Cooperative Learning

Cooperative learning involves students working in small heterogeneous groups to accomplish common learning goals and maximize learning for all.

The ability to build and maintain positive relationships is important for students. When students leave school, successful participation in the community and in the workplace depends not only on knowledge and information-handling skills, but also on skills of communication, critical thinking and problem solving, as well as the ability to plan and make decisions with others.

Benefits of Cooperative Learning
Research suggests that cooperative learning contributes to:
- higher self-esteem
- higher achievement
- increased retention of information
- greater social support
- more on-task behaviour
- greater collaborative skills
- greater intrinsic motivation
- increased ability to see other points of view
- better attitudes toward school and teachers
- greater use of high-level reasoning
- more positive psychological adjustment.[1]

Elements of Cooperative Learning

There are five basic elements of effective cooperative learning.[2]

Group Connection
Group members must feel that they are connected and that they need each other in order to accomplish a common goal. This sense of positive interdependence may be enhanced through joint rewards (received by all when all teammates are successful), shared resources, assigned complementary and task-related roles and the establishment of a common identity. All group members must succeed for the group to succeed.

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1. Johnson, Johnson and Holubec (1994).
2. Johnson, Johnson and Holubec (1994).

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Individual Accountability
The success of the group should be dependent on the individual efforts of all group members, so that all students feel a sense of responsibility toward mastering the learning and supporting other members. To strengthen individual accountability and maximize success for all, clearly establish expectations and assessment methods at the beginning of the lesson.

Social Skills
In order for students to collaborate effectively, appropriate communication, leadership, decision-making and conflict-management skills must be taught. Students are most likely to use social skills when they understand the need for and specific attributes of the skills, have opportunities to practise the skills in a meaningful situation, and receive feedback on their use of the skills.

Face-to-face Interaction
Students benefit from participating in carefully structured cooperative learning groups. Group members should be in close proximity to encourage dialogue so they can continually help each other, share ideas and encourage efforts to learn. Face-to-face interaction is most effective when students engage in higher-level thinking tasks, and when group connection, individual accountability and social skills are also present.

Individual and Group Reflection
Reflection is critical to the success of cooperative learning. Students should be given opportunities for individual and group reflection about their achievement of the academic task and their collaborative efforts. This process helps students to appreciate the value of collaborative skills, expand their effective use of strategies and improve working relationships in the group. Reflection can be encouraged through discussion as well as tools such as questionnaires, learning logs or checklists.

Elements of Cooperative Learning in Sample Jigsaw Structure

Procedure	Element
1. Students move to assigned (home) groups. Each group member receives a different portion of the information.	– Group connection
2. Students individually read their information, identifying main ideas.	– Individual accountability
3. Students move to form new groups of three with others having the same information (expert groups). In the new group, students discuss the information, clarifying the main ideas and determining a method of sharing information with home group members. Students use active listening skills.	– Face-to-face interaction – Social skills

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Procedure	Element
4. Students return to home group and take turns sharing their information. As they share, group members demonstrate active listening skills and record key ideas on individual retrieval sheets, coming to agreement on information to be recorded and ensuring all group members understand the information.	– Face-to-face interaction – Social skills – Group connection – Individual accountability
5. One sheet per group is randomly selected by the teacher to be collected for assessment. (All group members may sign the sheet to indicate they agree with and can explain the answers.)	– Individual accountability – Group connection
6. As a group, students reflect on their success at meeting the academic and social goals; e.g., checklist, rating scale, short answers.	– Individual and group reflection

Implementing Cooperative Learning

Consider the following guidelines for implementing cooperative learning in the classroom:

- establish and maintain a climate of trust and respect within the class
- plan ongoing team-building activities that allow students to communicate freely with one another about topics of personal importance (e.g., interests, experiences, talents, aspirations, concerns)
- adopt the role of facilitator rather than leader during cooperative learning activities
- identify academic and social objectives for the cooperative learning activity
- determine appropriate grouping of students, room arrangements and materials
- determine before students begin the task how group connection and individual accountability will be established, and the goals and criteria for success
- ensure students are familiar in advance with the attributes of specific social skills (e.g., active listening) and the procedures for cooperative structures (e.g., Jigsaw, Round Robin)
- inform students in advance of the expectations of the group process and the criteria for success
- monitor behaviour and understanding as students work together, using checklists, anecdotal notes or other methods, and intervene if necessary
- assess both the product and the process of group work
- use follow-up activities to encourage students to reflect on learning.

Sample Follow-up Activities
- Debrief and check for understanding using Spencer Kagan's "Numbered Heads Together" structure. This involves the following steps:
  - students number off (each student in the group has a different number)

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- the teacher asks a question and gives a time limit
- students "put their heads together" and make sure everyone knows the answer
- the teacher randomly selects and calls a number; students with that number raise their hands to be called upon.

For more information, consult Spencer Kagan's *Cooperative Learning* (1992).

- Design question sheets covering multiple levels of thinking (knowledge, comprehension, application, analysis, synthesis, evaluation) to be answered by groups. Use one sheet per group and rotate roles of writer, reader and encourager. Using one reflection sheet per group provides an opportunity for students to reach a consensus and set goals for future lessons.
- Have students develop group presentations to share information with the class.
- Use individual quizzes or assignments for assessment.

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Cooperative Learning—Lesson Planning Guide[3]

DATE: _____   NAME: _____

ACADEMIC OBJECTIVE: _____   GRADE LEVEL: _____

SOCIAL OBJECTIVE: _____   SUBJECT: _____

I. ORGANIZATIONAL DECISIONS PRIOR TO TEACHING

GROUPS: SIZE: _____   ASSIGNMENT: ☐ Heterogeneous   ARRANGING   ☐ Desk Clusters   MATERIALS: ☐ Shared
                                                  ☐ Homogeneous   THE ROOM: ☐ Chair Clusters   ☐ Individual
                                     Method: _____   ☐ Floor Clusters   LIST:
                                     _____   ☐ Tables
                                                                      ☐ Other …

II. SETTING THE LESSON

POSITIVE INTERDEPENDENCE:	ACADEMIC TASK DIRECTIONS:	CRITERIA FOR SUCCESS:	INDIVIDUAL ACCOUNTABILITY:	INTRODUCING SOCIAL BEHAVIOURS:
☐ Goal ☐ Incentive ☐ Resource ☐ Role ☐ Environment ☐ Sequence ☐ Identity ☐ Outside Force ☐ Simulation				

III. MONITORING AND INTERVENING

WHO WILL MONITOR GROUP WORK?   HOW WILL MONITORING BE DONE?   WHAT BEHAVIOURS WILL BE MONITORED?

☐ Teacher   ☐ Informal notes   _____
☐ Teacher/Students   ☐ Formal observation sheet   _____
                                                                                      _____

IV. EVALUATING THE PRODUCT AND PROCESS OF GROUP WORK

ACADEMIC FEEDBACK: SOCIAL SKILL PROCESSING:
(How will academic learning be evaluated?)   (How will students reflect on social interactions?)

                                                     Self-evaluation, by: _____
                                                     In Small Group, by: _____
                                                     Whole Class, by: _____

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3.   Reproduced with permission from Barrie Bennett, Carol Rolheiser and Laurie Stevahn, *Cooperative Learning: Where Heart Meets Mind* (Toronto, ON: Educational Connections, 1991), p. 287.

Cooperative Learning—Lesson Planning Guide[4]

How to Use This Form

DATE: _____   NAME: _____

ACADEMIC OBJECTIVE: *What academic learning will be targeted?*   GRADE LEVEL: _____

SOCIAL OBJECTIVE: *What social interaction skills will be practised?*   SUBJECT: _____

I. ORGANIZATIONAL DECISIONS PRIOR TO TEACHING

GROUPS: SIZE:
- start small
- consider nature of task, skills of students and time

ASSIGNMENT: *(mixed grouping)*
- ☑ Heterogeneous
- ☐ Homogeneous

(similar grouping)

Method: *How will you establish the groups; i.e., procedures?*

ARRANGING THE ROOM:
- ☐ Desk Clusters
- ☐ Chair Clusters
- ☐ Floor Clusters
- ☐ Tables
- ☐ Other …

MATERIALS: ☐ Shared   ☐ Individual

LIST: *What materials are needed?*

II. SETTING THE LESSON

POSITIVE INTERDEPENDENCE:	ACADEMIC TASK DIRECTIONS:	CRITERIA FOR SUCCESS:	INDIVIDUAL ACCOUNTABILITY:	INTRODUCING SOCIAL BEHAVIOURS:
☐ Goal ☐ Incentive ☐ Resource ☐ Role ☐ Environment ☐ Sequence ☐ Identity ☐ Outside Force ☐ Simulation *What types will be utilized?*	• What procedures will students follow to complete the task? • How will the directions be explained? • Do students need a demonstration?	• How will accomplishments be measured (social and academic)? • How will students become aware of the criteria?	• How will individuals be held responsible for learning? • What will motivate students to be involved?	• How will social behaviours be taught and reinforced? • Plan to focus on one social behaviour.

III. MONITORING AND INTERVENING

WHO WILL MONITOR GROUP WORK?
- ☐ Teacher
- ☐ Teacher/Students

HOW WILL MONITORING BE DONE?
- ☐ Informal notes → *e.g., global observation or anecdotal notes*
- ☐ Formal observation sheet *e.g., tally sheets or checklists*

WHAT BEHAVIOURS WILL BE MONITORED?
In addition to the expected social skills that will be monitored, are there other behaviours you will observe?

IV. EVALUATING THE PRODUCT AND PROCESS OF GROUP WORK

ACADEMIC FEEDBACK:
(How will academic learning be evaluated?)

See Chapter 9 on "Evaluation" for examples.

SOCIAL SKILL PROCESSING:
(How will students reflect on social interactions?)

Self-evaluation, by: _____

In Small Group, by: _____

Whole Class, by: _____

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4.   Reproduced with permission from Barrie Bennett, Carol Rolheiser and Laurie Stevahn, *Cooperative Learning: Where Heart Meets Mind* (Toronto, ON: Educational Connections, 1991), p. 286.

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