

Developments in Business Simulation & Experiential Exercises, Volume 11, 1984

DIAGNOSING GROUP CLIMATE TO IMPROVE SUPERVISORY EFFECTIVENESS

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ABSTRACT

In a multiple section introductory management course, students participate in weekly lab sessions conducted by undergraduate "lab section managers." The Moos Group Environment Scale was used to measure student perceptions of ten characteristics of climate in their labs. The climate dimensions of leader supportiveness, group cohesiveness, order and organization, and task orientation correlated positively with an overall rating given to lab section managers by their lab members. As a result, lab managers now are given guidance on specific approaches to building positive climates in their labs.

INTRODUCTION

Climate has been defined as "a set of properties" of the work environment which are specific to a particular organization, that may be assessed by the way the organization deals with its employees and its societal and task environments" [1]. While a number of studies to identify climate properties have been conducted, the precise set of properties that make up climate has yet to be agreed upon [2]. This led Ivancevich, Szilagyi and Wallace to offer some general opinions about climate, the most important of which was that "if managers are to more fully understand the people with whom they work they must think about the climate properties that have the largest impact on performance" [1]. This paper reports the findings of one study on the relationship between climate dimensions and supervisory performance

In 1979, the faculty in the introductory management course at a large midwestern university worked with several staff psychologists and counselors from the University Counseling Center on a project involving administration of the Moos "Group Environment Scale" [3]. This instrument measures perceptions on ten dimensions of group climate or atmosphere. The joint project involved measuring climate perceptions in each of 25 student experiential labs, feeding back data about those perceptions to an experimental group of the lab managers, then comparing against a control group at the end of the semester to determine if the feedback treatment contributed to changes in climate perceptions.

For approximately ten years, students in the introductory management class have learned through a lecture-laboratory approach. Lectures on typical management topics are supplemented by weekly labs using experiential activities and group projects. A relatively unique feature of the program is that the labs are conducted, under general faculty supervision, by undergraduate "Lab Section Managers" [4]. The LSM's are carefully selected and given training weekly on how to carry

out their responsibilities for administering exercises and leading discussions in the labs. Efforts are made to place the lab managers in supervisory roles, as opposed to the usual teaching- assistant role.

This report seeks to (1) relate findings of the initial joint study on the impact of the feedback treatment on lab climate, (2) indicate the climate factors which correlated with measures of LSM effectiveness, and (3) outline ways in which group climate data are being used to help undergraduate students learn about supervising.

THE FEEDBACK TREATMENT PROJECT

During one semester, course faculty and Counseling Center staff members conducted an experiment to see if feedback to the lab managers about student perceptions of lab climates would lead to changes in behavior and thus to changes in climate perceptions. The Moos Group Environment Scale (GES) was given to over 400 students in 25 lab section. The GES assesses the social environment of various groups including task oriented groups. Measures on three broad dimensions (relationships, personal growth, and system maintenance and change) were divided into ten sub-scales: cohesion, leader support, expressiveness, independence, task orientation, self-discovery, anger and aggression, order and organization, leader control, and innovation. The instrument was administered five weeks into the semester and then at the end of the semester. Thirteen of the lab managers comprised an experimental group.

The experimental group was given two group presentations about the climate study results in their labs after the first measurement. In addition, the experimental group went through individual feedback interviews about the results in their individual labs. It was hypothesized that this presentation and feedback process would stimulate the lab managers to modify their behavior in efforts to move their group's climate to a more ideal level.' However, analysis of variance showed that changes in the pre and post perceptions were not different for the experimental and control section managers, and thus, the feedback treatment had no effect. It was concluded that the feedback treatment was simply too brief, and was not supported by other training adequate to result in any significant new actions by the lab managers in the experimental group.

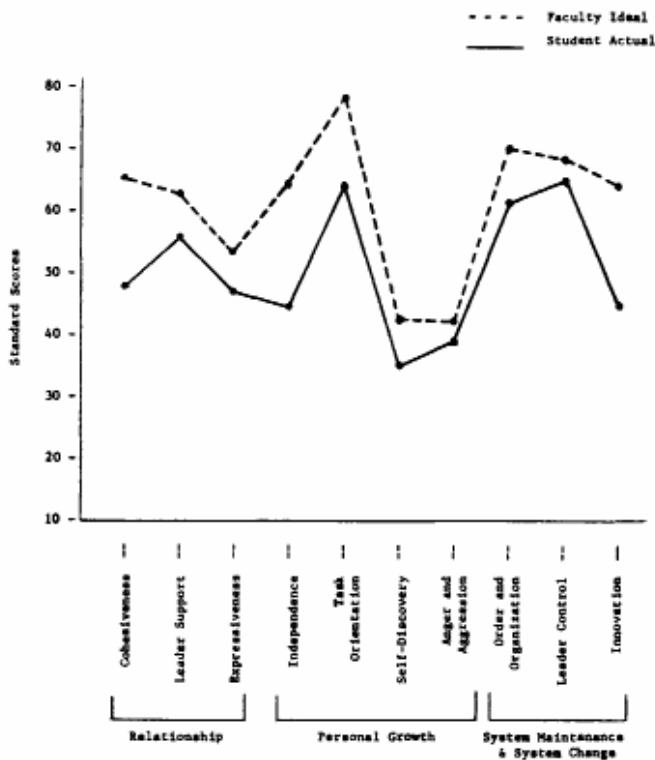
In spite of the failure of the treatment to bring about changes in lab climate, the climate profiles generated by the GES were interesting. They permitted comparison of the climates considered desirable by the faculty with the actual perceptions of students in the various labs. Figure 1 illustrates that the "ideal" climate as perceived by faculty had a similar slope to that climate perceived by students in the experimental lab sections, even though there were differences in emphasis. Faculty desired to have labs with greater cohesion, encouragement of independent action by members, task orientation, and innovation within the groups than students perceived to be occurring.

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Upon reflection, it appeared that faculty expectations were somewhat too idealistic, given that the labs were relatively structured and that the short term duration of a course works against high levels of group cohesion.

FIGURE 1

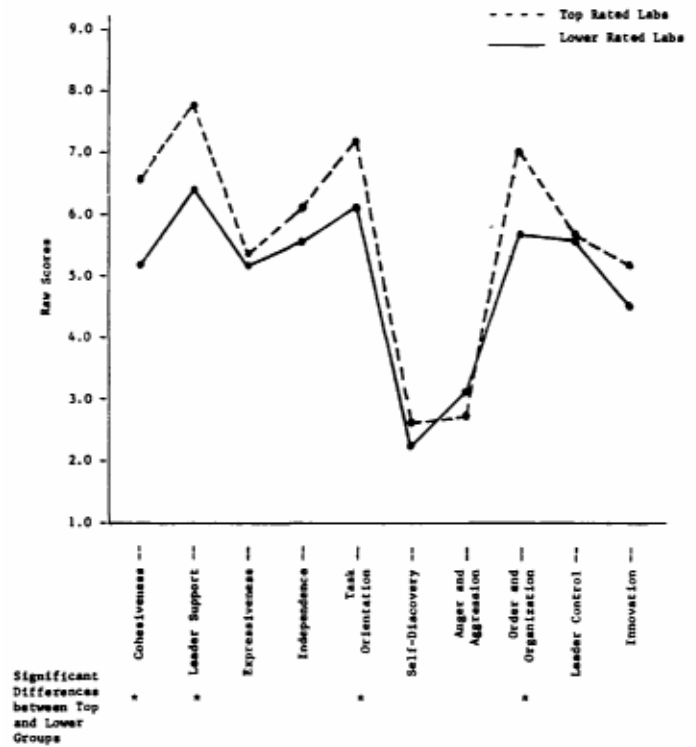
IDEAL CLIMATE AS PERCEIVED BY FACULTY COMPARED WITH ACTUAL CLIMATE AS PERCEIVED BY STUDENTS IN EXPERIMENTAL SECTIONS



In its report, the Counseling Center staff made several observations [5]. Given the relatively structured, time limited nature of the groups, it may be unrealistic to expect changes on climate dimensions such as cohesion, self-discovery and innovation. Further, people in supervisory positions such as those of the lab section managers may incorrectly perceive the climate on characteristics such as leader supportiveness (perhaps most supervisors feel they are more supportive than their subordinates think they are.) Supervisors may need to learn that a price they pay for having to evaluate subordinates' performance is that those subordinates develop more negative perceptions about their leader's supportiveness and control, and are more willing to express personal anger and aggressiveness.

These and other observations suggested to the program faculty the possible value of more extensive work with the lab section managers both on how to diagnose group climate and on specific actions which may influence climate. Also, because the lab section managers were evaluated on another instrument by their lab members, it became possible to analyze the climate existing in labs

FIGURE 2
GES SCORES IN TOP-RELATED MANAGERS' LABS VERSUS
GES SCORES IN LOWER-RELATED MANAGERS' LABS



administered by the most highly rated people with climates in labs of the lower rated lab managers.

CORRELATIONS BETWEEN LAB MANAGER EFFECTIVENESS AND CLIMATE

At the end of each semester, students in the program evaluate various aspects of the course. Lab Section Managers are rated on the clarity with which they gave instructions and helped students understand the purposes of exercises, on their general degree of supportiveness, and in a global sense, on their overall job performance. By using the ratings of overall performance, it is possible to compare the various lab managers. Although most receive high ratings, the range of evaluations is adequate for distinguishing between the top and the lower individuals.

To determine whether climates in the labs of top rated managers differ from the climates in other labs, rank order correlations between the LSM overall ratings and each of the ten climate dimensions were performed. As a second measurement, the climate dimension scores for the top rated labs (n of 11) were compared with the climate scores for the lower rated labs (n of 9).² In both cases some significant differences in climates appeared.

Figure 2 profiles the Group Environment Scale scores for the top and lower rated sections managers' labs.

²Five middle-rated lab groups were omitted from the analysis.

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TABLE 1

MEAN SCORES ON GES, COMPARING TOP RATED MANAGERS' LABS WITH LOWER RATED MANAGERS' LABS

Top Group	Climate Scale (N 179)	Lower Group (N 132)	F Value	2-Tail Prob.	T* Value	2-Tail Prob.
1. Cohesion	6.6034	5.2303	1.40	0.030	5.05	0.000
2. Leader Support	7.1989	6.4211	2.44	0.000	6.02	0.000
3. Expressiveness	5.4246	5.2105	1.35	0.054	0.94	0.349
4. Independence	6.1117	5.6316	1.14	0.415	2.39	0.018
5.0 Task Orientation	7.2905	6.1842	1.21	0.222	4.61	0.000
6. Self-Discovery	2.5698	2.171t	1.11	0.506	1.84	0.066
7. Anger & Aggression	2.7318	3.0461	t.48	0.012	-1.21	0.226
8. Order a Organization	7.0112	5.1237	1.46	0.016	5.01	0.000
9. Leader Control	5.7263	5.6842	1.04	0.797	0.20	0.840
10. Innovation	5.1620	4.5000	1.18	0.278	2.64	0.009

*Separate variance estimate

Table 1 shows that there are significant differences between top and lower rated labs on several climate dimensions. The top labs clearly rated higher on cohesion, leader support, task orientation, and order and organization.

Table 2 shows the Pearson Correlation Coefficients between the climate dimensions and the lab manager evaluations.

TABLE 2

PEARSON RANK ORDER CORRELATIONS BETWEEN GES SCORES ON EACH CLIMATE SCALE AND OVERALL LAB MANAGER EVALUATIONS (n = 25)

Climate Scale	r	Level of Significance
1. Cohesion	.6538	.000
2. Leader Support	.7272	.000
3. Expressiveness	.1823	.192
4. Independence	.4021	.023
5. Task Orientation	.5786	.001
6. Self-Discovery	.2187	.147
7. Anger & Aggression	-.1360	.258
8. Order & Organization	.6449	.000
9. Leader Control	.0512	.404
10. Innovation	.4456	.013

Overall, in the labs in which the section managers were given the highest ratings, members perceived a relative high degree of cohesion, strong leader support, a fairly strong task orientation, and well organized and orderly activities. Correlation analysis only hints at causal relationships, of course. Nevertheless, in terms of leadership theory, it appears that the more effective lab section managers did relatively well on both task and group maintenance functions. Given the general inexperience of the students in the course, strong needs both for direction and for support probably exist, and the most effective LSMs helped people meet those needs better than did less effective LSMs. In a more advanced course,

with more sophisticated students, somewhat different leader behaviors might be called for.

On most of the other climate dimensions, differences between top and lower rated groups do not appear particularly meaningful. At first the similarity of all groups on the dimension of leader control was perplexing, since it might seem that more effective lab managers would be more in control. However, the GES items on leader control include statements such as: "The leader often tells members how to do things," and "The leader usually decides what to do next." The basic approach used in the lab program is one in which the lab managers are trained to administer exercises in a uniform way, following standard procedures generally. The lab managers simply do not have much latitude to alter the tasks and activities, and their own personal methods may not enter in very much. In fact, the degree of task structure imposed by faculty in the program may help account for uniformity on other climate dimensions, in that individual freedom of managers is somewhat restricted.

Within the structured framework, some aspects of individual style still are possible, however. The more effective lab managers apparently do things which generate feelings of group unity, friendship and spirit. They show supportiveness to members by being encouraging, taking personal interest, helping out. They are well organized and communicate effectively about the goals and processes involved in lab activities. And, they help the group maintain a task orientation, possibly by showing the practicality and real world application of lab activities.

USING THE CLIMATE STUDY FINDINGS

In the experiential program, having a base of data drawn from prior semesters' labs is useful in several ways. Faculty can use the data as criteria for evaluating attitudes in the course. Students in the basic course have meaningful information for discussing topics of climate and leadership. And, the lab section managers have starting points for personal goal setting and planning some of their supervisory actions.

For the lab managers, what happens in their labs is real world. They move beyond reading about supervisory problems and leadership techniques and find themselves in situations where they get feedback about their own behavior. The availability of instruments for measuring climate perceptions, combined with opportunity to compare results against twenty or so very similar situations in other labs, provides unusual learning possibilities. There are realistic risks and frustrations, but the lab managers stand to learn considerable about their roles in influencing the climates of their groups. Further, they may improve their diagnostic skills since they have a conceptual model of the climate dimensions. They can sharpen their expectations and standards, and by focusing on the four key climate dimensions distinguishing superior performance, can learn relatively specific leadership skills.

The general plan of action being followed in the program at present is to first provide newly appointed lab managers with general background on the group climate concept, then have them identify their personal "ideal" group climates using the Moos scale. Then as part of this process of clarifying expectations, data from the lab managers are compared against faculty target profiles and against the historical data about climates in the more effectively led labs. At this point the lab managers may choose to modify their objectives

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and clarify possible developmental goals. Following this planning phase, over the course of several weeks sessions are held on how to build team cohesiveness, provide leader support, maintain task orientation and provide order and organization. Lab managers are asked to maintain personal journals and specifically are asked to record and analyze their efforts on each of the four key dimensions. Then, about three-fourths of the way through the semester, students in all the labs complete the Group Environment Scale. Results are made available to managers, who have the chance to evaluate their efforts and to identify future developmental needs. A final synthesizing report is required.

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CONCLUSION

Using a measuring instrument such as the Moos Group Environment Scale serves as a means to a number of ends. Not only does it introduce students to the concept of group climate, but it allows for genuine involvement and feedback in the experiential program. The consistency between current leadership theory and the correlational findings about lab manager effectiveness is helpful. Overall, the experiential approach using climate measures appears to be of real value in helping students improve their personal supervisory and leadership skills.

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