices. In non -test situations, less proficient readers receive teacher's scaffold, group's assistance and they have the chance to think aloud and receive corrections from the group members. Students may also get help from their more proficient peers in doing the task. In the test, these reading facilities are not available, thus, students who are accustomed to receive guidance may fail to make meaning independently. Adkins (2005) stated that students will succeed in applying the strategies depending on the degree of expertise the have developed. Most probably, when they got stuck at the word level, they forget to apply the reading strategies or fail to do so. This opinion was discussed by many researchers such as, Bruce \& Robinson (1999); Fevre et al (2003) and Wagar (2008). RT relates the comprehension outcomes to the teacher's gradual guidance. However, no studies were really found that examines the differences in performance with guidance and after the guidance is withdrawn.

Third, the results showed that the mean scores of the experimental group results in the five school tests were gradually rising. This shows that the gains in comprehension were growing even if no differences were found between them and the control group's means in the first four. Palincsar \& Brown (1984) imputed the improvement in achievement to the improvement in learning the RT skills. Students progress in reading as a result of the gradual internalisation of these behaviours in reading. The contextual support provided by the teacher in the process of teaching provides the learners with a chance to receive help, think cooperatively for meaning, and receive feedback, until they become able to independently apply the skills in the school tests. These statements strongly justify why students of the current study didn't make differences at the beginning, and then outperformed their mates in the control group in the fifth test. This statement also supposes that if the experimental group
of this study has continued studying with RT for longer time and was given more tests; their chances of excelling the control group would have been increased. RT is a time consuming method in which intervention period is critical in scaffolding students' strategic ability. Raslie et al (2015), for example, concluded that a sufficient duration of RT intervention and patient guidance of the teacher are crucial conditions in implementing RT, particularly with struggling reader. Likewise, based on the declaration of Palincsar \& Brown (1984), it can be concluded that the longer time students are given to practice the RT dialogues in reading, the more they will be able to internalize and transfer these skills to new reading texts. What adds more to this justification is that the students of the current study were of intact category who didn't receive RT or other strategic training before. Moreover, in more than one question, students were asked to make inferences from the reading. That task may have been complicated one, especially at the beginning when they were just novices in practicing RT strategies. Making inferences is to a high degree depending on activating previous knowledge about the topic, which not many students may possess. Sometimes, even when students have previous knowledge about the topic, they can't apply appropriately in new reading situations. Reutzel \& Hollingsworth (1988) concluded that students fail to make inferences when they have little or no previous knowledge about the topic or when they lack the fundamental strategic ability to attend or analyse relevant information. Hartman (2001) assumed that students need to find cultural, conditional or contextual connections to the text in order to activate the strategies they learnt. The lack of these catalysts leads to a failure in applying the strategies. In such case, strategies will not work properly in regulating thinking.

## The Impact of Reciprocal Reading on Student's Strategy Use

The descriptive analysis of the data on the first part of the questionnaire revealed that students have utilized the reading strategies during reading to a high degree. The reading strategies were utilized to high percentage ( $70 \%$ ), with a mean score of (3.49), which considered high degree of use. However, the findings also revealed some inconsistencies in
their use. The current study's findings were in accordance with Mokhtari \& Reichard (2002). It illustrated that as the strategy becomes more lexically, contextually and cognitively demanding, its use decreases. That's to say the mean scores of each subscale shows that students' were decreasing in their use as the subscale was advancing. That justifies why the global strategies got the highest mean (3.89), while the problem solving got the lowest (M=3.2). Among the most successfully implemented strategies students have followed, for example, reading the titles and subtitles of the text to help them predict the content. Moreover, students made use of the pictures and illustrations attached to the text to gain more on the topic. They asked themselves questions before reading to make more predictions on the text and activated their previous knowledge to connect the current text to their existing experience and tried to understand the meaning contextually before resorting to the dictionary. Moreover, students paid attention to the text organisation through skimming and scanning the text before reading.

The high mean score of the previous mentioned practices shows that Global reading strategies were the most used by students with $(M=3.89)$. This suggests that students have successfully activated these strategies, mostly as pre reading practices. Students made use of the text's clues like titles, illustrations and organization to illuminate their reading as they go deeper in the text. They have also tried to make connections to their previous knowledge on the topic. Resorting to these strategies gave them the chance to check their predictions when they read and discuss the meaning. The high degree of turning to this type of strategies was best justified by Gomez \& Lopez (2012). In their study, they explained why global strategies come first. Global strategies refer to the understanding the text at macro level. Students need to put together cut pieces of text's information before they are required to cut the appropriate information pieces out of the text. Thus, global strategies provide students with chance to build mental representations of the text through title, illustrations and main ideas, and offer
basic awareness of how these pieces fit together before asking them to produce the pieces themselves.

The statistics have also provided an evidence that students have frequently turned to the supportive strategies ( $\mathrm{m}=3.38$ ), when the text complicated. Supportive strategies are the tactics or tools that readers use to break and facilitate the text for making understanding. It is clear from the data that students have depended to a high degree on finding the dictionary meaning of the difficult words. They underlined or circled information in the text to help them remember it. In addition, students fostered their understanding through discussing the text with group members, asking questions on the text, and summarizing the main ideas. Finally, students tried to find relationships among ideas through reading back and forth in the text.

Concerning the strategies that students utilized as problem- solving techniques, the data suggests that these were the least circulated. However, some items were reported of high means, which indicates they were successfully implemented by the majority. Foremost, students positively responded that they stop from time to time and think about what they are reading. That suggests that thinking about reading was the most frequently followed by students to check whether the text was meaningful or not (item 14). Further, it suggests that students didn't only depend on negotiating the meaning, but also turned to their individual appreciation of the text. They controlled their comprehension through stopping for making sense and then continued reading. Then, students declared that they don't quit reading when they don't understand. This was an indicator that they kept on reading and didn't give up when they didn't understand a certain part, hoping for understanding as they move on in the text. Text clues and previous word knowledge were also frequently used to solve the reading problems. Students also tried to guess the meaning of unknown words or phrases when reading. This indicates they counseled their previous vocabulary knowledge. It means they tried to retrieve the word history or tried to manipulate the meaning for understanding.

However, this result is inconsistent with (item 7) which showed that students have resorted to the dictionary to a high degree to look up the meanings of new words $(M=3.61)$.

Responses also showed that students didn't give up or stop reading when they didn't understand. The item's mean indicates that low number of students quit reading when they didn't understand and they continued the task. It illustrates that students were motivated to read, they didn't quit reading easily during RT classes. To increase their understanding, students also reported that they read over again and again when the text complicates. Moreover, to keep on with reading, they responded that they skip parts or words they don't understand. The medium means of the latter two items suggests that almost more than half of the students didn't get stuck when they did not figure the meaning of a word and read again to foster understanding. On the other hand, this apparently shows that there is a percent of students who didn't skip the word level domain and got stuck when they didn't figure the meaning of a word.

Despite that, it can be concluded that the overall strategy use of students was high. $70 \%$ of the responses on the reading practices indicated that RT cooperative groups were successful in promoting strategy use while reading. The research attributes the positive outcome in implementing reading strategies to the teaching method. It is thought that activating RT in cooperative multi- levels groups had a positive impact on promoting these strategies among students while reading. These findings were found consistent with a huge body of research on strategy instruction. For instance, Tajalli \& Satari (2013) encouraged teachers to teach reading strategies in EFL. Training students to these strategies improves their language learning. Once they become familiar with these techniques, they will have a repertoire of cognitive options to select from and apply to the reading problems. Leanne, (2003); Palincsar \& Brown (1984) stated that reading strategies promote reading as students turn on to them to make meaning of what they read. Moreover, the positive impact of learning reading strategies is the way to teaching thinking, according to (Adkins,2005). When
students learn these strategies they will able to use them to solve problems in other areas of thinking (Oxford, 1990). However, some strategy based instruction methods were found more useful than others in promoting thinking and fostering comprehension. RT is among the top methods that were reported as superior in teaching reading strategies due to its dialogic nature (Palincsar et al, 1991). Among several strategy instruction methods that Davis (2010) investigated, he reported that very few other approaches appeared to be equal or more effective than RT at enhancing comprehension achievement. The success of the method to promote strategic reading is justified with the following facts. First, RT is enables students to mature in their strategy use through the social interaction. When they discuss and think aloud, they are offered the chance to regulate their thinking, thus, their cognitive abilities grow through meaningful learning (Cohen \& Lotan, 2014). Second, RT strategies provide students with systematic cyclic structure for learning the strategies. That is when one student fails to make a summary of a paragraph; the remedial action of scaffold is offered to her and then gradually fades as she improves (Brown, 1992). Moreover, the research justifies students' progress in applying the reading strategies to explicit teaching of the strategies prior teaching. It was mentioned that the teacher has trained students to RT strategies explicitly two weeks before actual teaching started. During this period students got familiar with the four strategies and how to apply them during reading. However, teacher's guidance and peers assistance continued available during the teaching period. In fact, the findings of question number three are found in line with the findings of big number of studies, which established the effectiveness of teaching reading strategies for promoting comprehension. For example, Armbrister (2010); Bilgi \& Ozmen (2014); Bruce \& Robinson (1999); Casanave (1988); Dabarera et al (2014); Davis (2010); Griffiths \& Oxford (2014); Lestari (2016); Palincsar (2012); Palincsar \& Brown (1984); Pesa \& Somers (2007); Wagar (2007) and others.

To sum up, subjects of this study were able to apply reading comprehension strategies to a high degree during their reading tasks. Students reported positive responses regarding
using reading strategies. The mostly used strategies were the global strategies, followed by reading support and finally problem solving strategies. In general, the high frequency of using the strategies reflects that the students found them useful in monitoring understanding and fostering comprehension.

## Students' Attitudes towards Reciprocal Teaching in a Cooperative Context

To answer the fourth question of the study, the second part of the questionnaire was analysed using the statistical analysis. The descriptive analysis of the responses revealed that students hold positive attitudes towards learning reading comprehension using RT technique, aided by cooperative heterogeneous groups. First, students considered the four strategies useful in facilitating reading comprehension. However, comparing the mean scores of responses on the four RT strategies indicates that $93.81 \%$ of responses "strongly agreed" that clarifying helped them the most to understand the text. Then, they agreed that predicting and clarifying have helped them understand better. Lastly, came summarising as useful strategy in increasing the gains in comprehension. Despite receiving the least positive responses, the mean score of the strategy was still high (3.71), thus indicating its usefulness in understanding the text. These findings are consistent with the statement of Adkins (2005) that students develop positive attitudes toward learning as result of learning the strategies. When students are explicitly guided to these strategies before reading, they are equipped with tools to navigate the text with meaning, thus, reducing the cognitive load of the text (Chou \& Chan, 2016). Moreover, RT strategies are considered comprehension fostering and monitoring fostering. Therefore, when students become more controlling of the process and self, their perception of their learning enhances and they develop more positive attitudes. Adkins (2005) was in favour of teaching RT as it promotes self- regulation through the natural dialogue in practicing summarizing, predicting or questioning. In this study, clarifying was found the most beneficial strategy for fostering understanding and summarising was found difficult strategy to practice. This finding coincides with the results of many researches
in strategy teaching field. For instance, this was consistence with Lestari (2016) who concluded that clarifying provides learners with opportunities to interact and construct the meaning cooperatively. Which more, clarifying provides other peers help in making logical inferences, finding the meaning of difficult words and explaining the difficult ideas. That may create an encouraging environment especially for the poor readers. When it comes to summarising or retelling the idea, students are challenged in their vocabulary store and their ability to write coherent paragraph. Summarising is considered challenging to poor readers, regardless to the teaching method implemented. This was also fostered by the findings of Murray (2010) who stated that students' reading achievement affected their ability to determine the main idea. The high-level readers were significantly found stronger in identifying the main idea in a reading. In contrast, low-level readers are stronger in problem identification than the high-level readers. Students of Komariah et.al (2015) preferred predicting and questioning. Yet, summarizing was found challenging to them. Questioning according to Ciullo \& Billingsley (2013) is a fundamental strategy of comprehension monitoring, keeping students on task and increasing the chances of correct responses.

Further, the statistics showed that students reported that RT assisted them to read better and that the strategies they learnt can be applied to other reading texts items. In addition, most responses showed positive perception of the learning context. They thought that RT gave them the chance to participate in the English class and that the cooperative activities offered them the chance to engage in groups discussions. Students also reported that RT group work gave them the chance to ask for clarification to foster their understanding and wished that the teacher would continue using this approach for the rest of the school year. Regarding their feeling towards their learning, responses revealed that more than the half preferred group wok to individual work (55.48\%) and that RT made them enjoy reading classes better. In general, students found that RT and group work have promoted enthusiasm to learning, gave the chance for higher engagement and made learning more enjoyable.

This positive affective impact of RT is found consistent with Lestari (2016) who stated that when students hold positive attitude towards RT, they enjoy the reading class. Students develop these attitudes when they become sure that group' interaction will provide a context for better understanding, especially that they receive help and clarification from their mates to foster their comprehension. Group's discussion helped students reach their goals and expand their knowledge on the topic of reading. This, in turn, will positively influence their reading achievement. When they notice, they have benefited from working in RT groups; they become more enthusiastic and will not feel bored during the class. The current research strongly justifies the positive impact of RT on students' attitude to the supportive learning context it provided. Group work and RT roles have systematically engaged all students in a meaningful learning. This involved all students in tasks for constructing the meaning of the reading cooperatively. Less proficient readers, who seldom or never were charged with real roles in class, were given the role to work as group predictor, summariser, questioner or predictor at each class. Despite the fact that they were receiving the help of the teacher and mates, this has inevitably enhanced their self-perception as important elements of the process of learning. Their engagement created a feeling of equality among high and low achievers. This made students realize the only way to receive teachers reward is to cooperate. OstovarNamaghi \& Shahhosseini (2011) believed that "regardless of a student s' perceived ability or level of intelligence, the teacher assumes that the student is capable and will eventually be able to accomplish the task as an expert would" (p.1239). Moreover, less proficient readers will be given the chance to mix with more proficient reads and benefit from their use of high thinking reading skill. This was supported by the finding of Chang (2011). Pairing abilities empowers them to go beyond their primary strategies (word decoding, vocabulary identification) into practicing high order reading strategies like predicting and forming questions. When struggling students find that interaction has increased their comprehension outcomes, their attitudes towards learning naturally nurture. Finally, less proficient students'
attitudes are likely to improve as they are taught what they lack for reading: the strategies. RT explicitly teaches less proficient readers what good readers implicitly use while reading. Thus, prepares them with the theoretical bases to equally interact in their groups (Palincsar et. al, 1991)

## Leading Themes in the Cooperative Reciprocal Learning Groups

To note the relationships, interactions and the progress within the group, it was necessary for the teacher to record her observations in a journal. These journals were analysed using the thematic analysis approach (AT) and produced six leading themes on the types of interactions that dominated the RT context and how they evolved over the period of intervention. Cohen \& Lotan (2014) clarified that this observation is very necessary for teachers not to fall in troubles when working with the groups. Through noting groups' behaviours, teacher can detect any undesirable actions, dominations or attitude and make her decisions regarding the group formation. The following few pages will try to give an explanation of each of the six themes as appeared in the final report in chapter four in consistence with the conceptual framework of this research.

## Theme (1): Heterogeneous group formation.

Heterogeneous relationships were established in each group and produced positive impact on students' achievement in the first place. It also affected students' acceptance to differences among them and granted them the chance to exchange different experiences. Jacobs et al (1997) recommended heterogeneous groups when teachers want to promote peer tutoring or second language use. The results in chapter four showed that mixing students according to their achievement was not easily accepted by them, but succeeded at last. In fact, grouping students in heterogeneous or homogeneous groups is still a controversial issue (Palincsar et.al, 1991). There is no evidence, though, that grouping students in homogenous groups is effective (Cohen \& Lotan, 2014). However, for pedagogical considerations, each group was organized to have high, middle and low proficient abilities. The challenge of not
easily accepting the differences was taken in consideration by the teacher. The subjects of the research were intact students who are not accustomed to work in groups or to work with others who don't basically have social contact with. It was their first real experience to serious grouping and RT classes. Before that, group work to them meant non-systematic gathering to do a task, during which, usually less proficient readers often copied the answers from more proficient ones. This was made clear by Cohen \& Press (2015). Students may assume status orders in their relationships, based on their competence, social status, gender ...etc. For teachers to hinder that hierarchy grow in the classroom groups; they need to encourage positive social relationships and reinforce new behaviours. Results in this regard show that big efforts were made to encourage social skills and help students consider each other's differences. However, RT's different roles offered a successful natural chance for different abilities to interact. Some students in the groups were great in brainstorming and recalling previous knowledge, others were good in clarifying as a result of their vocabulary knowledge, and other students were also good in writing questions or summarizing. The diversity of roles of RT helped the learning process to assume different roles for learners as they participate in their groups. This finding was supported by Palincsar et al (1991) findings regarding RT context. They found that RT promotes heterogeneity due to its diversity in the instruction levels. Learners assume different learning roles as predictors, clarifiers, questioners and summarisers, which definitely suppose different cognitive demands each time. Moreover, students of the current research were mixed to realise better engagement of low proficient students. When these students are engaged in dialogues, their learning experience increases. When they interact with high achieving ones, their higher- order thinking skills are positively affected. A strong correlation between heterogeneity and boosting higher thinking abilities was supported by Cohen et al (2004). She concluded that mixing high and low achievers can certainly enhance the high order thinking abilities of the low achievers. This finding was also assisted by the results of the pre/post-tests. The results
suggested a significant difference in the results of the experimental group in their performance in the high cognitive level skills. Cohen \& Laton (2014) commented that mixed groups had registered better comprehension gains in several standardized tests. They explained that learners benefit more in heterogeneous groups because they serve as academic and linguistic resources for each other's. For example, those proficient in reading can read the instructions for others, the other members may work to suggest solutions. Less proficient readers, as a result of interaction, can diagnose what still makes a problem for them and ask for further explanation. Moreover, according to Cohen \& Laton (2014) traditional classes have the problem of status. In these classes, proficient readers are given the chance to participate more and consequently increase their achievement status. Less proficient readers talk less and get less academic rank. Working in heterogeneous groups, thus, increased the chance of equal chances of participation, based on administered tasks and roles. Working in heterogeneous groups made students and teacher also discover the ignored abilities of many class members. When proficient readers started to read, several times there were comments, from those assumed less proficient, which contributed to solve the problem of the task and made them receive better appreciation from their mates. Hence, every member in the group found the contributions made by others useful in completing the missing part in their understanding.

## Theme (2) Developing Social Values in Groups

Coding the data has given a strong indication to the idea of socialization. Students have developed more positive social attitudes toward each others. Group work offered them the chance to socialise with students in their class who they didn't know before. Through groups, they became more considerate to the differences in abilities and social backgrounds of their group's members. It is worth mentioning that the school only teaches $11^{\text {th }}$ and $12^{\text {th }}$ grades. That is why $11^{\text {th }}$ graders are considered new comers and in this class they are in their first year at school. They also come from different public and private schools, city, refugee
camps or rural areas. They are also diverse in their language achievement. Mixing them in groups resulted in two positive ideas. On the one hand, it was a chance for them to introduce to each other's, make new friends and experiences. Second, it was a chance to limit making "coalitions" based on the previously mentioned backgrounds. Mixing students according to achievement may also have held some bias also, but definitely, it was better than leaving students choose their group members based on their socioeconomic relationships or other considerations. At the end, they discovered it was not bad and it has extended their friendships and their learning experience. Moreover, grouping students that way, offered more equal chances to everyone to share and learn. Feeling of equity is considered a vital condition for building self-confidence and increasing motivation to learning. In addition, groups have set students to work cooperatively based on one fact: achieving the task. This gave them the feeling they are a team of different abilities but at the same time of same aim and rights. Cohen, Brody \& Sapon-Shevin (2004) summarised the social values that this type of leaning holds in encouraging the mutual respect among learners. They become more considerate to the different abilities, values, talents and social background every student has. In this learning environment, the group becomes familiar with each individual's strength and needs. More importantly, the rule for deciding who is the smartest is intercepted because the group understands that their success depends on the final product of the task, not on the individual answers. To conclude, this research has found that group work has promoted positive social values among students. It was successful in bringing students to work together and consider the different abilities. Definitely it has succeeded to limit the prejudices among them.

## Theme (3) Cooperation as Learning Drive

Analysing the third theme in the data showed that cooperation in the groups grew over the period of intervention and was productive in achievement and participation. Consistent with questionnaire's results, students found cooperation in small groups useful in increasing
their learning gains. However, the results indicate that for cooperative groups to succeed two important conditions were taken into consideration. First, teacher's scaffold was essential in encouraging students to the cooperative work values and monitoring the relationships at the group level. Teacher's role in organizing and monitoring the groups was found consistent with Roger \& Johnson (1994). They declared different roles for the teacher in processing the group including : promoting good working relationships among members, facilitating group's task the learning of cooperative skills, giving feedback on their participation and reinforcing the positive behaviors of group members. Second, teacher's scaffold was needed to support the less competent students' strategy use and interaction. There were many less proficient students who have already developed several reading strategies but apply them wrongly. Those students didn't regulate their strategy use and needed a lot of scaffold to function better in their tasks. Several tools were used to help students regulate their thinking at the cognitive/metacognitive level. Graphic organisers such as four-door chart were used to clarify the RT strategies in one sheet to make it easier for them to fill in as they read. RT worksheets were also used. Feedback was instantly provided. In addition, cards that hold the four strategies names were available for each group to assign roles among them each reading class. The previous scaffolds were recommended by several researchers to control the groups and increase interaction during group work (Laton \& Cohen, 2014; Oczkus, 2010; Rasinski \& International Reading Association, 2000).

Analysing how the cooperative relationships among the group evolved showed that (1) group's scaffolding and processing were key elements in regulating and encouraging cooperative practices among the group. McCafferty et al (2006) referred to this as organizing the social context of the learners.(2) administering definite tasks is vital for group work to succeed. RT has helped to distribute roles among the group members. Each member represented one strategy and talked about during reading. Though students worked together to make summary, for example, one group member was officially responsible to tell the rest
of the class the summary they made. That was true regarding the other strategies. Dividing the whole comprehension task into sub sequential small skills rather than separate subskills is unique feature of RT strategy according to Pearson \& Dole (1987) who believed that when each subskill is performed the whole task is being performed in a different way. This type of group labour was supported by Cohen \& Laton (2014) who considered the clearly assigned working task a key condition for the group's success. (3) Students of this research succeeded in developing good cooperative behaviour taking in consideration they are novice in the approach. Good achievers scaffolded and helped their group mates and showed high responsibility towards their mates. Less competent learners made big efforts to hold their responsibilities and perform their roles in the reading task. (5) Cooperative work in this research reduced the social and cognitive burdens which are usually imposed on the poor readers. They were guided by the teacher and supported by their peers. In addition, it was easier for them to understand through their interaction with different abilities in their groups. This finding relate to what Brown \& Palincsar (1989) stated regarding RT potential. The method facilitates comprehension since meaning is constructed through cooperative effort and at different cognitive levels. RT, according to them, provides novice learners with the chance to practice their raw skills. In addition, less proficient readers will not feel left because comprehension is viewed as a collective responsibility and not theirs alone to struggle with (Doganay \& Ozmen, 2014). (6) Social interactive with group members helped students enhance their metacognitive awareness through imitating the explicit reading strategies of teacher and group members. This finding was fostered by De Backer et al (2015) that during collaborative learning, students monitor their own cognition and observe the strategic behaviours of their peers. Thus, when students become cognitively challenged by peers through clarifying, questioning or predicting, the chances of regulating their monitoring skills and cognitive regulation increase. In the same regard, Chang (2011) clarified that struggling readers may have acquired a repertoire of reading strategies, however, fails to use
them appropriately to draw inferences. Strategic teaching was proved to regulate the strategy use of struggling readers. Metacognition abilities of this research subjects' may have developed as a result of drilling with RT strategies, verbalizing the appropriate strategy when reading, and observing the strategic behaviour so called good readers. Above all, in these cooperative groups, students were provided with the opportunity to check and adjust the strategic plan with peers. Achieving understanding gave all the members of the group the chance to participate equally in the class.

## Theme (4): The Relation between Interaction and Organization

It was found that students' interaction should be organized and not left to be spontaneous. Basically, the purpose of grouping students was to give roles to everyone of then and engaging the poor achievers in tasks. There will be no meaning of group work if high achievers continue rushing their answers without consulting the group members and working cooperatively to achieve the task. Groups became more active and organized when chemistry was higher between group members. Using RT helped organize students' at two levels. First, RT is self-regulating method. Hence, practicing the four strategies, helped students of all levels to plan and regulate their strategy use (Bilgi \& Ozmen,2014). Second, RT is a procedural strategy; it is operated through giving roles to learners. The group of four has four tasks to perform in order to reach their final production (Palincsar \& Brown,1983). Therefore, it can be confirmed that RT has brought order to students' work settings at the personal and social levels .It doesn't lean on the incidental responses of members. Rather, it builds on the cooperative engineering of meaning among the group, as well as declaring the answer is based on the group's consensus. Brown (1992) has concluded that RT is used to contextualize the learning setting, promote collaboration and regulate cognition. According to her experience, when students work with definite task for each member, every student becomes expert in his subtopic and owns part of the knowledge needed to complete the missing parts his colleagues need. Sharing information with the group, everyone has
informative part that the others need to complete their knowledge on the topic. In this research, RT and cooperative learning has helped regulate and shape the context of learning, consequently, resulted in greater interaction, engagement and better group's organisation. The findings show that groups in this research were progressing in their organisation, cooperation and their interaction was taking more systematic way due to the strategy use. Inevitably, RT in its own has helped bring order among group members, who by the time became more familiar with the strategies. This helped them divide the tasks among the group more automatically, and work cooperatively for the final outcomes. Exchanging the roles of predictor, questioner, clarifier and summariser anticipated highly in labour division and cooperation on one hand. On the other, it apparently gave equal opportunities to members of all achieving levels take parts in their groups.

However, two factors were discovered to affect the levels of interaction among the group. Task design and task type. When tasks are well designed to address all the cognitive levels, students are better engaged and become more committed towards the task and the group. Varying the task level's made each student feel she needs to adhere to her role since it is fundamental in completing her mates' understanding. This was found of great effect on dividing the labour and promoting serious cooperation among members. These results were in harmony with Herrenkohl (2006) regarding the cooperative reciprocal learning. The explicit practice of the procedures within small groups promotes labour division and the feeling of equality. When roles shift every day, students are more likely to do several tasks and this promotes equity among them. Assuming different roles in their groups, students perform unique social and cognitive roles every reading period. Moreover, taking turns in leading the group's discussions fosters the social and intellectual roles of the learners. The second factor that affected students' cooperation and interaction was the types of texts used for reading. When texts are more culturally and socially related, students' interaction and adherence to task increased. Ciullo \& Billingsley (2013) stated that using the reading
strategies for regulating reading is hindered when the text is challenging in its readability level, contains many new vocabularies or doesn't relate to student's previous knowledge. Alfassi (1998) has confirmed on presenting materials that intersects with students' prior experience. Wagar (2008) stated that struggling comprehenders need to be given questions that build on previous knowledge and experience. Moreover, these texts need to be meaningful to students and delivered in context. Likewise, Palincsar \& Klenk (1992) have used in their assessment texts that hold similar themes to ones taught at class in order to assess students's ability to build analogies to the texts based on previous knowledge. Moreover, Spörer \& Brunstein (2009) clarified that students better regulate in their work when the first step is correct. That is when the prediction phase is correct; students continue the second step on generating questions and summarising. The role of the text was also highlighted in the findings of Palincsar et. al (1991) as a critical component of the learning outcomes. In the current study, groups showed higher task organisation when topics of reading were appealing to students and held similarities to their previous knowledge or cultural orientations. To sum up, cooperative learning with RT was able to regulate students thinking, and regulate their group relationships under the conditions of appropriate task and appropriate text.

## Theme (5): Group's Interdependency Established in Reciprocal Teaching Groups

The fifth theme in this research reveals that students have developed a sense of responsibility towards each other's and a mutual support was established among them at the academic and personal levels. These results correspond to the statement of Johnson, \& Johnson (2002) that cooperative groups promote greater personal and task support among members. Mutual cooperation and social accountability have grown among group's members. They became more socially and cognitively dependent on each other's. Johnson \& Johnson (2002, 2009) confirmed that shared goals and resources in the group create a positive interdependence. It is a situation by which students work together to increase the learning of
every member, offer mutual support and celebrate the team success. A strong correlation can be drawn between developing positive communicative skills and the teaching method. RT has offered students with the necessary tools to interact and cooperate. First, RT is a social learning method. It has provided teachers' and peers' support where needed. Thus, less proficient readers became more interactive and involved when social support was assured. When teacher and peers model the strategies, and explicitly show their problem- solving techniques, struggling readers are more likely to integrate and use them. RT, in this sense, has scaffolded students' ability to function more actively in their groups (Palincsar 2013; Trif , 2015). Second, RT has contextualised students' interaction due to its dialogic nature. Results showed that dialogue and negotiating meaning had had positive results on high and low achievers in the groups. When the mental processes are verbalized through discussing the meaning, student monitors his and others strategic thinking. This provided the chance for students to provide feedback within the group, allowing more corrective steps in their reading. According to Kucan \& Beck (1997) findings, RT's thinking aloud increases student's social interaction through the collaborative discussion to construct meaning. Tarchi \& Pinto (2016) confirmed that students develop cognitive, affective and regulative behaviours when they receive training on them and when they are provided the context to practice them.

Moreover, developing social accountability within the group had positive impact on students of all levels. Struggling readers were supported and cared for. They had roles in their groups. Even if the task was not a complex one, it was a strong indication that they were gaining status in the group (Cohen \& Laton, 2014), interacting with peers and regulating their skills' use. This was also an indication that groups were replacing the competitive spirit with the team spirit. For example, challenged readers were given the role of presenting the predicting or summary of reading to the class. It is known to the teacher that this was the summative effort of the whole group and not their personal achievement. However,
struggling readers were encouraged by teacher and peers to stand and read aloud the reading summary. The role of reporter who presents the group work to the entire class, was considered a difficult work by Herrenkohl (2006) who confirmed that exchanging roles in the group ensures the feeling of equity and help learners adapt scientific behaviours. In addition, intermediate achievers were improving fast due to receiving scaffold and working in teams. Situating them in groups, offered them the chance to practice the strategies while reading, compare their performance with the lower and higher achievers, consequently enhanced their strategy use and regulation. However, Palincsar (1986) stated that RT roles were better played and strategies were better interchanged when group members were of intermediate level of proficiency neither high nor low achievers. Results also reveal that high achievers were enjoying the group work and celebrating the success of their peers. In fact, in most groups, high achievers have shown commitment to their groups and supported their mates socially and intellectually. Group work has helped them practice RT strategies and diagnose what they needed to learn for better reading. At the social level, they were making new friends and better appreciating the needs of the less proficient readers. Jacobs et. al (1997) clarified that the gains that high achievers make through group work are more affective and social such as the feeling of belonging, friendship and contribution to the group's success.

## Theme (6): Motivation to Read Maximized under Certain Conditions

Results show that the cooperative context has affectively influenced students' aptitude. The context of RT daily activities, the social influence of the group and the teacher's expectations from the group were in fact extrinsic motifs. However, when members started to realise that working cooperatively had individually affected their performance and their social status, it is thought that a motivation of intrinsic type began to urge them work.

Motivation to read and use RT strategies was manifested in various forms. For example, (a) showing up full attendance to the explicit teaching of the strategies, (b) enthusiasm in imitating the teacher's procedures of RT prior teaching the book's texts,
commitment to the roles students were given in their groups, (c) cooperation with other group's members, (d) perseverance to understand, (e) developing some good reading habits( checking the dictionary continuously), (f) preparation for the class, (g) checking reading comprehension with teacher and peers before or after the class.

The findings also show that students' motivation to read was maximized when cooperative work was rewarded and when the texts of reading were of their own choice. This is consistent with Johnson \& Johnson (2009) declaration that positive goal interdependence is enough for increasing the comprehension input; however, combining the goal with rewards maximizes the achievement and productivity. Cheng et al (2008) considered group rewards and praise a basic component of group work which leads to higher motivation and achievement. Praising the group performance creates a type of group norms which encourage performance. That means members support each other's success to increase their portion of reward. Jacobs et al (1997) commented that students' motivation increases when they act as mutual resources to reinforce the learning of each member. Cohen (1994) confirmed the whole group reward and warned against praising individuals on competitive bases. Though it is effective in increasing motivation, individual reward would harm intergroup relationships.

Concerning the finding that students were higher motivated to read topics of their own choice rather than textbook's, Pearson \& Dole (1987) aroused the ever dialectic question about what makes students understand better. Sometimes, they claimed, students who read books outside the textbook and not good at applying the strategies or exercises outperform those who always complete skill exercises. Regardless to the paradigm that controls the comprehension instruction, it was concluded that determining the ability to comprehend is strongly related to how much one already knows about the topic. This implies that students of the current study chose to read texts that connected to their previous knowledge and so the chance of building meaning out of reading increased. This also implies that students motivation to read may have witnessed rising and falling according to the topics under
discussion of the textbook. At some other place of this discussion, it was found that a text that holds cultural, contextual and conditional catalysts were more appealing for students to read. Linguistic and cultural cues of the text help students structure the meaning especially in social and science studies (Pearson \& Dole, 1987). This finding holds a serious implication of what topics should be included in the Palestinian English curriculum to motivate students' comprehension grow and learn more about everything. However, implications and recommendations of this study will directly follow this discussion.

## Conclusions of the Study

This mixed-methods study investigated the effects of an intervention, which implemented the reciprocal teaching and the cooperative context, on the reading achievement, strategy use and attitudes of the Palestinian students who study EFL. The context of learning was designed to support the cognitive and social aims of RT under the social constructivist paradigm. To measure the impact of strategy teaching on comprehension gains, two groups of the $11^{\text {th }}$ graders were compared. The first received RT in cooperative heterogeneous group work setting, the other was taught by the conventional way.

The findings of the current study indicated that the intervention was helpful to the learners on their achievement, strategy use and attitudes towards learning. It also indicated that the RT training condition was more beneficial for teaching reading than the nonreciprocal or traditional condition. Despite the fact that the subjects of this study were intact strategy learners, the results showed they were able to increase their reading gains and to expand their strategy use. Students showed improvement in their strategy awareness and maximized their use of the high- order thinking skills. Their attitudes were positively affected by the reciprocal cooperative context, as a well. In addition, the findings revealed that the heterogeneous group work context have largely affected the growth of the group work values, which in turn, facilitated the strategy acquisition cooperatively, especially for the poor readers. Accepting the values of group's interdependency, cooperation and group's
heterogeneity served in providing a rich learning environment and made up the for the deficits in reading abilities for many learners. Such a context generated the feeling of equity, engagement and belonging of the group members. At the same time, it provided the teacher's and group's scaffold have increased students' input in reading comprehension and motivated them to invest the social, cultural and contextual clues to increase their comprehension of English as ELLs. However, the finding that the difference in the reciprocal group performance only showed a significant difference in a late period of this intervention indicates that RT is a time consuming method which requires a sufficient time of training and practice to make a difference in the learners reading ability. In addition, the findings of the questionnaire showed that students needed more time to regulate their use of strategies such as summarizing or questioning. It was concluded that longer term RT training and practice can generate more independent reading behaviors and better strategic awareness.

## Implications of the Study

The findings of this study have some implications for practice and theory.
The findings of the current study which taught RT in group work environment demonstrate that RT was useful for the learners in their reading achievement, strategy use and attitudes. The cooperative group work setting was also useful in promoting some vital social learning values which enhanced the strategy learning of the group over the individual. Therefore, the researcher strongly recommends adopting RT strategy in teaching English reading comprehension.

The study findings also imply that comprehension is a process of thinking that can be taught. EFL students can improve their comprehension gains through applying the reading strategies. These strategies promote thinking, and are more likely to enhance students' cognitive/metacognitive abilities of the learners regardless to their language competence. The results of the study shed the light on the centrality of strategic teaching that provides students
with thinking tools to approach all types of texts with understanding. When students of this research were explicitly taught the RT strategies, they showed a statistical evidence of improvement in their comprehension ability and their high order thinking skill.

Beyond the statistical gains in comprehension, the researcher has come to realise that structuring the context of teaching and learning occupies the lion's share in creating meaningful learning. The present study provided a learning context through which students were explicitly taught how to think and monitor thinking, how to articulate their thinking processes, and receive feedback from teacher and peers. Students cooperated for making the text comprehensible and produced their knowledge based on their negotiated understanding. Such rich engaging context is by no means comparable to the setting of the conventional class where teacher is the only source of facts and where individual competition rules the students' relationships. Reciprocal Teaching in this study provided the students with tools to regulate their thinking and plan their next step for achieving understanding. In each step of the four comprehension processes, they were fostering their understanding and checking their comprehension. Predicting, questioning, clarifying and summarising were not practiced as separate strategies. On the contrary, each time students used any of them, they were checking understanding using a different technique. That enabled them to negotiate the meaning, connect what they read with their previous knowledge to build new one. Such interactive scaffolding atmosphere justifies the necessity to strategy teaching and the centrality of the teaching context as fundamentals of learning EFL.

Based on the effectiveness of RT in facilitating reading comprehension, the researcher thinks that RT in particular and strategy- based instruction, in general, are what actually ELLs need in the $21^{\text {st }}$ century. Students are living in an era of fast changing data. Understanding the enormous changes in the different fields of knowledge stipulates building connections to their current knowledge, checking and appreciating what they read, accepting or rejecting hypotheses while reading. It was found that teaching these strategies of thinking are effective
in dealing with all types of texts. Applying the right strategy in the right place enables the learners comprehend and judge the reading, which in turn, increases learners' knowledge and makes them successfully deal with the massive amount of knowledge around them critically.

In addition, the current study implies and recommends utilizing the positive social values among learners to encourage mutual learning through peers' support. Through group's interaction, the quality and quantity of learning is increased. When students act as resources of learning for each other's, they learn through interaction. This shifts the pedagogy of teaching into more learner- centered approach. The social accountability of the learners makes each one feels responsible about his team's success. Thus, learning becomes a learners' product instead of teacher's prophecy.

The researcher hopes the study will add to the rationale for adopting more strategybased teaching in Palestine. Moreover, it is hoped the study will enlighten the prospective teaching practices of other Palestinian teachers to encourage learning comprehension that invests in students' cooperation and utilizes the differences among students to foster cooperation rather than competition.

## Recommendations for Further Research

Despite the success of this research in promoting reading comprehension and cooperative learning, more research needs to be devoted to examine the strategic, cooperative contexts of EFL. The following recommendations will reinforce any future research in the field of strategy teaching:

- Textbooks, reading materials and schools' policies have been the focus of research for long time. The researcher believes time has come to shift this focus towards teaching itself. Teachers and schools need to really rethink what makes teaching successful. More serious efforts need to be paid to know what type of teaching engage students in reading and what teaching is able to acquire them with lifelong skills.
- Strategy- based instruction is rarely implemented in the Palestinian classrooms. Few studies have examined the impact of strategic teaching on students' abilities, often limited in their duration and sample. Therefore, a longitude study that investigates the impact of RT or other reading strategies in a developmental pattern will be a precedent case of research in Palestine and will inevitably enrich the theory of learning and teaching.
- The results of the school tests in this study were drawn upon the teacher- designed tests. These tests were examined in their validity by the teacher's colleagues. Yet, for future research, an additional work may be needed to develop this type of instrument for more sufficient results. Likewise, the qualitative results were drawn upon analysing the teacher of her own journals. For higher reliability of future research of the same type, it will be more valuable if additional researcher works out the coding phase and compares the results to the researcher's.
- The current study has examined the impact of RT on teenagers' ability to read comprehensively. However, a replication of this study in basic education will be effective in improving children's cognitive /metacognitive abilities and support them with reading tools that fosters their long term reading skills.
- The current study could be replicated to investigate the impact of RT with a variable like the text type. This can be done by comparing the effect of RT on two groups. The first will study using expository texts. The other will be applying RT strategies to the narrative texts. Such a study will offer perceptive insights into the most effective types of texts to develop the metacognitive strategies of reading, taking into consideration that the impact of RT with narrative texts is rarely studied in literature.
- A teaching that promotes cooperative learning will not only yield better group performance in reading, but will also establish for cooperative education in Palestine.

Cooperative practices need to be promoted, processed and rewarded among all learning levels. Promoting the social values of cooperation and joint group goals will shift the whole pedagogy of learning into more learner- centered approach and bound the educational outcomes to their social foundations.

- The current study can be replicated investigating other variables like gender. The population of this study consisted of girls only. Therefore, it will be interesting to reveal if RT's comprehension outcomes differ when two groups of boys and girls study using this cognitive strategy.
- A qualitative study in diagnosing the affective outcomes of cooperative strategy teaching will fill a gap the qualitative research in this field and provide rich data on the nature and types of the learners' interactions and the impacts on their learning.
- A study that compares RT instruction in group work context to RT individual learning will reveal much about the most effective environment for teaching this strategy.
- There is a serious need for a research that questions the real reading strategies that students actually implement while reading. Asking students to describe what strategies they utilize to make meaning while reading will curtail the scope and cost of research in the field of reading comprehension. Knowing the most beneficial strategies that makes readers understand a text will support EFL teachers to teach and train such strategies.
- Thematic Analysis which was applied to the qualitative part of this research is a pioneer research method which is distinctive in its ability to provide rich condensed results. Applying the method to students' journals or teachers' journals will be a great addition to the literature of qualitative research. It is recommended to train different teachers who teach different learning levels to the RT protocols. Teachers may be observed or asked to write their own reflections on their teaching process. Moreover, students could be asked to write their journals and register what cognitive processes they applied while reading.

Analysing teachers' and students' reflections using the thematic analysis approach by an outside researcher will more objectively assess the effectiveness of the RT, diagnose the most dominating values and provide deeper insights into the qualitative research regarding the process of teaching and learning EFL. Applying the TA to such a study will reinforce using the method in education, knowing that TA is much intensively used and related to the fields of health psychology and nursing.

- "The impact of RT on the far transfer of reading strategies" is a suggested title for a quantitative study that would investigate students' ability to extend the strategies they learnt into new reading texts. Such a study will provide deep insights into the quality of strategies that students can transfer beyond the reading text.


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# Appendix A: Pre / Posttst Answer Key 

Al-Bireh Secondary School for Girls Reading Comprehension Test

$11^{\text {th }}$ Grade
Sections A, B, C \& D
Literary Stream

Teacher
Oraib Ramadan

Scholastic Year

2015/2016

Mark: / 20

Section One : Read the following announcement and answer questions 1-4:

## Student Volunteers Needed!

On Saturday, December 12th, from 10 A.M. until 4 P.M., Victory Middle School will be holding a music festival in the school gymnasium. The special event will feature a variety of professional musicians and singers.

## Task Time Date

Make posters 1 P.M.-4 P.M.December 5th
Set up gym 11 A.M.-4 P.M. December 11th
Help performers 9 A.M.-4 P.M. December 12th
Welcome guests 10 A.M.-2 P.M. December 12th
Clean up gym 4 P.M.-7 P.M.December 12th
Interested students should speak with Ms. Braxton, the music teacher. Students who would like to help at the festival must have written permission from a parent or guardian.

1. What time will the festival begin?
A. 10 A.M.
B. 11 A.M.
C. 1 P.M.
D. 2 P.M.
2. In line 2 , the word feature is closest in meaning to $\qquad$ .
A. look
B. keep
C. include
D. entertain
3. What job will be done the day before the festival begins?
A. Making posters
B. Setting up the
gym
C. Cleaning up the gym
D. Helping the performers
4. Who is told to talk to Ms. Braxton?
A. Parents
B. Students
C. Teachers
D. Performers

Section Two: Read the following story and answer questions 5-11:
"Did you see that?" Joe said to his friend Bill. "You're a great shooter!"
 Bill caught the basketball and bounced it before throwing it again. The ball flew into the net. "Bill, you never miss!" Joe said admiringly.
"Unless I'm in a real game," Bill complained. "Then I miss all the time."
Joe knew that Bill was right. Bill performed much better when he was having fun with Joe in the school yard than he did when he was playing for the school team in front of a large crowd.
"Maybe you just need to practice more," Joe suggested.
"But I practice all the time with you!" Bill objected. He shook his head. "I just can't play well when people are watching me."

10 "You play well when I'm watching," Joe pointed out.
"That's because I've known you since we were five years old," Bill said with a smile. "I'm just not comfortable playing when other people are around."

Joe nodded and understood, but he also had an idea.
The next day Joe and Bill met in the school yard again to practice. After a few minutes, Joe excused

15 himself.
"Practice without me," Joe said to his friend. "I'll be back in a minute."
Joe hurried through the school building, gathering together whomever he could find-two students, a math teacher, two secretaries, and a janitor.

When Joe explained why he needed them, everyone was happy to help.

Joe reminded the group to stay quiet as they all went toward the school's basketball court. As Joe had hoped, Bill was still practicing basketball. He made five baskets in a row without noticing the
silent people standing behind him. "Hey, Bill!" Joe called out finally.
Bill turned. A look of surprise came over his face. "I just wanted to show you that you could play
well with people watching you," Joe said. "Now you'll have nothing to worry about for the next game!"
5. What would be the best title for the story?
A. Joe Joins the Team
B. Practice Makes Perfect
C. Bill Wins the Big Game
D. Bill's Basketball Problem
6. In line 5, the word performed is closest in meaning to $\qquad$ .
A. acted
B. played
C. moved
D. changed
7. Why is Bill upset?
A. He plays better in practice than he does during games.
B. The school yard is not a good place to practice.
C. Joe watches him too closely when he plays.
D. His team loses too many games.
8. Why does Bill play well when Joe is watching him?
A. He is comfortable with Joe.
B. Joe tells him how to play better.
C. He does not know that Joe is there.
D. He wants to prove to Joe that he is a good player.
9. Why does Joe decide to gather a group of people?
A. Because he wants more players for his team
B. Because he wants to help Bill feel less nervous
C. Because he wants to show them his talent
D. Because he wants more people to see the next game
10. At the end of the story, all of the following people watch Bill practice EXCEPT $\qquad$ .
A. Joe
B. a janitor
C. a math teacher
D. the basketball coach
11. Why does the group have to be quiet when they go to the basketball court?
A. Because Joe is telling Bill what to do
B. Because they do not want Bill to know they were there
C. Because Bill likes to practice alone
D. Because the group needs to listen to Joe's instructions

Section Three: Read the following passage and answer questions 12-20:


When another old cave is discovered in the south of France, it is not usually news. Rather, it is an ordinary event. Such discoveries are so frequent these days that hardly anybody pays heed to them. However, when the Lascaux cave complex was discovered in 1940, the world was amazed.

Painted directly on its walls were hundreds of scenes showing how people lived thousands of years ago.

The scenes show people hunting animals, such as bison or wild cats. Other images depict birds and, most noticeably, horses, which appear in more than 300 wall images, by far outnumbering all other animals.

Early artists drawing these animals accomplished a monumental and difficult task. They did not limit
themselves to the easily accessible walls but carried their painting materials to spaces that required 10 climbing steep walls or crawling into narrow passages in the Lascaux complex.

Unfortunately, the paintings have been exposed to the destructive action of water and temperature changes, which easily wear the images away. Because the Lascaux caves have many entrances, air movement has also damaged the images inside.

Although they are not out in the open air, where natural light would have destroyed them long ago, 15 many of the images have deteriorated and are barely recognizable.

To prevent further damage, the site was closed to tourists in 1963, 23 years after it was discovered.

12. Which title best summarizes the main idea of the passage?
A. Wild Animals in Art
B. Hidden Prehistoric Paintings
C. Exploring Caves Respectfully
D. Determining the Age of French Caves
13. In line 2, the phrase pays heed to is closest in meaning to $\qquad$ .
A. discovers
B. watches
C. notices
D. buys
14. Based on the passage, what is probably true about the south of France?
A. It is home to rare animals.
B. It has a large number of caves.
C. It is known for horse-racing events.
D. It has attracted many famous artists.
15. According to the passage, which animals appear most often on the cave walls?
A. Birds
B. Bison
C. Horses
D. Wild cats
16. In line 5, the word depict is closest in meaning to $\qquad$ .
A. show
B. hunt
C. count
D. draw
17. Why was painting inside the Lascaux complex a difficult task?
A. It was completely dark inside.
B. The caves were full of wild animals.
C. Painting materials were hard to find.
D. Many painting spaces were difficult to reach.
18. In line 8, the word "They" refers to $\qquad$ .
A. walls
B. artists
C. animals
D. materials
19. According to the passage, all of the following have caused damage to the paintings EXCEPT $\qquad$ .
A. temperature changes
B. air movement
C. water
D. light
20. What happened to the site in 1963 ?
A. Visitors were prohibited from entering.
B. A new lighting system was installed.
C. Another part was discovered.
D. A new entrance was created.

## Key Answers

1. A
2. C
3. B
4. B
5. D
6. B
7. A
8. A
9. B
10. D
11. B
12. B
13. C
14. B
15. C
16. A
17. D
18. B
19. D
20. A

# Appendix B: Sample of School (Teacher- Designed Tests) 

## AlBireh Secondary Girls' School

$11^{\text {th }}$ Grade/ Sections A,B,C,D Reading Comprehension Test Total Marks:30
Name ----------------------------

Read the following text carefully, then answer the attached questions.

## DISAPPEARING BEAUTY

NABIL HAMED
As a child, Nabil Hamed used to wander in the hills and valleys of Palestine with his father, a shepherd. After taking a break to continue his education abroad, he returned to Palestine and continued hiking, simply for the love of walking and nature. As time went by, he began to notice irreversible changes: the beauty of this ancient land was being destroyed by the Israeli occupation, sometimes rapidly, sometimes gradually. Olive trees and grapevines were pulled up, old stone buildings and even whole villages were pulled down to make room for more and more settlements, their roads and dividing walls.

The walks he describes in this book cover the hills of Ramallah, the wild countryside around Jerusalem and the valleys near the Dead Sea, and each takes place at a different period of Palestinian history. Today, many Palestinian natural treasures have become impossible to visit. Nabil Hamed, now in his sixties, has written this book to preserve them, at least in words. It tells the story of how a pleasure so many of us take for granted is being taken away: the freedom to wander through the countryside.

Disappearing Beauty is Nabil Hamed's first book. It has been highly praised and has won several international awards, including the Marshall Prize for political writing.


## Answer the following questions.(7Pts)

1. Why was Nabil, as a child, given the chance to wander in the hills and valleys?
$\qquad$
Mention two things the Israeli occupation has done to change the land?
a.
b.
2. What areas in Palestine has the writer covered in his book? $\qquad$
$\qquad$
3. What pleasure was stolen from the Palestinians?
$\qquad$
4. Based on your observation, mention other two changes that took place in the Palestinian nature lately.
$\qquad$
$\qquad$
$\qquad$

## Complete the following statements with sentences from/about the text.(3 Pts)

1. In his sixties, Nabil still practices hiking in the mountains because $\qquad$
$\qquad$
2. The main reason Nabil wrote this book is to $\qquad$
$\qquad$
$\qquad$

Decide if each of the following sentences is True or False.(6 Pts)

1. Palestinian natural pressures are easy to visit. $\qquad$
2. The book of Nbil Hamed won a prize for a historical narration. $\qquad$
3. The comment by the Sunday Journal is considered a form of book - review. $\qquad$

What does each of the underlined words or phrases refer to?(6Pts)

1. "this ancient land" $\qquad$
2. "them" $\qquad$
3. "a pleasure so many of us take for granted" $\qquad$
$\qquad$
Complete the following sentences with the suitable words and phrases from the text. Choose only from the bold typed.(8 Pts)
4. After many years under------------------------- , the country has finally become independent.
5. They the wall in the park to make a bigger play area.
6. We don't have any plans, so we have time just to around the city on foot.
7. Some people don't even think about basic freedoms. They just $\qquad$ them
8. His decision is -------------------------------- There's no going back to how things were before.
9. This event $\qquad$ every year on the same date.
10. I sometimes fruit in sugar to stop it from going bad.
11. The film was highly-------------------------------------- . Everyone said how good it was

## Reader are Leaders

# Appendix C: A Questionnaire on Reading Practices and Student's Attitudes 

The Effect of Reciprocal Teaching Method on Students' Reading Comprehension Ability and Their Attitudes Towards Using It

Dear Student,
Attached is a questionnaire on attitudes towards using the Reciprocal Teaching (RT) method in teaching reading. The purpose of the survey is to find out your attitudes towards reading and the reading strategies that you have used during the Reciprocal Teaching method reading activities used in the class during instruction. The questionnaire takes $10-15$ minutes to complete. The information collected will be used confidentially and for research purposes only. Please answer all questions by putting a check mark $\boldsymbol{\checkmark}$ in the appropriate box that best describes your views / actions. Thank you very much for your cooperation.

Most Truly,
Ms. Oraib Khammash
English Teacher

Survey on Reading Practices, Effect of Reciprocal Teaching Method on Reading Comprehension and Students' Attitudes towards Using It

| Part 1: Reading Practices |  | Never <br> 1 | Occasionally <br> 2 | Sometimes <br> 3 | Often <br> 4 | Always <br> 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | I read the heading and sub-headings of <br> the passage first. |  |  |  |  |  |
| 2 | I refer to the diagrams / illustrations <br> when they are available to help me <br> understand the topic. |  |  |  |  |  |
| 3 | I try to make connection between the <br> text that I am reading and previous <br> knowledge / experience. |  |  |  |  |  |
| 4 | Before reading, I ask myself what I <br> already know about the topic and <br> predict what will come next in the <br> passage. |  |  |  |  |  |
| 5 | I skim the text first to find out its type <br> and the way it is organized. |  |  |  |  |  |
| 6 | I try to figure out the meaning of new <br> words or phrases from the context. |  |  |  |  |  |
| 7 | I look up unknown words in the <br> dictionary. |  |  |  |  |  |
| 8 | I underline or circle information in the <br> text to help me remember it. |  |  |  |  |  |
| 9 | I discuss what I read with the group to <br> check my understanding |  |  |  |  |  |
| 10 | I ask myself questions about the text <br> during reading. |  |  |  |  |  |
| 11 | I summarize what I read to reflect on <br> important information in the text. |  |  |  |  |  |
| 12 | I go back and forth in the text to find <br> relationships among ideas in it. |  |  |  |  |  |
| 13 | When I don't understand, I keep on <br> reading hoping for clarification further <br> on. |  |  |  |  |  |
| 14 | I stop from time to time and think <br> about what I'm reading. |  |  |  |  |  |
| 15 | I skip words or parts I don't <br> understand. |  |  |  |  |  |
| 16 | I give up and stop reading when I don't <br> understand. |  |  |  |  |  |
| 17 | When text becomes difficult, I reread <br> to increase my understanding. |  |  |  |  |  |
| 18 | I try to guess the meaning of unknown <br> words or phrases when reading. |  |  |  |  |  |


| Part 2: Attitudes Towards Using the Reciprocal Teaching Method in Teaching Reading: |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Item |  | Strongly <br> Disagree <br> 1 | Disagree <br> 2 | Undecided <br> 3 | Agree <br> 4 | Strongly Agree <br> 5 |
| 19 | The reading strategies I learnt in the <br> English reading lessons using the <br> Reciprocal Teaching Method can be <br> applied to other reading contexts. |  |  |  |  |  |
| 20 | The summarizing strategy was very <br> helpful in understanding the passage. |  |  |  |  |  |
| 21 | The predicting strategy was very helpful <br> in understanding the passage. |  |  |  |  |  |
| 22 | The clarifying strategy was very helpful <br> in understanding the passage. |  |  |  |  |  |
| 23 | The questioning strategy was very <br> helpful in understand the passage. |  |  |  |  |  |
| 24 | Practicing reading strategies improved <br> my reading skill. |  |  |  |  |  |
| 25 | Cooperative group work in Reciprocal <br> Teaching (RT) helped me participate in <br> the discussions. |  |  |  |  |  |
| 26 | Communicative activities used in <br> Reciprocal Teaching (RT) encouraged <br> me to communicate in English. |  |  |  |  |  |
| 27 | I didn't like group work. I prefer to read <br> quietly alone. |  |  |  |  |  |
| 28 | Using RT strategies encouraged me to <br> ask for clarifications. |  |  |  |  |  |
| 29 | Using RT strategies made me more <br> enthusiastic in the reading class. |  |  |  |  |  |
| 30 | Using the RT strategies in group work <br> was boring. |  |  |  |  |  |
| 31 | Using the RT strategies in reading <br> English made it more enjoyable. |  |  |  |  |  |
| 32 | I like my teacher to continue using RT <br> method in all reading classes for the rest <br> of the year. |  |  |  |  |  |
| 33 | Using RT method didn't affect my <br> reading ability. |  |  |  |  |  |

## Appendix D: Arabic Version of the Questionnaire

أثر استخدام طريقة التُلم التبادلي على فهم المقروء لدى الطلبة و اتجاهاتهم نحو استخذام هذه الطريقة في التّريس عزيزتي الطالبة،

في ما يلي استبانة لقاس الإتجاهات نحو استخدام التعلم التبادلي في تعليم مهارات القراءة باللغة الانجليزية. ويهذف هذا الدسح الى كشف اتجاهاتكا ومو اقفك حول القراءة و الاستر اتجيات التي استخدمتها أثناء حصص القراءة من خلال التعلم التبادلي في مجموعات يحتاج هذا الاستبيان من 10-15 دقيقة لملاه .المعلومات في هذه الاستبانة ستبقى سرية ولأغر اض البحث فقط. الرجاء الإجابة على جميع الأسئلة من خلال وضع إثارة $\checkmark$ في المربعات التي تصف بصدق موقفك/ سلوكك . مع الثنكر الجزيل على تعاونك
مع مع الثنكر الجزيل،

استباتة حول ممارسات القراءة باللغة الالجليزية،أثر استخدام استراتيجية التعلم التبادلي على فهم المقرو ء لاى الطلبة و إتجاهاتهم نحو استخدام هذه الطريقة .

| دائما | عادة | أحيانا | نادرا |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 4 | 3 | 2 | 1 |  |  |
|  |  |  |  |  | أكرا ألعنو ان الرئيسي و العناوين الفر عية للنص أو لا | 1 |
|  |  |  |  |  | أستّين بالرسوم النوضيحية والبيانية اذا توفرت مع النص | 2 |
|  |  |  |  |  | أحاول ان اربط بين النص الذي افرأهومعرفتي وخبراتي السابقة عن اللوضوع | 3 |
|  |  |  |  |  | قبل القر اءة، أسّأل نفسي عما أعرف مسبقا حول هذا الهوضو عو وأحاول أن اتتبأ عما سيحتويه <br> النص لاحقا | 4 |
|  |  |  |  |  | \|تُتصفح النص سريعا من خالِ ملاحظة نطط النص وترثيه | 5 |
|  |  |  |  |  | 6أحارل أن أستال على معاني المفردات والعبار ات الجديدة بالرجوع الى سياقها في النص. | 6 |
|  |  |  |  |  | أبحث عن معاني المفردات الجديدة في القامس | 7 |
|  |  |  |  |  | أضح خطوط أو دو ائر حول المعلومات التّي أود تذكر ها في النص. | 8 |
|  |  |  |  |  | وأناقش النص الذي اقر أهمع المجوعة للتّكن من فهمي له | 9 |
|  |  |  |  |  |  | 10 |
|  |  |  |  |  | ألخص النص الذي أقرأه لمعرفة الاجزاء المهمة فيه | 11 |
|  |  |  |  |  | أتنقل بين أجزاء النص لمعرفة العلاقة بين أجز اءه | 12 |
|  |  |  |  |  | حين لا افهم ،استّر في القراءة آلمة الحصول على توضيح لاحقا | 13 |
|  |  |  |  |  | أنوقف بين حين لاخر و افكر فيما اقر أه | 14 |
|  |  |  |  |  | أتخطى الكلمات والاجز اء التي لا افههها | 15 |
|  |  |  |  |  | استسلم وأتوقف عن القراءة حين لا الفم النص | 16 |
|  |  |  |  |  | حين تزيد صعوبة النص،أعيد التر اءة لأتّكد من فهمي له | 17 |
|  |  |  |  |  | أحاول أن أحزر معاني الكلمات والمفردات أثنّاء القر اءة | 18 |


| بشدة | $\begin{aligned} & \hline \text { أو افقق } \\ & 4 \end{aligned}$ | لاعرف <br> 3 | $y$ أو افق 2 | لا أو افق <br> بشدة <br> 1 | الجزء الثّني: موقفي من استخام طريقة التُلم التبادلي في تطلم مواضيع الاستيعاب |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | استراتيجيات القراءة ،التي تعلمتها اثثاء حصص القر اءة من خالال التُعلم النبادلي ،ساعدنتي على تناول نصوص جديدة بمفردي | 19 |
|  |  |  |  |  | \|(استر اتيجية التلخيص ساعدتي جدا لفهم النص | 20 |
|  |  |  |  |  | (استر اتيجية النتبؤ ساعنتي جدا لفهم النص | 21 |
|  |  |  |  |  | استراتيجية النوضيح ساعدتي جدا لفه النص | 22 |
|  |  |  |  |  | \|(استر اتيجية طر ح الاسئلة ساعنتي جدا لفهم النص | 23 |
|  |  |  |  |  | ممارسات القراءة التي قمت بها اثثاء هذا الفصل ساعدتتي في القر اءة بصورة <br> أفضل | 24 |
|  |  |  |  |  | التُلم التبادلي في مجموعات تعاونية أعطاني الفرصة للمشاركة في حصة اللغة <br> الانجليزية | 25 |
|  |  |  |  |  | الأنشطة الثفاعلية للتُلم التبادلي شجعتتي على الهشاركة في النقاش باللغة <br> الإنجليزية | 26 |
|  |  |  |  |  | لـ لم أحب طريقة العطل في مجهوعات لاني افضل القراءة وحي وبهاوء | 27 |
|  |  |  |  |  | \|النتلم التبادلي أعطاني الفرصة لسؤ الل معلمتي وزميلاتي حين لا افهم المقروء | 28 |
|  |  |  |  |  | استخدام استر اتيجيات التقلم التنبادلي في القراءة بالانجليزية جعلني أكثر حماسا <br> في حصة القراءة | 29 |
|  |  |  |  |  | \| استخدام التُلم التبادلي في مجمو عات تعاونية كان مما | 30 |
|  |  |  |  |  |  | 31 |
|  |  |  |  |  | احب ان نستمر باستخذام طريقة التُلم التبادلي في مجموعات لبقية هذا العام الار اسي | 32 |
|  |  |  |  |  | استخدام التُلم التبادلي لم يحدث اي تغيير على مهار اتي في القراءة | 33 |

## Appendix E: Metacognitive Awareness of Reading Strategies Inventory

## (MARSI) Version 1.0

## Metacognitive Awareness of Reading Strategies Inventory SCORING RUBRIC

| Student Name: | Age: | Date: |
| :--- | :--- | :--- | :--- |
| Grade in School: | $\square 6^{\text {th }} \square 7^{7^{\text {th }}}$ | $\square 8^{\text {th }} \quad \square 9^{\text {th }}$ |
| $\square 10^{\text {th }}$ | $\square 11^{\text {th }} \square 12^{\text {th }} \quad \square$ College $\square$ Other |  |

1. Write your response to each statement (i.e., $1,2,3,4$, or 5 ) in each of the blanks.
2. Add up the scores under each column. Place the result on the line under each column.
3. Divide the score by the number of statements in each column to get the average for each subscale.
4. Calculate the average for the inventory by adding up the subscale scores and dividing by 30 .
5. Compare your results to those shown below.
6. Discuss your results with your teacher or tutor.

| Global Reading Strategies (GLOB Subscale) | ProblemSolving Strategies (PROB Subscale) | Support <br> Reading Strategies (SUP Subscale) | Overall Reading Strategies |
| :---: | :---: | :---: | :---: |
| 1. | 8. | 2. | GLOB |
| 3. | 11. | 5. |  |
| 4. | 13. | 6. | PROB |
| 7. | 16. | 9. |  |
| 10. | 18. | 12. | SUP |
| 14. | 21. | 15. |  |
| 17. | 27. | 20. |  |
| 19. | 30. | 24. |  |
| 22. |  | 28. |  |
| 23. |  |  |  |
| 25. |  |  |  |
| 26. |  |  |  |
| 29. |  |  |  |



INTERPRETING YOUR SCORES: The overall average indicates how often you use reading strategies when reading academic materials. The average for each subscale of the inventory shows which group of strategies (i.e., global, problem-solving, and support strategies) you use most when reading. With this information, you can tell if you are very high or very low in any of these strategy groups. It is important to note, however, that the best possible use of these strategies depends on your reading ability in English, the type of material read, and your purpose for reading it. A low score on any of the subscales or parts of the inventory indicates that there may be some strategies in these parts that you might want to learn about and consider using when reading (adapted from Oxford 1990: 297300).

## Appendix F: The Teacher's Journal

## Teacher's Journal

## August 28

$11^{\text {th }}$ grade students of the literary stream were distributed into four classes. The average class number is 40 students and still, more students may come or leave the school along the semester.

I teach English for those four classes who will be divided into two groups: experimental and control.

Students were distributed to classes by a committee of teachers who checked their records and classified them according to their results in the previous class. That's why it is expected that the level of achievement among these classes is similar if not equal.

I chose two classes randomly to be the experimental group; they were classes $(B+D)$. At the same time, I held the pretest for the two groups and left it unmarked until I conduct the posttest by the end of teaching with Reciprocal Teaching and the two tests will be marked together after the end of the experiment.

## September 1

For me as a teacher, Teaching RT was the same as it will be for my students. It's the first time I teach using the reciprocal teaching strategies (RT). Therefore, I have to prepare myself very well. I read intensively about the method and watched many videos, but when things come to be implemented in class, it's amazing how each class context presents itself as a unique context in terms of numbers, students' fluency, harmony and interaction.

I told my students that I am going to use RT to teach reading comprehension for this semester and encouraged them that using the strategy will enable them to work cooperatively in groups and understand texts better and will result in better achievement in English. I made it clear to
students that in RT students and teachers exchange roles after students will be able to master the four strategies of RT and be able to lead the dialogue in their groups.

I started to explain to my classes what RT is using the explicit strategy instruction. I divided the board into four sections with four headings: Predicting, Clarifying, Questioning, Summarizing.

## September 6

I started modelling each strategy and writing my notes under each heading, reading a random short passage aloud and thinking aloud in front of them. For a week, students watched short videos for teachers and classes modelling the strategy followed by my own modelling through passages from their book. For example, I chose a short text about "learning styles" in the first unit in their book and started looking at the title, subtitles and pictures asking myself aloud what this text is going to be about and writing my notes on the board. I wrote correct and incorrect predictions to show them that mistaken predictions will not be that big problem because they will exclude them when they read and clarify. Then I read the text aloud and paused myself when I found difficult words or new expressions, I wrote them under the heading: Clarification, and tried to guess some of them referring to their word families if it is more familiar, or referring to their word type and when I couldn't totally guess I opened my dictionary, found the meaning and wrote it on board. Many times, I pretended not to know the meaning of words. I wanted to challenge their memories to recall similar words. I referred to them to ask if they know it and they were very happy to help me.

I read for the second time aloud , this time with higher comprehension since all words in the text are now familiar to me and ask myself questions about the text and write them on board, I also asked myself about linking words and what is their role between the two paragraphs, are they conveying an example? Addition? Contradiction? or any other purposes and wrote that down too, under the questioning headline.

When it came to the last heading: Summarising, I choose one paragraph and tried to give the main idea of the paragraph on board.

I repeated that modelling for two weeks when they were still sitting in columns in their desks and not in groups yet. In the second and third class, students were competing with me to model the strategies and do what I do. Later in other classes, I used to write the four strategies on board every period and collect ideas from students that tell me what each strategy imply.

Teaching the strategies in this explicit, declarative way was the best and the fastest to scaffold students' awareness of how to use them and to shape their cognition regarding using them since understanding will be the ultimate goal for these comprehension classes. Saying the name of the strategy and how we practice it confirm that students were involved in the process of comprehension especially low achievers who I guess are majority in the class.

## September 10

A diagnostic test in reading comprehension was conducted for the students to enable the teacher distribute them to heterogeneous groups according to their abilities and to make sure that each group is equivalent to the others. Results of the test were used to distribute the students into heterogeneous groups of four students with different abilities. I prepared coloured labels, each with a name of the four strategies, each student in a group was given a card holding her role in the group, for example one will be a predictor, the second will be clarifier, the third is questioner and the fourth will be summarizer. Groups themselves are given numbers that students put in front of them to make it easier for me to call the group with its number.

I brought RT hand-outs and worksheets to my students. The hand-out is divided into four section, each section clarifies a strategy of the four that each student should keep in front of her in the class to remind her what things she need to be careful about when she performs the task. The worksheet is also divided into four sections with four heading strategies to make it
easier for students to write down their predictions, clarifications, questions and summaries under these titles for every text they study.

## September 14

I recorded the numbers of the groups and the names of each group members on cards that I carried to the class with me for the first few classes until I be able to recognise each group and its members. It was not easy to train students how to sit in their groups and organize themselves quickly before the class started. I have no special English room at my school to organise the tables and chairs in fixed group order. Therefore, I have to teach my classes in their classrooms. Some teachers didn't like students to keep sitting in groups in their classes and students needed to change the way they sit before the English class begins. At the beginning I used to go to the class and find them still moving here and there searching their groups and moving their chairs to join in, but after may be a week and with some tips to make things easier, things went better and students got accustomed to move quickly and match their groups by helping each other to turn each two desks opposites to others before they move to their groups. Within a week I went to the class to find them already sitting in their groups quietly without that much mess. They also used badges that hold the role of each member in her group during that class. Students began to show their enthusiasm towards working in the groups and helping eachothers. However, they were still not accustomed to their intergroup roles. Some enthusiastic readers were gushing their answers without consulting the others. Those needed more time and advice to pay attention to cooperative work and attend to their mates roles.

Sep 20

Friends wanted to be grouped together but due to the research purposes, I distributed them according to their abilities to heterogeneous groups. Some group members didn't get on well with the rest ,therefore I needed to exchange them with other students from other groups who are of the same proficiency level and can work better with them. That also took some time
of the class but scored better with group work later. Moreover, I was still receiving complaints from some members who didn't feel they want to stay in their groups. In other occasions, it was noticed that some students especially the less competent, are still reluctant to share. Sometimes, some high- achievers came to me complaining that their colleagues are not completing their tasks. Again, I needed to talk to those students and convince them that they need to be more patients and hold their less achieving partners hands for better achievement of the whole group. It took time and patience to talk to some high achievers. I wanted them to feel comfortable as possible. I needed them to understand that improving the group's performance depends highly on their cooperation with mates. These conversations helped them understand that their groups improve when they share knowledge and skills with the team instead of nagging. I started using my ways to comfort them by encouraging them and convincing them that this experiment is not about competition but rather cooperation. I had to make them understand that they need to see thing from different point of view, and enjoy the work and help of others instead of thinking about beating or excelling them.

## September 30

We wrote a big logo on a poster "either we swim together or sink together" and kept repeating it each class to encourage each other's that our success is about the success of the group not our individual preponderance over the team. After a time, the majority of those students changed their attitudes toward their groups and in mostly very positive towards the group work. I notice they more now enjoy the work with others. The quantity of dialogue has increased, too. There was still one student who was achieving well in her tests but insisted on her attitude that she's a solitary learner and can't function well in the group. Nevertheless, she respected the rules of the work and kept working with her group but I added another member to the group so that the group will interact and function better. Usually the member was of intermediate level. This was found the mean of both low and high achievers. Both can find their
ways to interact with her. However, in other successful case, good achievers were vey positively cooperating in their groups. In one of the groups, they kept trying and they have succeeded to push their less proficient reading partner to overcome her shyness, stand up and read her summary. She didn't stop reading when she committed mistakes in reading"

Some students who have good English competence don't participate as they should. I didn't get surprised to find students who oppose working with others simply because our traditional teaching methods encourage competitive over cooperative spirit among learners. However, I didn't ignore those students, on the contrary, I had many conversations with them and I told them privately that they are very important in their groups and without their work the group will not improve. It seems that was the way to overcome this obstacle: some students needed to tell them they are important in the class and the teacher depends highly on them .I kept telling them I trust their abilities and I'm sure they will play great role to make their groups develop. Those were magic words to many students who had passive attitudes at the beginning especially when I started praising their groups and the effort they do together.

## October 2

Students interact in their groups comfortably as friends now. Drilling the reading strategies each reading class made them follow the routines smoothly; they don't need much time now to prepare themselves for the class. Moreover, they scaffold each other's to be ready for their roles as predictors, clarifiers, questioners and summarizers Interaction in the groups began to take more confident form by the time students got accustomed to the strategies they practice. Practice made students more comfortable in work and repetition of the strategies every reading class encouraged those hesitant students to become more confident because the now share with their answers after they have discussed them with the group and some of students specially of those known to be low achievers kept coming to me after classes to tell me how happy they feel
when they participate and how confident they became when they started writing their answers on the board.

It really surprised me that some students confessed to me that despite they are in the $11^{\text {th }}$ grade, they have never before wrote on the board in the English classes!

Students also expressed their gratitude and surprise of having the teacher sitting in their groups, taking a role and participating as group member. I sat with the group as a member of them, doing the task of the low- achiever, asking her to repeat what I did. Honestly, I preferred to sit around the tables with the groups as much as I can to do the role of the learner, over sitting to my table as a supervisor. I felt this way I will hit two birds with one stone: I will have the chance to imitate the strategy when I am closer to the students as group member and this way it will influence them highly. Taking part in the group, I found a chance to send messages to two categories of students. Show some arrogant students it is normal and enjoyable to work with others and help them and show those who are shy to participate and talk it is normal to make mistakes when I "predict" or "question" because later the discussion with the group and the comparison with the other groups answers will reveal the mistake and everybody will discover the correct answers or predictions.

## October 7

Test maps/ Graphic organizers/ Study guides

I wanted my students to develop cognitive reading skills and be aware about these skills in order to be able to transform them consciously to other reading texts. At the beginning I wanted my students to feel secured while they are studying for their reading comprehension tests so I designed a test map that included different question types that might be expected in reading tests, I hanged the paper on board so that they can review it any time they liked. I told them that my tests will contain similar questions' rubrics. For example, they will be answering information questions about the text, cloze completion question, matching the meanings,
summarising a paragraph, completing sentences with the opposites or word families and pack of other questions. I supplied my test map with answers for students to revise. I thought that would help them build a mental representation of what tests will look like. Students welcomed this step and I often found them standing in front of the board revising the paper and the expected types of questions. In addition, I brought in the four-door chart that visualizes the four RT strategies. This will help each member of the group recognise and remember her role. I made many copies, so that students use new papers at new tasks. This was used as graphic organizers for applying the four strategies on ready designed papers. It was easier for each student to keep a group of papers that are already divided and sub-headed with the name of the four strategies and each reading class take a new paper out of their files and just write the title of the lesson and the date and start working together under each of the four strategies. The worksheet reminded students with the name of the strategy and provided some tips under each strategy to remind them what we do when we predict/question/explain or summarize. Leaving students with helping tools made them more organized and felt safer while working or even studying because they can expect what questions they might face in the test and that created another sort of dialogue among groups regarding the test content and the expected questions.

## October 11

I often sat with a group, held a worksheet and started thinking aloud in front of them, predicted using the available illustrations and sub-headings, questioned myself about a meaning or information and recalled my previous knowledge and summarized a paragraph using suitable simple language. Students always showed their enthusiasm when I was doing this, they even hurried to help me predict, answer questions or recall a background of a word or its meaning. They were so happy help me understand!!

October 13

Students now understand the meaning of working cooperatively, the group has become a family for them; they compete with other groups to finish their tasks first and when one of their groups is not performing well, the other members help. Students feel more equal now; there are no biases against any of them based on their test grades. They understand they receive appreciation and reward according to their commitment to the cooperative task and the effort they pay. Some high achievers who didn't show high enthusiasm towards group work became more active in their groups now. Their feeling of responsibility toward other group members has matured. Sometimes I saw them in the playground gathering in a group preparing for the class and that really gave me the ultimate happiness. I was proud to see that groups' leaders have volunteered to prepare lists of new vocabulary and distributed them among their group to confirm reading with understanding for their less proficient mates. It must have taken time and effort from them, but their true feelings toward their colleagues and high motivation to work pushed them to prepare vocabulary or correct mistaken answers for their partners which created very positive environment in the class and showed me that students are now taking the ownership of their own learning. When the groups were on task, every member had a role. Some less competent members were charged in using the dictionary for finding the meanings of new words. I notice they are happy to function as clarifies for students who are used to achieve higher than them

## October 16

Students kept working in their groups, following the reciprocal learning routines. I noticed after this period that students are still facing a problem with the strategy of summarising and that they do the summarising in each group mainly depending on the high achievers, so it was necessary for me to stop little by this strategy and show them the rules of summarizing in a simple way. I prepared a poster at home which was like a reminder of what to include and exclude when summarising and what should I focus on or ignore. I fixed my poster on the board
and started reading the lesson of the class then I returned to my poster and followed the rules. I was doing this while I was speaking and applying aloud to the board what I am doing. Then I chose a paragraph and asked every group to follow the poster tips and start summarizing. I did this for a week, many students improved but many others are still facing a problem with the strategy. However, students were cooperating to correct the inaccurate summaries of their partners. The lack of previous knowledge, language and practice of the strategy when they were younger was the main reason behind this I guess. It was not easy for them to put the idea using their own language and keeping to the meaning.

## October 20

Scaffolding students metacognitive process needed more time than expected, but it was ok with me as I understand that I need to create the most supportive environment for learning and I also understand I need to talk very seriously and patiently to the weakest student in the group to give an example to the other members of the team, how important the dialogue is in our process and that the guided dialogue will produce positive results with those weak students. Student with low abilities kept coming to me in their breaks and before or after class to show their gratitude about the care and effort I do for them, or to tell me how satisfied they are with the method we are using, at other times some of them kept coming and telling me their plans and strategies to organise themselves and study better. In other times, students came to show their preparation of the lesson they did at home to function higher during the class and of course I kept encouraging and supporting their efforts. Some students who are known to achieve low in other school subjects told me that they started seriously studying and preparing their English lessons, they have bought their own dictionaries to keep them with them all the time and that they intend to pass their English tests successfully despite their weakness just to reward my effort with them!! Students were amazing ...they were able to recognise that I
believe in them, and I needed them to believe in themselves. They worked hard to confirm to me that they are making a difference.

## October 26

Socially supportive environment is known to be key element of reciprocal work. Learners need to feel appreciated and find help of others to move on. Some students suggested starting a Facebook group with only $11^{\text {th }}$ graders as members and the page was created by them. The teacher and some students added almost all the students to the page; we started using the page for sharing worksheets, resources, materials about our unit topics and exchanging ideas. Students found the movies about the stories and novels we read this year and shared them so it was easier to discuss them later after they have watched them. At each unit students or I provided the page with different illustrations or exercises that made understanding easier and discussed them whether on the page or later in class. Nowadays, students find social media a life necessity, so creating the page made them more active to search the units' topics, read about them and share the relevant material to the page. The page is still the place where all my students meet and discuss specially that they have units in their book about virtual learning and about internet and technology so they found the learning and conversation through the page a practical example of what they have in their book.

## November 1

I asked my students to write their reflection on the group work they do if they like. I gave them the freedom to express in English or Arabic, I also recommended writing the positive and negative feelings. Some students wrote their impressions on pieces of paper and gave them to me the same day.

Some of the writings were the following:
"It was a very nice chance to learn in a different way specially that I love to work in a group, I feel I am spending the English class in active environment and my partners understand the text
better now. However, we are still facing the challenge of timing to finish the task because this way is time consuming".
"I see this way of learning as a time saving because we share our knowledge with others and by sharing the meanings and information with others the texts becomes clear faster than reading alone, but I guess some weak students need to spend more effort like reading before the class or preparing at home to interact better with the group".
"I am happy to understand with others, I have never engaged in group work before".
"RT gave me the chance to understand better and learn the new words and know their meanings because I didn't do this before, but some students who have good English level don't participate as they should"
"Now I go home more comfortable, when I read the text at home I feel happy I understand what is written there, as I write all the meanings and main ideas at class"
"I loved the way we trained to work in the group, it has made me and my colleagues in the group read with bigger understanding, I think we now learn better, but $X$ in my group thinks she is perfect in English and doesn't want us to explain everything, she thinks we should hurry and she thinks she's perfect in English!!"
"We exchange the roles each class. When I predict about the text, another friend prepares the questions, another one uses the dictionary to tell us the meanings and a fourth one summarises. But we consult each others of course before we declare our answers"
"my group is now highly organised ,we exchange the roles each class, predict ,question , explain and summarise all together in the group and consult each other's, we have our dictionary on our table ,we make use of it every class, we are not anymore shy to think allowed, as you did."
"When we were in groups in last years, we were used to copy the answers from the clever girl and that's it"

Many other students preferred talking to me orally to writing their opinions or feelings. Many notes have been taken into consideration to modify the work of the groups. In some cases we needed to exchange group members with others, at other cases I just needed to give some notes to some students on how to do better, in others I needed to sit again with the group during the class and work with them to return them back to the track. I can feel the cooperation and passion to work in its perfect situation. Students interact in their groups comfortably as friends and family members, drilling the strategies each reading class made them follow the routines smoothly, they don't need much time now to prepare themselves for the class. Most of the time now , I go to my class to find the groups already organised, RT worksheets are already on the desks, title on the board and the board is neat and divided into four parts with four headings of the four strategies.

## November 7

Sometimes we needed some refreshment in the class, at the same time I needed to tap previous knowledge, critical thinking, predicting and summarising without reading the topic. I didn't forget my role as a facilitator in the class but I needed sometimes just to guide students to create the theme themselves. For example, I only write the title in the middle of the board and start asking questions tapping previous knowledge and generating relevant vocabulary. Students as usual search their memories and give me many words, I write them around the topic in a net or a semantic map. When I'm satisfied with the words, I point with the pointer to the words to write them as sentences, then provide some linking words to connect the sentences and ask them to put the paragraph in order and that in fact is the summary of their lesson. Students write and read the paragraph they made cooperatively and when they finish, I ask them to turn their books on and read the lesson. They get very impressed that they already understand this and just summarised it before minutes!! At many other times I gave them only a look for a minute at the text before closing the book and starting the same process on board. I used to
recall vocabulary, create a map and write a paragraph that says everything about the lesson they are going to read. Students were having much fun and learning with these activities and at the same time I was making sure they are developing their vocabulary, writing skills and crosssubject knowledge.

## November 12

Despite I have made sure that teaching in groups is one way of controlling and organising large classes, it was hard to take all the groups to present in the same period. I had eight groups in the class; I had to find way to enable them all to participate so I distributed the activities among them. I used to ask four predictors from groups 1-4 to come to the board and write their predictions, then I would ask questioners from groups 5-8 to come to the board and write their questions and collect answers, next I will return to clarifiers in groups 1-4 to write their new words on board with their meanings or word families or opposites, and back to the groups 5-8 to read their summaries to the class if we didn't have much time to write them. It was much pressure on me not on students to control the activity and the available time to work. But, at the same time it was very interesting and fun to see students from the different groups competing friendly to present and excel other groups in their answers and get the teacher's compliment and rewards. Their cooperation is transforming the class into bees' cells. They are all busy. That showed me that students are now taking the ownership of their own learning. Each group was investing well in the available time to prove their group is the best!

## November 19

I wanted to adapt my students to regular reading norms. I wanted them to understand but not in an automatic way. I had bought a number of English novels for the school library last year and I asked the principal to buy more this year so the novels available would be enough for every student to borrow one. I bought the series of stories from levels 2-6 so I can give every student the suitable level to read. I designed a reading log for my students and distributed the
novels, gave a deadline to give the reading logs done. Students expressed their thanks as it was the first time the school was reading English and students of all fluency levels felt they possess the same tools. "When I collected the logs for evaluation, I noticed the amount of effort done (especially by the low achievers) to complete and return them in time. This experience increased my trust in my students and their abilities. Some low-academic achievers reported to me that they were reading for long time at home to complete their logs. They were using the dictionaries to continue reading. I guess they wanted to show me they are not stupid and can function well to fill in their logs".. Some low achievers reported to me that they were reading for long time at home to complete their logs, using the dictionaries and making connections to show me they are not stupid ,but they don't care about school text books because they are bored of them and of the way they study!!

## November 24

Students' interaction in the groups became higher, I guess, and they feel better about each other's concerns as for many times they come to talk to me as a group about their roles in the group and how they now organise themselves to achieve best understanding of the themes they are studying. Cooperation was growing also. Good readers feel more now about the concerns and challenges "weak readers" face. They became aware of the importance of their roles as facilitators to their colleagues. In teaching a unit about "the different genres of fiction" students agreed to focus on "folk tales", its characteristics, origins and themes. After studying them, it was agreed that every group should compose its own folk tale with full elements, theme and a lesson to teach. I gave my students a graphic organizer on the folk's elements which they used to analyse a folk in their books into its elements including: title, characters, problem, solution, ending and the lesson we learn. In the next class, each group was asked to think about their own folktale. Every group was given a story map to establish their own folk tale; they consulted me often about the logic in their stories, and then ran back to their groups to
continue I couldn't believe the how great the class climate was. They were working very actively and cooperatively to compose their own folk tales. Students used the same story map to establish their own stories; they consulted me often about the logic in the story then ran back to their groups to continue. Groups were competing in a fantastic way to give their best; they gave me more than what I asked them to do. They had made their folk tales clear by attaching pictures and illustrations of their drawings. The collective effort of the group has produced very well written tales which decorated the walls of the class.

November 30

Group work with RT is more mature now and the relationship within the one group is very stable. Students feel equal in the treatment and effort they pay. RT rise from the social constructivism where the process of learning develops with the scaffolding of the skill through the teacher and other students. That shows that the trust, respect and cooperation are key elements for the process to mature. At the beginning of teaching it was impossible to drive many students to talk. With dialogue (as a primary feature of RT), I could slowly create a simple, easy to understand language, through which many students acknowledged they understand what the dialogue mean. Through dialogue and question generating from the very simple to the more complicated, I can say now that many silent or hesitant students raise their hands with more confidence to answer and share. Group members were supporting each other's learning. when I asked groups to send one predictor to the board to write the group's predictions, I was surprised to find that most groups have delegated one of the low achievers to do the task They now come to the board without fear to write with mistakes, after I was able to convince them that the process is about understanding rather than writing perfectly without mistakes. Sharing roles, dividing work into four strategies in which every student has a role helped less competent reader define what they will do and reduced the burden of doing the whole task alone. Unfortunately, I still have students who are unfortunate to pass the tests yet,
but I can tell they have the confidence to participate and interact within groups in a very positive way and by the way those less fortunate students are the ones who spread fun and smile in the class.

## December 3

Reciprocal "manners" have grown among the students in my classes. They are sharing knowledge, strategies of learning, helping each other's to give meaning to the text and at the same time becoming closer to each other's. Reciprocal relationship in English class has extended to the social context of the whole class. Students from different social backgrounds feel more comfortable in their relationship outside the class. "Well established" readers feel more now about the worries and challenges "weak readers" encounter and became more familiar of the "teacher's role" as a facilitator to their colleagues. Feeling of responsibility and learning ownership have expanded and good feelings towards the group have replaced the competitive feeling they used to have at the beginning. Students needed to feel closer, so they suggested making same T-shirts for all of them. They worked actively and happily to search the net for ideas, colours and designs to make special thing, collected money and donated for those who can't pay. In two weeks, the whole classes of 11th grade were wearing the same blouse even me and that really gave us a positive feeling of being family and real friends.

## December 8

As the process of learning moves on, I notice that the degree of understanding and the amount of interaction in the groups varies according to the themes students learn. When the themes are more culturally related to them, they become more active and keen to participate and share their own opinions and reflections to it. Topics like "Going places", "Political Systems", "A good read" or "The food on your table" were more appealing to students to discuss and generate dialogues about, I guess, because these themes are connected to their culture, personal interest or daily life. That supported my point of view about the role of culture in reinforcing
language learning .When themes were close to students interests and values, they were more active in turns taking and responding to the theme. May be "clarification" and "predicting strategies" consumed less effort as they could quickly refer to their previous knowledge to build understanding. On the other hand, understanding as well as interaction was lower when the texts were not culturally related or the text itself was of a complicated nature or language.

## December 15

Interaction in the groups varied also according to the social contexts and the harmony among the students of the one group. Harmony and friendship between the one group members were noticed to be an effective factor to scaffold low achievers skills, they were imitating their competent partners who have mastered the strategy, without feeling embarrassed and they ask for help with higher attendance. Feeling like in a family or sense of "community" of learning created a strong ground for many hesitant students to stand on. They were watching teacher and partners, imitating the strategy and trying themselves. In my plan to encourage learning norms, I encouraged my slow readers to monitor their reading and make use of the community work they interact with. Having a variety of roles of people who predict, ask, clarify and summarise was a non- preceded chance for those students to make use of through dialogue, observing, and imitating. Thinking with others made the difference.

## December 18

Teaching with RT in such large classes, on the other side, was very exhausting and consuming to me as teacher for many reasons. On the one hand, focusing on the poor readers required great effort to keep up with them as a majority in the class. The necessity to move from one group to another to model and foster their learning couldn't give me time to breath in the class time. On the other hand, the challenge of the large class with only one teacher of multifunction was a big burden. I found myself required to be a teacher, director, facilitator and organizer at the same time, which fact exhausted me but the high spirit my students spread encouraged to me to
continue. I think if classes were more focused less in numbers or had a co-teacher, things would move on easier and RT would be more effective.

I can't say that large classes were totally bad idea, it was demanding but at the same time, having a variety of students with different abilities was one of the factors that helped the process of learning continue. Having large number of students among them were skilled ones, average students and weak readers created the chance to work in heterogeneous groups where students can reshape eachothers skills and improve together as a small community supporting its members.

## December 26

Decoding the meaning from a text and put it in their own words, was still a challenge to many students after this period of teaching with RT. Poor strategy teaching when they were younger and getting used to drilling traditional ways of reading wasn't easy to demolish in one semester and replace with strategic thinking about the text. Average students made the clear difference in class by using RT. Those are the ones who have appetite to learn but didn't match with the traditional teaching styles they used to be taught with. Those students showed fast improve in adapting the strategies of RT and representing them in their groups. The fast improve in the average students reading is not only ascribed to their willingness to perform better, but also to the social climate of $R T$, where these students were brought into light as leaders of the groups and responsible about couching their weaker colleagues. RT gave them the chance to be more confident and equal to the high achievers in the roles they perform in the group. Large group of these students have touched the change that happened to their status in the class, specially with the improvement of their tests results. The feeling of accountability of these students encouraged them to start their project with me. The aim was to promote RT as a comprehensive schooling method. I suggested the idea of starting a learning support room; my students were very enthusiastic about the idea. We got a permission to start our project and those students
started making use of every unit topic in their books to perform a new poster, illustrated materials, summaries, dimensional shapes and many other ideas. Some of these students considered the project their own, they are performing the ideas and my role is limited to some revisions of their work or giving advice. As usual, I always get surprised of the abilities students have and I weren't given the chance to notice before. They draw and make illustrations and maps of the reading. That was the best evidence that these students read with meaning and analysed what they have read in order to model it or represent it in a different way.

## Appendix G: Reciprocal Teaching Handout

| Predict: | Clarify: |
| :---: | :---: |
| Based on what you've read and what you know, what do you think will happen next? | Was there a word you weren't sure about? What is it? What page is it on? |
| What clues helped you to think about what will happen next? <br> Is your prediction logical? | What can we predict it means? <br> How can we check it? |
|  | Were there any ideas that were confusing to you or that you don't understand? <br> What strategies can we use to figure this out? |
| Question \& Connect: | Summarize: |
| Is there anything that you did not understand? | What are the most important ideas or events? |
| Is there anything that did not make sense? | What does the author want you to remember or learn from this? |
| What were you thinking about as you were reading? | What is the most important information in this passage? |
| Has anything like this ever happened to you? | What was this passage mostly about? |
| Have you ever known anyone like this character? <br> What are you curious about? | In your own words... |

## Appendix H: Reciprocal Teaching Worksheet



## Appendix I: Reading Log used by 11th Grade for Extra Reading

AlBireh Secondary Girls School

$11^{\text {th }}$ Grade $\mathrm{A} \backslash \mathrm{B} \backslash \mathrm{C} \backslash \mathrm{D}$


## Reading

Strategies

Reading novels sharpens your reading comprehension skills and enriches your vocabulary. To apply the different comprehension strategies, assignments related to reading will be given throughout the year.

## Novel Assignment 1 \{due date December $\left.15^{\text {th }}, 2015\right\}$

1. Title of the novel
2. Name of the author tillustrator.
3. Main characters of the novel: $\qquad$
$\qquad$
$\qquad$
$\qquad$
4. Use your dictionary to find the meaning of ten new words, use five of them in full sentences.

| Word | Meaning | Sentence |
| :---: | :---: | :---: |
| 1 | ------------------------------ |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |
| 7 |  |  |
| 8 |  |  |
| 9 |  |  |
| 10 |  |  |

Write two questions about the story and answer them in complete sentences:
Q1:
A: $\qquad$
$\square$

$\qquad$
$\qquad$
5. Main idea of the story
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
6. After reading the story ,use the table format to find the following:

| Verbs in <br> the <br> present <br> form(5) | Verbs <br> in the <br> past <br> form <br> (5) | Singular <br> nouns(5) | Plural <br> nouns(5) | Compound <br> words(3) | Words <br> with <br> prefixes <br> lsuffixes | Feelings you <br> lived during <br> reading(3) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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The whole world opens to you when you read.

## Appendix J: Cooperative Groups Logo




[^0]:    * Statistically significant at the level of statistical significance ( $\alpha \leq 0.05$ )
    ** Total pre/posttest grade $=20$ points

