ASPECTS OF SUPERVISOR-TEACHER INTERACTION WERE EVALUATED THROUGH AN ANALYSIS OF QUESTIONNAIRE RESPONSES FROM 164 TEACHERS AND 45 PUBLIC SCHOOL SUPERVISORS ATTENDING SUMMER SCHOOL AT TEMPLE UNIVERSITY. FINDINGS INDICATE—(1) BOTH TEACHERS AND SUPERVISORS REGARD INDIRECT SUPERVISOR BEHAVIOR AS MORE PRODUCTIVE THAN DIRECT, (2) TEACHERS VIEW SUPERVISORS AS CREATING A SUPERORDINATE-SUBORDINATE SITUATION AND GIVING LESS EMPATHY TO TEACHERS THAN SUPERVISORS REGARD THEMSELVES AS GIVING, (3) TEACHERS BELIEVE THEMSELVES TO BE LEARNING LESS ABOUT THEMSELVES AS TEACHERS AND PEOPLE THAN SUPERVISORS DO, AND (4) TEACHERS FEEL THEY ARE LESS FREE THAN SUPERVISORS TO INITIATE DISCUSSIONS. DEVELOPMENT OF BETTER COMMUNICATION CHANNELS BETWEEN SUPERVISORS AND TEACHERS IS RECOMMENDED, WITH EMPHASIS ON INDIRECT SUPERVISION AS MORE EFFECTIVE FOR THE SUPERVISOR'S TWO ROLES OF INCREASING GENERAL TEACHER PRODUCTIVITY AND INITIATING POSITIVE CHANGE. THIS PAPER WAS PRESENTED AT THE ANNUAL MEETING OF THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION (NEW YORK, FEBRUARY, 1967). (JK)
SUPERVISOR INTERACTION AS SEEN BY SUPERVISORS AND TEACHERS

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The Problem

When a supervisor and a teacher interact in a supervisory conference, there are two broad aims of the situation:

1. To help the teacher maintain and enhance those parts of his teaching that are seen as productive.
2. To help the teacher change those aspects of his teaching that are in need of improvement.

Thus, the supervisor has two general roles. One of these, so to speak, is that of a "maintenance man." That is, he must be skillful enough in his observations and in interpersonal relations to help the teacher understand which of his teaching behaviors are productive so that these behaviors can be reinforced and enhanced. The second role is that of a change agent. This role involves that kind of behavior, on the part of the supervisor, that can help the teacher recognize the need for changes, make whatever preparations are necessary for change, and try to test out different change plans.

In order for the supervisor to perform these roles in a productive manner, it is important to establish the kind of interpersonal relationship in which the teacher will see the supervisor as a source of help. This type of relationship is characterized by mutual respect and the kind of congruent communicative relationship that permits resources to be offered and used with a minimum of threat.

2.

One could argue that a pre-condition for the type of interpersonal relationship just described would be a set of mutually shared perceptions concerning the nature of the dynamics of supervisory interaction. That is, in order to create a productive maintenance and change climate supervisors and teachers ought to have common perceptions of their relationship. If supervisor and teacher perceptions of their relationship are very dissimilar, then they are both working on a different set of assumptions concerning what takes place when they confront each other. This raises communication barriers before verbal interaction even takes place.

Building on this premise, it was the aim of this study to examine the following aspects of supervisor-teacher interactions:

1. The supervisors' perceptions of their own behavior and teachers' perceptions of the supervisors' behavior.

2. The perceptions of the teachers attitude toward the interaction that takes place in the supervisory conference.

3. The kind and amount of learning supervisors think teachers get by way of supervision and the kind and amount teachers say they get.

4. The degree of overall productivity of supervisory interaction as seen by supervisors and as seen by teachers.

Procedures

Data were collected from teachers and supervisors with a questionnaire designed by two of the present authors. Briefly, this instrument asked teachers to describe the behavior of their immediate supervisors on rating scales that were based on the Amidon-Flanders' typology of direct-indirect teacher behavior. The scales were not value-oriented; rather they simply asked the teacher to rate the amount of emphasis they saw their supervisors giving to particular behaviors in the course of their interaction. The teachers were also asked to rate the communicative atmosphere, two general kinds of learnings (about their teaching behavior
and about themselves as people), and the overall productivity of their interaction with their supervisor. There were 164 teachers in the sample.

A comparable instrument was administered to forty-five public school supervisors who had direct responsibility for the improvement of instruction. The difference between the instrument administered to supervisors and the one used for teachers was that while both groups described the behavior as they saw it as well as overall productivity, the supervisors were asked to rate the scales concerning teacher learning and communicative atmosphere from the point of view of how they thought teachers would rate them.

The supervisors and the teachers studied did not have any functional relationship to each other. However, there is no reason to suspect that each group did not constitute a random sample. The teachers and supervisors were both attending summer school at Temple University. They would thus be representative of the group of teachers in the geographical area who attend Temple University.

**Analysis of the Data**

Means were calculated for all scales and groups of scales (in the case of those having to do with behavioral emphasis). The t test was used to test for the significance of the difference between supervisors and teachers. The results of these tests are found in Table I.

In addition, the data from the supervisors alone were sorted on the basis of the extent of agreement about the productivity of supervisory interaction that existed between the supervisors and the teachers. Supervisor perceptions that were within one scale point of the mean of the teachers constituted one group for study. Those falling outside these limits made up the other groups, high or low. From this sorting process, twenty-three supervisors were found to agree with the teachers and nineteen perceived higher productivity than the teachers. Only two
<table>
<thead>
<tr>
<th>Aspect of Conference</th>
<th>Teachers N</th>
<th>Mean</th>
<th>S.D.</th>
<th>Supervisors N</th>
<th>Mean</th>
<th>S.D.</th>
<th>t</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Degree of directness of Supervisor's behaviors.</td>
<td>154</td>
<td>11.7</td>
<td>1.63</td>
<td>45</td>
<td>12.42</td>
<td>1.25</td>
<td>2.56</td>
<td>.05</td>
</tr>
<tr>
<td>Degree of indirectness of Supervisor's behaviors.</td>
<td>154</td>
<td>22.33</td>
<td>3.01</td>
<td>45</td>
<td>15.71</td>
<td>1.78</td>
<td>7.57</td>
<td>.01</td>
</tr>
<tr>
<td>Teacher's freedom to initiate discussion.</td>
<td>154</td>
<td>7.92</td>
<td>2.55</td>
<td>45</td>
<td>7.73</td>
<td>2.56</td>
<td>1.93</td>
<td>.06</td>
</tr>
<tr>
<td>Teacher learning about his teaching behavior.</td>
<td>153</td>
<td>5.27</td>
<td>1.44</td>
<td>45</td>
<td>4.16</td>
<td>1.26</td>
<td>4.53</td>
<td>.01</td>
</tr>
<tr>
<td>Teacher learning about himself as a person.</td>
<td>154</td>
<td>6.75</td>
<td>2.03</td>
<td>45</td>
<td>4.98</td>
<td>1.58</td>
<td>5.53</td>
<td>.01</td>
</tr>
<tr>
<td>Supervisor's need to control.</td>
<td>164</td>
<td>7.02</td>
<td>2.70</td>
<td>45</td>
<td>5.20</td>
<td>1.75</td>
<td>1.91</td>
<td>.06</td>
</tr>
<tr>
<td>Supervisor's attitude of superiority.</td>
<td>164</td>
<td>6.31</td>
<td>2.33</td>
<td>45</td>
<td>7.58</td>
<td>1.53</td>
<td>2.90</td>
<td>.01</td>
</tr>
<tr>
<td>Supervisor's assumption of having right answer.</td>
<td>164</td>
<td>5.93</td>
<td>2.56</td>
<td>45</td>
<td>7.44</td>
<td>1.57</td>
<td>1.29</td>
<td>n.s.</td>
</tr>
<tr>
<td>Supervisor's empathy.</td>
<td>164</td>
<td>2.97</td>
<td>2.67</td>
<td>45</td>
<td>3.07</td>
<td>1.31</td>
<td>2.21</td>
<td>.05</td>
</tr>
<tr>
<td>Supervisor's evaluative attitude.</td>
<td>164</td>
<td>5.83</td>
<td>2.71</td>
<td>44</td>
<td>5.93</td>
<td>2.31</td>
<td>0.10</td>
<td>n.s.</td>
</tr>
<tr>
<td>Productivity of supervisory conferences.</td>
<td>164</td>
<td>4.82</td>
<td>2.49</td>
<td>45</td>
<td>3.60</td>
<td>1.28</td>
<td>3.17</td>
<td>.01</td>
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</table>
Supervisors saw their interaction with teachers as being less productive than the mean teacher response. Because of its small size, this latter group was discarded as far as the study was concerned. The two groups remaining were compared by use of the t test in an attempt to find out whether or not perceived productivity was related in any way to the supervisor's perception of his own behavior. The results of this test are found in Table II.

Results

Reference to Table I enables us to compare the perceptions of supervisors with those of teachers concerning several behaviors and feelings in the supervisory transaction. The following results are apparent.

1. Supervisors see themselves as being less direct (Mean = 12.4) in their behavior toward teachers than teachers see them (Mean = 11.7). The difference is significant at the five per cent level. The means suggest that supervisors see themselves as putting "very little" emphasis on direct behavior while teachers describe the scale point as "not too much" emphasis.

2. As far as perceived indirect behavior is concerned, supervisors see themselves putting "moderate" to "fairly heavy" emphasis on this (Mean = 15.7), while the teachers (Mean = 22.8) see the supervisors as putting "not too much" emphasis on this type of behavior. The differences in this case are significant at the one per cent level.

3. There were two items in the instrument that dealt with the types and amount of learning derived by teachers from their supervisor. The types were concerned with learning about one's behavior as a teacher and learning about oneself as a person. Differences were found between the perceptions of the supervisors and those of the teachers in both cases (p < .01). In the case of learning about one's behavior, teachers
TABLE II

RELATIONSHIP BETWEEN PERCEIVED INDIRECTNESS-DIRECTNESS OF SUPERVISORS AND PRODUCTIVITY OF SUPERVISORY CONFERENCE

<table>
<thead>
<tr>
<th></th>
<th>Accurate (Agreed with Teachers)</th>
<th>Inaccurate (Higher than Teachers)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>Indirect</td>
<td>24</td>
<td>17.00</td>
</tr>
<tr>
<td>Direct</td>
<td>24</td>
<td>12.00</td>
</tr>
</tbody>
</table>


felt that this did happen sometimes (Mean = 5.3), while supervisors thought this happened relatively frequently (Mean = 4.2). As far as personal learning goes, teachers said rather definitely that this happened infrequently (Mean = 6.8), while supervisors thought it occurred sometimes (Mean = 4.9).

4. In regard to the extent of agreement concerning the question of the frequency that a superior-subordinate relation is conveyed to teachers during supervision, the data suggest that while teachers see this occurring relatively infrequently (Mean = 6.3) the supervisors come close to seeing it at the "practically never" end of the scale (Mean = 7.5). The differences are significant at the one per cent level of probability.

5. As can be seen from Table I, there are also statistically significant differences between the perceptions of teachers and supervisors regarding the extent of empathy that the teacher receives from the supervisor. Teachers see themselves receiving empathic responses from their supervisors relatively frequently (Mean = 3.9) while supervisors think that teachers see them responding empathically on a more frequent basis (Mean = 3.0). The differences in the means in this case are, again, significant at the five per cent level.

6. The last item on which significant differences developed was that concerned with productivity. Teachers rated the productivity of their supervisors at just about the mid-point of the scale (Mean = 4.8) between "very productive" and a "waste of time and energy." Supervisors rated their productivity considerably higher (Mean = 3.6). In this case the probability of such a mean difference occurring by chance was at the one per cent level. Supervisors evidently have a brighter view of the results of their efforts than do teachers.
Though the differences did not reach the five per cent level, there were two items that approached significance. These were: (1) the amount of freedom to initiate discussion and (2) perceptions of the supervisor's efforts to control a teacher's teaching behavior. In the former case, the tendency was for teachers to see themselves less free than supervisors thought they would. In the latter, as teachers tend not to feel too strongly that their supervisors want to control them; supervisors, on the other hand, think that teachers do see them as wanting to control.

No significant differences developed on the items concerned with the extent that a "certainty" or "one answer" orientation to supervisory interaction or with the degree that an evaluative emphasis was perceived to occur.

Table II presents the results obtained when the data from the supervisors were sorted on the basis of perceived productivity of supervisory interaction. It will be recalled that two groups for study were obtained, one of whose perceptions of productivity tended to agree with teachers' perceptions and the second composed of supervisors who saw productivity as being considerably higher.

When these two groups were compared with each other, using perceived behavioral emphasis as the dependent variable, the following results occurred: (1) Supervisors who feel that the overall productivity of their supervisory interaction is considerably higher than the mean teacher perception differ \( p < .05 \) from those who agree with the mean teacher response in regard to their perceptions of the relative amount of emphasis they put on indirect behavior. That is, they see themselves as being more indirect than their colleagues; (2) On the other hand, when the two groups were compared on the basis of the amount of emphasis they saw themselves putting on direct behavior, no differences developed.
This suggests that the critical variable on the part of the supervisor that affects his perceptions of the productivity of his supervision is his perception of the emphasis he puts on indirect types of behavior when he interacts with teachers and that, by and large, the amount of emphasis he put on direct behavior is irrelevant to his perceptions of productivity.

Interpretation of Results

On a global level, the results of this study lend support to a growing body of research concerned with communications problems between persons who occupy different status positions in an organizational hierarchy. For example, the person who is in the higher position tends to see things differently and more positively than those subordinate positions. Previous studies by Blumberg and Amidon describe this phenomenon rather forcefully in regard to the difference in perception between teachers and principals in regard to attitudes and behaviors associated with school faculty meetings.

Though the notion has not been tested in educational settings, it seems likely that we can account for this disparity in perceptions in several ways. First the higher up a person moves in a hierarchy, the more important it is for him to view his areas of responsibility in a positive light. He simply has more at stake and in order to insure himself of the highest amount positive and lowest amount of negative feedback, his behavioral patterns develop in a manner, quite unconsciously, one might suspect, to induce forces in the direction of positive feedback or very little feedback at all. Such a behavioral pattern would tend to be relatively highly direct, with an emphasis on telling and criticizing, and dealing almost exclusively with ideas, not feelings.
This position leads directly into that developed by Argyris\textsuperscript{4} in his discussion of "pyramidal values." Though much more research needs to be done, one might infer from his work that industrial managers (and we are assuming a legitimate transfer to educational "managers"), as a group, tend to put high importance on the following three basic values about effective human relationships:

1. The important human relationships are those that are involved in accomplishing the objective of the formal organization.

2. Effectiveness in human relationships increases as the participants are rational and decreases as they become emotional.

3. Human beings can have their energies canalized in the organization's interest if they are directed, controlled, and appropriately rewarded, or penalized.\textsuperscript{5}

This is a rational strategy and suggests the centrality of organizational objectives, the suppression of relevant feelings and the emphasis on an intellective, cognitive correlation, and the use of power and control to obtain the compliance of the participants.\textsuperscript{6}

If our case holds, then, those supervisors and educational administrators who hold these pyramidal values would reflect them in their behavior. This would lead, once more, to a relatively high degree of emphasis on direct, rational behavior that avoids dealing with the interpersonal relations that develop between supervisor and teacher.

This global interpretation leads to the hypothesis that "communication barriers exist between supervisors and teachers that prevent them from seeing both the dynamics and the outcomes of their interaction in a similar manner." The results of this study lend support to this hypothesis in regard to most, but not all, of the variables tested. Thus, teachers see themselves learning less about themselves as teachers and people than supervisors think they do and they see the supervisors creating more of
a superior-subordinate situation and giving less empathy than supervisors predicted they would. Teachers also feel that their interaction with their supervisors is less productive than do supervisors. And, on a level that does not quite approach statistical significance, they see themselves in a situation where they are less free to initiate discussion and in a less control-oriented climate than their supervisors thought.

The point at issue is less a matter of the substance of the variables involved, although they do have much importance, than it is that the differences are present and in such bold force. One would have to take the position that these findings, even though they come from a relatively small sample, need to be given careful thought by supervisors. They could provide an opening wedge in the direction of healthier and more productive supervisory relationships.

It is not clear why the differences in perception that have just been discussed did not turn up in the cases of both the certainty and evaluative orientation aspects of the study. Supervisors were accurate in both cases in their predictions of how teachers would respond. It may be that these are two factors that get communicated well during the course of supervisor-teacher interaction. That is, the notions that effective teaching involves a provisional testing and that there is a moderate amount of evaluation implied in supervision may be shared in a similar way by both parties to the situation.

The results obtained when the supervisor group was split on the basis of their perception of the productivity of their interaction with teachers was in the predicted direction. The question dealt with was, Do supervisors who see their work with teachers as being highly productive perceive their own behavior differently than those who see moderate productivity?
The hypothesis was that they would and that the differences would be in the direction of their seeing themselves as more indirect than the "moderate" group.

The result of an earlier study of perceived supervisor behavioral patterns supported the direction of the hypothesis and lends support to the results. In that study (from which the data on teachers in the present study were obtained), four distinct perceived supervisory behavior patterns were investigated. These involved various combinations of direct and indirect behavior. More specifically, they were high-direct high-indirect, low-direct high-indirect, high-direct low-indirect, and low-direct low-indirect. As long as teachers saw their supervisors giving heavy emphasis on directness, they gave a high rating to their supervision. It was when high directness was not accompanied by an emphasis on indirect behavior or when there seemed to be a passive or laissez-faire supervisor that productivity was seen as low.

What we see in the present study suggests that a sort of two-way street exists. Teachers who see emphasis on indirectness tend to feel their supervision is productive; so do supervisors who see their own behavior as indirect. Teachers who see an emphasis on directness seem to feel that their supervision is not as productive as it could be; direct-behavior supervisors have a similar perception.

Though we do not have the data available, these findings and interpretations would lead to the hypothesis that supervisors who see themselves as more indirect in their behavioral pattern would be better able to predict the responses of their teachers to their supervisory interaction than the more direct people for the simple reason that indirect behavior tends to open up communications channels. When a supervisor listens more than he talks, he learns more what his supervisor is thinking.
Summary

The process of supervision is a complex one. Certainly the research here presented and that which has been done previously does not provide us with all the answers. But without much doubt one direction of future work, both of an action and a research variety, is clear. Future work needs to focus more directly on behavioral patterns and communications climate in a variety of supervisory situations.

The bias of the present writers, however, is clear. Although we acknowledge the need for much more knowledge about supervisory processes, we feel that enough data have thus far been accumulated so that we can begin to think of supervisory training on much more than a hit-or-miss fashion. It is no longer appropriate or productive merely to select as supervisors those people who have had long tenure as teachers and have accumulated an appropriate number of post-graduate credits. Our colleagues in business and industry have recognized this fact and have long ago begun to do something about it. It would seem to be time that educators got on their own bandwagon. Appropriate training to us means that supervisors need to be made aware of the research, be trained to improve their perceptions, and be given training in the appropriate behavioral skills.
FOOTNOTES


