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Developing Social and Academic Skills through Cooperative Learning Methods

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Abstract
Cooperative learning is a process through which students with various abilities, gender, nationalities and different level of social skills carry out their learning process by working in small groups and helping each other. Cooperative learning is a pedagogical use of small groups which enable students to maximize both their own and others' learning. It is flexible instructional techniques and strategies known as methods. As Salvin (1983) confirmed, these methods mostly aim at the development of cognition, which includes thinking, remembering, concept formation, problem solving, and logical reasoning, in social contexts. In this paper author discussed cooperative learning, Methods such as Group Investigation (GI), Learning Together (LT), Reciprocal Teaching of reading (RTR), Cooperative Investigated Reading and Composition (CIRC), Jigsaw I & II and benefits and Advantages of Cooperative learning.

Keywords: Cooperative Learning, Methods, Jigsaw I&II and Advantages

1. Introduction
Our on-going classroom teaching is totally teacher dominated and content centred. Here, the teachers are regarded as the repositories of subject knowledge and their role is simply to pour into the open, empty and willing (or non-willing) minds of students their vast reservoir of knowledge. They do not trust their students to learn. They think that they must tell them what to learn and provide all the structure for the learning to take place. This learning structure is highly individualistic. It encourages individual and competitive learning in place of group and cooperative learning. Here, the students are tempted to learn more and more in order to gain good grades, divisions, certificates and appreciation by excelling their own peers. Cooperative learning says no to such practices. It advocates cooperative and group learning in place of the competitive and individualistic approach prevalent in our educational system by redefining the roles of the teacher and the learner in a particular teaching-learning set-up. Cooperative learning, as the name suggests, stands for a learning process or strategy in which the students get opportunities to learn by themselves in a group in a cooperative or non-cooperative environment by forming a number of teams, each consisting of a small number of students of different levels of ability for the understanding of a subject. They share all information among themselves and help each other for having the required knowledge, understanding and application of one or the other aspects of the content material, or course units include in their syllabus. It seems quite contrary to the practice of teaching-learning prevalent in our current educational system.

Some of the well-known methods of CL are Group Investigation (GI), Learning Together (LT), Reciprocal Teaching of reading (RTR), Cooperative Investigated Reading and Composition (CIRC), Jigsaw I, and Jigsaw II.

2. Cooperative Learning Methods
2.1 Group Investigation (GI)
Sharan and Sharan (1992) [15, 18] have developed this method of CL. GI is one of the rare CL methods that gives considerable freedom to students. Students have the latitude to decide on the composition of their teams, assign their roles and responsibilities, establish and clear the norms and their goals. They form their own favorable two-to-six member

groups to work cooperatively for conducting their group projects, and thereby, achieving their shared goals. GI involves cooperative group inquiry emphasizing data gathering by students, interpretation of information through group discussion, and synthesis of individual contribution into a group project. Another distinguishing characteristic of the method is its attempt to eliminate competition among students. At the class level, as in most CL methods, the instructor is expected to introduce the method and its basic principles, shed light on the objective of the course, explain the scoring system, and help students from their teams in the first session. Like any other method of CL, the class presentation can be a lecture or any other kind of demonstration like brief plays and brainstorming techniques supported by a slide, a video, or an Internet show. The four critical components of this method are: investigation, interaction, interpretation and intrinsic motivation. That is, first teams get together and investigate into topics from a wide range of topics, which are to be covered during a term, and select their favorite topics. Then individual teams plan and decide what to seek for in the topic, how to go about it, and how to divide the work between them in order to carry out the group research or task. During the course, collaborate in activities like analyzing and evaluating the data they gather from several sources. They discuss their work in progress and exchange ideas and information in order to expand, clarify, and integrate them. After each individual finishes his or her task, the group pools the findings and tries to reach a consensus to produce a group report, demonstration, play, or exhibition. In the final session, each group makes a presentation or display to share its findings with the entire class. The belief is that collective achievement of shared goals brings with it a kind of intrinsic motivation.

Self-evaluation, peer assessment, and teacher evaluation are utilized in this method to supply appropriate feedback for students further development. For example, while a group presents its report, other groups have the opportunity to evaluate the clarity and professional quality of the presentation through observation and posing questions with reference to their areas of concern and interest. The final evaluation of groups is based on the quality of their performance during the semester, which strongly aims at developing positive interdependence among group members.

2.2 Learning Together (LT)/ Cooperative T-BL

Learning together or as this researcher has called it Cooperative T-BL has been developed by Johnson and Johnson (1999) [8] at the University of Minnesota. In this method of CL, class members, mostly heterogeneous groups (e.g in sex, race, ethnicity, reading comprehension abilities, or language proficiency abilities or language proficiency abilities) of three to six students, work together towards certain shared learning goals. One of the distinguishing features of this method is the strong stress it puts on cross-team sharing and learning. It will naturally be the norm that teams that contribute to the progress of other teams more enthusiastically have better chance of receiving more information and help. Explicit teaching of social skills like trust building, conflict resolution, and helping and supporting one another are also appreciated. Johnson brothers have especially emphasized that five essential elements must be structured in cooperative T-BL: positive interdependence, individual and group accountability, face-to-face interaction, group skills, and group processing.

As it will be realized, this method seems to be much more group-skills-based than other methods of CL. The focus is on the actual cooperation and getting along together in the group, which is considered as a necessary part of group learning. In contrast to some other methods of CL that follow specific steps, it allows teachers to follow their own procedure based on their students and circumstantial needs.

Concerning its evaluation system, all team members receive the same grade, regardless of differences in their contributions to the success of the group. They are assessed for both their group performance in producing a shared product and the level of their cooperation with other groups in class. This kind of evaluation system enhances both intra and inter-group positive interdependence in the classroom. It is believed that because of the common fate, students are motivated to help one another to ensure that everyone learns the lesson or completes the assignment introduce by the teacher.

2.3 Reciprocal Teaching of Reading (RTR)

Originally Palinscar at the University of Michigan and Brown (1985) at University of Illinois at Urbana-Champaign coordinated their efforts to launch the new version of RTR as a special program to suit poor readers who had not profited from traditional reading instructional methods in early and advance levels of education. By valuing the role of social scaffolding in class activities as its focused area, RTR lays the emphasis on strategy training in reading courses. For the purpose of joint understanding of a text, students, in their heterogeneous teams, are mostly focused on specific reading comprehension strategies such as predicting, summarizing, questioning, and clarification of unfamiliar texts. The significance of predicting is that it helps students focus on what they are reading to see whether their predictions come true. This is believed to involve students in learning because they have to concentrate on the content, in order to evaluate their prediction. Summarizing is also assumed to encourage them to integrate what they have learnt. That is, in order to summarize or reproduce the text, students have to implement their lexicon and syntax, which they have acquired through listening, reading, and speaking. The philosophy behind the emphasis on generating questions is that learning to generate questions in lieu of responding to only teachers questions challenges deeper levels of students cognition. And finally, clarifying is believed to promote comprehension – monitoring of participants, which increases their meta-cognition abilities.

As regards teaching a text, for example, the teacher first activates students minds on the topic through different techniques, and then introduce the text. To illustrate how applying each of the aforementioned strategies helps students in the comprehension of the passage, the teacher models his or her own process of comprehending the first paragraph of the text. He or she does it by thinking the process aloud. Through this technique, students will learn the target strategies – the strategies that the teacher has already planned to teach. Students are then given the opportunity to try to follow the same procedure for the teams so as to internalize and master the strategies. High achievers take the first turns to apply the strategies, by thinking aloun, in order to endow low performers with more opportunities to better understand the application of strategies. Team members also share their uncertainties about unfamiliar vocabularies, confusing text

passages, and difficult concepts and discuss about more practical strategies to be applied for each problem.
As opposed to GI and Cooperative T-BL which focus on positive interdependence in their evaluation systems, in this method teams are evaluated based on quizzes and tests which makes individuals more responsible for their own learning.

2.4 Cooperative Integrated Reading and Composition (CIRC)

Stevens, Madden, Slavin, and Farnish (1987) have developed CIRC which is a comprehensive program for teaching reading and writing language arts. This method focuses on simultaneous development of reading and writing skills of participants because it considers them as two inseparable skills. Lesson elements, in this method, include discussing the context of each theme of the text, introducing the meaning of new vocabulary, reading silently and to a partner, analyzing the texts linguistic features, summarizing the text, and practicing word recognition and spelling to the point of mastery. Therefore, in CIRC class, after the teacher introduces the topic and tries to relate it to students background knowledge through applying different strategies and techniques such as brainstorming and class discussion on the topic, students have time to read the text silently and note down key vocabularies. Then, they head together with their teammates to discuss unknown vocabularies and problematic areas of the text and answer related questions. They engage in some other activities such as paraphrasing and summarizing the topic as well.
In this method, to enhance both positive interdependence and individual accountability, the evaluation of students is based on improvements in individual achievements that are calculated as team-score.

2.4.1 Jigsaw I

Aronson, Stephen, Sikes, Blaney, and Snapp (1978) developed Jigsaw at the University of California. The key to implementation of Jigsaw is the creation of a gap in students information and using this gap as a motivator for their further involvement in the learning process. The information gap creates a genuine communicative context for authentic language use the component crucial for language acquisition and learning. To create this gap in students existing knowledge, no one member is given sufficient information to solve the problem at hand or complete the assignment in question. Therefore, to fill their gap of information and meet their interests, students have no option but cooperation. Because of the need they feel, team members enthusiastically listen to their teammates which enhances positive interdependence and encourages them to take an active part in their learning.
Jigsaw has five main components: reading, expert group discussion, team report, testing and team recognition. In Jigsaw, after the material to be learnt is divided into separate units, it is presented in base groups or home teams of four to six heterogeneous members assembled by the teacher. Individual members of the base groups are then given separate parts of the whole academic textual material. Each home teams member takes responsibility for one aspect of the problem in question. Having learnt something about their parts in an adequate time in their home teams, team members who have the same parts for learning come together in expert or study groups to study, discuss, and refine their understand of their shared parts and decide how best to teach it to their peers in their original or base teams. After they assure themselves that everyone has digested the material, they return to their base groups and take turns to teach what they learnt to their teammates. Equally, in this phase, the also have the opportunity to learn what their team members learnt and mastered in their expert groups. Therefore, the all fill their gaps of knowledge in mutual communication environments and in fact complete the jigsaw. Subsequently, groups share their findings with the class at large through a class discussion, a graphic or dramatic production, or in a question-and-answer session. At the end of each unit students will take a teat over the information, which they have learnt. The procedure in such classes in not a loose, anything goes situation it is highly structured.
Teams are evaluated by the sum of their members scores on quizzes and tests, which they take individually. Also teams that show highest improvements receive rewards. This sort of evaluation is more likely to enhance individual accountability of team members. In addition to the recognition of the best teams, as it was noted, the rationale behind information gap activity contributed also to the enhancement of positive interdependence.

2.4.1 Jigsaw II

Jigsaw II, developed by Slavin (1980) [21], is similar to original Jigsaw in the sense that it too strongly advocates students to learn from one another. Jigsaw II is a more practical form of Jigsaw I. The difference is that in Jigsaw II each student should study the whole assignment rather than a section of it.
After the teacher introduces the whole theme, each member is asked to study a specific segment of the whole thoroughly. As in the original Jigsaw, to discuss the areas they have become expert in, individuals meet other teams members who have the same topic in expert teams. They, at this stage, mostly discuss about the ways as to how to teach their parts to their fellow members in their home groups. Then, as experts, they go back to their home teams and take turns teaching their parts to one another. In this stage, in their home teams, they also learn something more in the areas they have not been provided with resources or sufficient knowledge from others in expert teams. And finally, they are subjected to a class-wide discussion or a question and answer session. They also take a test, which covers all the subtopics.
In addition to group work evaluation as it is in the original Jigsaw, Jigsaw II stresses on individuals improvement evaluation. Each team member has a base score is the average of past grades of the individual, and improvement score is the difference between his or her last test score and the average of his or her base scores. The improvements will be judged by comparison of their recent marks with the average of their previous performances. Individuals and teams with highest improvement scores earn certificates or other team rewards. Even though its activities aim at bringing positive interdependence, the evaluation system of this method mostly focuses upon individual accountability of students.

3. Merits and Advantages

- It involves students actively in the teaching-learning process.
- It makes the students responsible for their learning

- It makes the teacher-learning process as learner centred rather than content and teacher centred.
- It helps the students in learning so many tasks requiring manipulation, demonstrative and practical skills simply on the basis of learning through imitation and observation of the behaviour of their peers
- It helps the weaker students in improving their performance when grouped with higher achieving students
- It gives opportunity for deeper understanding and insight into the subject matter as a result of discussing and teaching the material by them to their peers.
- It provides interactive models for the classroom teaching in place of one-sided teacher-dominated lecture or demonstration method.
- It improves classroom results by making the students more involved, motivated and determined to learn and achieve the learning targets by providing an anxiety-free non-competitive stimulating environment.

4. Conclusion

In this way, we may notice a number of hurdles, fears and resentments standing in the way of introducing cooperative learning in our educational system. However, as may be analyzed and concluded easily, all these fears and resentment are absolutely erroneous and baseless. The ignorance regarding the philosophy, methodology and fruitful results of the cooperative learning seems to be the only cause working against the introduction of this noble/and effective teaching – learning strategy. Surely and certainly, the lead should be taken by the teacher education institutions for nurturing the clear picture and methodology of cooperative learning in the minds of the teachers, so that they may share the desired responsibility of its introduction in the schools in the future. Teachers have to choose right method according to their circumstance, Subject, Content and specific objectives, then only teacher can achieve expected outcome from students. Various Cooperative Learning methods available such as Group Investigation (GI), Learning Together (LT), Reciprocal Teaching of reading (RTR), Cooperative Investigated Reading and Composition (CIRC), and Jigsaw I & II.

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