# experiences

# Cooperative learning and the COVID crisis19



by David W. Johnson

ecause of the global pandemic of COVID19, it could be tempting to isolate students by having them do their schoolwork by themselves, either at home or in classrooms where they are at least two metres apart. Even school can become an individual activity with teachers guiding students through the Zoom and other computer programs. However, in times of emergency, social interaction and support are needed more than ever. In schooling, this means that cooperative learning is essential. Some of the benefits of it are promoting higher levels of social support, more positive peer relationships, more personalised learning, healthier social and cognitive development, higher moral reasoning, and healthy levels of psychological health.

Cooperative learning is not incompatible with social distancing. It is possible to do both simultaneously. Online collaborative groups can be established through Zoom and other Internet programmes. Within the classroom, students wearing face-masks can be assigned to pairs or trios sitting two meters away. Teachers can find creative ways to get students to work together, cooperatively while

maintaining a safe distance between them.

Understanding how to use cooperative learning in the pandemic requires discussion of the nature of collaborative learning, the essential elements of cooperative learning, the types of cooperative learning and the outcomes of it.

### NATURE OF COOPERATIVE LEARNING

Cooperation is working together to achieve shared goals (Johnson, 1970; Johnson & Johnson, 1989). Cooperative learning is the instructional use of small groups for students to work together to maximise their own and others' learning (Johnson, Johnson & Holubec, 2013). Any learning task, in any subject area, with any curriculum, with a student of any age, can be structured cooperatively.

### **ESSENTIAL ELEMENTS OF COOPERATIVE LEARNING**

Five basic elements are required to structure a lesson in cooperative learning: positive interdependence, individual responsibility, promotional interaction, social skills and group processing. The core of collaborative efforts involves a positive interdependence: i.e. the perception that one is linked to others in a way that he or she cannot succeed unless they all do, and vice versa. (Deutsch, 1949; Johnson & Johnson, 1989). Each lesson may contain positive interdependence of goals, while positive interdependence can also be structured through mutual rewards, distributed resources, complementary roles, a joint identity, an external enemy, participation in a fantasy situation, environmental limits and a division of labour (Johnson, Johnson & Holubec, 2013).

Individual accountability exists as each student performance is evaluated, and the results are returned as feedback both to the group and the individual (Johnson and Johnson, 1989). Personal accountability can be structured by: (a) observing students as they work together and documenting each member's contributions, (b) having each student explain what he or she has learned to a classmate, or (c) giving each student individual feedback.

Students promote the success of others by helping, assisting, praising, encouraging, and supporting each other's efforts to learn (Johnson & Johnson, 1989). By

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doing so, cognitive processes occur, such as: discussing the nature of the concepts being learned, explaining orally to others how to solve problems, teaching one's knowledge to one's peers, challenging one's reasoning and conclusions, and connecting the present with past learning. Promotional interaction also includes interpersonal processes such as supporting and encouraging achievement efforts, jointly celebrating group success and modelling appropriate use of social skills.

Contributing to the success of a cooperative effort requires interpersonal and small group skills (Johnson & Johnson, 1989). Leadership, confidence-building, communication, decision-making and conflict management skills must be taught with the same determination and precision as academic skills.

Group processing can be defined as the examination of the process effectiveness that individuals use to maximise their own and others' achievements and so, ways can be identified to improve the process (Johnson and Johnson, 1989). Students need to describe which actions are useful or not to ensure that all students achieve and maintain effective working relationships.

These five essential elements enable instructors to:
a) structure any lesson, in any subject area, with any
set of curriculum materials for cooperative learning, b)
refine and adapt cooperative learning to their specific
circumstances, needs and learners, and c) intervene
to improve the effectiveness of any group that is
malfunctioning.

**TYPES OF COOPERATIVE LEARNING** Four types of cooperative learning can be identified (Johnson, Johnson and Holubec, Cooperative learning can be used to teach specific content (formal cooperative learning groups), to ensure active cognitive processing of information during direct instruction (informal cooperative learning groups), to provide long-term support and assistance for academic progress (cooperative base groups), and to use intellectual conflict (constructive controversy) to enhance achievement and creative problem-solving.

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**Formal cooperative learning.** Formal cooperative learning consists of students working together, over a class period of several weeks, to achieve mutual learning goals and to jointly complete specific tasks and assignments (Johnson, Johnson and Holubec, 2013). Any course or assignment requirement in any curriculum or subject area for a student of any age can be structured to be cooperative.

To structure formal cooperative learning the instructor:

- 1. Makes a series of decisions about how to structure the learning groups: what size groups, how learners are assigned to the groups, what student roles to assign, how to arrange the materials and how to organise the room. The instructor also specifies the objectives of the lesson (one academic and one social skill).
- It teaches the academic concepts, principles and strategies that the students should master and apply. It explains (a) the task to be performed, (b) the criteria for success, (c) positive interdependence, (d) individual responsibility, and (e) the expected behaviours of the students.
- 3. Supervises the functioning of learning groups and intervenes to (a) teach cooperative skills and (b) assist in academic learning.
- 4. Evaluates student performance against pre-set criteria of excellence and ensures that groups process the effectiveness with which members worked together.

**Informal cooperative learning.** Informal cooperative learning consists of students working together to achieve a joint learning goal in temporary and ad-hoc groups lasting from a few minutes to a class period (Johnson, Johnson and Holubec, 2013). Students engage in three to five minute focused discussions before and after direct instruction and three to five-minute discussions among peers, interspersed throughout the direct instruction.

**Cooperative-based groups.** Cooperative base groups are long-term, heterogeneous cooperative learning groups with stable members in which students provide each other with support, encouragement and assistance (Johnson,

Johnson and Holubec, 2013). The use of base groups tends to improve attendance, personalise the required work and school experience, and improve the quality and quantity of learning. Base groups have a permanent composition (i.e. a semester or a school year), and provide the long-term care and the support relationships between peers which are needed to help students develop cognitively and socially in a healthy way.

**Constructive controversy.** Constructive controversy exists when one person's ideas, information, conclusions, theories and opinions are incompatible with those of another. And they both try to reach an agreement that reflects their best-reasoned judgement (Johnson & Johnson, 2018). The constructive controversy involves discussion of the advantages and disadvantages of proposed actions to synthesise novel and creative solutions.

When used in combination, cooperative, both formal and informal, base groups, and constructive controversy provide an overall framework for school learning.

## **OUTCOMES OF COOPERATIVE LEARNING**

Cooperative efforts result in numerous effects that can be subsumed under three broad categories (Johnson & Johnson, 1989, 2005):

- Effort to achieve: Cooperation to accomplish a common goal results in more significant achievements and higher productivity than competitive or individualistic efforts.
- 2. Positive interpersonal relationships: More positive, committed and supportive relationships are developed in cooperative situations than in competitive or individualistic cases.

 Psychological adjustment and health. Working in cooperation with colleagues and valuing cooperation results in more excellent psychological health and self-esteem than the competition with colleagues or independent work.

This research has considerable generalizability, as: a) participants in the study have varied in terms of economic class, age, gender, culture and country, b) research tasks and measures of dependent variables have varied widely, and c) many different researchers with markedly different orientations working in different countries, settings and different decades have conducted the studies.

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**David W. Johnson** is a professor of Educational Psychology and Co-Director of the Center for Cooperative Learning at the University of Minnesota. Author of over 40 books and more than 400 research articles and book chapters. He has received several awards for his research and teaching. He has been an organizational consultant to schools and businesses in North America, Central America, South America, Western Europe, Eastern Europe, Africa, Asia, the Middle East and the Pacific Region.

