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Cooperative Learning Vs. Small-Group Discussions and Group
Projects: The Critical Differences

Subject/Discipline:

Submitter: Joseph Cuseo

Submitter Email: susan.ledlow@asu.edu

Submitter

Organization: Marymount College

Description: This article was originally published in
Cooperative Learning and College Teaching, 2.3
(1992): 5-10. Reprinted by permission.

Text Body: In ["Collaborative & Cooperative Learning in
Higher Education: A Taxonomy," Cooperative
Learning in Higher Education, Winter 1992] a
taxonomy was proposed to bring some clarity to
the myriad forms of learning that have been
loosely referred to as Collaborative/Cooperative
in American higher education. The present
article, continuing this quest for identity
delineates the key differences between
Cooperative Learning (CL) and two other forms of
small-group learning used in higher education:
small-group discussions and group projects.

Cooperative Learning may be defined as a
learner-centered instructional process in which
small, intentionally selected groups of 3-5
students work interdependently on a well-defined
learning task; individual students are held
accountable for their own performance and the
instructor serves as a facilitator/consultant in
the group-learning process.

More specifically, CL can be operationally
defined in terms of six procedural elements,
which when implemented together, distinguish it
from other forms of small-group learning in
higher education.

1. Intentional Group Formation

In contrast to traditional methods of small-group
learning, such as small-group discussions and
group projects, in which students often select
their own group members or groups are randomly
formed by the instructor, CL typically begins
with the intentional selection of group members
on the basis of predetermined criteria which have
been deliberately designed to potentiate the
positive effects of smallgroup learning. For
instance, groups may be dcliberatcly formed to
maximize heterogeneity and diversity of
perspectives by grouping students with different:
(a) levels of academic achievement (e.g.,
high-low-medium GPAs), (b) learning styles (e.g.,
deep processors and shallow processors), (c)

academic majors, (d) personality profiles (e.g., as measured by the MBTI), (e) ethnic or racial backgrounds, (f) geographical backgrounds, (g) gender, (h) ages (e.g., traditional and reentry students) or (i) class standing (e.g., lower-division and upper-division students), or some combination of these selection criteria.

The criteria for determining group composition may vary depending on the instructor's objectives or the characteristics of students in the class, but the essential factor is that group formation is not left to chance; instead, careful forethought is given to the question of who comprises each learning group in an attempt to create the optimal social learning environment.

2. Continuity of Group Interaction

In contrast to traditional small-group discussions or buzz groups, which typically group students sporadically for a relatively short period of time, CL groups typically meet regularly over an extended period of time. This allows for continuity of interaction among group members and creates the opportunity for social cohesion and bonding to develop among group members. In this fashion, CL groups are given the time needed to evolve into a tightly-knit social network.

3. Interdependence Among Group Members

Rather than simply allowing students to interact in small groups and then hoping they will do so in a cooperative manner, CL incorporates specific procedures designed to create a feeling of group identity among students and collective responsibility for one another's learning. The following procedures are used to increase the likelihood that this sense of positive interdependence develops within CL groups:

(a) Group production of a common product at the end of the Cooperative Learning experience.

In contrast to the usual discussion, or buzz group which gets together for informal discussion of some course-related issue, each CL group is expected to generate a formal product which represents a concrete manifestation of the group's collective effort (completion of a work sheet; a compendium or chart of specific ideas; an overhead transparency which can be displayed to other groups). The objective of working toward a clearly defined, common goal is essential for keeping individual students on task and focused on a group goal.

(b) Assignment of interdependent roles for each group member.

A sense of individual responsibility to the group may be increased if each group member has a specific and essential role to play in achieving the group's final goal or product. For instance, individuals within the group could be assigned the following interdependent roles: group manager--who assures that the group stays on task and that all members actively contribute; group recorder--who keeps a written record of the group's ideas; group spokesperson--who is responsible for verbally reporting the group's ideas to the instructor or other groups; and group processor? who monitors the social interaction or interpersonal dynamics of the group process. Roles can also be assigned on the basis of different perspectives that group members are expected to contribute to the final product--e.g., historical, ethical, economic, or global, etc. (For further information on this concept of assigning multiple roles for purposes of achieving multiple perspectives, see "Cooperative Learning: Implications for Liberal and General Education" in *Cooperative Learning & College Teaching*, Winter, 1992.) Such role specialization assures that each individual has an explicit and well differentiated responsibility to the group throughout the learning process. A further advantage of role specialization is that the quality of each member's contribution can be more readily identified and assessed by the instructor, thus allowing for individual grading and individual accountability--which is one critical feature of CL.

(c) Team-building activities designed to produce a sense of group identity and social cohesiveness.

Such activities would include ice breakers or warm-up activities when groups are first formed (e.g., namelearning and personal informationsharing); taking team photos; creating team names; providing explicit suggestions and concrete recommendations for promoting cooperation and teamwork (e.g., exchanging phone numbers with other group members; reviewing individual lecture notes as a group; seeking feedback from group members on individual course assignments; encouraging group study sessions, etc.) The underlying rationale for these team-building activities is to create a social and emotional climate conducive to the development of an esprit de corps and a sense of

intimacy among the group's members, thus enabling them to feel comfortable in future CL tasks that will require them to express their personal viewpoints, disagree with others and reach consensus in an open, non-defensive fashion. The key assumption here is that the potential cognitive benefits of small-group learning are more likely to be realized in a social context characterized by group cohesiveness, mutual trust, and emotional security. Furthermore, such explicit attention to the social and emotional aspects of small-group dynamics may be instrumental in fostering social support and emotional ties among peers--which are factors known to have a significant impact on student retention.

(d) Provision of individual rewards as an incentive for promoting group interdependence.

This has been the most hotly debated CL strategy for creating group interdependence because it involves extrinsic rewards for cooperative behavior. For example, if an individual student improves her score from one exam to the next, then all group members are rewarded by gaining extra (bonus) points toward their individual course grades. Or, if each group member's performance exceeds a certain criterion (e.g., each group member achieves a score of at least 90%), then all members of the group receive bonus points toward their individual course grade.

Some practitioners of CL oppose these strategies because they feel it is unnecessary--students will be intrinsically motivated to cooperate and take responsibility for helping others as long as they are given a well-defined task and the opportunity to work together. Other practitioners feel that providing extrinsic rewards for helping others tends to destroy intrinsic motivation for behaving cooperatively and altruistically. However, those who do use these incentives feel that, if group performance rewards are not large (e.g., representing extra bonus points only, rather than a significant portion of the course grade), then such incentives can serve to promote group interdependence and increase academic achievement (Slavin, 1989).

Since the issue of whether or not to use extrinsic rewards for promoting interdependent behavior in CL groups is still unresolved at the precollegiate level and has yet to be investigated at the college level, it is perhaps best to consider this strategy as an optional, rather than essential procedure for promoting

group interdependence.

4. Individual Accountability

Though procedures for ensuring interdependence and cooperation among group members are essential elements of CL, students are graded individually, i.e., all group members do not receive the same group grade (in contrast to most group projects). Recent educational research consistently supports the importance of personal accountability and individual grading for realizing many of the positive outcomes of CL. This precollegiate research is reinforced by findings reported by social psychologists on the phenomenon of social loafing--i.e., the effort produced by individuals will decrease when they are placed in a group, unless the output or effort of each individual is uniquely identifiable (Williams, Harkins, & Latane, 1981). These research data are consistent with familiar, anecdotal reports of high-achieving students who often contend that they dislike group projects in which all group members receive the same group grade because their individual effort and contribution to the group's final product often exceeds the efforts of their less motivated teammates--who inquitably receive the same grade for the group assignment.

5. Explicit Attention to the Development of Social Skills

In contrast to the strictly academic goals of most small-group work in higher education, a major objective of CL is the intentional development of students' interpersonal communication and human relations skills. To achieve this objective, CL incorporates the following procedures:

(a) Explicit instruction on effective skills for communicating and relating to others are given to students prior to, and in preparation for their involvement in small-group learning activities.

Such instruction may include strategies for encouraging and supporting other group members, active listening, constructive disagreement, conflict resolution, and consensus building. Thus, students receive some preparation and guidance for handling the social and emotional demands of small-group work, rather than being left entirely to their own devices.

(b) Provision of opportunities for students to reflect on, and evaluate the process of social interaction.

Meta-social awareness is encouraged by having groups and/or individuals assess the quality of group interaction with respect to already-learned principles of effective interpersonal communication. Furthermore, students are asked to reflect on how the nature of their social interaction in CL groups has affected their individual learning. (For example, by having students answer such questions as: Do you find that you learn more or less when you verbalize your thoughts to other group members? When there is disagreement between yourself and another group member? When you question the reasoning of other group members?) Opportunities to reflect on such questions pertaining to both the group's social process and its impact on the individual's learning may serve to promote students' meta-social and meta-cognitive awareness simultaneously.

(e) Effective interpersonal behavior displayed by students within groups is explicitly noted and verbally reinforced by the instructor, then shared with the entire class?as specific exemplars or models to be emulated in future group interactions.

The instructor is alert not only to the cognitive aspects of group work, but to the social aspects as well. Specific, effective forms of interpersonal communication exhibited by students in their learning groups are praised and utilized by the instructor for educational purposes--as concrete, behavioral illustrations of key human-relations principles.

6. Instructor as Facilitator

In contrast to most small-group discussions and group projects, where students are left on their own to verbalize their ideas and conduct their work, CL involves the instructor as a facilitator and consultant in the group-learning process. Though the instructor does not sit in on individual groups (such intrusiveness might disrupt the student-centered advantage of group learning), he/she will circulate actively among the groups, offering encouragement, reinforcing positive instances of cooperative behavior, clarifying task expectations, catalyzing dialogue, or issuing timely questions designed to promote elaboration and higher-order thinking. Being careful not to be overly directive or authoritative, the instructor functions as a learned peer or collegial coach, interacting with students in a much more personal, informal, and dialogic fashion than would be possible in the traditional lecture or lecture-discussion format.

Moreover, the opportunity to interact with students in small groups may not only benefit the students but may also enable college instructors to better know their students (e.g., know their names, their styles of thinking, and their styles of communicating and relating to others).

Conclusion

The foregoing six features of CL, taken together, distinguish this instructional technique from the methods of smallgroup discussion and group projects which have been traditionally used in higher education. Faithful implementation of these six features of CL may be essential for assuring that the full spectrum of benefits associated with small-group learning are actually realized.

Research involving large-scale, metaanalyses of hundreds of studies at the precollege level provide overwhelming empirical documentation for the cognitive, social, and affective benefits of CL--operationally defined in terms of the six key procedural elements described herein (Johnson & Johnson, 1989; Slavin, 1990). Research on CL college level is much less extensive, but results thus far are very consistent with those reported in precollegiate settings (Cooper & Muccck, 1990; Johnson & Johnson, 1989; Johnson, Johnson, & Smith, 1992).

If more practitioners in higher education begin to carefully implement the six critical features of CL in their classrooms, then the benefits of CL for college students could be assessed with the same degree of rigor and replication as it has at the precollegiate level. We encourage college faculty to conduct their own assessments of CL in their individual courses. Such local assessments would be consistent with the national call for classroom research (Cross, 1987) and the new scholarship--the scholarship of teaching (Boyer, 1990).

We also encourage high-level administrative support for faculty who attempt to implement and evaluate CL in their classrooms--e.g., via provision of needed resources, recognition/reward in promotion and tenure decisions, and in the form of incentives such as: small grants, stipends, or released time. Such administrative support would not only stimulate CL practice and research, it may also serve as a stimulus for faculty development and campus-community building. For instance, faculty development workshops or retreats could be offered to bring

CL practitioners together for purposes of preparing them for effective implementation and evaluation of CL. It is noteworthy that a recent Carnegie Foundation survey revealed that over 70% of college presidents rated "greater effort to build stronger sense of community" as "very important" for improving the quality of campus life at their institution (The Carnegie Foundation and the American Council on Education, 1989). CL may be one mechanism for building community among college student--within the context of the classroom teaching, and among college faculty--within the context of faculty development.

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FIPSE Project Director Susan Ledlow: susan.ledlow@asu.edu
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