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Helping Behavior in Cooperative Learning

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Cooperative learning environments have received increasing attention in classrooms due to the potential for improving learning and achievement. This paper explores the helping behavior and influential factors in cooperative learning, it also discusses the the nature of helping behavior within peer-directed small groups that may be the most effective for learning.

Keywords: helping behavior, cooperative learning

Introduction

Cooperative learning involves children working together to accomplish shared goals, so the center of cooperative learning is to help children to develop a sense of "group" as they recognize the need to help and support each other's learning. When children work cooperatively together, they learn to give and receive help, share ideas and listen to other students' perspectives, seek new ways of clarifying differences and solving problems, and construct new understandings and learning from engaging in these processes. As a result, students perform higher academically and are more motivated to achieve the goal than they would be if they worked alone.

The Benefits of Help Receiver and Help Giver

Students' cooperative learning can gain benefits both from giving and receiving verbal help from other peers. On the one hand, according to Vygotsky's theory "the zone of proximal development" which the main element is the differences between what a child actually can solve the problem independently and what he or she can accomplish under adult guidance or in collaboration with more capable peers. Peers are good source of help because they are working on the same problem at the same time, they can understand where team-mates go wrong and what they do not understand in a way that a teacher may not be, in a similar language and in understandable terms. By receiving explanation from more capable peers, students can recognize and correct their misconceptions, fill the gaps in their understanding, and strengthen the connection between the material and their prior knowledge.

On the other hand, many researches found that giving explanations is positively correlated with achievement. In giving help, explainers are encouraged to cognitively restructure the information they provide and to clarify the content in new way to make it understandable to others. This process of restructuring often

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requires explainers to reexamine their own understanding, filling in gaps in their own learning, recognize and resolve inconsistencies, verbalize their own ideas and explanations, develop new perspectives, and construct more elaborated conceptualizations than they would learn by themselves. It can be said that explaining to someone else has more impact on cognitive restructuring than the act of verbalizing or summarizing material itself. In effect, as Vygotsky observed, students use language as a medium to relate to each other, to scaffold each others' learning, and to appropriate knowledge and understanding transacted through assisted performance so it becomes their own.

Conditions for Effective Helping

Although students gave explanations in response to students' need for help, the explanations were not always very effective for learning. Webb suggested that six conditions must be met for effective learning:

- The help must be relevant to the particular misunderstanding or lack of understanding of the less able peer. (relevant)
- The help provided must be at a level of elaboration that corresponds to the level of help needed. (sufficiently elaborated)
- The help must be given in close proximity in time to the peer's request for help. (timely)
- The target student must understand the explanation.
- The target student must have opportunity to use the explanation to solve the problem.
- The target student must use the opportunity.

These six conditions can fall into two categories: the helping explanation must be sufficiently elaborated; the student receiving the help must employ the explanation to try to solve problems for him or herself.

The Responsibilities of the Help-seeker/Help-giver

For Help-seeker

Nelson-Le Gall described five-step model of children's help seeking. The target student must be aware of that he or she needs help, be willing to seek help, identify someone who can provide help, use effective strategies to elicit help, and be willing to reassess his or her strategies for obtaining help. The target student actively seeks for help is the most important responsibility. However, some students are unwilling to seek help. Webb suggested that time pressure and the focus on group mechanics may undermine help seeking.

For Help-giver

- Students should be encouraged to give others more effective elaboration. The nature of elaboration includes some possibilities.
- Using multiple representations to explain a concept. (e.g. geometric figures, pictures, mathematical symbols)
- Showing how to coordinate and translate among different representations to solve problems.
- Giving specific examples to illustrate general concepts.
- Translating unusual or unfamiliar vocabulary into familiar terms.
- Creating analogies to relate new ideas to familiar concepts.
- Describing the relationship between different concepts.

Structuring Group Interaction

Researches have confirmed that students in the structured groups were more cooperative and provided more elaborated verbal help to each other than students in the unstructured groups. There are several approaches to structure group interaction in order to promote behavior beneficial for learning.

Role Specialization

A popular way of facilitating group work is to assign each student a role and make the roles interdependent. Kagan suggested some roles and responsibilities, such as Gatekeeper—to equalize participation in the group, Praise—to show appreciation of others' accomplishments, Coach—to help with academic content, Checker—to check the group's understanding. Through these roles management all students can be ensured to participate and help groups function smoothly.

Reciprocal Questioning

King adapted self-questioning and elaborative techniques to the cooperative setting and designed "reciprocal questioning", in which students ask each other questions about the material. King trained students to use generic question stem, such as "what is a new example of …", "How would you use…to…", "What would happen if…", "What do you think causes", to generating their own high-level questions.

Factors Influencing Peer Interaction

Gender

Research showed that the specific gender composition of the group may influence the interaction of group. Webb, for example, conducted a study to assign students into three kinds of groups: two females and two males, three females and one male, and three males and one female. She found that in groups with an equal number of sexes, girls and boys showed similar pattern behavior and similar achievement. Conversely, in majority-male and majority-female groups, girls were less successful than boys in obtaining answers to their questions. In addition, when teachers assign them into groups, it is worth noticing that the cognitive growth of girls and boys are quite different in young-age learners.

Group size

Positive results have been found with small groups of three to five student. In small groups each person has more opportunity to participate. On the other hand, large groups make it possible for students to shirk responsibility for doing task and man unwittingly reinforce ignoring questions.

Task Structure

The poor results could have derived from the task that does not lead students to work cooperatively. Cohen argued that in a well-structure task involves low levels of cooperation because students are only required to exchange information, or provide detailed explanations on how to arrive at the right answer and do not need to engage in discussion on how they will manage the task or how they will negotiate meaning. On the other hand, as Cooper concluded that the use of peer learning techniques for closed-ended, result-focused activities may reinforce earlier learning but does little to encourage new understandings, in ill-structure task (the task is more open and discovery based and there is no one correct answer), group members show high levels of cooperation as they discuss how they will proceed as a group and share ideas and information.

Reward Structure

In a group reward structure, students are rewarded on the basis of the group's performance. Although group rewards are thought to improve group functioning by increasing individual accountability: students hold themselves and each other accountability, Slavin argued that it can motivate students only if group rewards based on the individual learning. Using group rewards can make sure that everyone understands the materials, therefore, enhances the achievement outcomes of cooperative learning. The most widely recommended procedure is to administer group rewards on the basis of the combined performance of individual members.

The Implication for Teaching and Further Research

After discussed the helping behavior and influential factors in cooperative learning, we got a general picture of implementation of cooperative learning. When teacher design a group task, the development of student's cognitive ability, the structure of task, the composition of group and the ways of assessing should be taken into account. Furthermore, during the learning process, teacher should play a good coach and monitor to scaffolding students' cooperative learning, to check in with groups, and must insist that group work standards are kept. However, it is still not enough to guarantee the learning outcomes of cooperative learning. Because students participate in cooperative learning depend not only on group composition, how difficult a task is, way of assessing or individual ability but rather on their willingness. Do they want to be the member of a group and work cooperatively with teammates to accomplish the task? Why some students have ability to assist other peers but fail to do so? Why some students do not want to seek for help even they do not understand? Whether group rewards improve the quality of students' responses to need for help or raise? These questions all need be further studied.

The author thinks the variable of cooperative learning are vary from different individual, learning content, and tasks, therefore cooperative learning challenges and attracts many teachers doing so.

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