FACTORS THAT IMPACT THE OUTCOMES OF FOCUS GROUP SESSIONS

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Stepwise regression was used to test the empirical findings of Edward F. Fern's investigation of focus grouping outcomes. Results indicate that group size and participant involvement significantly impact on the quantity of original idea generation. The findings suggest strategies appropriate for moderating focus group interviews.

INTRODUCTION

Although focus group interviewing is a popular technique, very little empirical research has been reported in the marketing literature and few studies have been reported in the literature of the other disciplines. One notable exception is a study conducted by Edward F. Fern (1982) which deals with some commonly held assumptions about focus group interviewing techniques and practices. Fern's findings suggest that some commonly held beliefs regarding focus group practices are unfounded or at least questionable. In his study of individual interviews versus focus group sessions, he found that individual interviews generated more ideas than focus groups for comparable numbers of people; eight-member groups generated significantly more ideas than four-member groups; no differences were found between focus groups and unmoderated discussion groups in terms of idea generation; and the effect of acquaintanceship on idea production was not clearly demonstrated.

The purpose of this study was to reexamine Fern's findings as well as to further investigate the effects of focus group size, acquaintanceship, group gender composition, and individual versus group effort on idea generation. These were the experimental variables in the present study. In addition, the effects of other related factors such as group dominance, interest, and enjoyment in participating, nervousness, personal involvement, and personal satisfaction were measured and related to group performance.

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EXPERIMENTAL DESIGN

The design of this study was a factorial design with group size, acquaintanceship, and gender composition of the group as the independent variables. The design is depicted in Figure 1. Ninety-six individuals participated in the twelve groups.

The study was conducted in a commercial research facility by trained professionals in an effort to replicate actual field conditions. The topic of television viewing habits was selected in order to enhance idea generation and allow for full group participation.

The *primary* dependent variable used in this study was the number of different or unique ideas relevant to the discussion topic. For purposes of this study, an idea was defined as an utterance that expresses a thought, conception, notion or impression; it may express an opinion, attitude, belief, or intention; it may also point to advantages, benefits and/or problems. This definition is consistent with the Fern study and allows for comparisons on these points. An idea was only counted once even though it may have been expressed by different members of the same group.

A post-experimental questionnaire was used to identify other variables that are addressed in focus group and group theory literature. If focus groups generate more ideas, it may be due to the respondents: (1) interest in participation, (2) how enjoyable the experience was for them, (3) degree of nervousness experienced, (4) how hard they were trying to think of ideas, (5) how difficult it was for them to express personal opinions, (6) how involved they were in group discussions, or (7) how satisfied they were with their participation and that of other members.

Figure 2 summarizes the variables used in this study.

FIGURE 1
EXPERIMENTAL DESIGN

Group Size	4				8				12			
Acquaintanceship	S		A		S		A		S		A	
Group Composition	M/F	F	M/F	F	M/F	F	M/F	F	M/F	F	M/F	F

FIGURE 2
INDEPENDENT/DEPENDENT VARIABLE RELATIONSHIPS

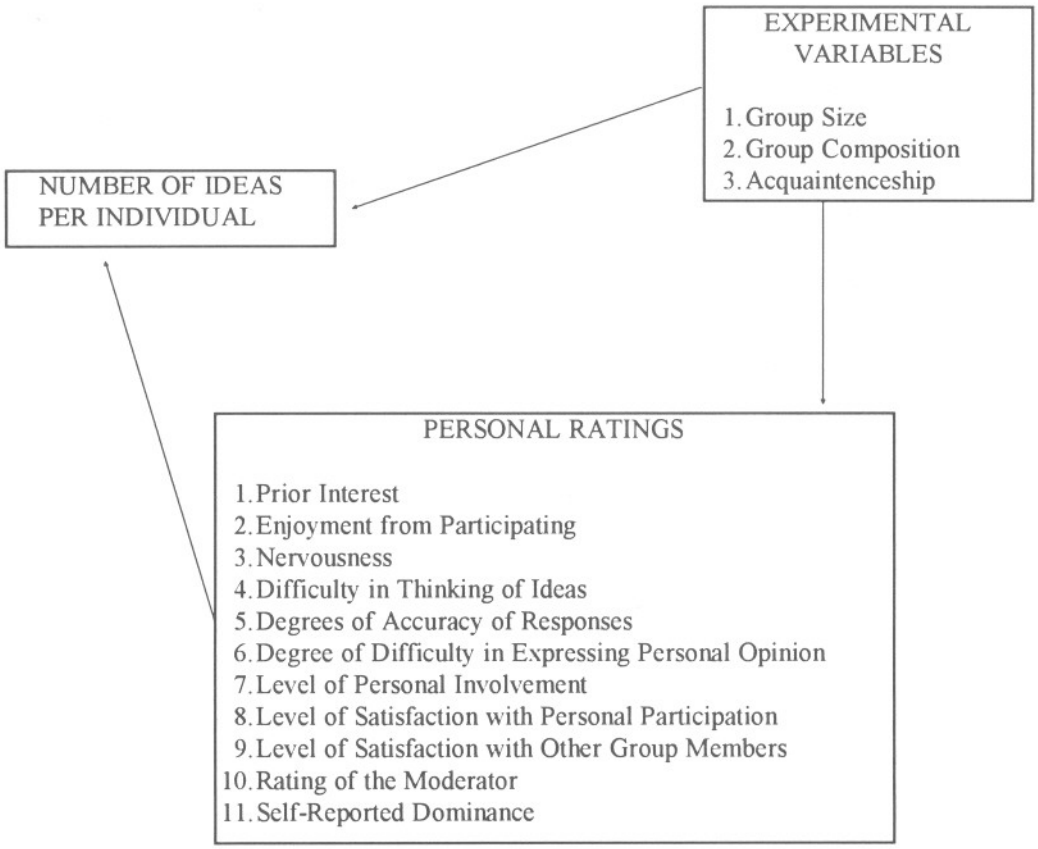

Figure 2 summarizes the variables used in this study

NOTE: ⟶ indicates independent/dependent relationships

REGRESSION ANALYSIS

The number of unique ideas generated per individual was the primary dependent variable examined in this research. Multiple regression analysis was used to analyze the relationship between this single dependent variable and all independent variables.

A key assumption of multiple regression analysis is the independence of the variables used as predictors. If the predictor variables are not independent, the regression coefficients may be incorrectly estimated and even have the wrong signs. To help eliminate any problems of multicollinearity in this analysis, the tolerance level was set at .25.

Tolerance is the proportion of the variation in each independent variable that is not explained by the variables already in the model. It can be used to protect against multicollinearity. A tolerance of zero means that a predictor (independent variables) under consideration is a perfect linear combination of variables already in the model (equation). A tolerance of one means that a predictor is totally independent of other predictors already in the model. The default option in most computer packages sets the minimum acceptance tolerance at .01. This allows for considerable of redundancy or multicollinearity in the predictors. A more conservative level to set the tolerance protection was selected for this analysis: .25. This means that if at least 25 percent of the variation in the response variable remains unexplained by the predictors already included in the function then the predictor variable under consideration will be allowed to enter the function.

The first set of regressions used numbers of ideas per individual as the dependent variable and the experimental variables (group size, acquaintanceship, and group mix) as the independent variables. The *Statistical Package for the Social Sciences* (SPSS) was used to calculate a stepwise regression. The results are reported in Table 1.

Group size accounted for only six percent of the variation in the dependent variable (number of ideas per individual). Acquaintanceship and Group Mix were not significant and did not enter the model. This indicates that these latter variables are not very powerful predictors of the number of ideas generated by study participants given that the group size was already in the model.

The second regression equation used respondents' personal rating of their performance and their reactions to other members and the moderator as the independent variables to predict the dependent variable (number of ideas per individual). The results are presented in Table 2. Again, a stepwise regression method was employed. Only the level of involvement respondents reported and their ratings of the moderator entered the model.

TABLE 1
REGRESSION RESULTS OF EXPERIMENTAL VARIABLES

Variables Entered on Step 1	Beta	T	Sig T
Group Size	-.26	-2.58	.01
Adjusted R Square -.0		F = 6.67	
n = 96		Sig = .01	

TABLE 2
REGRESSION RESULTS OF RESPONDENTS' RATINGS

Variables Entered in the Equation	Beta	T	Sig T
Involvement	.65	8.65	< .01
Rating of the Moderator	-.23	-3.11	< .01
Adjusted R Square = .47		F = 42.13	
n = 95		Sig = < .01	

Variables not in the equation included: prior interest, enjoyment, nervousness, effort expended thinking of ideas, accuracy, difficulty expressing opinions, satisfaction with personal participation, and satisfaction with others' participation.

The personal rating variables account for a great deal more of the variation in the number of ideas than the experimental variables. However, these variables still accounted for less than half of the variation in the number of ideas generated by the study participants. Many of these variables are post-measures and therefore are not as useful when selecting or working with respondents.

The most significant variable was the degree to which respondents felt involved with the group. It appears that an essential job for the moderator is to involve participants in the group process. Respondents who feel more involved are much more likely to contribute to the discussion. The moderator's skill as a facilitator is important in ensuring the success of a group. Respondents must feel that the moderator is interested in their comments. Every effort should be made to encourage group members to participate.

Another regression model included the demographic characteristics of the respondents as the independent variables and number of ideas per individual as the independent variable. These variables alone did not account for a significant amount of the variation in the number of ideas generated. The results are presented in Table 3. The variables used were: sex, education, income, marital status, and age.

Only education entered the model at a significant level. The other variables were not significant in this case. These regression results indicate that approximately 5% of the variation in the number of ideas was accounted for by the education level of the participant. Demographic characteristics alone are not very useful in identifying respondents who are likely to generate ideas in a focus group session.

A final regression model was run, using the experimental variables, personal ratings, demographics, and the reported dominance variable combined to predict the number of ideas. Three variables entered the equation and explained 49% of the variation in the dependent variable (number of ideas per individual). The results are presented in Table 4.

Clearly, the level to which a respondent feels involved significantly impacts the number of ideas they generate and has far more influence than any other variable. However, a large portion of the variation in the depend-

TABLE 3

REGRESSION RESULTS OF DEMOGRAPHIC CHARACTERISTICS

Variables Entered in the Equation	Beta	T	Sig T
Education	.25	2.75	< .01
Adjusted R Square = .05		F = 7.58	
n = 120		Sig of F - < .01	

TABLE 4

REGRESSION RESULTS USING EXPERIMENTAL, PERSONAL RATINGS, DEMOGRAPHICS AND REPORTED DOMINANCE

Variables Entered in the Equation	Beta	T	Sig of T
Involvement	.63	8.42	< .01
Rating of Moderator	-.24	-3.30	< .01
Group Size	-.18	-2.38	.02
Adjusted R Square = .49		F = 31.41	
n = 95		Sig off = < .01	

ent variable is still not explained by all the independent variables used in this study.

SUMMARY

Group size has a significant influence on the number of ideas generated by each individual. As group size increases, individual output decreases. The regression results indicate that the success of a group is strongly influenced by the degree to which respondents feel involved in the group process. An important role for the moderator is to encourage members to participate actively and become involved in the discussion.

Since there is a basic unreliability in any measurement scale used, it is not possible to explain 100% of the dependent variable, but future studies should seek to identify and test other factors that may influence idea generation more than the ones studied here. Factors to consider might include: the respondents emotional state, physiological state, previous experiences, interest in the selected topic, reasons for participating, and other personality factors.

REFERENCES

Ayal, I.; Lowenhar, J.A.; and Hempel, D.J. (1974), "Compositions and Management Performance in a Simulated Market Environment," *American Institute for Decision Sciences Proceedings*, 6 (October-November), p. 301.

Bales, Robert F. and Borgatta, Edgar E. (1955), "Importance of Group as a Factor in the Interaction Profile," in Paul A. Hare, Edgar F. Borgatta, and Robert F. Bales (eds.), *Small Group Studies in Social Interaction*. New York: Alfred A. Knopf, pp. 396-413.

_____; Mills, T.M., Roseborough, Mary E.; and Strodtbeck, F.L. (1951), "Channels of Communication in Small Groups," *American Social Review*, 16, pp. 461-464.

Bazerman, M.; Guiliano, T.; and Appelman, T. (1984), "Escalation of Commitment in Individual and Group Decision Making," *Organizational Behavior and Human Performance*, 33 (April), pp. 141-152.

Bengston, Roger E. (1980) "Despite Controversy, Focus Groups Are Used to Examine Wide Range of Marketing Questions." *Marketing News*, September 19, pp. 18-25.

Bryne, Andrew J. (1984), "Some Pros-n-Cons About Focus Groups," *National Underwriter (Life/Health)*, 88 (July 21), pp. 3, 18-19, 24-25.

Calder, Bobby J. (1977), "Focus Groups and the Nature of Qualitative Marketing Research," *Journal of Marketing Research*, 14 (August) 353-364.

Cook, W.A. (1981), "Turning Focus Groups Inside Out," *Advances in Consumer Research Proceedings*, 12 Annual Conference, 9 (October), pp. 62-64.

Fern, Edward F. (1982), "The Use of Focus Groups for Idea Generation: The Effects of Group Size, Acquaintanceship, and Moderator on Response Quantity and Quality," *Journal of Marketing Research*, February, pp. 1-13.

_____ (1981), "Why Do Focus Groups Work: A Review and Integration of Small Group Process Theories," *Advances in Consumer Research Proceedings*, 12th Annual Conference, 9 (October), pp. 444-451.

Gibb, J.R. (1951), "The Effects of Group Size and the Trheat Reduction Upon Creativity in a Problem-Solving Situation," *American Psychologist*, 5, pp. 324.

Goldman, Alfred E. (1962), "The Group Depth Interview," *Journal of Marketing*, Vol. 26, No. 3, July, pp. 61-68.

Greenberg, B.; Goldstucker, J.; and Bellenger, D. (1977), "What Techniques Are Used by Marketing Researchers in Business?" *Journal of Marketing*, April, pp. 64-68.

Harari, O. and Graham, W.K. (1975), "Tasks and Task Consequences as Factors in Individual and Group Brainstorming," *Journal of Social Psychology*, 95, pp. 61-65.

Helmreich, R.; Bakeman, R.; and Scherwitz, L. (1973), "The Study of Small Groups," in P.M. Mussen & M.R. Resenzweig (eds.), *Annual Review of Psychology*, 24, pp. 193-196.

Kaden, Robert J. (1977), "Incomplete Use Keeps Focus Group From Producing Optimum Results," *Marketing News*, September 9, p. 4.

Kelley, H.H. and Thibaut, J.W. (1954), "Experimental Studies of Group Problem-Solving and Process," In G. Lindzey (ed.), *Handbook of Social Psychology*. Reading, Mass: Addison-Wesley.

Kerr, Norbert L. and Brunn, Steven E. (1981), "Dispensability of Member Effort in Group Motivation Losses: Free-Rider Effects," *Journal of Personality and Social Psychology*, Vol. 44, No. 1, pp. 78-94.

Keuthold, Charles E., Yoshikawa, Joyce C., and Zehr, H. David, (1981), "Vocal and Verbal Assertiveness in Same-Sex and Mixed-Sex Groups," *Journal of Personality and Social Psychology*, Vol. 40, No. 6, pp. 1047-1054.

McDaniel, Carl (1979), "Focus Groups—Their Role in the Marketing Research Process," *Akron Business and Economic Review*, 10 (Winter), pp. 14-19.

McGrath, Joseph E. and Kravitz, David A. (1982), "Group Research," *Annual Review of Psychology*, 33, pp. 195-230.

Miller, N.E. (1950), *Effects of Group Size on Group Process and Member Satisfaction*. Proc. Adm. Conference, University of Michigan, Ann Arbor.

Smith, George H. (1954), "Interviewing in Groups," *Motivation Research in Advertising and Marketing*, New York: McGraw-Hill Book Company, Inc.

Smith, Jean Macfarlane (1972), "Group Discussions," *Interviewing in Market and Social Research*. London and Boston: Routledge and Kegan Paul.

Wiseman, Frederick and Schafer, Mariann (1977), "If Respondents Won't Respond, Ask Nonrespondents Why," *Marketing News*, September 9, pp. 8-9.

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