Resistance to Research and Research Utilization: The Death and Life of a Feedback Attempt

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MARY FLANDERS

Some of the problems scientists encounter in making their feedback of research findings relevant and useful to educational practitioners are explored in this paper. Feedback of research findings is considered as the transmission-reception link in the research utilization chain. Two sessions of scientist-practitioner collaboration are described: one in which their interaction was unproductive and alienative, and one in which major progress was made in the direction of scientist clarity and utility and practitioner trust and acceptance. Drawing from the events of these two sessions, a conceptualization of the feedback process is made, with force fields representing the dilemmas facing practitioners in their postures toward scientists and scientific resources, and vice versa. A series of suggested "rules of the game" includes attention to the client's preparation and contract formation, the establishment of trust, the demonstration of valued resources, and the facilitation of client autonomy.

INTRODUCTION   During the past several decades there has been a substantial increase in the amount of public and private moneys and energies spent upon educational research. As noteworthy as is this expansion of scientific inquiry is the increasing public resistance to such efforts. Parents, press, and some educators campaign against scientific investigations which are seen to threaten privacy for no useful end. Other more pragmatic forms of resistance may be encountered in teachers and school administrators who are overtly cool, although not actively opposed, to new re-

search efforts. In fact, it often seems that those educators who have had the greatest contact with research efforts in the past are now most antipathetic toward further involvement. "It's a waste of time" and "We never get anything out of it" are typical practitioner responses.

One reason educators may be reluctant to participate in educational research is the lack of relevance and utility such research has had for them in the past. This is not to say that educational research has always been of poor quality or little interest, but scientists have seldom attempted to explain the relevance and implications of their findings to practitioners. So practitioners do not learn and grow as a function of the scientists' work in their schools. Quite naturally, then, they do not see major value or reward for their time and energy spent in cooperating with, or being available for, scientific endeavors.

It is beyond the scope of this paper to inquire in detail into the reasons the gaps exist between social scientists and their findings and educational practitioners and their utilization of scientific research. Part of the problem is often lack of interest on the researcher's part, lack of energy to deal with the consuming demands of fieldwork, and lack of practitioner receptivity and access to scientific works. Obviously the historical lack of relevant dialogue makes any current effort at closing the gap more difficult. The lack of historical tradition, as well as the paucity of contemporary examples and experiences, creates a "knowledge gap" all its own. It suggests that their own lack of skill and know-how is still another reason more researchers are not assisting schools in the utilization of research findings.

In this article we describe one attempt to deal with the practitioner's concern that research findings are seldom of use to him. In this attempt, researchers communicated some findings to a group of practitioners and engaged them in the process of accepting and utilizing the scientific findings. This process of the communication and acceptance of findings intervenes between the production of research conclusions and their actual use in the educational setting. It is the essential transmission-reception phase of the research-utilization chain. We shall describe a brief portion of several years' work highlighting some of the major issues confronting scientists and practitioners.

Problems of clarifying mutual expectations, establishing trust, demonstrating research relevance, developing skills in interpretation and listening, and avoiding dogma are a few of the issues examined.

THE
BACKGROUND OF
THE PROJECT
At the Center for Research on Utilization of Scientific Knowledge, we are concerned with the minimal quantity and quality of professional sharing of teaching practices that exist among public school teachers. In order to survive in the classroom the teacher must constantly adopt new ideas or adapt old ones to meet the changing conditions of student life. What student needs are being met by these teaching practices? Are innovative practices visible, discussed, and used by others? Is innovative teaching seen as part of every teacher's professional role?

Most teaching innovations and experiments are conducted in the sacrosanct privacy of one's own classroom with one's own students. Very little opportunity is given or taken to share these innovative ideas and practices with other teachers. As a result, teaching becomes more and more a private profession and there is a high degree of pluralistic ignorance among the members of a school staff. Under these conditions, teachers cannot and do not contribute to one another's professional growth and competence, and the educational enterprise is deprived of a prime source of skill and expertise. Furthermore, without benefit of peer criticism or support, many exciting ideas never get tested and many substandard practices may be preserved.

These problems have been the concern of our project team of educational and social researchers. This team solicited the voluntary cooperation of several local school systems in a project which attempted to discover the personal and social conditions among teachers, colleagues, and principals that seemed to facilitate and encourage professional sharing. Through several questionnaires administered to the entire sample of teachers and principals, lengthy interviews with key personnel, and several meetings devoted to the sharing of practices, the research staff collected considerable data it felt appropriate for communication to practitioners.[1] The research staff selected some critical

1. In four school systems this entire sample numbered 525 teachers in 25 schools. Readers interested in research procedures and findings may write directly to the authors for reports.

research outcomes seen as having relevance for theories of organizational and bureaucratic management and as having immediate utility and implications for the behaviors of superintendents, principals, and teachers. In a session described herein, one participating school system invited staff researchers to provide feedback on these outcomes to the principals of this system. The invitation was proffered by the assistant superintendent of schools, the administrative leader of the principals.

FEEDBACK SESSIONS
The research staff met twice with the principals of this school system. The first session was marked by resistance: the researchers seemed to the participants to be vague and devious; the participants seemed to resist the findings and their implications. Such divisiveness almost brought this phase of the project to an untimely death. The second session was highlighted by trust: the participants saw the researchers as having greater clarity and directness; the researchers sensed a participant atmosphere of acceptance and concern for utilization. It brought new life to feedback efforts; it created new degrees of involvement, commitment, and plans for future work together. A chronology of events in the two sessions follows.

RESISTANCE AND DEATH
In a planning meeting with the research staff, the assistant superintendent had asked that findings be fed back to his staff of principals. The researchers came into this first meeting with their own priorities and evaluations about the importance of feedback and research utilization. They also had invested considerable energy, time, and professional concern in the project. They had a vested interest in having the project be seen as helpful and successful, both by practitioner-clients and by fellow scientists. Since their own values, skills, and egos were involved, they had personal as well as professional concerns to be seen as helpful and to be listened to and accepted. Moreover, the researchers were aware of the gap between themselves and practitioners; they realized they might be seen by teachers or principals as "out of touch with reality." These conditions may have caused some wariness and defensiveness on the part of researchers in feedback situations.

In this specific situation the researchers had little notion of the principals' expectations or predispositions. Undoubtedly the reverse was true as well. The discomfort and/or resistance

of the principals was clear at the outset of the first meeting: several persons were late, and some verbalized their reluctance to give up this time as they were "very busy people." The meeting was finally called to order about a half-hour late by the assistant superintendent. The introductions were barely over when coffee and rolls arrived, and there was further delay, which caused several principals to look at their watches and remark that they should return to school. There were also some indications that this was a threatening situation; several principals joked about being able to "see what my teachers said about me" and to "find out how good the rest of you guys are."

Presentation of Data The researchers then presented cross-system data on teacher attitudes and feelings. Principal resistance arose quickly when several questioned the validity of these findings. They said defensively that many teachers were not clear about the purposes of the project or questions at the time the original questionnaire was completed. The researchers presented other data which corroborated these findings, but this did not reduce the principals' resistance. The researchers continued by reporting findings regarding a positive relationship between teacher membership in small informal groups of colleagues and innovation and then asked the principals to take the next step, to answer the question: "What implications does that finding have for your behavior as a principal?" It became clear very quickly that these principals doubted the validity of the question *and* the findings; in addition, they were unclear about its relevance to their own particular school situation. Finally, they felt they should be getting answers now, not more questions.

Avenues of Resistance Most of the principals did not feel that a report of data collected from all four school systems was useful to them. If they were to consider any data at all, they wanted the facts on their own individual schools. When the question of confidentiality was raised, it was generally agreed that the individual school approach might reveal how individual teachers felt about their colleagues and principal. While this might have been useful knowledge to the principal, it would have violated the original confidentiality agreement between the teachers and the researchers. The principals then insisted that at least they receive data on their own school system compared with other systems.

The researchers agreed to return with the comparative data in two weeks.

It was also clear that the principals did not want to invest energy in working on the questions and implications posed by the researchers. Throughout their own schooling, as well as in their later relations with educators and scientists, these practitioners were accustomed to hearing unambiguous dogma about the "rights" and "wrongs" of teaching and administrative styles. Such a frame of mind worked to the detriment of an explorative and experimental approach to educational management. Some of the principals were confused, bewildered, and insecure when the researchers did not come forth with specific and clear answers about what to do. When the researchers explained that science does not necessarily have clear answers for action, and that answers may come out of the joining of the partial knowledges of scientists and practitioners, they were not put at ease. Such a direct attempt at collaboration placed a burden of self-involvement and self-responsibility upon the principals for which they were unprepared and which they could not handle. Some principals perceived this collaborative approach on the part of "research" as a sign of failure and/or weakness; it might also have been seen as proof of the tendermindedness of the scientist and as one more demonstration of the nonutility of intellectuals in a practical enterprise. By some critics it was seen as a manipulatory device, in which scientists with the answers withheld them and thereby used others as guinea pigs for experimental, evaluational, or self-enhancement purposes.

The resistance on the part of the principals appeared to be based partly on the history of what they felt was an unproductive association from the beginning. In the project's early stages the research staff were able to work without agreement about ultimate direction and goals because they were confident that such ambiguity would be clarified by the initial research and field developments. For teachers and principals, however, such vagueness was quite unsettling. It made some feel that the project was frivolous and a waste of their time. For others it was seen as the intellectual's "dodge," and the research staff were seen as devious in their lack of frankness with practitioners.

Many practitioners were sure the researchers must have clear goals; therefore, public unclarity could only mean they were once more being used as guinea pigs. Thus began and continued a subtle posture of mistrust. Concerns about trusting intellectuals and being used were joined when the research staff was asked belligerently: "Who is using us for his dissertation?" In such an atmosphere, it was difficult to explain how any usage of these data could improve the quality of professional activity and thereby justify teachers' involvement.

It was clear that these feedback activities were not being conducted—*could* not be conducted in a vacuum. The history of the schools' relation to the research project had already predisposed some principals to respond negatively to the data. They had often met before, and they constituted a small social system with their own unique history and traditional patterns of relationships. The assistant superintendent, for instance, while going out on a limb to set up the meeting, was not prepared to risk any more of his power in defense of the researchers when the going "got rough." The researchers' entrance into this ongoing social system provided a focus for some previously unstated issues. Some of these issues concerned the principals' relations with one another, but others directly concerned their common relation to, and experience with, the research project. A year ago these principals held a meeting, the primary purpose of which was to confront the researchers with their dissatisfactions and to withdraw their school system from the project. After considerable discussion and expression of feelings, however, they agreed to allow their school system to continue. It was the voluntary character of this researcher-practitioner relationship that permitted the principals' interest in withdrawal to be a meaningful and threatening resistance. In a nonvoluntary or coercive relationship the practitioner would not have had such power over the typically higher-status scientists who had been sanctioned by top administration. Despite these clear warnings, the project staff apparently continued to fail in the attempt to alter their approach and heighten their rapport with these practitioners.

One of the basic problems was a misunderstanding about the aim of the project. To the researchers it was a means of study-

ing the *process* of sharing teaching practices. Many principals and teachers saw it as a means of getting a list of effective teaching practices that they could diffuse to their staffs. Because the project was also a unique attempt by researchers to stimulate teachers to examine their own sharing processes without waiting for direction and approval by their administrators, some principals and administrators defined their role as "hands off" this so-called "teacher project." This, in turn, was interpreted by the teachers as lack of support and, in some cases, clear disapproval, of the project. As a result, many teachers withdrew until the administrative support pattern was clear.

Even though some of the teachers and principals had specifically asked for feedback of the data collected in their school systems, there are skills in receiving feedback that these practitioners had not had an opportunity to learn or practice: a true care and concern for information, a willingness to listen openmindedly, and an ability to translate the findings into action. Initially, it was difficult for the principals to be nondefensive and nonjudgmental about the data. Some did not even accept teachers' feelings as valid concerns. Many found it difficult to see how these data were relevant to their particular situations and what they could do to increase innovation and diffusion of teaching practices in their own systems. These feelings increased their dependence on the researchers, which in the long run had the disadvantage of leaving them even more uninvolved and uncommitted to the research conducted in their own schools. It also placed the source of initiation and stimulation for change outside themselves, facilitating denial of and apathy about change.

Promising Signs In spite of all the above forces and events inhibiting collaboration and in spite of some efforts to negate the data, there was considerable curiosity among principals about the data. Some practictioners expressed their ambivalent feelings by insisting on accepting only those research data that were separated from the other three school systems and not "lumped together." This stipulation might be interpreted as a way some took to evade the data and terminate the meeting (since the researchers had clearly come prepared only with combined data), or it might

be seen as a genuine belief held by each of these principals that his school system was different enough to warrant presentation of separate data. In any case, the researchers saw this as a reasonable and fruitful request.

Many of the resistances described above became public in openly aggressive and hostile reactions during the meeting. It was evident at the end of the session that the principals felt some concern or guilt about the manner and style of some of these aggressive reactions. They took extra care to assure the researchers that no personal animosity existed, but rather that they were responding to their feelings about the project! The researchers replied that they understood that this was the case, took no personal offense, and had rather enjoyed the brisk give-and-take. It may be that neither researchers nor principals wholly believed this disclaimer; in any event, it appeared that some residue of guilt remained about the interaction during the meeting.

Whether through guilt, genuine concern, or courtesy, the principals agreed to meet once more with the research staff. The principals stated the conditions of continued collaboration clearly: "Either we see the next session as fruitful for us and potentially so for our teachers or we withdraw from continued participation in the project." But some new directions were equally clear: they were to look at some comparative data in the hope that these would be most relevant and useful.

ACCEPTANCE AND LIFE The content and atmosphere of the second session grew out of the mandate and interpretation of the first session. In addition, all plans for this session were screened and cleared with a member of the principals' group prior to the meeting.

The session started with a good omen: it began more promptly than the previous meeting, amidst smiles and warm greetings. The researchers opened the meeting with a review of the prior session. They then proceeded to clarify their feelings about the need for social scientists to collaborate with skilled practitioners in the attempt to make sense and use of research findings. The principals were identified as expert partners in the process. It was made very clear that there was no dogma to share, but that there was a series of propositions and findings on which the group could work. The collection

and interpretation of data were presented as merely initial steps in the scientific improvement of education. The critical steps of deriving action-implications from these data, testing them out in change efforts, and evaluating them still needed to be undertaken.

The researchers came supplied not only with the separate data for this particular school system but with findings and raw data scores on all scales and items. The research findings were presented in much the same manner as in the first session, except that in all cases comparisons were shown among the various school systems. Where pertinent, the range of responses in schools was delineated and some comparisons were drawn between the elementary and secondary schools.

It became clear that although this school system in some cases seemed unique, the differences between it and other systems were really quite minor. Throughout this presentation and discussion, the principals were most attentive and interested. Occasionally they asked for interpretations of the data, and in several instances a round-table discussion of the findings ensued. All participants, including those who had strongly resisted the findings at first, became highly involved in examining the ways these data could be meaningful to them. It was during this session that the principals began to see the relevance of the data for them. The statistical figures seemed to lend more weight to the original findings and facilitated client acceptance. Face-to-face contact with the content of the findings and the lack of "sharable" knowledge about their own situations created the "need to know" on the principals' part. An experimental point of view emerged in which the principals understood the potential utility of the findings in helping them do a better job as principals and in which they helped conceptualize their role in interpreting and applying the data.

Clients Take Responsibility Several times a few of the principals expressed a strong desire to know how their particular staffs felt about them and how accurate they had been in identifying sociometric leaders in their own staffs. Their eager response to the more specific data and their request for more personal feedback indicated that these educators wanted to learn how their own teachers and staff felt. These principals expressed their need for diagnostic

tools to help them learn how teachers felt and to consider the effect this knowledge might have on improving the quality of education. The implication was that if, by some objective measurement, staff members can know how they feel about one another, they could then plan together for the changes that are needed to improve the innovation and diffusion of teaching practices. Other things might need changing, too, and the collection and interpretation of data were seen as part of a general process for influencing and improving the quality of education in a school.

We have mentioned some of the ways in which public expressions of resistance and aggression seemed to lead to guilt reactions near the end of the first session. A residue of these feelings was evident during the second meeting. One principal said, "We sure gave you a hard time last time," and another noted, "You're back for more, hunh?" But these feelings did not appear to block collaboration or listening. On the contrary, conceivably they were partly responsible for everyone's attention and concern for work during the second session. Perhaps after having expressed their negative feelings principals were more prepared to be open about feedback; perhaps a feeling that they had punished the researchers enough created a sense of obligation to listen; perhaps the chaos and floundering of the first session created a concern or regard for information discernible in the second session. In sum, it seems that the problems of the first session were quite instrumental in preparing the researchers and practitioners to make collaborative success of the second session.

Building Trust   Despite the greater degree of receptivity during this session, it is clear that some problems still would need to be ironed out to improve and further the feedback process. First of all, the research staff must continue to make progress in being seen as a trustworthy team and as a source of relevant expertise. Both researchers and practitioners would need to work hard at avoiding the luxuries of presenting or accepting dogma, i.e., the "right" ways. Since the levels of interest or involvement in feedback were not identical for all principals, this group of consumers must also devise some way of managing the few vocal dissenters or resisters in their midst.

During the first session one or two resisters succeeded in de-
fining the group's position. During the second session these
same resisters were less able to influence the entire group. By
this time several members were quite enthusiastic about the
data and wanted to listen carefully. The norms also had shifted
in favor of at least minimal collaboration. Near the end of this
meeting several members, as well as one of the researchers,
made direct confrontations with these resisters. They were
asked at least to let others listen even if they personally were
critical. The rest of the members defined and articulated the
group's interest, while permitting individual principals the
freedom to become more or less involved, as they wished.

Another problem was posed by some principals who wished
to become *more* involved and to receive *more* feedback. Since
it seemed that the most specific data were the most helpful,
how could specific data be fed back to principals yet not violate
the standard of confidentiality established with teachers? One
solution was to make the issue public and ask the teachers' per-
mission to share the data with the principal in question. How-
ever, this approach still carried implicit coercive power and
asked for new ground rules to be set in midstream. An alterna-
tive solution was to collect new data and to be explicit about
the uses of these data at the time of collection. At the close of
the second session several principals decided to proceed with
the latter alternative. They invited the research staff to assist
them in the construction of new instruments which they them-
selves could administer to their staffs. Several other principals
decided that an initial step would be feedback to their staffs
of some of the data already collected. Arrangements were made
whereby members of the research staff would visit these
schools and provide feedback to teachers. Then teachers and
principal would decide together on the potential utility of fur-
ther data collection, further discussion, and further collabora-
tive efforts for changes in their mutual relations and profes-
sional activity. The remaining few principals appeared to de-
cide to wait, to watch and see what kinds of events and prog-
ress, if any, took place in these initial "test" schools.

A final problem confronted during this second session, and
one that will become more important with the extension of ad-

ditional diagnostic and change designs, was the character of the personal relationship between the research staff and the practitioners. Every researcher attempting to provide feedback does so in his own unique style, emphasizing variables and making interpretations most interesting or important to him. He thereby establishes his own particular relationship with the client population. This issue was highlighted in the second session when principals were interacting on a personal level with the researchers. (We have already alluded to the potential interpersonal consequences of aggression and guilt feelings.) Furthermore, on several occasions principals referred to past difficulties in adjusting to the personal styles of researchers and staff members. As research staff members are used interchangeably, we shall run the risk of not taking advantage of a reservoir of trust and shared personal intimacies between researchers and practitioners. On the other hand, a long and intimate relationship with one researcher will increase the potentiality that client action is an outgrowth of interpersonal influence and dependency relations, and not of rational considerations of empirical data, feedback, and interpretations.

CONCEPTUALIZING THE FEEDBACK PROCESS As we review the events and descriptions of the two meetings held with principals, certain major themes seem to stand out clearly. Broad patterns of collaboration and resistance to collaboration can be discerned, and more specific relationships are delicately woven into these patterns. Many of these phenomena can be dramatized in the following field of forces, representing those personal and situational variables affecting collaboration in the feedback process. Some forces appear as both facilitators and resistors of collaboration, others as either one or the other.

It is clear from the description of the two sessions that some of the forces were modified from the first to the second meeting with the principals. As Jenkins (1961) points out, a field of forces can be modified by (1) reducing or removing forces, (2) strengthening or adding forces, and (3) changing the direction of forces. Let us review some of these changes.

In order to gain entrée into any practitioner group, the scientists or consultant team must establish a contract delineating the congruency of concern between themselves and the practi-

FIG. 1. *Force Field of the Posture of the Principals on Collaboration over Feedback*

Forces Promoting Collaboration		Forces Resisting Collaboration
1.		← Unclarity about what we are doing
2.		← Unclarity about what role I am to play
3. Teachers' feelings are valid	→	← Teachers' feelings are irrelevant
4.		← Concern with time being wasted
5. Trust in science and scientists	→	← Scientists manipulate and use people
6. Data clearly interpreted	→	← Unclarity about meaning of data
7.		← Data not relevant to my school
8.		← Data not useful to our change efforts
9. Criteria variables of data clear	→	← Data not meeting our needs
10.		← Data not validly collected
11. Superintendent is involved	→	
12. Guarantee of safety	→	← Threat of exposure
13. Desire for school improvement	→	← Satisfaction with status quo
14. Desire for personal growth	→	
15.		← Quest for dogma
16. Leftover feelings about session	→	← Leftover feelings about project
17.		← Noninvolvement in planning sessions
18.		← Scientists are pompous
19. Information interesting	→	
20. Scientists are experts	→	← Scientists are not experts in education
21. Scientists need practitioner help	→	
22. Saw article describing project in *NEA Journal*	→	

tioners. This contract, represented by forces 1 (goal clarity) and 2 (role clarity), pertains both to the publicly noted existence of a need or problem that requires work and to the roles that the collaborators will play. We have discussed some of the problems encountered when various members of the practitioner team defined the character and strength of their needs differently. These confusions were, of course, magnified when there

was a lack of clarity about the researchers' style and intentions. It took almost two years of project work and most of two intensive feedback sessions to clarify the role of the scientist as collaborator, neither as giver of dogma nor as manipulator of principals. Once clarified, the resistant strength of forces 1 and 2 (see Fig. 1) was considerably diminished.

The lack of role clarification also contributed to problems of scientist-practitioner trust. Force 5, having to do with basic trust in scientists, existed as promoter and resistor from the beginning: some principals trusted the scientists and others doubted their intent and goals. Our experiences stress the need for the scientist to inquire into his own and the practitioners' motives for entering this relationship. As we have discussed, these motivational inquiries are essential for the clarification of each party's expectations. The attempt to proceed publicly with such inquiry enhances the possibilities of establishing truly mutual expectations and a climate of trust. The collaborative aspect of force 5 (trust in scientists) strengthened over time, as more, although not complete, trust was developed. Forces 18 (scientists' perceived pompousness) and 20 (scientists' perceived expertise), also pertinent to scientist-practitioner relations, were substantially changed by the second session. The mutual experience in failure and then in success, as well as the increasing humility of all persons faced with making specific interpretations, helped reduce these forces. Other forces that were reduced by the expression of feelings and probings of roles during the first meeting were 12 (threat of exposure), 15 (quest for dogma), and 16 (leftover feelings). Forces 16 (leftover feelings) and 17 (noninvolvement), essentially related to the practitioners' needs for involvement, were reduced between the two sessions. As the research team made these adjustments, they also strengthened forces 19 (data interesting), the collaborative aspects of 12 (safety), 9 (clear goal criteria), and 6 (interpretations). Force 21 (need practitioners' help) was added by the second meeting. It is possible that 16 (leftover feelings) changed direction, and that as a result of the client's expressing negative and hostile feelings and having a sense of guilt or obligation, it now became a force promoting collaboration. Force 7 (data not relevant) also began to change

direction, and with continued discussion of the relevancy and implications of the data, forces 8 (data not useful) and 6 (data meaning unclear) began to change also. It is assumed that new resistant forces would have developed as feedback became more intensive and the realities of change more imminent!

This discussion suggests not only the forces operative in two feedback sessions but it highlights the way in which these forces changed from one session to the next. Although some of these changes occurred as a result of new practitioner attitudes and behavior, many were the result of the scientists' initiatives. What are the considerations that promote or inhibit the scientist's ability to move in this collaborative direction? The following field of forces represents some of the personal and

FIG. 2. *Force Field of Scientists' Alternatives on Collaboration over Feedback*

Forces Prompting Collaboration		Forces Inhibiting Collaboration
1. Contract to help client change	→ ←	Desire to change client in certain ways unilaterally
2.	←	Unclarity about goals
3. Public sharing of hopes	→	
4.	←	Give client the dogma
5. Openness about past failures	→	
6. Share ignorance as well as knowledge	→	
7.	←	Accept client dependency
8.	←	Time and energy demands too great
9. Survey client needs	→	
10. Have client take responsibility	→ ←	Take responsibility wholly oneself
11. Joint planning of sessions	→	
12.	←	Abstract form of data presentation
13.	←	Uncertainty about meaning of data
14. Provide skills in getting and using data	→	
15. Invite client collaboration	→	
16. Plan clearly for future relations	→	
17.	←	Desire to look good to colleagues

situational conditions affecting the scientist's collaboration in the feedback process.

As we have described, significant reductions were made in forces 4 (giving dogma), 7 (client dependency), and 12 (abstract data) by the initial research posture. The team of scientists had previously committed themselves to resisting the principals' dependent request for "right" and "wrong" ways of truth. Moreover, the constant concern for concrete illustrations and examples, as well as the increasing relevancy of the findings to immediate situations, kept all participants from flights to the abstract. Between the first and second sessions the scientists were able to add forces 3 (shared hopes), 9 (survey client needs), 10 (client takes responsibility), 11 (joint planning), and 15 (invite collaboration). All of these forces pertain to greater honesty and joint responsibility.

It is interesting that several forces—4 (give dogma), 7 (client dependency), and 10 (scientist take full responsibility) —often appear to scientists to be facilitators of collaboration. In fact, they are not. In strengthening these forces, the scientist plays right into evasive and nonresponsible client patterns of defense and resistance. Only by reducing these tempting forces can the scientist engage in meaningful collaboration and strengthen the positive aspects of force 13 (meaning of data). It is not mere intellectual jargon that creates this distinction; it is simply that system change does not come about without full utilization of the intellectual resources and experience of the practitioner, as well as the research interpretations and intellectual skills of the scientist. Without such a focus upon collaboration, attention is likely to be temporary and changes are likely to be illusory.

SOME RULES OF THE GAME: A SUMMARY From our experiences as participants and managers in feedback situations and from reviews of the literature pertinent to such situations (Glidewell, 1961; Gouldner, 1961; Lippitt, 1961; Mann, 1961), it appears that the following series of guidelines point the way to success in such planned intervention with educational systems. They are organized in the grammar and terms of conditions the participants can create or change.

1. *Client preparation and contract formation*

. . . in which there is client acceptance of the consultant and his scientific instrumentation and methodology

. . . in which there is a clarification and establishment of mutually acceptable expectations and plans for feedback sessions

. . . in which client and consultant check their concerns about each other and other elements of the client system

. . . and in which both give up the search for dogma.

2. *Establishment of trust*

. . . in which the scientist understands and clarifies his own values and his basic acceptance of the client's abilities and concerns

. . . in which the scientist feels free to "tell the truth" instead of "managing" the findings

. . . in which the client examines his faith and checks that the scientist has true concern for his welfare

. . . in which intrateam as well as interteam trust is built

. . . in which neither scientist nor practitioner requires that sessions proceed only according to his inflexible demands

. . . and in which there is some guarantee of practitioner safety and security to permit dealing with sensitive issues.

3. *Demonstration of valued resources*

. . . in which the scientist presents data or interpretations that are tied to relevant and observable practitioner criteria

. . . in which the scientist presents data about the self or self-system of the practitioner

. . . in which the scientist presents data and/or interpretations that the practitioner can do something about

. . . and in which the practitioner lends his skill to data interpretation or derivation of change implications.

4. *Facilitation of autonomy*

. . . in which collaboration and helping, not direction and dependency, are brought to fruition

. . . and in which the practitioner is further provided with skills and interests to proceed either on his own or to new patterns of collaboration.

None of these guidelines guarantee the eventual utilization

of feedback; they do prepare the way by facilitating collaboration in presenting and listening to feedback. These are the intermediate steps between producing research findings and actually utilizing or applying them in change. Perhaps they can be thought of as the transmission-reception system in a continuous communication network. Success at this stage of a project will make it easier for scientists and practitioners eventually to apply and to utilize research for social and educational change.

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ENCORE   *... Hegesias once begged Diogenes to read a certain book. "You are jesting," Diogenes replied, "surely you prefer real to painted figs—why then don't you choose living lessons rather than written ones?"*
—MICHEL DE MONTAIGNE *(1533-1592).*

ENCORE   *When I walk up the piazza of Santa Croce I feel as if it were not a Florentine, no, nor an European church, but a church built by and for the human race.*
—RALPH WALDO EMERSON. *Journal*, 1833. Copyright 1909 by Edward Waldo Emerson.

ENCORE   *Successful organisms modify their environment. Those organisms are successful which modify their environment so as to assist each other.*
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