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ABSTRACT

Using small learning groups in graduate education is a way to prepare learners to meet the challenges they face as professionals and to enrich and facilitate adult learning in ways that cannot be accomplished as well by members working alone. This technique also helps graduate students develop the skills needed to work productively as group members. The most effective use for small groups is in researching and learning experiences that do not have well-structured processes and only one right answer so that the experiences and strengths of various group members can be used to solve problems or create projects. Examples of profitable group learning situations with graduate students include courses in which students learn to write grants or conduct program evaluation. Maturity, the ability of group members to respect each others' feelings and viewpoints, and managing conflict are qualities needed by members of successful learning groups. Group learning has several strengths: increasing group members' confidence, increased knowledge through exchange of ideas, increased creativity through shared responsibility, and the opportunity for people to get to know others in work settings. Limitations to group learning include the uneven contributions of group members, the knowledge levels of group participants, and the difficulty of evaluating performance and assigning grades. Instructors of small groups of graduate students should step back and assume the role of facilitator, offering help only when group members cannot solve their own problems. (Contains 22 references.) (KC)

USING SMALL LEARNING GROUPS IN GRADUATE EDUCATION

by

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Introduction:

Elizabeth G Cohen opens her review of research on small group learning in the *Review of Education Research,* (Spring, 19940 with these statements: "Cooperative (small group) learning has gained increasing acceptance here and abroad as a strategy for producing learning gains, the development of higher order thinking, prosocial behavior, interracial acceptance, and as a way to manage academic heterogeneity in classrooms with a wide range of achievement in basic skills." Theoretically, small groups offer special opportunities for active learning and substantive conversations (Nystrand, 1986) that are essential for authentic achievement." Authentic achievement is a term some are now using to describe the crucial outcomes to be produced by the changes needed in K-12 education.

Small group or cooperative learning is defined by Cohen "as students working together in a group small enough that everyone can (does) participate on a collective task that has been clearly assigned . . . without direct and immediate supervision from the teacher." This definition "is broad in that it encompasses what is called collaborative learning, cooperative learning and group work. It is sociological in its stress on learners' cooperatively assuming responsibility for task completion and teacher delegation of authority" (Cohen, p. 3).

Cohen claimed "advantages (of small group learning) can be obtained only under certain conditions." Of course this limitation is true for all methods of teaching and learning. As are all teaching strategies, the benefits of small group learning differ depending on the competencies and attitudes of the learners, the contexts in which small groups are used, the characteristics of the learning task, and the competencies of the teacher. We see small group learning as part of the extensive " . . . study of how people behave with and toward others . . . " (Yin, 1994).

Brief Review of Research:

Our search for research on small learning groups produced results common to adult educators who search for existing research on learning. We found only research completed with elementary school children. Usually, the learning content of the research was learning to read or to gain skills in arithmetic. "Productivity", Cohen's term in the research was measured by standardized tests. However Cohen allowed that "productivity can also be defined in terms of conceptual learning and higher order thinking." While this research with children is encouraging we suspect that conclusions based on the social and intellectual interactions of primary students as they developed arithmetic and reading skills may not be generalized to graduate students in adult education. Graduate students as adult professionals, exchanging judgments, theories and insights, and cooperatively using critical analysis and prob em solving are involved in the social and intellectual processes distant from equally important childhood group work related to beginning reading and arithmetic. We will continue to refer to reported findings of research with elementary students

because many of the processes used with children suggest important applications with adults. Also, our report on small group learning tasks appropriate for graduate students is buttressed with evidence gathered by "teacher inquiry", the politically correct term for teachers' examined experience. Our recommendations may not be appropriate to adult learning when the adults are not graduate students and are learning in other contexts and for other purposes.

Context of Our Report:

Before we examine small group learning further, we want to make some background statements that will seem obvious. We assume among other things, that adult education at the graduate level is professional education. For us, a major purpose of graduate education is to prepare learners to meet, more successfully, the challenges they face as professionals, as citizens and as vital individuals. Other purposes of small group learning include to enrich and facilitate adult learning in ways that cannot be accomplished or cannot be accomplished so well, by learners working individually.

Still another purpose of using small groups in graduate adult education includes developing skills needed to work productively as group members. Much of the world's work and much of the responsibilities of citizenship are accomplished through organizations. Many of the challenges we face today are large and complex and, often, are properly and best approached by magnifying our efforts and sharpening our judgments by working skillfully in small groups. Skill as members in effective small learning groups is important. Drucker (1994, p. 64) states, ". . .

knowledge workers will give the emerging knowledge society its character, its leadership its social profile. They may not be the ruling class of the knowledge society, but they are already its leading class."

Appropriate Tasks For Small Group Work:

Existing research and our experiences reinforces the concept that, for group learning to be successful, the learning tasks must be appropriate. Cohen, (p. 8) indicates: "A group task is a task that requires resources (information, knowledge, heuristic problem solving strategies, materials and skills) that no individual possesses so that no single individual is likely to solve the problem or accomplish the task objectives without at least some input from others." Cohen describes small group tasks as ranging from "those that have a right answer that can be reached in structured ways" to tasks that "do not have one right answer and are ill-structured problems" We judge that most graduate education tasks fall in the ill-structured problems category in which interaction is vital to productivity (Cohen, p.8).

Small group learning is most likely to produce important gains in learning when there are multiple effective ways to complete the learning task and where there are multiple useful answers or approaches to the challenges faced. Such tasks usually involve problem solving situation which require efforts at the cognitive level of application or higher levels and that demand consideration of moral and ethical decision in the higher levels of the affective domain. Small group learning for graduate students is less appropriate when the task is accomplished using well

defined procedures and arrives at only one correct answer.

Small groups are appropriate when there is resource and goal interdependence across individuals. They work well with case studies, and can be used to help edit group members work. Small groups can gain from the analysis of the content of learning resources such as complex reading materials or when the purpose is to strengthen the analysis of their own or others field work. Members can learn vicariously from the reporting of members important experiences. Often the process of contributing to a group stimulates original thinking in the contributor. Often our students in ethnographic research gain new insights into the evidence they have gathered as they share, orally, what they have learned.

Examples of Small Group Learning with Graduate Students:

Accompanying this paper are detailed and not so detailed descriptions we have used. In addition, we will report on a frequently used process here. Both Pete in his course in grant writing and Jim in courses in program evaluation, personnel evaluation and staff development make repeated use of small groups. The courses combine class instruction and field work. Students complete and submit grant proposals, evaluate programs, evaluate personnel, and implement staff development.

Instruction in these courses begins by building initial backgrounds of theory and principles of practice necessary to get started in the competency being studied, grant writing for example. As homework, each student completes his / her individual application of the first concept. In grant writing, that might be a draft of a letter of inquiry. Each student returns to the next class meeting ready to explain and edit his or

her letter of inquiry with the participation of two or three other class members. Presenting his or her work to others causes the student to see strengths and areas needing strengthening that he or she overlooked previously. examining the applications others have made of grant writing principles provides new insights into his or her own applications. Buiiding on the suggestions received and on the insights gained from cooperatively critiquing his or her own work and the work of others, each individual edits his or her own work and submits the edited work to the faculty member for further suggestions and final approval. As a class they extend their background of theory and practice and repeat the cycle with the next step in the course/ The cycles combine to produce a completed grant application, program evaluation or whatever the course intends.

Skills And Responsibilities Required For Small Group Work:

Barnes and Todd (1987) in their research examined the kinds of social and cognitive skills plus the attitudes required for effective small group work and they provided good examples of the social construction of knowledge. Useful competencies included solicitation of judgments, "encouraging explicitness, pinpointing differences, and interrelating viewpoints" (Cohen, p. 5). Chang and Wells (1987) added making thinking explicit and available for inspection and revision (p 6). Further behaviors include "extensive mutual exchange of ideas and strategies" (p.4) "managing competition and conflict. . . . the ability to modify and use different viewpoints (p. 5), and assuming responsibility for the successes of all group members (p. 8).

In examining our experiences with small group learning, we suggest that the "Ideal Conditions of Discourse" as proposed by Jack Mezirow are highly appropriate for conducting small group learning with graduate students. Mezirow gives credit to Habermas:

1) Accurate and complete information
2) Free from coercion and "nuts" (disruptive people)
3) Weigh and assess arguments successfully -- objectively.
4) Care about how others think and feel.
5) Critically reflective.
6) Equal opportunity to challenge and generalize.
7) Accept informed rational consensus.

Strengths of Small Group Learning:

The immediate obvious strength is that small group learning brings the resources possessed by two or more people to the task. The presence of others can provide each participant with a confidence in numbers, a feeling that if "we face a challenge which I can't or don't approach effectively, then another team member will." Or groups can provide the confidence that, if my thinking is flawed or my information is incomplete, then others will dissuade or inform me.

Small group learning is a process in which there is extensive exchange of ideas. Learners gain when they risk their ideas to the analysis of others and learn as they contribute by offering judgments about the ideas of others. As members hear and check the thinking processes of others, they clarify their own thinking.

The feeling of shared responsibility, credit or blame, may allow expressions of creativity, even of irresponsibility, that are valuable but, when working alone, might not be considered.

Learning in small groups provides the valuable opportunity to get to know worthy people as valuable and as important resources through a work setting which which differs in important ways from a social setting.

Individuals tend to be on their best behavior in a small group.

Small group learning requires students to develop and practice the complex and valuable competencies of learning from other people.

Small group learning is an oral process and an oral analysis of challenges offers an opportunity to examine attitudes, values, policies, procedures and to challenge the status quo.

Limitations to Small Group Learning Activities:

As there are strengths to small group learning activities or cooperative learning, so too are there limitations. The first argument against small group learning is that people contribute unequally and uniquely to group tasks and these inequities often create problems. Some members contribute seventy-five percent while others only contribute twenty-five or less effort. If a member feels exploited, the quality of the group's product may suffer or conflict may develop within the group. Exploitation and conflicts may increase if they are important to group members or if they continue over long periods of time. Effective group work requires mutual respect, and approximately equal levels of commitment to the task. Without these problems may develop. Groups

also are limited by the competencies and sophistication levels of the participants.

Some people do not do their best work in small groups, but prefer to work alone and independently as is their preference and learning style. Some tasks just do not lend themselves to small group work. Perhaps, the directions are unclear or the assignment is misunderstood, or the deadline is too short for adequate or best task completion. Some people do not do well under group or deadline pressure and prefer to work independently and at their own leisure. Sometimes there is a conflict of role(s) and responsibilities between the group leader and the members or among the group members themselves. Some people tend to dominate a group and their disruptive behavior thus causes ill feelings or ill will among the members and then the group does not do its best work and fails to compete its assigned task.

Sometimes, instructors are not comfortable with group dynamics or with facilitating effective group activities or behaviors. Finally, the evaluation process (of individual contributions to the group) is difficult, uneven or sometimes uncertain.

Rewards of Learning in Small Groups:

Research with children often focused on external rewards of grades and test score. Slavin's from his Cooperative Learning, reports of his review of research on cooperative learning with children and indicates: "Achievement is enhanced by cooperative learning when cooperating pupils are rewarded as a group, wheile each pupil is individually accountable for his or her learning" (Cohen, p. 13). Translated, this means students scored better on tests when a the group received a common grade for group accomplishment and each student also received a grade on his or her score on

a test completed separately. Again we are not sure what this means for graduate students.

Completion of professional tasks and mastering new professional skills are intrinsically challenging and rewarding to graduate students. However external rewards are important to adult, also especially when they are in the role of graduate students. Course grades are major determiners of whether graduate students earn degrees and degrees are awarded to individuals. Pete and Jim are not good sources of information on constructive grading of the work of individuals completed as members of groups and producing a product in common.

Pete has experimented with giving all group members the same grade and has received at least one complaint. "Another student didn't comtirbute much and shouldn't receive the same grade as I do." Pete held a conference with the student agains which the complain was lodged and based his decision on what he learn as additional evidence in the conference.

Adults and children value the intrinsic rewards of experiencing intellectual stimulation, increased quality of product and the social satisfaction of group work.

Jim uses group work consisting of short cases as mid-semester and end-of-semester activiities. He writes extensive commonts on each group's work and returns the work but does not assign grades. Preparation for, completion of, and reports of field work generates papers that are due each class meeting. Also students are required to analyze and write responses to reading materials each week. Students complete course projects which culminate in sizable reports. These course

activities generate numerous grades and become the basis for course grades.

Instructor's Role During Group Work Of Graduate Students

Generally, the instructor is disengaged once the group task is understood, clear directions given, when the deadline for task completion is expected and the graduate students have developed the mastery of theory and practice at a level that allows the students to get started. The instructor should express confidence in the group and offer general encouragement if the members become overly frustrated. The instructor supports the group's activities and processes and lends encouragement, intercede only when necessary to correct disruptive behaviors, or suggesting ways to keep people on task, contributing, and involved, The instructor should help groups evaluate their progress and provide feedback and guidance only when necessary. Certainly the instructor should be available as a judicious consultant; not to make decisions the group should be making as part of the learning connected with their task, ; ut as a resource when other needed resources are not available. In some cases, the teacher might suggest alternative ways / methods the group members had not considered or special printed materials like needed books, important references, journal articles, audio visual aides, or other electronic resources. But, clearly the role of the instructor working with groups is one of being supportive, facilitative, and an additonal resource to the groups as needed.

Group Size For Learning Groups:

In general, the more members in a group the longer it takes them to complete a task if each student is to have meaningful input into most important topics considered. If the learning task is to be accomplished in an hour or less and a group of three would possess all the competencies needed to complete the task, a group of three is then ideal. This rule is especially important if the group's work is to occur largely or mostly during class time. A group of three might still be appropriate if the task will require two or more meetings. The more members the more difficult it is to get people together. The longer and more complex the learning task and the longer the meeting time, the larger the group might be, up to some reasonable number. If the working time is to last continuously for three hours or more then consider including five to eight persons or build in some breaks. With five or more, the group progress can continue even if one or even two drop out as participants temporarily.

Conclusions Drawn and Recommendations:

Using small groups activities as a teaching - learning strategy is an exciting and challenging process. Using small group activities does have its limitations and drawbacks; but in the opinions of the writers and supported by research, the advantages of using them effectively are highly meritorious, and presents a wonderfully exciting and creative alternative. "None of us is as smart as all of us!"

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