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Giving Students Grades in Cooperative Learning Situations

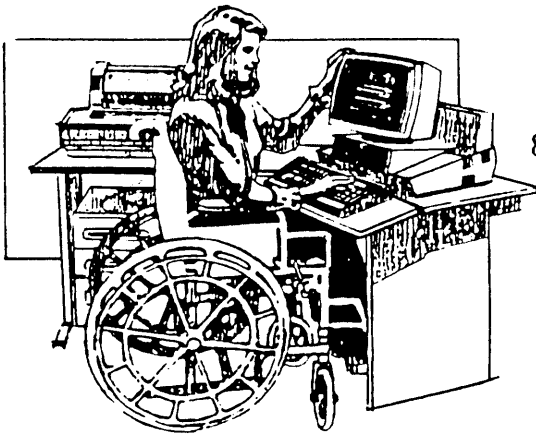
Grades represent the most common reward given in most classrooms. Current grading systems, however, have created a tragedy within many colleges in America. Almost every student comes to college optimistic about his or her chances for success. Many end up believing they are failures and losers. There are students of average intelligence who refuse to enter college because they believe that they are not smart enough to do so. Their poor academic self-esteem has helped close one door on their future.

One cause is the evaluation and recognition systems used in our classrooms. Some students consistently receive recognition and others never do. If you compare the initial fall test scores in a classroom with final grades in June, there is a high correlation. All year long, the top students are given recognition for being successful. Other students receive little or none. There are winners and there are losers.

The situation is changed dramatically when high-, medium-, and low-achieving students are placed in a cooperative learning group. When the group succeeds, all members are recognized as having contributed to their joint success. Even low-ability students believe we can succeed, we are successful. Being part of a cooperative learning group empowers each student by increasing his or her **self-efficacy**--the belief that if effort is exerted, success is possible. All students are recognized as contributing to the group's success.

The way grades are given depends on the type of interdependence the instructor wishes to create among students. Norm-referenced grading systems place students in competition with each other. Criterion-referenced grading systems require students to either work individualistically or cooperatively. How to give grades to communicate to students that they "sink or swim together" is one of the most difficult aspects of structuring learning situations cooperatively. Here are a number of suggestions.

5. **Totaling members' individual scores:** The individual scores of members are added together and all members receive the total. For example, if group members scored 90, 85, 95, and 90, each member would receive the score of 360.
6. **Averaging of members' individual scores:** The individual scores of members are added together and divided by the number of group members. Each member then receives the group average as their mark. For example, if the scores of members were 90, 95, 85, and 90, each group member would receive the score of 90.
7. **Group score on a single product:** The group works to produce a single report, essay, presentation, worksheet, or exam. The product is evaluated and all members receive the score awarded. When this method is used with worksheets, sets of problems, and examinations, group members are required to reach consensus on each question and be able to explain it to others. The discussion within the group enhances the learning considerably.



8. **Randomly selecting one member's paper to score:** Group members all complete the work individually and then check each other's papers and certify that they are perfectly correct. Since each paper is certified by the whole group to be correct, it makes little difference which paper is graded. The instructor picks one at random, grades it, and all group members receive the score.
9. **Randomly selecting one member's exam to score:** Group members prepare for an examination and certify that each member has mastered the assigned material. All members then take the examination individually.

Since all members have certified that each has mastered the material being studied, it makes little difference which exam is scored. The instructor randomly picks one, scores it, and all group members receive that score.

10. **All members receive lowest member score:** Group members prepare each other to take the exam. Each takes the examination individually. All group members then receive the lowest score in the group. For example, if group members score 89, 88, 82, and 79, all members would receive 79 as their score. This procedure emphasizes encouraging, supporting and assisting the low-achieving members of the group and often produces dramatic increases in performance by low-achieving students.
11. **Average of academic scores plus collaborative skills performance score:** Group members work together to master the assigned material. They take an examination individually and their scores are averaged. Concurrently, their work is observed and the frequency of performance of specified collaborative skills (such as leadership or trust-building actions) is recorded. The group is given a collaborative skills performance score, which is added to their academic average to determine their overall mark.
12. **Dual academic and nonacademic rewards:** Group members prepare each other for a test, take it individually, and receive an individual grade. On the basis of their group average they are awarded a homework pass or some other valued reward.

1. **Individual score plus bonus points based on all members reaching criterion:** Group members study together and ensure that all have mastered the assigned material. Each then takes a test individually and is awarded that score. If all group members achieve over a preset criterion of excellence, each receives a bonus. An example is as follows:

Criteria for Bonus Points	Group	Scores	Total
100 15 points	Bill	100	110
90 - 99 10 points	Sally	90	100
80 - 89 5 points	Jane	95	105

2. **Individual score plus bonus points based on lowest score:** The group members prepare each other to take an exam. Members then receive bonus points on the basis of the lowest individual score in their group. An example is as follows:

Criteria for Bonus Points	Group	Scores	Total
71 - 75 1 point	Bill	100	103
76 - 80 2 points	Sally	98	101
81 - 85 3 points	Jane	84	87
86 - 90 4 points			
91 - 95 5 points			
96 - 100 6 points			

This procedure emphasizes encouraging, supporting, and assisting the low achievers in the group. The criterion for bonus points can be adjusted for each learning group, depending on the past performance of their lowest member.

3. **Individual score plus group average:** Group members prepare each other to take an exam. Each takes the examination and receives his or her individual score. The scores of the group members are then averaged. The average is added to each member's score. An example is given below.

Student	Individual Score	Average	Final Score
Bill	66	79	145
Sally	89	79	168
Jane	75	79	154
David	86	79	165

4. **Individual score plus bonus based on improvement scores:** Members of a cooperative group prepare each other to take an exam. Each takes the exam individually and receives his or her individual grade. In addition, bonus points are awarded on the basis of whether members' percentage on the current test is higher than the average percentage on all past tests (i.e., their usual level of performance). Their percentage correct on past tests serves as their base score that they try to better. Every two tests or scores, the base score is updated. If a student scores within 4 points (above or below) his or her base score, all members of the group receive 1 bonus point. If they score 5 to 9 points above their base score, each group member receives 2 bonus points. Finally, if they score 10 points or more above their base score, or score 100 percent correct, each member receives 3 bonus points.

Having students work together on a joint product is viewed by many educators as being less fair to each student than is having each student work alone to produce an individual product for which he or she receives an individual grade. Most students would disagree. It is important that students perceive the distribution of grades and other rewards as being fair, otherwise they may become unmotivated and withdraw psychologically or physically. There have been a number of investigations of students' views of the fairness of various grading systems. There are five major findings:

1. Students who "lose" in a competitive learning situation commonly perceive the grading system as being unjust and, consequently, dislike the class and the instructor (Johnson & Johnson, 1983, 1989a).
2. Before a task is performed, students generally perceive a competitive grading system as being the most fair, but after a task is completed, having all members receive the same grade or reward is viewed as the fairest (Deutsch, 1979).
3. The more frequently students have experienced long-term cooperative learning experiences, and the more cooperative learning was used in their classes, then the more the students believed that everyone who tries has an equal chance to succeed in class, that students get the grades they deserve, and that the grading system is fair (Johnson & Johnson, 1983).
4. Students who have experienced cooperative learning prefer group grades over individual ones (Wheeler & Ryan, 1973).
5. Achievement is higher when group grades (compared with individual ones) are given (Johnson & Johnson, 1989a). The implications of this research for instructors is that group grades may be perceived to be unfair by students before the students have participated in a cooperative learning activity. Once cooperation has been experienced for a while, however, a single group grade will probably be perceived as the fairest method of evaluation.

There are three general systems for distributing rewards within our society: **equity** (where the person who contributed the most or scored the highest receives the greatest reward), **equality** (where every participant receives the same reward), and **need** (where those who have the greatest need receive the greatest reward) (Deutsch, 1975). All three systems operate within our society and all three systems have their ethical rationale. Typically, the equality system assures members of a family, community, organization, or society that their basic needs will be met and that diverse contributions will be equally valued. The need system assures members that in moments of crisis others will provide support and assistance. And the equity system assures members that if they strive for excellence, their contributions will be valued and rewarded. Educators who wish to give rewards in the classroom only on the basis of equity may be viewing "fairness" from too limited a perspective.

In the ideal classroom, at the end of a grading period, each student will have a number of grades resulting from collaborative efforts, a number of grades resulting from individualistic efforts, and a number of grades resulting from competitive efforts. When these grades are added together, instructors we have worked with inevitably find that high-achievers get "A's." Because of the higher achievement found in cooperative learning situations, however, middle- and low-achievers may receive higher grades than they would if the classroom was dominated by competitive or individualistic learning situations. The number of students receiving "B's" and "C's" will tend to grow larger as the positive peer pressure and support raise achievement. The number of "D's" and "F's" will tend to disappear as collaborators refuse to allow unmotivated students to stay that way. In order not to undermine the overall class cooperativeness it is important to use a criterion-referenced evaluation system in determining final grades.

Myth: A Single Group Grade Shared by Group Members Is Not Fair