VIDEO – A TEACHING STRATEGY FOR LEARNING GROUP PROCESS

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Group theory and practice are now an integral part of both diploma and university undergraduate programs (Anderson, Etzel, Kjervik & MacCarthy, 1977; Turner, 1976). As well, they are being instituted in graduate nursing programs (Hannon, 1980). Practice sessions with peers interacting in a group provide a safe environment of experiential learning for students. Feedback generally comes from the personal reactions of other students following group work, as well as from faculty observations on the group process. In addition, videotaping provides immediate feedback for evaluating the group process (Valentine & Saito, 1980).

The use of audio visual equipment in schools of nursing is steadily increasing. Yet, there is little definitive research in nursing to investigate whether or not this technology is at all effective. Townsend (1979) states that, "The use of A.V. media in nursing is marred by misconception about the nature of the medium and its place in the learning process. There is a lot more to using electronic aids than simply switching them on.... Present day usage seems to be in spite rather than because of published evidence, which in any case only seems able to provide the broadest of generalizations" (p.185, 186).

Literature Review

The nursing literature, which, for the most part, is unsubstantiated by research, indicates that videotaping generates increased student satisfaction with regard to learning communication skills. It also provides an opportunity for students to view the effects of their individual behaviours on others, as well as the impact of the group on the individual. Videotapes provide students with the opportunity to review and re-evaluate their progress in communication skills by referring to previous recordings (Christian & Schoonover Smith, 1981; Valentine & Saito, 1980; White & Chavigny, 1975).

In other disciplines, such as education, videotaping has been used to improve teacher-student effectiveness (Yanoff, Allender, & Manuel, 1978), and to promote accountability of teachers for student learning (Ehrgood, 1979). A summary of observations from research in counsellor education indicates that videotape feedback

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is a powerful mechanism for gaining objective self-awareness and for changing self-perceptions in a group setting (Kritzer, 1974; Marks, Montgomery & Davis, 1975; Walz & Johnston, 1963; & Yenawine & Arbuckle, 1971). Conversely, too much focused attention on "self" inhibits task performance (Paulus, Annis & Risner, 1978). Some authors in the counsellor education field found that the self-awareness elicited by videotape recordings produces an element of confrontation that can not be denied (Frankel, 1971; Robinson, 1970).

Some of the psychiatric literature focuses on self-image experiences of psychiatric hospitalized patients. As a result of repeated videotaped self-observations these patients experienced a decrease in negative feelings and became more self-accepting (Paredes, Gottheil, Tausig, Cornelison, 1969). In a study by Marvit, Lind, and McLaughlin (1974), the effects of videotaping within delinquent adolescent groups were analyzed. The results showed that individuals in the groups that were videotaped exhibited an increase in reality-based "self/other" concept, and developed a more reflective attitude. According to the authors, the "videotape experience made the subjects see themselves as others saw them, and the self-confident facade that delinquents wear seems to have fallen away as a confrontation with the reality of themselves and their behavior took place" (p.998).

In another study undergraduate university students participated in a group simulation activity (Allender, 1981). The students were requested to fill out a "self-Perception Questionnaire" in order to compare groups that were and were not videotaped. Results corroborated the Marvit et al. (1974) study in that videotape feedback was influential in increasing self-awareness among individuals in groups.

Conceptual Framework

Wicklund and Duvall's (1971) theory of objective self-awareness has been used to explain the impact of tape recordings, mirror images, and television cameras on self-image. Wicklund (and Duvall) (1979) contend that a person alters his self-image in direct response to incoming information that is relevant to the self. Not only pictures of oneself can create self-focused attention, but awareness of the attention of others can create an impetus for self-observation (p. 465-466). Wicklund (1979) goes on to say that once attention comes to bear on a salient dimension of self, self-evaluation takes place. The self-aware individual is likely to recognize personal short-comings, however, recognition of success factors may increase with this awareness.

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Purpose of the project

The purpose of this project was to determine the effect of video playback on post R.N. baccalaureate students' perceptions of their individual and group roles within the group setting.

The following questions were established for the purposes of this study:

1. Are there differences in students' perceptions of their individual and group roles before and after viewing themselves on video tape?

2. Do the students' descriptive self reports support their participations of the individual and group roles, within the group process?

Method

Sample

The study surveyed 119 students enrolled in an introductory nursing course. This represented 98% of the total post R.N. baccalaureate student body at the University of Calgary. The mean age of the subjects was 33 years; 58% were married and the remaining 42% were single. Seventy percent of the students had graduated from a hospital training program and 30% had graduated from a college based nursing program.

Data collection was completed by the co-investigators over a two-year period at the Faculty of Nursing, University of Calgary. A verbal explanation of the research project and consent forms were given to the students by the investigators. Students were given the opportunity to withdraw from the study at any time, without prejudice. The data collection covered four separate terms: Winter, 1983, with 22 students; Fall, 1983, with 24 students; Winter, 1984, with 26 students; and Fall, 1984, with 50 students.

Procedure

In an introductory nursing course, the students received in-class instruction on group process; then, in a laboratory setting a group of four to seven was given a problem to solve. Random seating arrangement in the large classroom dictated selection to the small groups. The majority of the subjects did not know one another because this was their first nursing course.

The two basic objectives of a group are goal achievement and group maintenance. The **group building** or **"maintenance"** roles are:

1. Encouraging, being friendly, responsive to others, praising others and their ideas.
2. Meditating, harmonizing, conciliating differences in points of view, making compromises.
3. Gate keeping, trying to make it possible for another member to make a contribution.
4. Standard setting, expressing standards for the group regarding procedures, conduct, ethical values.
5. Following, going along with the group, serving as an audience during group discussion, a good listener.
6. Relieving tension, draining off negative feeling by joking or diverting attention to pleasant matters.

The group **"task"** roles are:

7. Initiating, suggesting new ideas to look at group problem or goal, proposing new activities.
8. Information seeking, asking for relevant facts or authoritative information.
9. Information giving, providing relevant facts and information.
10. Opinion giving, stating a pertinent belief or opinion about something the group is considering.
11. Clarifying, coordinating, trying to pull ideas and suggestions together.
12. Orienting, defining the progress of the discussion as related to group's goals.

The **self centered** roles (non-functional) are:

13. Blocking, interfering with the group process by citing irrelevant personal experience, tangential.
14. Aggression, criticizing or blaming others, showing hostility.
15. Seeking recognition, attempting to call attention to one's self by excessive talking, boasting, extreme ideas.
16. Special pleading, introducing or supporting ideas related to one's own pet concerns.
17. Withdrawing, acting indifferent or passive, resorting to excessive formality, doodling, whispering to others.
18. Dominating, trying to assert authority in manipulating the group or certain members by giving directions authoritatively, interrupting contributions of others.

Figure 1: Group functions

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All students received the same initial instruction from trained facilitators. Each small group was provided with the same case study for the problem solving session. The instructions on the exercise stated that the subjects must come to a group consensus on the problem in the case study. The problem solving sessions, which was approximately thirty minutes in length, was videotaped.

Before the students saw the actual videotape of the group process they were asked to score their perceptions of their own individual and group role functions. They then viewed the entire videotape and were asked to re-score their functioning immediately, and to answer four open-ended questions about the group process. these questions focused on the following areas: individual satisfaction with the group experience; evaluation of the group process from individual and group perspectives; and ways in which students could apply the group experience to a work setting.

Instrument

The instrument utilized in this study addressed three major categories of role functions: maintenance (group building), task, and non-functional (self-centered) roles. These individual and group roles are based on Bales Interaction Process Analysis and Knowles' definition of group roles (Pardue, 1978). From the noted sources, Dr. Pardue developed a group analysis form and a Likert rating scale for scoring individual and group role functions. The rating scale measured the following categories: none of the time, some of the time, most of the time, and all of the time.

Face and content validity were established by Dr. Pardue. Reliability had not been previously established for this instrument. Consequently, the researchers tested reliability and a Cronbach's Alpha of .96 was established.

Data Analysis

The effects of videotape feedback on the students' perceptions of their individual and group roles were assessed by analysis of covariance for each dependent variable (maintenance, task, and non-functional roles). In order to partial out the effects of the variance "term" was identified as a factor and "group size" as the covariate. "Term" was identified as a factor because the students can enter the program either in the Fall or the Winter term.

The qualitative data was summarized and categorized by the co-investigators. From the analysis of the data, themes emerged to support the quantitative data.

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0	1	2	3
None of the time	Some of the time	Most of the time	all of the time

Put your scores in the respective columns.

Maintenance Roles

X

	Score P G	Sum P G

1. Encouraging   0 1 2 3

2. Mediating   0 1 2 3

3. Gate Keeping   0 1 2 3

4. Standard Setting   0 1 2 3

5. Following   0 1 2 3

6. Relieving Tension   0 1 2 3

Task Roles

Y

	Score P G	Sum P G

7. Initiating   0 1 2 3

8. Information Seeking   0 1 2 3

9. Information Giving   0 1 2 3

10. Opinion Giving   0 1 2 3

11. Clarifying, Coordinating 0 1 2 3

12. Orienting   0 1 2 3

Non-functional Roles

Z

	Score P G	Sum P G

13. Blocking   0 1 2 3

14. Aggression   0 1 2 3

15. Seeking Recognition   0 1 2 3

16. Special Pleading   0 1 2 3

17. Withdrawing   0 1 2 3

18. Dominating   0 1 2 3

P - Personal
G - Group

Figure 2: Group progress instrument

Results

Maintenance roles

Hypothesis 1: There will be no significant difference in the students' perceptions of their personal maintenance roles before and after viewing themselves on video.

There was no statistical significance noted for the video influence or the interactive effect in the students' perceptions of their personal maintenance roles before and after viewing themselves on video. However, a significant effect was noted for "term" and "group size" (see Table 1). Upon examination of the adjusted means, the Fall 1983 scores were significantly higher than the Fall 1984 scores despite the effects of the covariate being removed (see Table 2). A Scheffé test demonstrated existing differences between Fall 1983 and Fall 1984 term scores.

Hypothesis 2: There will be no significant difference in the students' perceptions of their group maintenance roles before and after viewing themselves on video.

There was no statistical significance noted for the video influence or the interactive effect in the students' perceptions of their maintenance group roles before and after viewing themselves on video. However, a significant effect was noted for "term" and "group size" (see Table 1).

Task roles

Hypothesis 3: There will be no significant difference in the students' perceptions of their personal task roles before and after viewing themselves on video.

There was no statistical difference noted in the students' perceptions of their personal task roles before and after viewing themselves on video. In addition, there was no statistical difference noted for "term" or "group size" (see Table 3).

Hypothesis 4: There will be no significant difference in the students' perceptions of their task group roles before and after viewing themselves on video.

Statistical significance was noted in the students' perceptions of their task group roles before and after viewing themselves on video. A significant effect was also present for group size. However, no significance was noted for "term" or interaction of "term" and video condition (see Table 3).

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Table 1

The Effects of Term, Group Size, and video Influence on Personal and Group Maintenance Scores

Source	Ancova (Personal) N=119		Ancova (Group) N=119	
	F	P	F	P
Term (Independent Variable)	3.72	.0135*	6.06	.0007**
Group Size (Covariate)	4.44	.0374*	12.50	.0006**
Video Condition (Pre-post Video: Independent Variable)	0.42	.5178	0.35	.5534
Term X video Influence (Interaction)	1.41	.2447	2.30	.0805

*$p < .05$
**$p < .01$

Table 2

Adjusted Cell Means for Personal Maintenance Scores

Maintenance	Winter '83	Fall '83	Winter '84	Fall '84
Pre Video Personal Scores	8.11512	8.52632	7.77662	6.88769
Post Video Personal Scores	7.54369	8.92632	7.21662	6.87519

Table 3

The Effects of Term, Group Size, and Video Influence on Personal and Group Task Scores

Source	Ancova (Personal) N=119		Ancova (Group) N=119	
	F	P	F	P
Term (Independent Variable)	1.81	.1499	0.93	.4304
Group Size (Covariate)	2.18	.1422	4.33	.0396*
Video Condition (Pre-post Video: Independent Variable)	0.01	.9116	4.42	.0376*
Term X Video Condition (Interaction)	1.25	.2950	0.87	.4613

* $p < .05$
** $p < .01$

Table 4

Table of Interaction Effect for Non-functional Self Scores

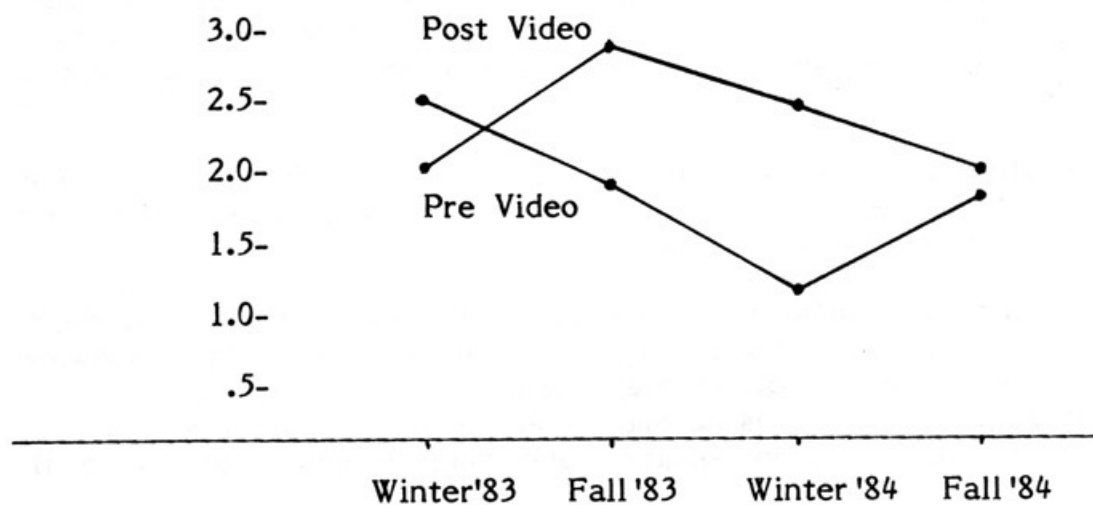Non-functional Scores   N=119 Self

Winter'83   Fall '83   Winter '84   Fall '84

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Table 5

The Effects of Term, Group Size and Video Condition on Non-functional Personal and Group Scores

Source	Ancova (Personal) N=119		Ancova (Group) N=119	
	F	P	F	P
Term (Independent Variable	0.52	.6698	1.05	.3728
Group Size (Covariate)	0.80	.3717	11.36	.0010**
Video Condition (Pre-psot Video: Independent Variable)	6.91	.0097**	28.96	.0000**
Term X Video Condition (Interaction)	5.47	.0015**	0.31	.8149

* $p < .05$
** $p < .01$

Non-functional roles

Hypothesis 5: There will be no significant difference in the students' perceptions of their personal non-functional roles before and after viewing themselves on video.

Statistical significance was noted in the students' perceptions of their personal non-functional roles before and after viewing themselves on video. An interactive effect was also present (see Table 4). However, there were no significant effects as a result of term or group size (see Table 5).

Hypothesis 6: There will be no significant difference in the students' perceptions of their group non-functional roles before and after viewing themselves on video.

Statistical significance was noted in the students' perceptions of their group non-functional roles before and after viewing themselves on video. A significant effect was also present for group size. There was no significance revealed as a result of the term or the interaction of term and video influence (see Table 5).

Limitations of the study

1. Findings from this study have limited generalizability.

2. Small laboratory groups were selected on the basis of seating arrangement in the large classroom.

3. Students enrolled in the program could potentially discuss the group experience with each other and with future candidates to the nursing program. The authors believe that this is not a major limitation because each group's interaction is a unique experience to that group.

Discussion

In this sample of subjects the evidence indicated that the students did not change their perceptions of personal and group maintenance roles. Their evaluation indicated that they were satisfied with their individual and group maintenance performance. The students' descriptive reports corroborate the statistical findings with regard to the group building or maintenance roles. A positive affect tone pervaded their general comments. Some of these comments were as follows: "The feeling in the group was good, it was fun, informative, and interesting." "Enjoyable experience in interacting with new people; goal was interesting and fun, non-threatening group experience." "Everyone participated and able to work together without hostility."

The students' perceptions of their personal task roles did not change after the video experience. However, significant differences were evident in the students' perceptions of their group task roles. Diberardinis (1978) indicates that students, when confronted with objective feedback on their performance in task groups, directed their shortcomings to the group rather than towards their individual performance.

In the students' self-descriptive reports on what could have been done differently in the group, the general theme was the following: "Being more organized; for example, provide more structure and prioritize goals." In addition, students felt that there should be more initiation and clarification of task functions within the group. Another salient theme related to opinion giving. On the one hand, students desired more differences of opinion to create interest within the group; other students felt that there should be less opinion giving, to allow quieter members to participate in the group process.

Significant differences existed in the students' perceptions of their personal and group non-functional roles. Video playback offers an accurate and confrontive picture of behaviour. Many authors suggest that persons can not deny the undesirable behavours that are evident from viewing the videotape (Hardin, Stratton, Benton, 1983; Marks et. al., 1975; Frankel, 1971; Robinson, 1970).

In this particular study, students were made aware of their non-functional personal and group behaviours after viewing themselsves on video. Their self-evaluations reflect an objective report. The overriding themes on the non-functional area were identified as follows: interrupting one another, dominating others, joking around, and withdrawing. This is further substantiated by their specific comments of their non-functional behaviours: "I don't feel comfortable in a group, and tend to withdraw somewhat. Then I somehow draw attention to myself with humour. I would like to see myself change this somehow -- it doesn't quite fit." "Give more understanding to other people's ideas, seeing that their ideas are important to them, rather than feeling defensive about my own ideas and thinking it important that they be accepted." "We should listen to each other -- let people finish what they are saying before someone else begins." "Less laughing and joking (i.e. feel more secure within the group). Be able to discuss the issue a little more seriously."

In summary, the findings in the study give credence to Wicklund and Duvall's (1971) theory of objective self awareness. Videotape feedback offered a mechanism to promote self-awareness and concomitantly, self-evaluation took place. The students in this study were able to find shortcomings with their behaviour as well as strengths in their group functioning. In addition, the videotape feedback may have increased the quality of the educational program, given that the same information on group process was provided to all students prior to the video situation.

Group size is another important variable to consider when studying groups. In our research study, because the students were divided into groups of four to seven, group size was considered a covariate. Significant differences were noted in the maintenance (personal and group), task (group), and non-functional (group) scores. Bormann and Bormann (1980) suggest that five is an ideal number for small groups. the reasons offered are that all members can participate equally, and, because five is an odd number, deadlocks can be circumvented.

Significant differences as a result of the term factor (Winter, 1983; Fall, 1983; Winter, 1984; and Fall, 1984) were identified in the area of maintenance (personal and group) scores. There is no definitive explanation for these findings in the literature. Differences may occur because approximately twenty-five post R.N. baccalaureate students entered into the program in Winter, 1983, Fall, 1983, and Winter, 1984. The enrollment doubled to fifty students in the Fall, 1984 session possibly changing the character composition of the student body.

Conclusions

Group process theory and experiential learning is a crucial component of nursing curricula. Nursing students in a university setting have frequent opportunities to utilize group process skills in seminar, group assignments, lecture discussion groups, etc. In addition, these group process skills can be transferred to the clinical setting and applied to professional team work.

Videotape feedback is a useful mechanism for increasing students' self-awareness and self-evaluative skills. Not only were students able to evaluate their positive behaviours, but they were able to assess accurately their negative roles within the group process as well. Only if students have insight into their behaviour can they be committed to behavioural change. As one student so aptly put it: "...I am more aware of certain roles and functions of group members and how an effective group functions. ...I can work on changing the behaviours that are ineffective and learning the behaviours that are more effective."

REFERENCES

Allender, J.A. (1981). Increased self-awareness of individuals in groups: A study of videotape feedback. **Small Group Behavior, 12**(2), 227-232.

Anderson, J., Etzel, B., Kjervik, D., & MacCarthy, A. (1977). Group theory integrated: A model for baccalaureate nursing programs. **Journal of Nursing Education, 16**(9), 16-21.

Bormann, E., & Bormann, N. (1980). **Effective small group communication.** Mineapolis: Burgess Publishing.

Christian, P.L., & Schoonover Smith, L. (1981). Using video tapes to teach interviewing skills. **Nurse Educator, 4**(4), 12-14.

Diberardinis, J. (1978). the effects of videotape feedback on group and self-satisfaction. **Group and Organization Studies, 3**(1), 108-114.

Ehrgood, A.H. (1979). The camera and the self. **Journal of Physical Education and Recreation, 50**(9), 70.

Frankel, M. (1971). Effects of videotape modeling and self-confrontation techniques on microcounseling behavior. **Journal of Counseling Psychology, 18**(2), 465-471.

Hannon, J. (1980). Group process - success in one graduate nursing program. **Journal of Nursing Education, 19**(1), 46-52.

Hardin, S., Stratton, K., Benton, D. (1983). The video connection group dynamics on screen. **Journal of Psychosocial Nursing, 21**(11), 12-17; 20.

Kritzer, r. (1974). The use of videotape in behavioral change. **Public Personnel Management, 3**(4), 325-330.

Marks, S., Montgomery, J., Davis, W. (1975). Videotape recording in counselling: "What we know and where to find it." **Canadian Counsellor, 9**(1), 31-44.

Marvit, R.C., Lind, J., & McLaughlin, D.G. (1974). Use of videotape to induce change in delinquent adolescents. **American Journal of Psychiatry, 131**(9), 996-999.

Pardue, S. (1978). Group proscess in allied health education. **Journal of Allied Health, 7**(2),, 140-148.

Paredes, A., Gottheil, E., Tausig, T., Cornelison, F. (1969). Behavioral changes as a function of repeated self-observation. **The Journal of Nervous and Mental Disease, 148**(3), 287-298.

Paulus, P.B., Annis, a.B., & Risner, H.T. (1978). An analysis of the mirror-induced objective self-awareness effect. **Bulletin of the Psychonomic Society, 12**(1), 8-10.

Robinson, M. (1970). A study of the effects of focused video-tape feedback in group counseling. **Comparative Group Studies, 1**(1), 47-73.

Townsend, I. (1979). The audio-visual revolution: Do we really need it? **Journal of Advanced Nursing, 4,** 181-192.

Turner, S. (1976). Fostering personal growth through small group interaction in a diploma school of nursing. **Journal of Nursing Education, 15**(6), 37-39.

Valentine, N.M., & Saito, Y. (1980). Video taping is a viable teaching strategy in nursing education. **Nurse Educator, 5**(4), 8-17.

Walz, G., Johnston, J. (1963). Counselors look at themselves on video tape. **Journal of Counseling Psychology, 10**(3), 232-236.

White, L.D., & Chavigny, K.H. (1975). Direct tape access as an adjunct to learning. **Nursing Research, 24**(4), 295-298.

Wicklund, R.A. (1975). Objective self-awareness. In L. Berkowitz (Ed.), **Advances in Experimental Social Psychology, 8,** 465-507.

Wicklund, R.A. (1979). The influences of self-awareness on human behavior. **American Scientist, 67**(2), 187-193.

Wicklund, R., Duvall, S. (1971). Opinion change and performance facilitation as a result of objective self-awareness. **Journal of Experimental Social Psychology, 7,** 319-342.

Yanoff, J.M., Allender, R., & Manuel, G. (1978). Use of video feedback in training of dental school faculty. **Educational Technology, 18**(9), 48-51.

Yenawine, S., Arbuckle, D. (1971). Study of the use of video tape and audiotape as techniques in counselor education. **Journal of Counseling Psychology, 18**(1), 1-6.

RÉSUMÉ

Le magnétoscope - stratégie pédagogique pour la démarche d'apprentissage de groupe

Une étude a été réalisée à l'Université de Calgary au cours de séances pratiques d'acquisition d'aptitudes à la communication de groupe auprès de 119 étudiants infirmiers de niveau post-baccalauréat. L'étude avait pour objectif de déterminer l'effet de la présentation des enregistrements magnétoscopiques sur les perceptions qu'ont les étudiants infirmiers de leur rôle et de ceux du groupe lors d'activités de groupe. On s'est servi de l'échelle d'évaluation de Likert avant et après les enregistrements afin de déterminer les rôles de soutien, les rôles de tâche ainsi que les rôles non fonctionnels au cours d'une séance de résolution de problèmes. On a en outre demandé aux étudiants de répondre à quatre questions non dirigées concernant la démarche de groupe, ce après visionnement de l'enregistrement magnétoscopique.

Une analyse de covariance a fait apparaître des différences significatives au niveau des rôles non fonctionnels pour les résultats individuels et les résultats de groupe de même que pour les rôles de tâche pour le groupe avant et après l'enregistrement magnétoscopique. Les données qualitatives corroborent les résultats statistiques.

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