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Student Interaction and Learning in Small Self-Directed College Groups.

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There is growing evidence of the special benefits to be derived from self-directed learning groups, in which students operate without an instructor, determining for themselves the rate and manner in which to study course material and to evaluate their performance. At Hope College, 54 students enrolled in a social psychology course in Fall 1966 were randomly assigned to groups of 6 after undergoing pre-testing, completing a pre-course questionnaire, and receiving a detailed syllabus, explanation of course requirements and grading procedures and a manual on small group discussion. Groups met once a week and turned in individually completed sheets reporting feelings toward the group and the particular meeting. About 1/3 to 1/2 the meetings were held in an observation room where the students were observed (from behind 1-way mirrors), tape recorded and videotaped. A voluntary meeting of the entire group took place every 2 weeks. Once a week, the professor was available for free discussion. Students took a final exam on course content and evaluated their own as well as individual group member's progress and contribution. Final grades were determined by exam performance, a paper or project, group member evaluation, and self-evaluation. Results were generally positive. Students and investigator learned much about group dynamics, critical thinking was better and the students' satisfaction with the course was high. Students having low GPAs reported better study than in other similar courses. There were some negative reactions but evidence indicates that small group interaction combined with established values of traditional teaching techniques produces an educational experience that is total, and not merely academic. (JS)

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## Student Interaction and Learning

in Small Self-Directed College Groups\*

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We now know the value of student-led discussions in college teaching and we know the benefits of interaction in small groups. We also are rapidly accumulating evidence of the special benefits derived from self-directed learning groups. Essentially, the small self-directed group of college learners operates without an instructor, determining for itself the rate and manner in which course material is to be studied. The students are responsible for their own growth and progress, and perhaps for evaluating their own performance.

The rationale behind the use of the self-directed group as a teaching/learning technique has several dimensions. First, it not only places the responsibility for learning on the student, but also frees time from class meetings to encourage such self-initiated and self-directed study and to permit more personalized instructor contact. Furthermore, this approach seems to fit some of the things we know about human learning, viz., that it is enhanced when there is good motivation, active participation, proper pacing, meaningfulness and relevance to the learner, and adaptation to the level of the learner. Finally, there are other desired outcomes of a learning experience besides mere academic or content achievement, and these other outcomes seem well served by learning within the small interactive group.

The present investigation was supported by a grant from the U.S. Office of Education and more detailed reporting is found in the final project report just completed. All 54 students enrolled in a social psychology course at Hope College in the fall of 1966 were randomly assigned to small groups of 6 each, following preliminary pre-testing, completion of a pre-course questionnaire, oral and written instructions for the course, distribution of a detailed syllabus with text and supplementary readings, explanation of course requirements and grading procedure, and distribution of a brief manual on small group discussion. Groups were instructed to meet a minimum of once each week and turn in individually completed post-meeting reaction sheets reporting feelings toward the group and the particular meeting. One-third to one-half the group meetings were scheduled in an observation room where, from behind the one-way mirror, the investigator made observations of the group and student assistants recorded interaction process on Bales-type recorders and videotaped the session. A voluntary meeting of the entire class was scheduled every two weeks for discussion of course content, groups' problems or any other questions of concern either to student or professor. As a sort of "professor's open house," the prof was available two to three hours one afternoon each week for free discussion with any and all who stopped by. Students came individually, in pairs and in groups, bringing their specific questions or problems with their study and projects, or simply coming and going as they wished, listening to the questions or discussion of others present. During the final meeting at the

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exam period, the student took a comprehensive exam over the course content and made evaluations of both his own progress and contribution to his small group and the contributions and progress of each other member of his group.

The final grade in the course was determined by performance on the comprehensive exam (45%), a paper or project (15%), the evaluations by others in the small group (20%), and the self-evaluation (20%). Criteria were provided for making these latter two ratings.

The results of this experiment were generally positive. While course achievement was not as high in the experimental group as in a control group (comprised of students in the course traditionally taught the semester preceding and one following the experimental course), the mean was very close to that of other classes taking the same comprehensive exam. Outcomes other than academic achievement were very encouraging. From student analyses, from his observations and from re-play of the videotapes, the investigator learned a great deal about the learning process and its dynamics in the small group. The students learned a great deal about learning in small groups, about listening to what others say and about articulating their own opinions, thoughts and feelings.

Chi square analyses were conducted to determine the significance of ratings given by the students themselves on various factors. According to the reports of participants, the material in the course was made more relevant through their discussion; general reaction, rated value of the course, and satisfaction were all higher than would be expected by chance; interest in social psychology increased; critical thinking was better in this course (supported by significant change in scores on the Watson-Glaser Critical Thinking Appraisal); and their grasp of implications and applications of the material was rated significantly better in this course.

There was also an interesting finding on the low GPA person. Those with lower grade point averages reported significantly better study than in other similar courses (both in quantity and quality), more books consulted in writing papers, and greater increase in interest in social psychology. The approach appeared to provide some special advantages for the low GPA person.

The picture was not entirely rosey for there were some negative reactions and observations. Some complained that others in the small group were not properly prepared much of the time. The lack of on-the-spot and day-by-day instructor presence and guidance was difficult for some to accept. Lack of feedback on where they stood was frustrating. Some found the small interactive group somewhat threatening.

Observations of the groups and re-play of videotapes revealed some blocks to learning in the group sessions. When group members simply talked about their own previous learnings rather than listening carefully to others to learn anything new, growth that might occur was stifled. Some sessions

appeared more like a study session than a learning discussion as members concentrated too much on the books before them. Some discussion remained too superficial and members would "quit on it too soon" rather than probe for deeper meanings or seek alternative hypotheses and explanations. Subtle hostilities between members (evidence when re-viewing tapes) sometimes blocked free sharing and supportive exploration.

On the positive side many reported especially liking the freedom in the course to set their own pace. Others reported it valuable to have to integrate the material for themselves. While some loafed, others said they worked harder to keep up because they would be letting down the group as well as themselves if they didn't do their share. Some reported gains in self-confidence from active participation in their group which transferred to other classes, along with increased willingness to participate in discussions. Opportunity to discuss subject matter relevant to their own lives within the context of the text material was reported as most-liked by others.

Observations and videotapes revealed places and ways in which learning was enhanced in the group situation. Students' sharing of their own experiences and using their own language to clarify principles and concepts was most helpful to other group members. Freedom to admit lack of understanding of a term or concept was frequently apparent as participants would ask others what they thought a term meant. Some excellent examples were observed of person A helping person B understand what person C was saying when persons A and C were having trouble communicating. Occasionally a group member would "keep the others honest" by making them come up with more penetrating analyses or deeper meanings of points stated rather than get off the hook with the immediate statement or superficial cliché. Occasions were observed where discussion would go "afield" for a while but when it focused again on the text's stating of the point, it was then very clear and seen as succinctly phrasing what they had been trying to say. Repeated observations were made where a fresh insight, just come upon at the moment, was enthusiastically shared, sharpened or deepened because there were others to discuss it with.

In conclusion, the present investigation lends further support to the contention that small self-directed student discussion does accomplish some things that other teaching approaches do not. If the advantages of small-group interaction and learning can be coupled with the established values of the more traditional instructional techniques, the resulting innovations are quite certain to be more productive of learning which produces changed persons--and not mere computer-type information storage.

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