The Effect of Using Reciprocal Teaching on Improving College Students' Achievement in Reading Comprehension

Maysaa Raheed Abdul-Majeed
University of Baghdad /College of Education for Women

ABSTRACT:
Reciprocal Teaching is an interactive method that is used to improve reading comprehension. Using this teaching strategy, teachers and students take turns leading discussions regarding sections of text using the four strategies: predicting, questioning, clarifying and summarizing. This study is an attempt to investigate the effect of using reciprocal teaching on improving female college students' achievement in reading comprehension. To fulfill the aim of the study, the researcher has adopted two null hypotheses: first, there is no significant difference between the achievement of students' who practice the reciprocal teaching technique and that of students who do not practice it. Second, there is no statistically significant difference between the experimental group students' achievement in the pre and posttests of reading comprehension. To achieve the aim of the study, a four-week experiment was conducted using pretest-posttest non-equivalent groups design. Two groups of thirty students each were selected from the population of first year students/college of education for women/department of English. One group was selected as the experimental group (namely section C D) and other group was selected as the control group (namely section E F). Both students of the experimental and control groups were exposed to pre and posttests. Using the t-test for two independent samples, it is found that there is a statistically significant difference in favour of the experimental group. This indicates that reciprocal teaching technique is more effective than the presentation practice production teaching or the Lecture Method teaching. At the end of the research paper, conclusions, recommendations and suggestions for further studies are put forward.

aker استخدم التدريس المتبادل على تحسين تحصيل طالبات الكلية
في الاستيعاب القرائي
ميساء رشيد عبدالمجيد
جامعة بغداد/كلية التربية للبنات

المستخلص:
بعد التدريس المتبادل طريقة تفاعلية مستخدمة في تحسين الاستيعاب القرائي، فيها يتناوب المدرسين والطلاب مناقشات بشأن فروع النص باستخدام الاستراتيجيات الأربع: التنبؤ، السؤال، التوضيح والتشخيص. يهدف هذا البحث إلى التحقق من أثر استخدام التدريس المتبادل على تحسين تحصيل طالبات الكلية في الاستيعاب القرائي بالمقارنة مع الطريقة القيمية أو (طريقة المحاضرة). من أجل ذلك صيغت فرضيتين صفرتيتين: أولاً، ليس هناك فرق ذو دالة إحصائية بين تحصيلات الطالبات اللاتي درسن الاستيعاب القرائي باستخدام التدريس المتبادل واللائي درسن نفس المادة بطريقة المحاضرة ثانياً: ليس هناك فرق ذو دالة إحصائية في الاختبار القبلي والبعدي للمجموعة التجريبية في الاستيعاب القرائي. من أجل تحقيق هدف الدراسة اجريت تجربة لمدة 4 أسابيع باستخدام التصميم التجريبي ذي الاختبار القبلي-بعدي للمجامع غير المتكافئة. تم اختبار اثنين من مجتمعين من كل منهما 30 طالبة مرحلة أولي/كلية التربية للبنات. قسم (EF) المجموعة التجريبية، واختيرت الأخرى (المجموعة CD) كمجموعتين ضابطتين. تم اختيار كل من المجموعتين قليلاً و bât ًا. باستخدام الاختبار لعينيتين مستقلتين، وجد بأن هناك فرقاً ذا دالة إحصائية لصالح المجموعة التجريبية، فهذا يصح باستخدام التدريس المتبادل في الاستيعاب القرائي. في نهاية البحث، تم وضع الخاتمة، التوصيات والاستنتاجات.

-900-
1-Introduction
1.1 Statement of the Problem:

Reading Comprehension (henceforth RC) is one of the most important skills that has been neglected in the audio lingual tradition of language teaching. It has been considered as the “process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (RAND Study Group 2002, as cited in Moore, 2005: 3).

In reading, every individual constructs meaning through a transaction with the written text, i.e., the transaction involves readers' interpretation of the text that is influenced by their past experience, language background and purpose of reading (Celce-Murcia, 2001:154). This is supported by Hedge (2008:193) who presents vocabulary as a major component of the readers' difficulty, and a major strategy to build vocabulary for reading is to encourage students to develop strategies for guessing word meanings from contextual clues and background knowledge.

Language is not the only factor in successful comprehension, i.e., some students who speak and write English very well are poor at this kind of work and maybe bad at comprehension even in their own mother tongue (Swan, 1975: 1). In addition to this, younger and poorer readers may “tend to focus on word reading rather than meaning construction aspects of the task” (Cain, 1999: Int.).

Problems with comprehension may also be clearly shown in written language as well as readers interpret verbal and social communication. Some professionals attribute this difficulty to general comprehension problems and suggest that these problems negatively impact educational performance (Whalon, 2004:4).

Mousavi(2012:605) presents reading in a second language as a slower and less successful process, because readers are spending more time at each fixation per-line. In Iraq, EFL learners are “word by word” readers and their level of achievement in RC is low (Al-Jubouri, 2003: 1). For this, EFL teachers and instructors must understand the causes of difficulties in comprehension, and help readers to overcome their problems in comprehending what they read. This will be done through adopting various teaching techniques and methods.

Reciprocal Teaching (henceforth RT) is one of the most well researched reading activities that “enable students to self-monitor and construct meaning as they are reading” (Reciprocal Teaching, 2007: Int.). It involves four strategies: questioning, clarifying, predicting and summarizing.

- Predicting: it helps the students to anticipate focus on clues within the text.
- Questioning: it helps the reader to focus on the text and process this information.
- Clarifying: it guides the student to clarify unclear sections of the text and select a strategy to help him/her make sense of the text.
- Summarizing: it helps the students to sequence the important events in the text.
1.2 Aim of the Study:
This study aims at:
1. empirically investigating the effect of using reciprocal teaching on female college students' achievement in reading comprehension.
2. improving students understanding of the reading comprehension texts.

1.3 Hypothesis:
The following null hypotheses will be investigated:
1. there is no statistically significant difference between the achievement of students who practice the reciprocal teaching technique and that of students who do not practice it.
2. there is no statistically significant difference between the experimental group students' achievement in the pre and posttests of reading comprehension.

1.4 Limits of the study
The present study is limited to first year female students/morning class at the Department of English, College of Education for Women-University of Baghdad, during the academic year (2010-2011).

1.5 Definitions of Basic terms:
1.5.1 Reciprocal Teaching
RT is defined by Manohar (2008: Int.) as an instructional activity that takes place in the form of a dialogue between teachers and students regarding segments of text which is structural by the use of four strategies: predicting, question generating, clarifying, and summarizing.

Reciprocal teaching method is an "instructional method that involves guided practice of reading comprehension. In this method, the teachers’ role is to provide modeling, scaffolding, feedback and explanation for the students"(Koul,2007:Int.).

Operationally, RT is defined as an activity that takes a form of a dialogue between the teacher and his students with four specific reading strategies that are actively and consciously used to support comprehension: predicting, questioning, clarifying, and summarizing.

1.5.2 Achievement:
Achievement is the individual progress towards the instructional objectives of a specific study (Darwesh and Jarah,1997:124).
Dwyer(1982:12) defines achievement as learning that takes place during a definable course of instruction.

Achievement test is what language learners have successfully learnt with specific reference to a particular course, textbook, or program of instruction (Richards and Schmidt, 2002:7).
The operational definition is that achievement refers to the scores gained by applying a test on students who have been involved in an experimental study.

1.5.3 Reading Comprehension

RC can be defined as the "linguistic process of reconstructing the intended message of a text by translating its lexical and grammatical information into meaningful units that can be integrated with the reader's knowledge and cognitive structures" (Harries and Hodges, 1982:266).

Another definition is given by Richards and Schmidt (2002:443) as "perceiving a written text in order to understand its contents". This understanding is called reading comprehension.

Operationally, RC is defined as an active, interactive process that occurs before, during and after a person reads a particular piece of writing.

2-Theoretical Background
2.1 Reciprocal Teaching
2.1.1 Background

Strategies are very important for developing the learners' communicative ability because they represent "the tools for active, self-directed involvement"; therefore, students need to learn how to use the reading strategies that match their purposes of reading (Nunan, 2003:76).

Metacognition is defined as "thinking about thinking". It has been associated with activities such as planning how to approach a given learning task, monitoring comprehension and evaluating progress toward the completion of task (Livingston, 1997:Int.). This term has been established initially and primarily in the field of psychology, then it was developed by Flavell's work (1979) which inspired a vast body of research on the subject. By the mid-1990, the discussion of how to define metacognition as an opposed to cognition led to consensus within the information processing paradigm (Cohen and Macaro, 2011:62).

Metacognition plays an important role in reading because it involves both the "conscious awareness and the conscious control of one's learning"(Collins, 1994:Int.). This is supported by Barnett (1988:Int.)who states that reader's mental processes will work together at different levels, throughout the interaction between the reader and the text to create meaning.

Metacognitive strategy can be seen as a strong predictor of second language proficiency, Purpura(1999)has provided a clear evidence about its exclusive function in task completion than cognitive strategy (Celce-Murcia, 2001:364). This is due that metacognitive strategies involve planning for learning, thinking about how to make learning effective, self-monitoring during the learning process and evaluating the work on language (successfully learned or not) (Hedge, 2008:78).

Metacognitive reading strategies help readers be aware of whether or not they comprehend what they are reading and assist teachers' decision of what
strategies to employ to aid comprehension (Collins et al., 2006: Int.). Accordingly, researchers have investigated that these strategies can be used by successful and less successful readers and enabled them to monitor their own reading process (Carter and Nunan, 2001: 24). Hence, Hosenfield's studies supported this when he asked successful readers to report their own reading strategies. Readers reported that "they skipped inessential words, guessed from context, read in broad phrases and continued reading text when they came across a new word" (ibid.).

The reading strategy training approach which is known by (RT) was developed by Brown and Palinscar (1984). In their teaching approach, students were taught the four concrete strategies which are proved to be effective in enhancing the reading ability of the students (Song, 1998: Int.).

In using RT activities, students are taught cognitive strategies through appropriate support and feedback. Students learn these strategies through discussion, support, and feedback to enhance RC, develop self-regulatory and monitoring skills, and achieve an overall improvement in motivation (Choo et al., 2011: 142).

RT is best represented as a dialogue between teachers and students. According to Palinscar, during RT, the teacher and students take turns assuming the role of teaching in leading this dialogue which leads to an interesting group experience (Manohar, 2008: Int.).

In addition to that, Blakey and Spence (1990) present RT as one of the most effective methods that develop the cognitive and the meta-cognitive processes for the students, in which it includes organizational procedures which enable them to choose the strategies of planning, controlling and evaluating at their own pace. RT is based on the dialogues and discussions between students and the teacher. It also includes exchanging roles between the teacher and the learners which makes students responsible for their roles in the teaching learning process and allows students to support each other continuously (Omari and Weshah, 2010: 26-27).

### 2.1.2 The Basic Strategies of Reciprocal Teaching

The four basic strategies of RT are as follows:

**A. Predicting:**

It means prediction of general idea of the text from the title or the heading (Koul, 2007: Int.).

**B. Questioning**

A student assumes the role of "teacher" and reads aloud a segment of a passage as group members follow along silently. The group members then pose questions that focus on main ideas (Building Reading Proficiency, 2012: Int.).

**C. Clarifying**

In this strategy, the learner is clarifying the text and looking for complicated idioms, concepts or expressions, he/she might reread the text or ask for help. He/she might follow some procedures to determine the obstacles in vocabulary,
idioms, expressions or ideas and make use of some indicators in order to clarify these obstacles and understand them (Omari and Weshah, 2010:27).

D. Summarizing
This strategy gives the reader the opportunity to find out the main ideas in the text, organize them and understand the relationships between them. It indicates the process of "summing up the text and reproducing it in another form by following a group of procedures that keep the main ideas and develop the learners' abilities to focus on the important facts and proofs" (Ibid.).

2.1.3 Benefits of Reciprocal Teaching
The benefits of RT technique can be summed as the following:

1. The strategies chosen not only to promote RC but also to provide opportunities for students to learn and to monitor their own learning and thinking (Reciprocal Teaching: A Reading Strategy, 2000: Int.).
2. The teacher takes an active role in RT; he is the leader of the discussion to improve the comprehension of the material being read. These collaborative, problem solving dialogues involve talk that is purposeful and relaxed and provide opportunities to expand, explore and extent (VELS Level 5 and 6-Guided Reading: Reciprocal Teaching, 2012: Int.).
3. Learners can gain self-confidence, cooperation and motivation to read (Resource Center: Reciprocal Teaching, 2004: Int.).
4. In RT, pairs of students can alternately teach each other their languages (Cook, 3001:152).
5. RT provides the context for specific strategy instruction and for transforming the student into a strategic reader (Richards and Renandya, 2002:277).

2.1.4 How to Implement Reciprocal Teaching
The following steps can be followed in implementing RT technique:

1. Teachers should be familiar with the text, provide a brief, focused introduction, model the strategies and support learners in using them. When reciprocal reading session is over, it is advantageous for the learners to read the whole text to themselves (Resource Center: Reciprocal Teaching, 2007: Int.).
2. Organizing students into groups of 4 or 5 students (VELS Level 5 and 6-Guided Reading: Reciprocal Teaching, 2012: Int.).
3. Giving a student the role of the leader, which involves being: predictor, clarifier, questioner, and summarizer (Ibid.).

2. Reading Comprehension
2.2.1 Introduction
Reading is an "extremely complex activity involving a combination of perceptual, linguistic and cognitive abilities" (Wingfield, 1982:3). It is an important activity in any language classes for consolidating and extending one's knowledge of
the language. Hence, teachers' main concern is to help their students comprehend the text without resorting to translation into their native language (Rivers, 1981: 259).

Every reader may read for pleasure and information. For this, in teaching the reading skill, EFL teachers try to help their students enjoy and obtain information for language study (Frisby, 1970:208). Every reader may have the ability to translate and decode the printed symbols into their corresponding spoken words (Badger, 1965:76). Also, he may have the ability of using his predictions and expectations about the text depending on the interaction between his knowledge of the language with his world knowledge (Al-Jubouri, 2003:9).

Reading and Comprehension are closely interrelated in which students cannot recognize and interpret the written material without comprehending and understanding it. Also, reading has a strong bound relationship with the other FL skills; i.e., listening and speaking.

2.2 The Selection of the Texts
Texts can be selected according to the following bases:

1. Level of the Reader's Proficiency
   When EFL teachers select the texts, it must be not too far above the readers' level of proficiency because they will compensate for the bottom-up knowledge by using top-down reading in order to answer the question 'what does the text mean?'(Mousavi, 2012:605).

2. Meeting the specific needs of the Readers
   Students may not necessarily have any clear needs for learning to read English. Therefore, EFL teachers choose and prepare texts that motivate them to read for interest; i.e., teachers may ask their students to find texts themselves which, they think, will interest the class (Hedge, 2008:206).

3. Authentic Texts
   This factor is important with students who are gradually developing their competence to approach a text without expecting to understand every word; i.e., to create an authentic reason for a particular text in order to motivate them to read (ibid:207).

3. Procedures
3.1 The Experimental Design
   In order to achieve the aim of the present study, a" pretest-posttest non-equivalent groups" design was chosen. See Table 1.
The design of this experiment includes the selection of the two groups randomly. Both groups were submitted to a pre-posttest. The experimental group was taught RC through using reciprocal teaching technique, whereas the control group was taught this area through the conventional way (PPP approach). The scores of both groups were compared to see if there is any significant difference between the two groups or not.

### 3.2 Population and Sample Selection

The population of the present study is first-year female students/morning class at the Department of English/ College of Education for Women during the academic year (2010-2011). The sample has been chosen randomly from the population mentioned above. There were 120 students distributed alphabetically into six sections. These sections were unified into one section according to the timetable of the department.

Thirty students were randomly chosen from section (A B) for the pilot study. For the sample of the study, sections (C D) and (E F) were selected and assigned to be the experimental and the control groups respectively. The number of students in section (C D) was 34 and in section (E F) was 31. After excluding the ex-primary school teachers from both groups, the total number of the sample was (60), thirty students in each group.

#### 3.2.1 Equivalence of the Sample

The researcher tried to control some of the variables that may affect the experiment. These variables are: age, parents' education and students' scores in the pretest. The differences were tested at 0.05, level of significance, using the t-test formula for two independent samples and chi-square formula. It was found out that the subjects of the experimental and control groups were matched on the above mentioned variables since there are no statistically significant differences between the two groups. Tables 2, 3 and 4 summarize the results of the statistical treatment of the sample equivalence.
Table 2 t-Test Statistics for the Age and Pretest Scores Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>( s^2 )</th>
<th>df</th>
<th>Computed t-value</th>
<th>Tabulated t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in Years</td>
<td>E</td>
<td>30</td>
<td>18.86</td>
<td>0.39</td>
<td>58</td>
<td>0.223</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>30</td>
<td>18.9</td>
<td>0.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest Scores</td>
<td>E</td>
<td>30</td>
<td>34.1</td>
<td>91.05</td>
<td>58</td>
<td>1.487</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>30</td>
<td>32.9</td>
<td>92.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 Chi-Square Statistics for the Fathers' Education Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>Illiterate</th>
<th>Primary</th>
<th>Intermediate</th>
<th>Secondary</th>
<th>Diploma</th>
<th>B.A</th>
<th>df</th>
<th>Computed Chi-Square</th>
<th>Tabulated Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers' Education</td>
<td>E</td>
<td>30</td>
<td>-</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>13</td>
<td></td>
<td>5.32</td>
<td>11.07</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>30</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>26</td>
<td></td>
<td></td>
<td>5.32</td>
<td>11.07</td>
</tr>
</tbody>
</table>

Table 4 Chi-Square Statistics for the Mothers' Education Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>Illiterate</th>
<th>Primary</th>
<th>Intermediate</th>
<th>Secondary</th>
<th>Diploma</th>
<th>B.A</th>
<th>df</th>
<th>Computed Chi-Square</th>
<th>Tabulated Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers' Education</td>
<td>E</td>
<td>30</td>
<td>-</td>
<td>5</td>
<td>4</td>
<td>9</td>
<td>6</td>
<td>6</td>
<td></td>
<td>5.32</td>
<td>11.07</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>30</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>2</td>
<td>10</td>
<td>11</td>
<td>13</td>
<td>15</td>
<td>9</td>
<td></td>
<td></td>
<td>5.32</td>
<td>11.07</td>
</tr>
</tbody>
</table>

3.3 Instructional Program

3.3.1 Instruction

Instruction started on the 23rd of March 2011, lasted for 4 weeks and ended on the 13th of April 2011. The researcher taught both groups to control the teacher variables. The experimental group was taught through using reciprocal teaching technique, whereas the control group was taught by the lecture method. The lectures were arranged for both groups as four hours per week.

3.3.2 Instructional Material and Lesson Plan

The instructional material for this study was four passages (Avery Dear Cat, Pioneer Pilots, Daniel Mendoza, By Heart) which were selected from the first year RC textbook "Developing Skills" by L.G Alexander.

Behavioral Objectives:

The behavioral objectives of this study are:

a. To enable students determine the important ideas from a reading passage while discussing vocabulary, developing ideas and questions, and summarizing information.
b. To enable equal participation of each and every class member, including anyone who may be too shy or fearful to participate orally.

c. To enable students monitor their own learning and thinking.

As for the experimental group, the following procedures are used according to reciprocal teaching technique:

- **Preparation**
  The researcher gives her students a general idea about the four strategies of reciprocal teaching technique: predicting, questioning, clarifying and summarizing.

- **Presentation**
  1. The researcher has divided the class into five groups; each group consists of 6 students, and then she has chosen one of them to be a teacher and leader for her group.
  2. The researcher has divided the paragraphs of each passage according to the groups of the class.
  3. The researcher will ask her students at each group to apply the four strategies: predicting, questioning, clarifying and summarizing at each paragraph.
  4. In each group, each student role is:
     a. to predict what the story is about from the title of the passage.
     b. ask questions (inference ones and critical thinking ones).
     c. clarify the unclear words or phrases; dictionaries are used.
     d. write a summary about the whole passage.
  5. The researcher will ask each group about the four strategies applied at each paragraph and the leader will answer.

- **Feedback**
  Feedback will be given either by the teacher or by the students of the same group, the students at the other groups. Also, the researcher may ask the students if they have any unclear thing about the presented passage or not.

As for the control group, the researcher taught them the same material according to the presentation, practice and production approach or the lecture method.

3.4 **The Test**

3.4.1 **Test Construction**

The researcher has constructed RC test that consists of two passages chosen from the book *Reading Through Interaction "Book Two"* edited by Akbar Mirhassani and Hossein Farhady(2003). Each passage includes four questions. Question one is about predicting, question two is about questioning, question three consists of two parts which are about clarifying and question four is about summarizing. Each passage consists of 19 items. One item is devoted for question
one, five items are devoted for question two, eight items are devoted for question three (for each part four items) and finally five items are devoted for question four. The whole test items are 38 ones. (See Appendix 1).

3.4.2 Test Validity
Validity means the extent to which a test measures what is intended to measure (Downie, 1967:92). In order to ensure the face validity, the test items were exposed to a jury of experts in language and linguistics to judge whether the test items are suitable or not for the proposed purpose. The jurors are asked to read the test, add, delete or change the items, after that, the jurors have agreed upon its validity and suitability (see Appendix 2).

3.4.3 Pilot Administration of the Test and Item Analysis
On the 14th of March 2011, a pilot administration of the test was carried out. The test was experimentally tried out on a sample of 30 students who were selected randomly from section (A B), first year students at the same department - college of education for women. The purpose behind this pilot study was to:
1. estimate the time needed to answer the test;
2. provide information about the ease of administer the test;
3. check the clarity of instructions;
4. analyze test items in the light of students' responses to determine their effectiveness in terms of their difficulty level and discrimination power; and
5. calculate the reliability coefficient of the test.

The pilot study revealed that the time needed to complete the test was two hours. As for the clarity of the instructions, they were clear. After adapting the item discrimination formula and arranging students' scores from high to low for the purpose of item analysis, the researcher has divided them into two groups: upper and lower. By using the item discrimination formula, it was found out that the discrimination power of the test items ranged between 0.06-0.73, whereas by adopting the item difficulty level formula, it was found out that it ranged between 0.166-0.89. This shows that some of the test items need to be replaced or deleted, but because of their importance for the discrimination between good and weak students, they were left as they are. This is supported by Ebel (1965:359) who states that the researcher should include items of this kind in the test, regardless of their low discrimination and should review the reasons for including them when low discrimination is not due to technical weakness in the items or to inappropriate difficulty.

3.4.4 Test Reliability
The concept of reliability refers to the degree of consistency of the test measurement (Oller, 1979:4). One of the methods that can be used to find out test reliability is Alpha Cronbach formula. As a result, reliability coefficient of 0.747 is
obtained. For rescoring the test, the researcher used the correlation between the scores of herself with that of another teacher's rating, in order to estimate the reliability coefficient of the test, Pearson's formula is used. The correlation between the first scores (the researcher) and the second scores (a second scorer), it is found to be 0.903. This shows that the test is quite reliable and acceptable (see Appendix 3).

3.4.5 Final Administration

Students of both groups were pretested on the 17th of March 2011. This pretest aims at ascertaining the amount of learning achieved and equating the two groups.

The posttest was administered on the 27th of April 2011. The test of the two passages was described and scored as the following:

<table>
<thead>
<tr>
<th>Questions</th>
<th>Items</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 prediction</td>
<td>1, 20</td>
<td>10</td>
</tr>
<tr>
<td>Q2 questioning</td>
<td>2, 3, 4, 5, 6, 21, 22, 23, 24, 25</td>
<td>18</td>
</tr>
<tr>
<td>Q3 part A meanings</td>
<td>7, 8, 9, 10, 26, 27, 28, 29</td>
<td>10</td>
</tr>
<tr>
<td>Q3 part B sentences</td>
<td>11, 12, 13, 14, 30, 31, 32, 33</td>
<td>10</td>
</tr>
<tr>
<td>Q4 summarizing</td>
<td>15, 16, 17, 18, 19, 34, 35, 36, 37, 38</td>
<td>18</td>
</tr>
<tr>
<td>Total= 38</td>
<td>Total= 66</td>
<td></td>
</tr>
</tbody>
</table>

The whole thirty-eight test items were scored out of 66. For each item of the test grammar, spelling, and idea were taken into consideration by the researcher. If any item was left by the testee, it was considered wrong and got zero score. The highest mark was 64. (See Appendix 1).

4. Results, Conclusions, Recommendations and Suggestions

4.1 Results

4.1.1 Comparison of the experimental and control groups in the posttest scores

In order to find out whether there is any significant difference between the two mean scores of the experimental and control groups in the total score of the post test, the t-test formula for two independent samples is used. As shown in table 6, the mean score of the experimental group is 45.8 and that of the control group is 32.7. By using the t-test, it is found that the calculated t-value is 4.251 which is
more than the tabulated value 2.00 at level of significance 0.05, which means a statistically significant difference in favour of the experimental group. This indicates that teaching by reciprocal technique is more effective than the presentation practice production teaching or the lecture method teaching. So the first null hypothesis that is presented earlier is rejected (see table 6).

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>( s^2 )</th>
<th>Computed t-value</th>
<th>Tabulated t-value</th>
<th>d.f</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>3</td>
<td>45.8</td>
<td>173.35</td>
<td>4.251</td>
<td>2.00</td>
<td>58</td>
<td>0.05</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>32.7</td>
<td>114.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.1.2 Comparison of the pre-posttests scores the experimental group

The mean score of the experimental group in the pre test is found to be 97.66, whereas in the post test is found to be 115.45. The t-test is also used to show if there is any significant difference between the scores of the experimental in the pre-post tests scores. The t-test value is found to be 4.76 which is more than the tabulated value 2.045 at level of significance 0.05, which indicates that there is a significant difference between the two scores because of the influence of RT. Thus, the second null hypothesis that is presented earlier is rejected (see table 7 and Appendix 4).

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>( s^2 )</th>
<th>Computed t-value</th>
<th>Tabulated t-value</th>
<th>d.f</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest</td>
<td>30</td>
<td>47.3</td>
<td>115.45</td>
<td>4.76</td>
<td>2.045</td>
<td>29</td>
<td>0.05</td>
</tr>
<tr>
<td>Pretest</td>
<td></td>
<td>35.3</td>
<td>97.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.1.3 Interpretations of the Results:

The results show the following:

A. According to the post-test analysis there is clear evidence that students' achievement of the experimental group is significantly higher than that of the control group and using reciprocal teaching technique in teaching RC is more fruitful than teaching it through the conventional way. This is due to the following reasons:

1. RT encourages students to think about their own thought process during
reading
2. It helps students learn to be actively involved and monitor their comprehension as they read.
3. It teaches students to ask questions during reading and helps make the text more comprehensible.
B. By comparing the pre and post tests mean scores of the experimental group, it is found that there is a significant difference between the two mean scores because of the influence of RT. This is a significant indicator that the experiment had its influence on improving the first year students' achievement in RC.

4.2 Conclusions:
The researcher's conclusions can be summed up as the following:
1. Reciprocal Teaching technique proved to be an excellent learning strategy for developing and enhancing students' RC skill.
2. It is noticed that the use of the four strategies: predicting, questioning, clarifying, and summarizing by students throughout the reciprocal teaching technique enhanced their understanding and enabled maximum grasping of information by them from the given text as presented in (4.1.1).
3. From the results analysis, it is proved that reciprocal teaching technique helped poor readers to develop their reading skill through the use of predicting, clarifying, questioning, and summarizing which enabled them to interact with the text to construct meaning as shown in (4.1.2).

4.3 Recommendations:
The researcher has recommended the following:
1. Poor RC is often associated with the weaknesses in oral language. EFL instructors are recommended to provide their students with additional exercises that may enhance the oral use of the language, and may improve their comprehension of the written texts.
2. Instructors are advised to encourage students' extensive reading activity because more exposure to reading may enhance expressive, receptive and social communication, as well as overall cognitive development.
3. Instructors are recommended to select the RC texts according to the students' background knowledge and comprehension as well as their needs and interests.

4.4 Suggestions:
The researcher suggests the following studies:
1. A similar study is needed to investigate the effect of using reciprocal teaching on improving ESP college students' achievement in RC.
2. A study in other stages is needed, such as primary and preparatory stages.
2. A similar study maybe conducted in other colleges of both sexes (males and females).
3. Further investigations on other skills like speaking and listening are needed.

**BIBLIOGRAPHY**


