

COOPERATIVE LEARNING

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Cooperative Learning has been defined as “a body of literature and research that has examined the effects of cooperation in education. It offers ways to organize group work to enhance learning and increase academic achievement.” (Olsen and Kagan, 1992: 1). Olsen and Kagan’s definition will be used as a springboard to expand on the different and intertwined aspects cooperative learning consists of. The “body of literature and research” in the above definition will set the path to explore different cooperative learning methods and its background history will be analyzed by examining the “effects of cooperation in education”. It will be stated that group work is not the same as true cooperative academic experiences and, finally, the philosophy behind cooperative learning which is said to “enhance learning and increase academic achievement” will be reviewed.

CLASSIFICATION OF COOPERATIVE LEARNING METHODS

Damon and Phelps (1989: 11) are right when they state that cooperative learning is “... *an umbrella term that loosely covers a diversity of team-based learning approaches.*” There is indeed a good array of tendencies under the same common term, their

shared thread being that students may enhance their academic achievement and interpersonal relationships by working together in structured teams.

The table below (adapted from Casal, 2005: 139) shows the different cooperative learning methods and their main features:

METHODS	NAMES & AUTHORS	KEY FEATURES
Student Team Learning (In common: group rewards and opportunities of success for all)	TGT: <i>Teams-Games-Tournaments.</i> (De Vries and Edwards, 1973)	Teams compete with other teams to get points for their group.
	STAD: <i>Student Teams-Achievement Divisions.</i> (Slavin, 1994)	Students learn new material in teams but take individual tests weekly to ensure individual accountability.
	TAI: <i>Team-Assisted Individualization.</i> (Slavin, Leavy and Madden, 1982)	Implemented in Maths. Each student in each group works in a different unit and changes unit when exercises are correct. Other members help them.
	CIRC: <i>Cooperative Integrated Reading and Composition.</i> (Stevens, Madden, Slavin and Farnish, 1987)	Heterogeneous groups work with different reading levels, reading to each other, predicting, practising spelling and vocabulary.

METHODS	NAMES & AUTHORS	KEY FEATURES
Task Specialization Methods (In common: task organization and information distribution)	<i>The Structural Approach to Cooperative Learning.</i> (Kagan, 1989)	Based on structures ('content-free ways of organising social interaction in the classroom') aimed at different educational objectives.
	<i>Jigsaw.</i> (Aronson, 1978)	The task is divided into as many parts as members in the teams.
	<i>Group Investigation.</i> (Sharan and Sharan, 1976)	Based on three components: investigation (analysing the problem from different points of view), interaction (activities and skills) and interpretation (presentation of findings in front of the class).
	<i>Complex Instruction.</i> (Cohen, Lotan, Scarloss and Arellano, 1999)	Students work in heterogeneous groups to achieve a common task.
Cooperative Learning and Teaching Scripts	Dansereau (1987)	Students work in pairs on two different texts. Students read them aloud and summarise them in turns.
Learning Together	Johnson and Johnson (1994)	Importance of cognitive conflicts and controversy. Face-to-face promotive interaction; interpersonal and small group skills and group processing are its basic components.

COOPERATIVE LEARNING: BACKGROUND HISTORY

Cooperation among equals is not a new idea. According to Johnson and Johnson (1999: 194), the educational ideas of academic figures of the past such as Seneca, Quintillion or Comenius resemble some of the principles underlying the "cooperative learning" methods. In fact, Seneca (ca.4 BC- AD 65), with his famous "*Qui Docet Discet*", defended the idea that "when you teach, you learn twice". Moreover, Quintillion (35-95 AD) showed that children could learn better from elder students in their class and that a student that had just learnt about a topic was able to teach it. In the 18th century, Comenius was convinced that students would benefit from learning and teaching other classmates.

Some of the cooperative learning principles can also be traced in the 19th c. (Johnson and Johnson, 1999: 194-195). In the early 19th c., and working independently, Joseph Lancaster and Andrew Bell developed an educational system in England based on the general principle that children learn more effectively

with other children. This reasoning was exported to schools in the USA, where the Lancastrian School was opened in 1806. From 1875 to 1880, this peer collaboration system was enthusiastically carried out by Colonel Francis Parker in Quincy (Massachusetts). John Dewey (1859-1952), following Parker, would promote working in groups as part of his famous school project.

In Spain, Ovejero (1990: 60-64) points at the educational models of Ferrer (1859-1909) and Freinet (1896-1966) who, also working independently, represent a first step into cooperative learning (although perhaps not cooperative learning in the sense in which it is known today). Ferrer's "Escuela Moderna", for instance, introduced elements which remind us of cooperative learning techniques: the lack of competition at different levels, the lack of exams, letting students have complete freedom. Freinet, on his part, defended cooperation among teachers and students, which is one of the bases of the "Popular school cooperative movement".

The birth of cooperative learning, as we know the term today, dates back to the 40s in the USA

with Kurt Lewin and Morton Deutsch. Schmuck (1987) mentions the Antioch College as a pioneering school in the inclusion of cooperative learning techniques in its curriculum. However, it is not until the mid-60s and the 70s that interpersonal relationships among different ethnic groups start to regain importance, as part of the effort of fighting against discrimination and racial segregation in the USA.

The USA is the country, then, where cooperative learning has been most widely undertaken. In Europe, more specifically in Italy, Lopriore (1999) has analysed the effects of cooperation in education. Van Oudenhoven, Van Berkum and Swen-Koopmans (1987) have investigated the effects of cooperation in spelling in the Netherlands. Casal (2005) provides a detailed account of the evolution of studies on cooperative learning in the Spanish context. Some of the most outstanding works are: Ovejero (1990), Lobato Fraile (1998), Rodríguez Tuñas and Morales Urgel (1998) and García, Traver and Candela (2001) (for a review, see Casal, 2005).

GROUP WORK AND COOPERATIVE LEARNING

Lesson planning that encourages cooperative work demands careful planning by the teacher, as well as a different type of involvement and a reflective analysis after the experience. Johnson and Johnson (1999) argue that for the students to work in a truly cooperative way, the educational context must comply with a series of conditions. Firstly, the distribution of space in the classroom must enable face-to-face interaction. When it is not possible to modify the arrangement of tables and chairs, students can be asked to work with their closest classmate. An ideal situation places all members of the group where they can see each other and allows the teacher to approach any student. All students must be able to see the blackboard from their seats and move around the classroom easily.

Secondly, a group task must be assigned, that is, a specific aim the different students must achieve together as a group. The purpose is not only doing things together, but facing and

solving a common task or question and, as a result, learning something together. A cooperative setting will not work properly if students just speak or exchange ideas, or even if they happen to help each other at a given moment, when in the end they can carry out their task without the contribution of the rest of the group. This inter-relation is called Positive Interdependence.

Thirdly, Johnson and Johnson (1999: 69-89) maintain that solving common tasks or problems requires the contribution of each of the participants. The teacher must try to avoid that only some students solve the proposed task, as well as only some of them getting involved in the learning process. This is known as individual accountability. Each member of the group must feel that they are contributing to the group's success with their participation and learning.

Finally, sufficient resources must be available to guarantee an appropriate development of the activity and for making progress, both as regards the members' interpersonal relations and task completion (Johnson and Johnson, 1999: 69-89). With this purpose, dictionaries, grammar references, etc., should be at hand and students can be asked to bring their own material from home, such as old games, books, etc. This material can be part of the classroom resources.

COOPERATIVE LEARNING: A PHILOSOPHY OF EDUCATION

The above classification of cooperative learning methods, its history and the aspects that make cooperative learning contexts different from group work would not be fully understood if an overview of the philosophy of learning held by cooperative learning was not presented: a) Vygotsky's sociocultural theory, which supports the social origin of the learning process (Vygotsky, 1978); b) the unique and individual nature of the learning process defended by Rogers' humanistic psychology, which also points out emotional factors (Rogers, 1994); and c) Dewey's constructivist point of view, which defends the active role of the student in knowledge acquisition and in a progressive intellectual autonomy (Dewey, 1990).

In the first place, learning is a social process that depends on interaction with others. Cooperative learning promotes interactions with all participants providing the development of cognitive and personal growth, interpersonal relationships and performance in social groups different from their own (Onrubia, 1999: 121). Interactive situations which occur in cooperative situations offer participants the chance to explain their point of view and communicate it in an understandable manner and to be in the position of explaining, giving instructions or helping others to perform a common task. The fact of having to present one's point of view to others gives language a crucial role as organiser and regulator of cognitive processes. Speech is the essential instrument through which participants can contrast and modify their schemes of knowledge and their representations about what is being taught and learnt.

The second aspect emphasises the individual nature of learning and takes into account the emotional factors that take part in the process. Cooperative learning techniques acknowledge the existence of individual differences and accept them as valid. And, what is more, they take advantage of them. Apart from assimilating a certain amount of information, each student is able to learn by contrasting and comparing what they assimilated with what their classmates did. The group system allows the students to discover their strengths and weaknesses. They observe their own behaviour in the light of their

partners' behaviour, modifying their attitudes and strategies as they verify that there are as many alternatives as members in the group.

The third and last aspect is based on the active role of the student in the learning construction. This is especially relevant in cooperative learning techniques. Cooperative work provides the students with more opportunities to use new concepts and terms, as compared with teacher-centred classes. Cooperative learning techniques are aimed at the independence of the student from authority, helping them develop their own intellectual independence and maturity by interacting with their peers. This enables them to observe both the point of view of an expert on the subject and the various contexts from which their peers regard the issue.

CONCLUSION

Cooperative learning is a valid means to achieve socialisation for the students, who become more aware of the opinions of others and benefit from those different perspectives. Likewise, they learn to negotiate and, where necessary, to give up their own interests in favour of the group objective. Setting up these collaborative strategies and the distribution of roles that characterizes cooperative learning provides them with the opportunity to socialise and establish constructive relationships in a real context, which is essential to obtain good results or accomplish certain objectives.

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