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USE OF THE GROUP METHOD IN TEACHING HIGH SCHOOL PHYSICS

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The group method of teaching may be defined as using a group or committee of pupils to study certain problems, experiments, textbook areas, or library materials and report their findings and conclusions back to the entire class.

There are several probable origins of this method. Since it is essentially an example of democracy, it may have originated with the origin of democratic ideas themselves. I first noticed it being used in the one-room country school. With at least thirty or more classes to teach in one day, this method was used extensively. I have used it in a one room school in the combination of classes such as fifth and sixth grade spelling. I have also used it in letting more advanced pupils help a group of less advanced ones while I was busy with a third group. The committee method recently has been used in some graduate school work. Possibly this has been an outgrowth of wanting to make the democratic procedure a more living something. For some reason the high schools seem to be slow in using this method. I found it an absolute necessity in one class of high school biology where there was not a single normal I. Q. and most of the class were either repeaters or on condition. The class was divided into five lesser groups based purely on I. Q. grades. Although other divisions might have been better, each group worked on topics that the group had voted to be of primary, general interest to them. While it is perfectly true these pupils did not do the usual tenth grade level work, they did do beautiful work on their own level.

Any group of this type must be organized with at least a chairman and a secretary. There are innumerable methods of choosing them. The class might hold a secret ballot election. This, of course, teaches them many lessons in good government and the picking of capable leaders. As contrasted to this the teacher might pick leaders on the basis of their supposed ability. There is the disadvantage of the class not working with some of these as readily as those they voted for, or the teacher might pick totally at random or even alphabetically. The secretary should and is usually picked on account of having good legible handwriting. After the chairmen are picked the groups may be chosen. The chairmen might pick their groups or the pupils choose which chairman to work with. Either of those would tend towards a congenial grouping of those who might work well together. This would tend towards a life-like situation. The teacher should avoid a too cliquish grouping however, as discipline problems can arise easily.

As mentioned before, the teacher might divide the groups on the basis of I. Q. grades. This generally puts the pupils of equal ability together. It takes care of some individual and some group differences

rather nicely. On the other hand this is an unlife-like situation in grouping abilities together. The amount of teacher planning is greatly increased. In my opinion a teacher who can do a good job in a situation of this type can teach in almost any situation. I have required all my student teachers to use it at least one week of their term. In preference to this, would be a division on the basis of pupil interest. This puts pupils of like interests together and tends to cause a congenial working together. Occasionally, I have divided the class on grade levels. That is as to whether they are juniors or seniors. There seems to be no distinct advantage here. Sometimes the class might be divided alphabetically, and, if the students are seated alphabetically, this might tend to cut down some possible confusion.

After the groups are picked and organized, some approach for the work must be determined. The group might study our approved list of problems and finally choose one. This has the advantage of playing on pupil interest. I have had some who said frankly they were interested in nothing. I have taken the attitude with these that if they had to develop an interest which angle would they rather attack. This has usually broken the defiant spirit and most of them have done nice work. There might be a group of workbook experiments to cover and the teacher might assign one to each group. The results could then be swapped from group to group and finally presented to the class as demonstrations. In some classes the groups might design their own experiments. This gives a wonderful chance for real creative work and the development of real leadership. For years there was a state requirement of a large number of individual experiments per pupil. I seriously question if this were physically possible in most of our high schools or pedagogically sound for high school work.

The group method as I have tried to explain it, in my estimation is much more to the point for high school work. There are at least five advantages I could mention for using this method in the average and in the small high schools of our state. First it requires only a small amount of equipment and gives more incentive to make equipment out of any available material. This method gives a wonderful opportunity for real creative work and the development of potential leaders. It would give better and wider choice of materials and, with real pupil-teacher planning, a much less stereotyped type of material. This method gives the more brilliant students plenty of opportunity for work and the weak pupils more individual help and attention. I have used this method to carry on more than one class at a time. In many small schools many classes which would otherwise be dropped, could be carried on by a versatile teacher using this method. Even with all its faults I have found this method a must in my experience in high school teaching.