Chapter II

REVIEW OF RELATED LITERATURE

This chapter reviews the understanding theory used in the study concerning with the STAD method, the reading comprehension and action research. To be more specific, this review discussed about: (1) Cooperative learning: STAD method (2) Implementing STAD in the classroom (3) Reading comprehension

A. Definition of Cooperative Learning

Cooperative learning is a set of instructional strategies "which employ small teams of pupils to promote peer interaction and cooperation for studying academic subjects". Students must work together to accomplish a common goal or to receive a common reward. Cooperative learning models recommend heterogeneous ability or achievement grouping strategies for the bulk of the instructional time. Most of the models include explicit guidelines for group composition in which a range of high, medium, and low achieving students is to be placed in each cooperative group. Other cooperative models are less directive about the range of achievement in the groups, but do assume and encourage heterogeneity Finally, peer tutoring or partner teaching is often a component of cooperative learning models. Aronson's Jigsaw, Teams-Games-Tournament (TGT), Student Teams Achievement Divisions (STAD).

¹³ Sharan, S. (1980). Cooperative learning in small groups: Recent methods and effects on achievement, attitudes, and ethnic relations. Review of Educational Research, p.50, 242.

¹⁴ Slavin, R. E. (1980). Cooperative learning. Review of Educational Research, p.50, 315.

¹⁵ Sharan, S., & Sharan, Y. (1976). Small group teaching. Englewood Cliffs, NJ: Educational Technology Publications.

and Cooperative Integrated Reading and Composition (CIRC) explicitly include students tutoring one another within small groups.

Cooperative learning refers to instructional methods involving small heterogeneous groups working together, usually toward a common goal. Added that this approach to learning involves changes to both task structure and incentive structure. The task structure refers to the ways in which the teacher or students set up activities designed to result in student learning where a cooperative structure involves students working together to help one another. The incentive structure moves away from a competitive one in many classrooms to a cooperative one so that the success of one student is positively related to the success of others¹⁶. Highlighted the importance of how students interact, arguing that it can affect learning, liking of school and other students, as well as self-esteem¹⁷. Pointed out, however, it is not enough to just put students in groups and tell them to work together for cooperative learning to work. How such groupings are structured will largely determine whether or not they will be more effective that competitive or individualistic groupings¹⁸. Cooperative learning is important for creating inclusive classroom environments that meet the needs of all students because it takes the heterogeneity into account, encouraging peer support and connection. Given that most classrooms are

¹⁶ Slavin, R. E. (1986). Using student team learning (3rd. ed.) Baltimore: Center for Research on Elementary and Middle Schools, Johns Hopkins University.

¹⁷ Johnson, D. W., Johnson, R. T., & Holubec, E. (1990). Circles of Learning: Cooperation in the classroom (3rd. ed.). Edina, MN: Interaction Book Company.

¹⁸ Ibid. P. 30

heterogeneous, it only makes sense to use an approach to teaching and learning which accounts for this heterogeneity.

Although peer tutoring may consist of pairs of students who tutor or teach one another different materials, cooperative learning most often implies that students collaborate in groups larger than two and that they learn the same materials¹⁹.

There was once a time when it was taken for granted that a quiet class was a learning class, when principals walked down the hall expecting to be able to hear a pin drop. Today however many schools are using programs that foster the hum of voices in classrooms. These programs, called cooperative learning, encourage students to discuss, debate, disagree, and ultimately to teach one another.

Cooperative learning has been suggested as the solution for an astonishing array of educational problems. It is often cited as a means of emphasizing thinking skills and increasing higher-order learning as an alternative to ability grouping, remediation, or special education: as a means of improving race relations and acceptance of mainstreamed students and as a way to prepare students for an increasingly collaborative work force. How many of these claims are justified? What effects do the various cooperative learning methods have on student achievement and other outcomes? Which form of cooperative learning are most effective and what components must be in place for cooperative learning to work?

¹⁹ Slavin, R., Leavey, M., & Madden, N. (1984). Combining cooperative learning and individualized instruction: Effects on student mathematics achievement, attitudes, and behaviors. *Elementary School Journal*, 84, 409.

Key components of effective cooperative learning:

Five key components for effective cooperative learning; positive interdependence, individual accountability, promotive face to face interaction, small group skills, and group processing²⁰.

1. Positive Interdependence:

Important for students to perceive themselves as interdependent, sharing a mutual fate which is mutually caused. This creates a "sink or swim" mentality where the success of the group is dependent on the success of all of the group members, ensuring a social interdependence in the group. Students come to perceive that they are linked with group mates in such a way that they cannot succeed unless their group mates do (and vice versa) and/or that they must coordinate their efforts with the efforts of others in the group to complete a task.²¹

Cooperation allows for positive interdependence where all group members work together to accomplish shared goals. Thus, individuals seek outcomes that are both beneficial to themselves and the group members.

Promotive goal interdependence where goals are positively linked in such a way that the probability of one person obtaining his/her goal is positively

²⁰ Johnson, D., & Johnson, R. (1994b). Positive interdependence: Key to effective cooperation. In R. Hertz-Lazarowitz & N. Miller, (Eds.), *Interaction in cooperative learning: The theoretical anatomy of group learning*. (pp. 174-199). Cambridge University Press.

Johnson, D. & Roger, T. (1994a). An Overview of cooperative learning. In Thousand, J., Villa, A., & Nevin, A. (Eds), Creativity and collaborative learning. Brooks Press, Baltimore. Online: http://www.cooperation.org/pages/overviewpaper.html.

correlated with the probability of others doing so. Reward interdependence where all members in the group are given the same reward.²²

2. Individual Accountability:

Cooperative learning is poorly constructed, cooperative learning methods can allow for the "free rider" effect "in which some group members do all or most of the work (and learning) while others do little or nothing.²³

The key to eliminating this is to create individual accountability to ensure that all students learn and that no members in the group are ignored.

By having both group goals and individual accountability, students are provided with an incentive to help each other and to encourage each other to put forth maximum effort.

Individual accountability can be achieved through the use of individual assessment which is then used to determine the success level of the group as a whole.²⁴

Individual accountability can be achieved by frequently highlighting the contributions of each member, assessing who needs more help, and redundancy among members' efforts and identifying unique contributions of each group member.

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²² Ibid Pages, 43

²³ Slavin, R.E. (1995), Cooperative learning: Theory, research, and Practice, 2nd edition, Englewood Cliffs, NJ: Prentice-Hall.

²⁴ Johnson D. & Johnson R. (1994b). Positive interdependence: Very to effective accounting. Jun D. Martine.

Johnson, D., & Johnson, R. (1994b). Positive interdependence: Key to effective cooperation. In R. Hertz-Lazarowitz & N. Miller, (Eds.), Interaction in cooperativelearning: The theoretical anatomy of group learning. (pp. 174-199). Cambridge University Press.

Teachers need to assess how much effort each member is contributing to the group's work, provide feedback to groups and individual students, help groups avoid redundant efforts by members, and ensure that all members are responsible for the final outcome.

Highlighted key factors for structuring individual accountability²⁵:

- a. Keeping the group size small
- b. Giving students individual tests where they cannot seek help form others
- c. Randomly choosing students to answer questions
- d. Observe the group and record the frequency on contribution of each member
- e. Assigning one member to be a "checker" who asks other group members to explain the reasoning and rational underlying group answers.
- f. Having students teach what they learned to someone else.

3. Promotive face-to-face interaction:

The physical arrangement of small heterogeneous groups, encourages students to help, share, and support each other's learning.

By working closely together, students can promote each other's success through explanations, teaching, checking for understanding, discussions, connecting old and new learning.

²⁵ Johnson, D. & Roger, T. (1994a). An Overview of cooperative learning. In Thousand, J., Villa, A., & Nevin, A. (Eds), Creativity and collaborative learning. Brooks Press, Baltimore. Online: http://www.cooperation.org/pages/overviewpaper.html.

4. Interpersonal and small group skills:

The more socially skillful students are, and the more attention teachers pay to teaching and rewarding the use of social skills, the higher the achievement that can be expected within cooperative learning groups.²⁶

Students need to learn interpersonal skills such as active listening, staying on task, asking questions, conflict management and resolution and so forth.

5. Group processing:

Group processing takes place on two levels, in small groups and the whole class. To allow for group processing at the group level, they argued that teachers should allow time and the end of each class for groups to process how effectively the members worked together.²⁷ Doing so, they argued would:

- a. Enable learning groups to focus on maintaining good working relationships among members.
- b. Facilitate learning of cooperative skills.
- c. Ensure that members receive feedback on their participation in the group.
- d. Ensure that students think on the metacognitive as well as cognitive level.
- e. Provide a means to celebrate the success of the group and to reinforce positive behaviors.

²⁶ Ibid page: 39

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Processing at the class level can be done by having the teacher occasionally observe groups, analyze problems and then provide feedback to the whole class.

B. Student Teams Achievement Divisions (STAD)

STAD is a generic strategy used in any subject matter area. According to Slavin, STAD works best with material that has single, correct answers and is most likely to be used in mathematics computation, spelling, language usage, and mechanics.²⁸

To address the key components of effective cooperative learning, Robert Slavin and his colleagues at John Hopkins University, developed an approach called Student Team Achievement Division (STAD). It is the most extensively researched of all cooperative learning methods and is very adaptable to a wide range of subjects and grades. Pointed out that STAD is not a meant as a comprehensive teaching method, but rather as a way to organize classes, with the principal goal being to accelerate the achievement of all students. The approach operates on the principle that students work together to learn and are responsible for their teammates learning as well as their own.²⁹

Consistent with the core principles of cooperative learning outlined earlier, STAD emphasizes having team goals and success dependent on the learning of all group members. The most important thing was for students to

²⁸ Slavin, R. E. (1986). *Using student team learning* (3rd. ed.) Baltimore: Center for Research on Elementary and Middle Schools, Johns Hopkins University.

²⁹ Slavin, R.E. (1994). Student Teams-Achievement Divisions. In S. Sharon (Ed.), *Handbook of cooperative learning methods* (pp. 2-19). Westport, CT: Greenwood.

learn as a team and to recognize that the work of the team is not completed until all team members understand the content.³⁰ Outlined three central concepts of STAD: team rewards, individual accountability and equal opportunities for success.³¹

1. Team rewards:

These can take the form of certificates or other rewards which are given if a STAD team achieves above a designated criterion.

The teams are not in competition with each other but rather, all or none of the teams can achieve rewards depending on how they score.

2. Individual accountability:

The success of the team depends on the individual learning of all team members.

The activity focuses on team members tutoring one another and making sure that everyone on the team is ready for the quiz (or other assessment) that students take individually.

3. Equal opportunities for success:

What students contribute to the team is based on their individual improvement from their own previous success.

³⁰ Ibid Pages: 29

³¹ Slavin, R.E. (1995), Cooperative learning: Theory, research, and Practice, 2nd edition, Englewood Cliffs, NJ: Prentice-Hall.

Ensures that high, average and low achievers are equally challenged to do their best and that the contributions of all members are equally valued by the team.

B. Implementing STAD in the classroom:

Slavin outlined four key components in the implementation of STAD in the classroom; class presentations, teams, quizzes and team recognition. These components work on a repeated cycle of about three-five days (or class periods).³²

a. Class presentations:

The teacher begins by presenting the lesson to the students for one or two periods of instruction keeping the focus of the lesson directly linked to group assignments and individual quizzes of the STAD unit. The key things that teachers should stress during the lessons include ³³:

- 1) Tell students that what they are about to learn and why it is important
- 2) Briefly review any presentation skills or information
- 3) Stick close to the objectives
- 4) Focus on the meaning of the content rather than memorization
- 5) Actively demonstrate concepts or skills

³² Slavin, R.E. (1995), Cooperative learning: Theory, research, and Practice, 2nd edition, Englewood Cliffs, NJ: Prentice-Hall.

33 Ibid Pages: 32

- 6) Frequently assess student comprehension
- 7) Call on students at random to answer questions
- 8) Explain why an answer is correct or incorrect
- 9) Move rapidly from concept to concept
- 10) Maintain momentum
- 11) Use short assignments with one or two problems for students to work on

b. Teams:

- STAD teams are comprised of four (or five) members who are mixed in level,
- 2) gender and ethnicity.
- 3) It is important for teachers to stress to students that their work as a group isn't finished until all individuals in the group have a firm grasp of the material.³⁴ Individual accountability is ensured because the success of the team depends on the learning of all the members.
- 4) Each team is given two worksheets and answer sheets to work on together, which can be done either by working with all members together or sub-divided into pairs.

³⁴ Slavin, R.E. (1994). Student Teams-Achievement Divisions. In S. Sharon (Ed.), *Handbook of cooperative learning methods* (pp. 2-19). Westport, CT: Greenwood.

- 5) It is the responsibility of students to tutor each other until every student in the group is able to get a perfect score on the quizzes.³⁵
- 6) Students should be taught to know when and how to seek help from each other
- 7) and how to provide effective explanations. Teachers can help to facilitate this process by circulating from group to group asking questions, and encouraging students to explain their answers to gain a deeper.³⁶
- 8) understanding of the content.³⁷
- 9) suggested keeping teams together for about five to six weeks and then making new teams to give members of low performing teams a new start.³⁸

c. Assigning teams:

- Teachers should begin by making one summary sheet for each group of students and ranking students from highest to lowest on previous performance.
- 2) Teachers go down the ranking list assigning each student in order a different letter according to the total number of teams (eight teams would be A-H).
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³⁵ Ibid Pages: 65

Tomei, L. and Dembo, M. (1998). An examination of humanism: The psychology of the individual student. Duquesne University. (online) Available: http://www.duq.edu/~tomei/ed711psy/h_coop.htm

³⁷ Hassard, J. (2000). A web course on teaching science. Georgia State University. [online] http://scied.gsu.edu/Hassard/mos/mos.html

³⁸ Slavin, R.E. (1994). Student Teams-Achievement Divisions. In S. Sharon (Ed.), *Handbook of cooperative learning methods* (pp. 2-19). Westport, CT: Greenwood.

3) Teacher gets to the last letter used, they start over in a reverse order (A-H and then H-A).

4) The teacher should ensure that each team is equally divided according to gender and ethnicity.

d. Quizzes:

1) After each team has had one or two periods to work together to learn the content, they are each tested individually (no help from teammates). The purpose of this is to ensure individual accountability for learning the material.

- 2) The key component of a students' score is the individual improvement score which is the degree to which a student improves from their own previous scores.
- 3) This allows for equal opportunity for success where "high, average and low achievers are equally challenged to do their best, and the contributions of all team members are valued".³⁹
- 4) Any student, regardless of his/her level can contribute equally to the team score. Each student begins with a base score calculated from an average of their grades on previous work, and are awarded points according to how well they can improve on these base scores. Team points are calculated as follows:

³⁹ Ibid Pages: 46

- a. more than ten points below the base score five points
- b. one to ten points below base score ten points
- c. base score to ten points above twenty points
- d. more than ten points above or a perfect score thirty points.
- 5) Individual improvement scores are added together and divided by the number of people in the group to get a team score and teams are awarded according to how well they perform as a team. One way this could be done could be as follows: 40
 - a. 25-30 points Super Team
 - b. 20-24 points Great Team
 - c. Less than 20 Good Team

e. Recognition:

- 1) Teams that surpass the criterion set out should be given some kind of reward for their success (e.g. group certificate).
- 2) Teachers can be creative in how the awards are distributed and the important thing isn't so much the use of large rewards, but rather the recognition of students' accomplishments.⁴¹

⁴⁰ Ibid Pages: 40

⁴¹ Slavin, R.E. (1995), Cooperative learning: Theory, research, and Practice, 2nd edition, Englewood Cliffs, NJ: Prentice-Hall.

- 3) It is important for teachers to be extra sensitive to the low status students who consistently have low expectations for competence. When these students do well, they should be provided with immediate, specific and public recognition.⁴²
- 4) To maximize the increase in student motivation, teachers calculate the student and team scores quickly and give out the rewards.⁴³

C. Reading Comprehension

Statement researcher explained before. STAD is a generic strategy used in any subject matter area. According to Slavin, STAD works best with material that has single, correct answers and is most likely to be used in mathematics computation, spelling, language usage, and mechanics. In this research, The Researcher makes specifically about language usage in reading comprehension to know how is STAD method can be applicative in reading comprehension. The one of basic English Lesson in formal or informal school is reading skill. reading is the most emphasized in English teaching and learning process. Quite simply, without solid reading second language readers cannot perform at levels they must succeed in reading. Thus, reading is not passive but rather an active process, involving the reader in on going interaction with the text. Furthermore, reading constantly involves guessing, predicting, checking,

⁴² Ibid Pages: 54

⁴³ Slavin, R.E. (1994). Student Teams-Achievement Divisions. In S. Sharon (Ed.), Handbook of cooperative learning methods (pp. 2-19). Westport, CT: Greenwood.

and comprehending.

Reading is an active and interactive activity to reproduce the word mentally and vocally and tries to understand the content of reading text. It is important to bear in mind that reading is not an invariant skill, that there are different types of reading skills, which correspond to the many different purposes we have for reading.⁴⁴

In classroom, in student's reading activities, the writer is sure that they have many purposes, among others are to graduate from their school and to provide themselves with the knowledge to continue their studies whatever their purposes are. In order to achieve the goal, the comprehension ability in reading is needed. According to Olson and Diller: reading is a term used to identify those skills needed to understand and apply information contained in a written material.⁴⁵

So, in the classroom, in students' reading activities, the writer is sure that they have many purposes, among others are to graduate from their school and to provide themselves with the knowledge to continue their studies whatever their purposes are. In order to achieve the goal, the comprehension ability in reading is needed. The concept of reading comprehension could be bottom-up and top-down approaches.

Mentions that with the bottom-up approach, the reading is viewed as a process of decoding written symbols, working from smaller units (individual letter) to larger ones (words, clauses and sentences).⁴⁶

This statement is supported by Harris and Sipay who say that reading

⁴⁴ Nunan, David. 1989. Designing Tasks for the Communicative Classroom. Cambridge University Press.33

⁴⁵ Olson, J.P & M.H Diller. 1982. Learning to Teach Reading in Elementary School. London: Macmilan Publishing Company. p. 42

⁴⁶ Nunan, David. 1989. Designing Tasks for the Communicative Classroom. Cambridge University Press.33

comprehension ability is taught to be a set of generalized knowledge acquisition skills that permits people to acquire and exhibit information gained as a consequence of reading printed language.⁴⁷

In group reading, students may enjoy from time to time getting away from the usual pattern of reading the story or article aloud at sight. This is particularly true of better readers; what may be undesirable as routine procedure has real value as an occasional variation. By seeing the problems, it is important that a study of English especially reading should be done. The writer hopes there will be an improvement in the teaching of English.

⁴⁷ Harris and Sipay. 1980. How to Increase Reading Ability. A guide to Developmental and Remedial Methods, Seventh Edition Revised and Enlarged. New York: Longman Publisher Inc.