



Reciprocal Teaching and English Self-efficacy of Seventh Graders

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Abstract

The present study was conducted to investigate the effect of reciprocal teaching on English Self-Efficacy of seventh grade students who are low achievers in English. Pre-test – post-test with one control group design was employed. A total of (N=100) low achievers in English were identified by administering English competency test to 220 VII graders and the sample was randomly assigned to two groups viz. experimental and control with 50 students each. The experimental group was taught through reciprocal teaching where students worked in groups and assumed the role of predictor, questioner, clarifier, summarizer. The treatment was given for 45 days. The control group was taught through conventional method. The difference scores were calculated for reading comprehension and were subjected to one-way analysis of variance and it was found that reciprocal teaching resulted in improvement of English Self-efficacy of students who are low achievers in English.

Key words: low achievers, conventional method, reciprocal teaching, English Self-efficacy

Introduction

Low achievement or under performance is a challenging phenomenon in every discipline. In English, as it is not the mother tongue therefore, most of the students find it difficult to make correct usage of the language and are not able to perform as per the set criterion. The reason may be attributed to the failure of students to control and regulate their learning and problem-solving processes along with their limited strategic skillfulness have been associated to learning problems and poor performance (Lovett, Borden, Warren-Chaplin, Lacerenza, DeLuca & Giovinazzo, 1996; Oakhill & Cain, 2000; Gorgey, 2001). According to Gorgey (2001) low achievers also have difficulties monitoring whether or not their strategies are working and evaluating their outcomes and the achievement of their reading goals. Students' low achievement is also due to teachers using traditional approach and lack of experimental strategies being used in classrooms (Chakarbarty & Saha, 2014).

The basic assumption is that the low achieving pupils need to be acquainted of their inherent potentialities to change and grow. But they encounter numerous problems in learning situations due to their inherent lack of proficiency and acquired ability. Naturally they suffer from strain and anxiety which again stand in the way of their subsequent learning progress. So, to get over this, low achievers need support in the form of strategy to be used in English which is technically sound and psychologically tolerant. One such strategy that fulfils this condition is reciprocal teaching. Literature reveals that reciprocal teaching that utilized the techniques of summarizing, questioning, clarifying and predicting positively affected the scores on criterion tests of comprehension and found to be reliable over time (Palincsar & Brown, 1984 & Hogewood, 2004).

It was also found that reciprocal teaching strategies are better than conventional reading methods for fostering reading comprehension as checked by student scores on standardized reading tests (Carter, 1997; Davidson, 2015; Thakur & Kumar, 2019). Students respond positively to reciprocal teaching strategies with learning and comprehension issues (Moore, 1988; Todd & Tracay, 2006) and who are low achievers (Okkinga, Steensel, Gelderen and Slegers, 2018). A study by Hashley and Connors (2003) reported that there was no as such fix order through which reciprocal teaching techniques should be implemented. Rather, the success of these strategies depends on their use by both the teachers and the students. The study by Mandel, Osana, and Venkatesh (2013) revealed that the students who utilized reciprocal teaching markedly improved their vocabulary as compared to those students who did not. Reciprocal teaching also led in the improvement of self-efficacy levels (Armbrister, 2010). Reciprocal teaching is thus a reading and instruction method that included teacher and taught in a dialogue (Ahmadi & Ismail, 2012).

One construct that determines individual's own belief that he or she is able to successfully carry out certain behaviors that will result in a desired outcome (Bandura, 1977), positively correlate with their students' achievement (Ashton & Webb, 1986; Allinder, 1995). Self-efficacy is the degree to which the student thinks he or she has the capacity to cope with the learning challenge (Madeline, 1996). Self-efficacy does not reveal what a person can truly accomplish, but it tells what they think they can accomplish (Scott, 1996). Students who have low self-efficacy regarding reading believe that they cannot read even if they work hard (Zimmerman, 2000). Mahyuddin, Elias, Cheong, Muhamad, Noordin and Abdullah (2006) and Rahemi (2007) reported strong positive correlation between English achievement and self-efficacy. Woodrow (2011) indicated that performance in writing was facilitated by self-efficacy. The literature of English self-efficacy provides a stronger argument for self-efficacy by specifically affecting linguistic success (Cinkara, 2009). The present study attempted to investigate the following research question.

Research Question

Does reciprocal teaching result in greater English self-efficacy of low achievers in English than in conventional settings?

Delimitations of the study:

- 1) The study was delimited to two Government Senior Secondary Schools of Chandigarh.
- 2) The study was conducted on VII Grade students who are low achievers in English only.
- 3) The experiment was restricted to 45 working days of the academic session.

Methodology

Sample

Out of 115 Government schools of U.T, Chandigarh two schools for treatment were selected randomly by employing lottery method. After the selection of schools, permission from District Educational Office, Sector 19, Chandigarh was sought So, the two schools selected for treatment were: Government Model Senior Secondary School, Sector 38 - D, Chandigarh and Government Model Senior Secondary School, Sector 37- D, Chandigarh. English Competency Test was administered to 220 students of class VII of these schools as per instructions given in the manual. Scoring was done with the help of scoring key. The raw scores obtained were used as such in the study. The students who score below $M - 1\sigma$ were considered as low achievers and selected for the final sample. Thus, on the basis of the scores obtained by the students the English Competency Test, 100 students were identified as low achievers in both the schools. 50 students in Government Model Senior Secondary School, Sector 37 - D, Chandigarh form the experimental group and 50 students in Government Model Senior Secondary School, Sector 38- D, form the control group.

Design

The study was experimental in nature and pre-test post-test control group design with one experimental group was employed. Control group was taught in conventional instruction settings. Experimental group was exposed to reciprocal teaching. Two groups were assessed before and after the treatment on English self-efficacy. The treatment was given to the experimental group for approximately about 51 working days. In the present study the investigator studied the effect of reciprocal teaching (independent variable) on English self-efficacy (dependent variables) of low achievers in English. The data was analysed by employing one way ANOVA on the mean difference scores of English self-efficacy.

Tools used

The following tools were used:

1. Instructional material/lesson plans based on the reciprocal teaching were developed and validated by the investigator. The lessons were based on 10 chapters viz. Three Questions, A Gift of Chappals, Gopal and the Hilsa Fish, The Ashes that Made Tree Bloom, Quality, Expert Detective, The Invention of Vita-Wonk, Fire: Friend and Foe, A Bicycle in Good Repair & The Story of Cricket of English syllabus prescribed by NCERT, New Delhi.
2. Worksheets based on the above lessons (developed and validated by the investigator).
3. English Competency Test in English (developed by the investigator) comprised of 57 multiple choice type items (synonyms, antonyms, modals, one-word substitution, adverbs, homophones, preposition, and tenses). Reliability of the test was found to be 0.92 calculated by KR-20 formula and content validity was established.
4. English Self-efficacy scale (developed by the investigator). The 5-point Likert type scale consisted of 51 items under four domains viz. persistence, performance expectations, social persuasion and physiological stress and the reliability of the scale by Cronbach's α was found to be 0.80.

Conducting the experiment

The experiment was conducted in three phases as given below:

Phase I: Administration of Pre-test

In this phase, English Self-efficacy scale was administered to both the experimental and control groups and scoring was done.

Phase II: Conducting the instructional program

The instructional treatment worked upon in the form of teacher directed instruction followed by reciprocal teaching settings. Both the experimental and control groups were taught same 10 chapters of English syllabus prescribed by NCERT, New Delhi. The chapters included were: Three Questions, A Gift of Chappals, Gopal and the Hilsa Fish, The Ashes that Made Tree Bloom, Quality, Expert Detective, The Invention of Vita-Wonk, Fire: Friend and Foe, A Bicycle in Good Repair & The Story of Cricket.

Instructional Program for Experimental Group

Experimental group was taught through reciprocal teaching. Students were explained the steps of instructional treatment. The 50-minute period was divided as: 10-12 minutes for teacher-directed instruction, the next 20 minutes for group work on blank work sheets (given by teacher) in their teams to master the material

and last 18-20 minutes of period were used for student teacher interaction. For reciprocal teaching following steps were followed:

Introduction of the lesson:

Teacher/Investigator divided the lesson into small chunks, read the content to all the groups, told the meaning of the content in simple words.

Working in groups

Students were put into the group of four and worked on worksheets for 20 minutes based on the lesson. Each student is assigned the role viz. predictor, questioner, clarifier and summarizer based on the steps of reciprocal teaching (Pilonieta & Medina, 2009) and were supposed to complete the work sheet and perform the role assigned in the group as below:

- **Prediction** (ask students to predict what they think the reading may be about).
- **Questioning** (remind students to generate three levels of question: Right-There questions, between the lines questions, critical thought questions).
- **Clarify** (remind students to ask themselves what words, phrases and pronunciation are unclear to them).
- **Summarize:** students summarize verbally, within pairs, and then share with their assigned small group or record their summary and read it aloud to their small group.

Students were required to complete the worksheet as per directions given on it. During this time, the teacher/researcher monitored the groups, lauded and motivated the groups, and sat with them to hear and perceive how individuals were doing. In all, students were given 35 lessons covering ten chapters. Worksheets were associated with each lesson. All the students were given following instructions for working in group as follows:

- You are divided into a group of four. Each student will be assigned the role of viz. predictor, questioner, clarifier and summarizer. Your role may change in the subsequent groups.
- Each student in a group should work on the content by playing their designated role. However, the students can take help of their group members if they find any difficulty.
- You can refer to dictionary to find meaning of words while reading or composing or can consult your textbooks also for word meanings.
- When you have questions, first ask in a group before asking the teacher.
- Don't delay in clearing your doubts.

Discussion of the lesson

Teacher discussed all the steps of *prediction, questioning, clarify and summarize* in the worksheet. Some of generated answers and difficult words were written by teacher on blackboard and clarified the doubts. Thereafter teacher asked the students to speak whatever they have written about summary and modified their responses wherever necessary.

Review

The feedback was taken from students verbally after every class and at the end of the treatment to perceive their attitude towards the reciprocal teaching as a strategy.

Conducting Formative Test

To monitor the instructional program, after covering a lesson in about 3 or 4 days, a formative test corresponding to each chapter was conducted. During that time, students were not allowed to work together. In total, 10 formative tests were administered.

For Control Group

The control group was taught through conventional chalk and talk method.

Phase 3: Administration of the Post-Test

At the end of the instructional treatment, both the experimental and control groups were administered the same English self-efficacy scale.

Analysis of Variance for Mean Difference scores of English Self Efficacy

After scoring, the difference in scores as measured by the difference of post-test and pre-test scores on English self-efficacy was calculated for each student. The obtained differences scores were subjected to analysis of variance.

Table 1: Means and SDs of different groups in English self-efficacy

English self-efficacy		Pre-test	Post-test	Difference scores
Reciprocal teaching	Mean	150.1	163.6	13.52
	N	50	50	50
	SD	14.73	15.76	9.94
Control group	Mean	147.9	160	12.16
	N	50	50	50
	SD	13.1	12.13	13.57
	Mean	149	161.8	12.84

Table 2

Summary of one-way ANOVA on mean difference scores on English self-efficacy

English Self-efficacy	Sum of Squares	Df	Mean Squares	F
Between groups	46.24	1	46.24	0.33 P > .05
Within Groups	13881.20	98	141.64	

Total	13927.44	99		
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Calculations done on spss 16.0

The table 2 reveals that F ratio was found to be 0.33 for scores of English self-efficacy with $p > 0.05$ clearly indicating that there exists no significant difference among the mean gain scores of two groups taught through different methods with respect to English self-efficacy. This indicates low achieving students in English exhibit comparable English self-efficacy when exposed to reciprocal teaching and through conventional group learning.

Discussion of results

The present study revealed that no significant differences exist between students in the treatment group and the control group with respect to English self-efficacy. Though mean difference scores of the experimental group are higher but both groups exhibited comparable self-efficacy. It is not always that self-efficacy is enhanced by certain interventions. The instructional treatment was for 45 days only, and as self-efficacy is an attitudinal variable it may take prolonged treatment to further it. Some studies have reported to observe no effect of treatment on self-efficacy and English self-efficacy (Zayyad, 2009) whereas Armbrister (2010) reported improvement in self-efficacy levels, Pintrich and De Groot (1990) found that self-efficacy was positively correlated with cognitive strategy and self-regulated learning in English classes and Vibha (2001) found that mastery learning strategies were highly effective in enhancing self-efficacy by providing students with mastery experiences in English.

Conclusion

Reciprocal teaching contains elements of both individual and cooperative learning. There is student-student and student-teacher interactions to comprehend the given content. But it takes time for the students to get used to of this strategy. If the use of reciprocal teaching is prolonged then level of mastery in the comprehension of subject can be achieved which in turn leads to the enhancement of self-efficacy and greater self-efficacy enhances the achievement. It can be used in combination with other strategies to achieve more learning outcomes.

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