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# **Cooperative Learning and Citizenship Education in the Primary School**

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Cooperative learning is an appropriate methodology to promote social competencies: this paper describes an experience in Primary school with features of cooperative learning that supports children working successfully with others and successfully attending to diversity. A two-year intervention program was developed as part of the first author's PhD research on the teaching of history to children. The study started in a third grade classroom that showed several problems in the cooperative learning activities proposed by the researcher. To solve these we developed improved cooperative learning techniques. In the first year of intervention, most of the learning experiences were developed through types of paired work. Children themselves suggested rules about the work they were developing. At the end of the year we proposed two small group tasks: children were then working in a very different way than at the beginning of the study.

In the second academic year, a plan of activities was presented to children, and the children proposed working on these in groups. They appeared to be able to initiate more autonomous cooperative learning strategies. The researcher proposed the students reflect on their earlier cooperative learning experiences. The group investigation strategy, still being implemented, was introduced to children by their teacher and by the researcher. A classroom diary written by the researcher is part of the data collected for use in this paper.

#### **Cooperative learning methodology**

Cooperative learning is the use of small groups for instruction. Student's work to accomplish shared goals, trying to maximise their own and each other's learning. But not all group work is necessarily cooperative learning. Some crucial components transform group work into cooperative work. These are, according to Johnson and Johnson (1999), positive interdependence, face-to-face promotion of interaction, individual accountability and individual responsibility, social skills and group processing.

*Positive interdependence* means that each element in a group is linked to the others, and the success of each depends on the success of the others: this is the core of cooperative learning. This is one of the most significant for citizenship education. Face-to-face promotion of interaction is essential to develop positive interdependence. Each one in a group should participate, giving his or her contribution. Explaining ideas to other group members leads to a better understanding, and to an acceptance of differences, which in turn promotes caring and gives support to those who participate less. It is important that each feels that their individual contributions are necessary to reach the stated goals. One of the characteristics that distinguishes traditional group work from cooperative learning is the systematic development of social, interpersonal competencies. Working in groups does not necessarily mean working as a team. Social skills are, by themselves, very important for a citizen, but they are also essential to develop promotion of interaction and positive interdependence. Finally, group processing is essential in order to recognise what is going well and what should be changed in the group and classroom. It is a moment to reflect on how well the social competencies are being used to work out and summarise learning subject matter.

Putnam (1997), based on Johnson, Johnson, Holubec, and Roy (1990) and Slavin, (1991) lists the following cooperative learning outcomes:

- Increased academic achievement
- Improved inter-group relations
- Improved self-esteem
- Higher-level reasoning strategies and increased critical reasoning competencies
- Greater ability to view situations from others' perspectives
- Greater intrinsic motivation
- More positive attitudes toward subject areas, learning, and school
- More positive attitudes toward teachers, principals and school personnel
- Less disruptive and more on-task behaviour
- Greater collaborative skills and attitudes necessary for working with others
- Greater feelings of individual control over one's success in school
- Increased altruism and supportive behaviours towards others
- Increased pro-social behaviour
- Improved skills at resolving conflicts
- Increased attendance (p 41)

Johnson and Johnson (1999) paid special attention to cooperative learning, diversity and civic values, stressing that cooperative settings promote the values needed for citizenship in our plural and diverse societies. They list the values that can be observed in the cooperative process: commitment to other group members and to shared goals, responsibility to self and others, appreciation of diversity, respect for others and their ideas, opinions, and attitudes, integrity, caring about others and compassion.

The way cooperative learning is implemented is decisive to reach the desired outcomes. Johnson and Johnson (1999, p 21) describe types of cooperative groups and group formation and point out that 'there are no ideal group membership'. They even allow homogeneous groups to teach specific skills or to reach certain instructional objectives, but generally they emphasise the 'advantages [of] heterogeneous groups in which students come from diverse backgrounds and have different abilities, experiences, and interests' (p 21). When students form their own groups they are usually homogeneous.

There are varied strategies to form heterogeneous groups, including creativity and student choice. Random assignment creates groups that do not have the characteristics required to work well. Stratified random assignment, based on some specific characteristics, solves some problems, but it is not easy to select characteristics without some implicit bias or stereotyping. Teacher-selected groups solve the referred issues, but students sometimes like to use other ways to form groups. A combination of varied formal and informal cooperative learning groups is the best way to work cooperatively in a classroom. Student proximity in the classroom is often the way to form not only pairs but

also informal groups of three or four. Kagan (1994) defends groups of four, but it depends on time limits, on students' experience in working in groups and on the age, materials and equipment available and the kind of goals for the group.

There are also several cooperative learning methods. Sharan (1994) includes eight of the most well known, most of which are described by their authors. Each method is suited for specific goals, but a few are better when students start working in groups or when they have already acquired some expertise. *Group investigation*, also named *project work*, is one of those that should only be used when students have already worked in pairs or in small group following other methods. Cooperative learning methods call for student's autonomy and independent inquiry. The first feature appointed by Sharon and Sharon, their promoters, is *investigation*. The others are: interaction, interpretation and intrinsic motivation. Interaction is crucial in analysing and interpreting the data each collected. It is the vehicle by which students encourage one another and elaborate ideas. Intrinsic motivation results from the active role students have in choosing themes and the strategies to gather information. These four features are combined in the six stages of the model:

Stage 1: Class determines subtopics and organizes into research groups.

Stage 2: Groups plan their investigations.

Stage 3: Groups carry out their investigations.

Stage 4: Groups plan their presentations.

Stage 5: Groups make their presentations.

Stage 6: Teacher and students evaluate their projects.

(Sharan & Sharan, 1994, p. 101).

This method improves students' autonomy, responsibility and active participation. It seems clear that cooperative learning in general, and specifically group investigation, would be an effective way for teaching citizenship.

#### Description of the study of the cooperative learning

During the academic year 2003-04, the third-year class in which this study was being developed had significant behavioural problems, which made classroom work difficult. Competition and individualism were strong, and most students did not follow simple rules of classroom organisation that would be expected of students in the third year: it was considered one of the most difficult classes in the school. Systematic training in social skills seemed necessary. We organised systematic pair work to prepare them for cooperative learning work in the next year.

At the beginning of 2004-05 year we proposed to develop inquiry strategies using cooperative learning, following the specific methodology *group work investigation*. Students participated, from the beginning, in selecting themes and reflecting on classroom behaviour. In the previous year students suggested setting rules for each group, based on the needs they remembered from the third year class. These suggestions were written on the blackboard and organised by categories of skills, adapted from Dishon and O'Leary (1984) and Johnson and Johnson (1984).

The rules were organised on a poster that remained on a classroom wall (Table 1). Next, the steps and characteristics of group investigation were explained to students. The classroom teacher helped organise the work and support the groups. This facilitated the observations including classroom diaries, written by the researcher, which constitute the main data source for this study.

| Formation/starting<br>skills | Work without bothering other groups;<br>Speak one at a time;<br>Encourage everyone to participate:<br>Call everyone by his/her name;<br>Use quiet voices; |
|------------------------------|---|
| Functioning skills           | Express support or acceptance;<br>Share ideas;<br>Take care of materials;<br>Listen to others   |
| Formulating skills           | Search data;<br>Read materials carefully;<br>Put individual/pairs data together;<br>Summarise;<br>Prepare presentations;<br>Ask and answer questions;     |
| Fermenting skills            | Criticize ideas, not people;<br>Integrate ideas into a single position;<br>Extend another people's answers.   |

Table 1 – Students' suggested rules for cooperative learning

#### Description of activities based on diaries

The cooperative learning method used was *group investigation* and the project comprised ten activities or themes. Each was developed in several sessions, varying from 30 minutes to two hours. We implemented six activities.

The first was about local institutions. Each group studied one of the school, the hospital, the council, the town hall, the museum, and the church. Groups were organised according to the topic chosen. Students chose friends or good students to work with, rather than themes. These groups were relatively homogeneous: mixed groups of girls and boys, good and less good students. This led to results less good than was expected. Several of their rules were not implemented: for example, they criticised colleagues instead of ideas, they interfered with others' groups work, and often they did not stay on task. Several conflicts developed, and one or other asked the teacher to help solve these.

We noticed when monitoring the groups that interaction was strong, but that very often, individual responsibility failed. Generally, groups of students with some difficulties worked better than the good students, and the results of their work in academic terms were closer to the results of the good students than was expected.

During group presentations and the organisation of a collective poster, behavioural problems arose. In the final group process, when students and teachers evaluated the

projects together, the students assumed that some basic elements of cooperative learning were to be abandoned, such as 'do not interfere with the other groups' work' and 'stay on task'. They suggested using a different way to form groups.

The second activity consisted of a study of the Roman and Muslim people who had lived in the Hispanic peninsula. Groups were randomly formed: each had a portfolio of several forms of data, mainly images. Three groups worked on everyday Roman life and three on everyday Muslim life. Each made their own group work-plan, elaborating questions they would like to answer. The presentation to the other groups and the organisation of the final poster were better than in the previous activity.

We noticed that some students were apprehensive, because they had not worked before with some members of their group and did not like some of them. Groups were heterogeneous, but not in academic capacities. The results were better in academic achievement and in the development of social skills than in the previous activity. This was recognised by students, who stressed the improvement in individual responsibility. However they felt that they needed to improve some interpersonal skills.

The third activity was the elaboration of a dialogue between two personalities in Portuguese history, Egas Moniz and Afonso VII. Groups were formed this time from those to who they were closest. In pairs, they explored a legend about Egas Moniz; in groups of four or three and analysed images and written documents in order to become acquainted with the time when this happened. Each group produced a written dialogue, which they read to the other groups.

Forming the groups this way meant that most of them were heterogeneous, but with some inequalities between them, some of them had more able students than others. Some groups therefore developed a better dialogue than others, and others had problems related to their writing abilities, but generally they were able to discuss their ideas. This task required a closer monitoring of groups by the researcher and the teacher.

The fourth activity was the construction of a timeline. Groups were organised at random (as in the second activity). Each researched one every-day dimension of life, such as food, housing, furniture, dressing, leisure and hygiene and health in the medieval age. Groups researched by themselves and also had a portfolio organised by the researcher.

Even in these random groups they worked well, able to work with everyone almost without conflict. They had a lot of information to use, and therefore they used the skill of respecting and integrating each other's ideas. During the group process we heard comments such as 'we worked better, but we still should improve in sharing ideas', 'we did not discuss things that weren't significant, in spite our enthusiasm for the work', and 'we did not speak loudly'.

The fifth activity was again the construction of a timeline, this time about local history. Groups were created as in the previous activity. They also searched data by themselves, and used a portfolio organised by the researcher. They became more autonomous, better organising tasks and time, cooperating more within groups and among groups. This was evident, because they had to share resources. It also appeared that they had some commitment to work on a common project. Conflicts diminished, and they asked much less for help from the researcher and the classroom teacher.

The sixth activity was the continuation of the timeline into the modern period. Now that they worked well with everyone, the groups were organised by the classroom teacher, trying to work more quickly. The awareness that they were working for their group goals, but also for the common goal of all groups were even more evident. They gave information to other groups whenever they thought it would be helpful to them. Most cooperative learning skills were developed. The quality of their work, in academic terms, also improved significantly. All the groups planed, searched the information and constructed the timelines, almost without significant intervention from the researcher and teacher.

#### Group work evaluation

After each activity there was some group processing, but after the sixth activity this was more systematic and in-depth. They undertook this with a great commitment, and their reflections were organised around the following:

- Rules that were respected and not respected, and why.
- Positive aspects of each member of the group.
- Aspects to be improved on by the members of the group.
- What they learned with colleagues in the group work.
- Preferred ways of forming groups, and why.

We recorded each group discussion and they also presented their main points to the other groups. The transcription was organised in a table form, which is the basis for our analysis.

The first group (four students) said that they paid attention to colleagues' ideas; took notes and summarised; shared knowledge; synthesised ideas and wrote them down. In relation to rules that didn't work, they referred the need to make some noise in the classroom. They recognised the positive aspects of each member of the group and also identified aspects to be improved by some members. The advantages of group work, they said, was to have learned to work with everybody, to pay more attention and share ideas and use them in a suitable way.

The second group (four students) said they respected colleagues, and that all collaborated, participated, and researched. They also needed to improve their respect for the other groups, and should not have bothered them with noise. In this very heterogeneous group, one student stood out as leader, but he made sure that all participated and collaborated. They recognised that two of them should have worked harder.

The third group (three students) said they had followed some rules, for example respecting others' opinions. They justified their noise in working as a normal behaviour, but they admitted that they could have been quieter. They said that they should have been more attentive and worked harder to obtain better results. They also recognised they took too long to finish the work. One student, a girl, stood out as leader.

In the fourth group, formed by four students, two of them showed difficulties in the social skills and lack of interest in the tasks. When one of the hardworking students verified who will be his group said, "I will have to make them work!" The members of the group

recognized and referred the aspects to be improved. The development and the coordination of the work by the leader were very important even though they did not accomplish the tasks.

In the fifth group (four heterogeneous students) their individualism stood out, especially from a girl who recognised it had been an error to be so dominant. Another student in the group commented 'She wants to do everything: read, underline, to cut, to number, make a legend ...' She agreed with them: 'You are right, but I have already admitted this'. However, she pointed out that she had been better than at the beginning. They referred to the diligence of each member of the group, but they also recognised that some worked more than others, so they were not balanced. One member was the natural leader and she organised the activities. They said working in a group made them learn 'to accept what the others do, and not want to make everything, letting colleagues participate'. They also said that they helped each other but they had to improve some aspects in their group work.

The sixth and last group (three students) reported that some worked more than others because one of the students was absent one day. This showed the importance of being present when they worked in cooperative learning. The group recognised the leadership of one member, and the group pushed him to be their coordinator. The characteristics of this group helped change his behaviour and make him leader. They recognised that they have learned to work in a group; the difficulties that they had had before had now been resolved.

After they had experienced several types of learning in groups, they were asked to talk about the best experiences. The majority of students preferred the constitution of the groups organised by the teacher, justifying this by the better balance in the group. Those who preferred groups to be constituted randomly pointed to the surprise factor, but recognised that this process sometimes was not the best. Few preferred the groups to be constituted by the subject.

#### **Final Considerations**

This cooperative learning experience is still running but it is already possible to conclude:

- Pair work adequately initiated cooperative learning activities, mainly in developing social skills.
- Teacher-selected groups were the most efficient and preferred way to form groups, but sometimes it would be good to use random groups.
- Cooperative learning takes time to become fully implemented, and continuity is needed.
- Students took cooperative learning terminology into their discourse, mainly those related to social skills.
- There was evident progressive improvement in academic achievement, in classroom organisation and in the ability to stay on task.
- Students become more autonomous and better able to solve conflicts, which had been a big problem at the beginning of this study.
- The development of critical thinking was evident.

- Students learned to work with everyone and to respect individual differences.
- Competition and strong individualism within and among groups were less evident; students shared ideas, data, and materials.
- The best students helped the groups, starting to 'teach' the less able students: these improved in ability and sometimes made considerable efforts to become good group members.
- Group investigation is an adequate cooperative learning method with which to organise students' investigations, and its frequent criticism by schools may be due to their poor organisation.

Summing up, cooperative learning contributed to students' development of several fundamental citizenship competencies. Children who start cooperative learning in primary school and continue to do it during the following years of schooling will certainly be active, participative and responsible citizens.

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