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ABSTRACT

Change in social systems is often stimulated by individuals or groups of individuals who effectively link practice institutions, such as school systems, with knowledge producing organizations, i.e., universities. As basic research is developed and applied to practical problems, these individuals act to communicate this knowledge to those who may need it. In some cases, these change agents may also assist potential adopters in the installation of the new idea in their system. This paper investigates certain aspects of the relationship between these change agents and potential adopters. The paper focuses on educational change agents and practitioners in school systems, particularly as they interact to bring about improvements in the functioning and effectiveness of educational organizations. The discussion of the change agent-practitioner relationship is prefaced by an overview of some educational diffusion concepts. (Author)

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CHANGE PROCESSES IN EDUCATION:  
SOME FUNCTIONAL AND STRUCTURAL IMPLICATIONS

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Change Agents and Social System Change

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### Educational Diffusion: Some Underlying Concepts

The underlying concepts and terminology incorporated in this review of the change agent-practitioner relationship are consistent with the concepts developed in the educational diffusion and change research tradition. The concepts and technical terms have been developed by and/or utilized by a number of research groups, including The Center for the Advanced Study of Educational Administration, the National Educational Association, and the Center for Research on Utilization of Scientific Knowledge, among others, and for specific change projects, for example, the Cooperative Project for Educational Development (e.g., see Guba, 1968; Havelock, 1968; Jung, 1967; Lippett and Havelock, 1968; Luke and Mial, 1971; Miles, 1964; Rogers and Jain, 1968; Rogers and Shoemaker, 1971; Watson, 1967). This present paper assumes a research, development, diffusion, and linkage perspective of educational change and does not deal directly with other approaches, such as the political process model.

Implicit in the research and development model of educational change is a rational ordering of certain highly interrelated activities. Guba (1968) hypothesizes a theory-practice continuum which includes the four stages of research, development, diffusion, and adoption. The objectives at each of these stages are: research--"the advancement of knowledge"; development--"the identification of operating problems and the formulation of solutions to those problems"; diffusion--"the creation of awareness about new developments and the provision of opportunities for their assessment along whatever dimensions practitioners may deem necessary"; and adoption--"the adaptation of a development to the local situation and its installation therein" (Guba, 1968, pp. 42-43).

This theory-practice continuum, and variations of diffusion and linkage perspectives, implies the existence of a social system, "a vast network of individuals and groups, which inhibits, filters, and facilitates the flow of knowledge to..." the educational practitioner (Lippett and Havelock, 1968, p. 47). The social system includes: (1) the knowledge resource system, for example, the university, where the emphasis is on knowledge production; (2) the user-system or practice institution, for example, the school system, where knowledge is consumed and put into practice, and (3) permanent linking institutions, systems established to effect knowledge utilization. Connecting these relatively permanent organizations are temporary linking systems, which are indicated by the dotted lines in Havelock's schematic representation of inter-institutional linkage (see figure 1).

#### LINKING INSTITUTIONS: SEPARATENESS AND TOGETHERNESS\*

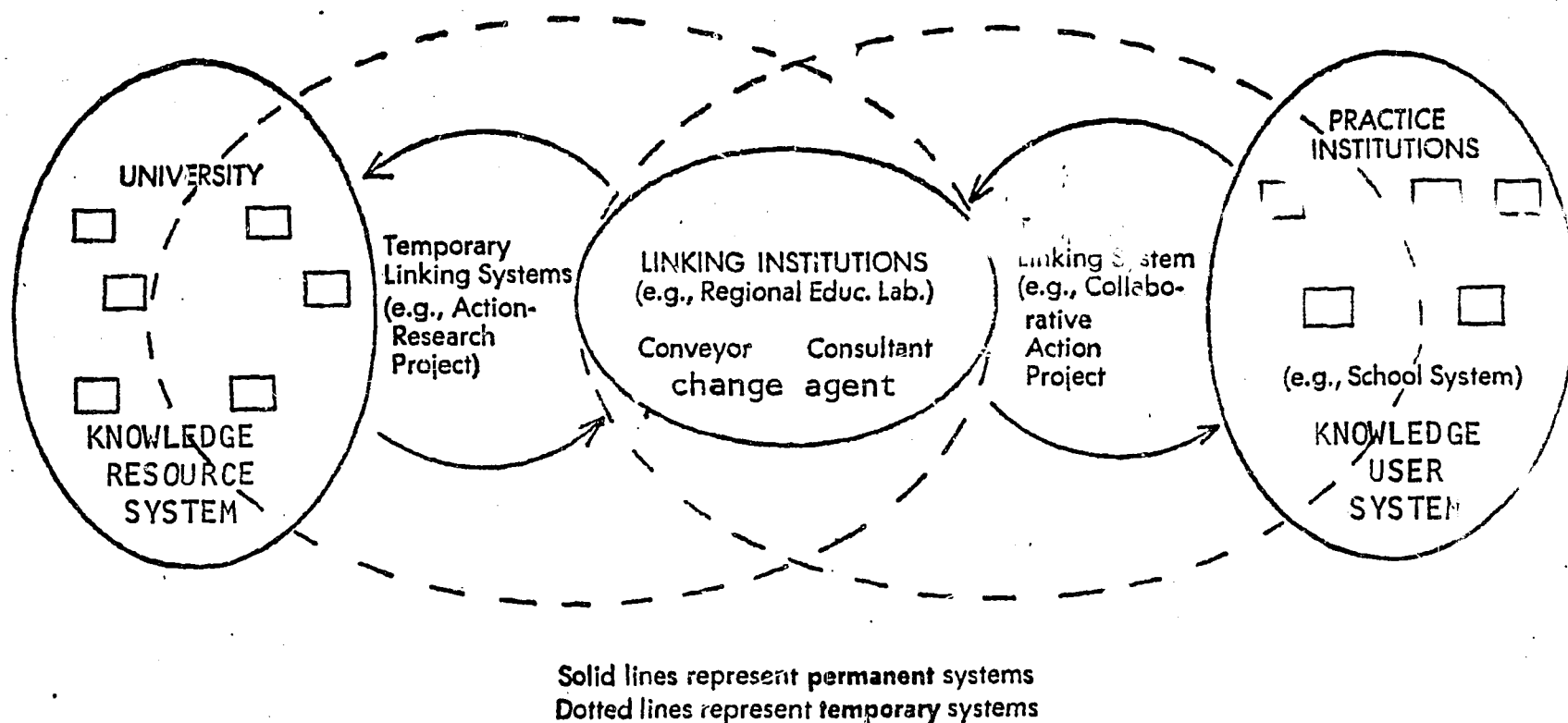


figure 1

\* from Ronald G. Havelock, "Dissemination and Translation Roles," in Eidell and Kitchel (eds.), Knowledge Production and Utilization in Educational Administration, Eugene, Oregon: University of Oregon Press, UCEA, CASEA, 1968, p. 107.

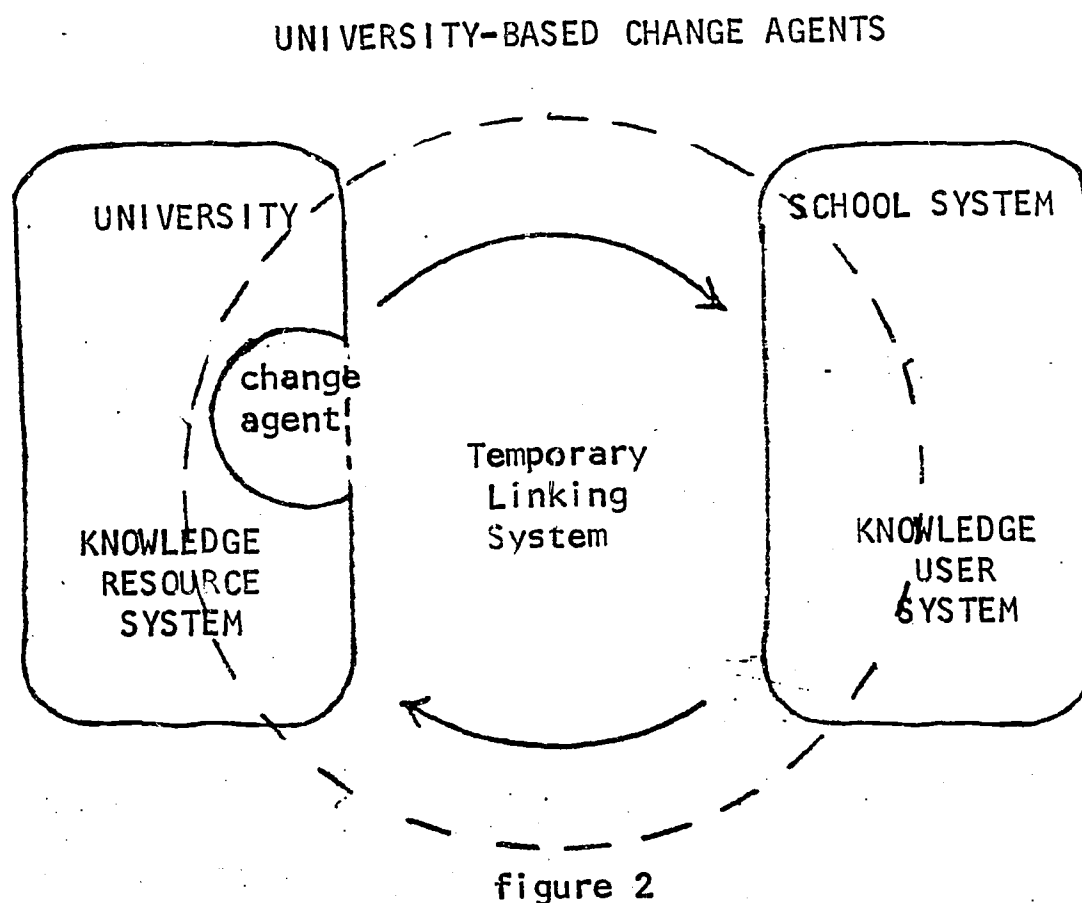
The term temporary system is a "useful designation for the specific project or arrangement into which utilization events and activities are organized, a group which comes into existence to accomplish a specific act such as a training exercise or session, and terminates its existence once that act has taken place" (Lippett and Havelock, p. 50). As members of practice institutions are involved in these projects and activities (right hand side of figure 1), temporary systems refer to the interaction between knowledge linkers or change agents and members of the user-system for the accomplishment of specific system modifications (see Miles, 1964; Watson, 1967).

Knowledge linkers are individuals who assume a variety of roles in maintaining some connection between resource systems and practice institutions. This paper focuses on a specific type of linker, referred to as the consultant or change agent. Change agents, while functioning as a communication link between social systems, specifically assist the practitioner in the identification of problems and resources, in the linkage to appropriate resources, and in the adaptation to change (see Havelock's typology of linking roles, 1968, and Lippett and Shoemaker, 1971, p. 228).

Administrative change agents and change teams are linkers who utilize " ... the theory and methods of the social, behavioral, and management sciences to strengthen the functioning and effectiveness of an organization" (Radner and Coughlan, 1972, p. 18).

In practice, change agents are not always members of a permanent linking institution and concomitantly, linking institutions are not necessarily involved in all temporary systems. In the case of educational diffusion, there are relatively few permanent linking organizations, exceptions being regional educational laboratories and certain commercially-based consulting firms.

Educational knowledge linking and change activities are, to an extent, carried out by members of the knowledge resource systems and practice institutions. Researchers at the university level sometimes assume development and diffusion activities in addition to their knowledge production functions. For example, university specialists initiate and participate in action-research projects and effectively link school systems with the research community (see figure 2).



Change agents are sometimes located within the user-system, for example, in Research and Development departments within large school districts. Additionally, educational administrators may act individually or as a team to facilitate communication with resource systems and bring

about change in their schools (see figure 3). In a sense, the resulting temporary systems and change projects are internal to the user-system. However, to the extent that the internal change agent keeps in touch with the research community and "transmits" new developments to other members of his school system, the temporary system implicitly includes the resource institutions.

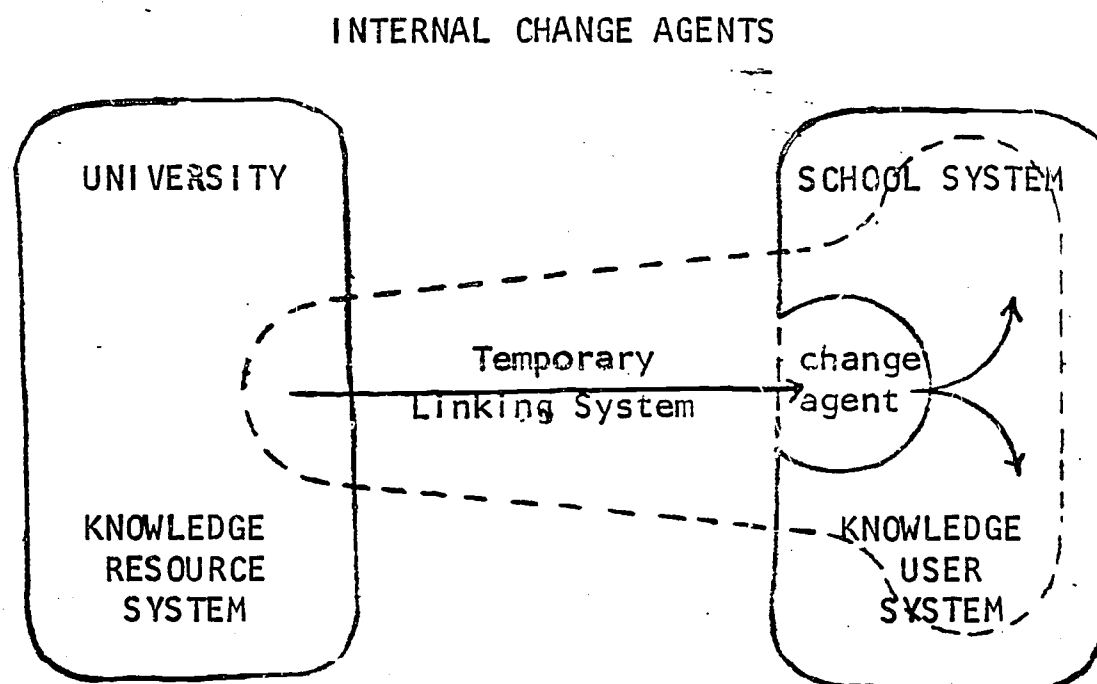


figure 3

In this paper, certain characteristics of these educational temporary systems and the change agent-practitioner relationship are examined. The systems are investigated in terms of four organizational behavior and social psychological considerations. The first section, Temporary System Equilibrium, directs the March and Simon (1958) organizational inducement-contribution theory to temporary system members. In this section, the factors which motivate potential change agents and practitioners to participate in temporary systems are reviewed. Trust in Temporary Systems, the second section, applies a tentative model of the trust relationship



to the agent-practitioner interaction. The focus here is on the extent to which educators are willing to cooperatively interact with certain change agents to bring about modifications in their schools. Next, mutual Stereotypes in Temporary Systems are examined and possible means for favorably changing inter-group attitudes are presented. Finally, Temporary System Structure is briefly examined, and dimensions for the structural analysis of these systems are presented.

In practice, these various considerations are highly interrelated and not easily separated. However, in this paper, an attempt is made to examine these four characteristics somewhat independently of one another. As this is accomplished, it becomes possible to generate some uncomplicated propositions for each concept.

#### Temporary System Equilibrium

The durability of relatively "permanent" organizations is dependent upon the ability of those systems to offer participants inducements which are perceived to be as great as or greater than their perceived individual contributions (March and Simon, 1958). To a certain extent, the motivational theory of organizational equilibrium is also applicable to less permanent organizations. Temporary system equilibrium implies that change agents and members of knowledge using organizations perceive sufficient inducements from varying sources to continue their interaction until the project is successfully completed. In this section, the nature of temporary system members' contributions will be discussed in terms of perceived funding sources and change initiation. Additionally, other motivating factors which influence individuals' propensity to participate in temporary systems will be noted.



Source of Inducements and the Change Agent. Various inducements motivate change agents to contribute to the functioning of temporary systems. As in more permanent organizations, financial incentives are important. Such inducements may be received directly from a permanent change agency or linking institution or indirectly from the user-system, a government agency, or an independent foundation. We postulate here that: the perceived source of incentives, financial or otherwise, affect the nature of the agents' interaction with his clients (e.g., his commitment to and identification with the user-system), the proposed innovation, and the inducing organization.

Temporary systems are unique organizations in that members are often induced to contribute in exchange for incentives provided from outside the temporary system. In the case of change agency initiated linkages, the contributing source may be the university, a private research foundation, or an Office of Education division. The client, the organization providing the necessary inducements, is actually the funding agency rather than the user system. As such, the agents' contributions are possibly structured to meet the demands of the funding agency more so than the demands of the user-system. The change agents' interest becomes primarily focused on the immediate specific instance of change and the short-run consequences; his interest in the specific schools participating in the program may be secondary. For example, as the Federal Government has increasingly stressed the need for evaluation in government funded programs, agents have responded by devoting more time to program evaluation. However, as the agents become more concerned with evaluation research and the collection of data, they have less time to deal with the day-to-day practical problems of the program as experienced by the user (see Weiss and Rein, 1971). This is not to say that funding agencies and client systems don't have common goals.

Linkages and temporary systems initiated by the user system result in a different set of circumstances than when agents initiate the linkage. The user system is the client providing the inducements for the temporary system members, even if the program is given some external financial support. As the change agents' contributions are somewhat specified by the user-client, his interest may focus more equally between the innovation and the user. Though there is presently little empirical support for this, it may be hypothesized that as the user, rather than the linker, initiates the interaction, the change agent identifies more closely with the user system and is more concerned with the practical problems of implementing the change.

Source of Inducements and Members of the User-System. Members of school systems may perceive little, if any, inducement to participate in temporary systems. As the literature in education has indicated, school administrators are possibly motivated to avoid change and, instead, maintain the working equilibrium (Spindler, 1963; Gallaher, 1965). As will be noted later, however, school personnel are motivated to interact with change agents for a number of reasons. And as in the case of the change agent, the nature of school personnel's contribution to temporary systems is related to initiating and funding factors.

Thus, another hypothesis is that educators will perceive greater inducement to participate in temporary systems when the interaction is initiated by someone within their system. On the other hand, as primary funding and initiative shifts outside the user-system, those inducements actually provided by the school are less likely to function as incentives to participate in the temporary system.

Regardless of the source of program funding, school members' acceptance of their temporary system roles probably increases as their influence over the decision to participate increases. Cooperative interaction in temporary systems is dependent upon early participation on a voluntary basis at all organizational levels (see, for example, Bennis and Schein, 1965; Miles et. al., 1967). However, in view of the structural characteristics of many schools and the stability orientation of school personnel, as school members' influence over the decision to participate in temporary systems increases, the school's propensity to initiate temporary systems may decrease.

As educational administrators become increasingly change oriented and as school systems become more structurally organic, participation in temporary systems will be accepted by school personnel as an expected and regular contribution. As this occurs the Office of Education or the National Institute of Education could provide indirect funding for school district initiated temporary systems to bring about further improvements in organizational health. The nature of temporary system members' interaction could then be more closely studied, comparing school initiated systems to change agent initiated linkages. At present, however, it seems that agent initiated interactions, with early and intensive user participation, will result in more frequent linkages with relatively high user cooperation.

It cannot be assumed that change agents and user-system members are motivated to interact primarily by financial or material incentives. There are a number of other factors, directly or indirectly related to the change process or the interaction itself, which induce individuals to participate in temporary systems. The nature of these other perceived inducements, to be discussed below, is greatly determined by the individual's personality characteristics and organizational identifications.

Motivation and the Change Agent. It is suggested that potential knowledge linkers, particularly at the university level, perceive relatively little inducement to participate in temporary system activities. University-based specialists concentrate on the production of, rather than the utilization of, knowledge. The contributions of these individuals are measured in terms of technical publications generated rather than in terms of the number of practitioners informed or assisted (see Mackie and Christensen, 1967). As a result, pure dissemination activities on the part of university personnel account for a small proportion of their total activities; and the nature of their temporary system contributions are strongly influenced by the demands of their other activities.

For example, members of the university community often desire to subject their theories to reality-testing and improve theories on the basis of practical considerations. As such, these individuals are motivated to participate in action research projects. Though these projects do serve as a mechanism for the linking of researchers and practitioners, the nature of the change agent's contributions are structured on the basis of his perceived inducements. "Here the programs and change activity is experimental and the researchers involvement, at least initially, is restricted to evaluation and creating instruments and a design which allows for evaluations" (Havelock, 1968, p. 7-33). The functional consequences of action-research and large scale experimentation have been eloquently noted as they relate to the effective dissemination of new knowledge (Jacobson, 1962) and the justification of new programs and public accountability (Campbell 1969; Suchman 1967). On the other hand, the applicability of the experimental method to large-scale programs has been questioned (Weiss and Rein, 1971) and the resultant tension in the researcher-practitioner relationship noted (Schulberg and Baker, 1968; Rodman and Kolodny, 1964).

There are other motivating factors, which may have less influence on the nature of the interaction, related to an individual's propensity to participate in temporary systems. University- and change agency-based personnel may be motivated to participate in these systems to increase their status in their respective communities. Papers on temporary system activities and evaluations of change and development programs account for an increasingly large proportion of articles in various organizational behavior, educational administration, and behavioral science journals. As the researcher is motivated to increase his status in this manner, the number of temporary systems he participates in will necessarily increase. Similarly, researchers may be motivated to establish their reputations among practitioners and be recognized as a leader in educational organization development.

An important set of factors which motivate individuals to assume the role of change agent are intrinsic to temporary system activities. Certain university-based individuals may be field research rather than, or as well as, theoretically oriented. An entire department may also be oriented in the direction of field research or action research and, as a result, interact with accessible school districts on an ongoing basis.

Change agents are probably motivated to continue and increase their contributions as the temporary system's effectiveness increases. Rogers and Shoemaker generalize that change agent effort and change agent success are positively related, but note, in speaking about causal relations, that it is possible that increased change agent effort results from a rapid rate of adoption (Rogers and Shoemaker, 1971, pp. 233-236). What starts the ball rolling in the first place? Maybe the change agent "thinks" the adoption is due to his efforts but in fact initially the change in adoption

rate is due to some other factor. However, because of this misconception the agent thinks he is doing well, tries still harder and hence does do well. Accordingly, it is hypothesized that as a change agent experiences success in developing an educational organization, he will be motivated to increase his contribution to the temporary system.

Motivation and Members of the User-System. School administrators perceive fewer inducements than change agents to initiate or participate in temporary systems. The practitioner may consciously avoid temporary system activities for a number of reasons, many of them sound reasons. In addition to his desire to maintain the school's working equilibrium, administrators often feel that the school cannot afford the time to participate, that unfavorable findings will be disclosed, and that improvements in the school will not equal the contributions made by school personnel. However, numerous administrators have permitted researchers to include their schools in samples and have initiated and participated in temporary system activities. There are a number of individual characteristics and properties of system change which account for this propensity to interact.

As superintendents, principals, and teachers increasingly perceive themselves as being innovators, their motivation to participate in temporary system increases. There is some indication that innovative superintendents are aware of their adopting characteristics: "... they exhibit greater accuracy in the judgment of their rates of adoption..." than do non-adopters (Carlson, 1965, p. 65). Cognitive consistency theory suggests that these innovating superintendents would be further motivated to increase their participation in temporary systems. Other administrators may want to become an innovator or establish their reputation as an innovator, and as a means to this end, increase their interaction with



change agents. School personnel will be similarly motivated if they want to establish themselves as "information reservoirs" or their schools as "educational showcases."

Many school administrators are, of course, committed to improving their school's ability to interact effectively with its environment and to innovate more efficiently. As change agents and organizational development strategies are perceived to be relevant to the school's needs, these administrators will be motivated to initiate and contribute to temporary system activities. Administrators who observe successful change agent activities in other schools will be further motivated in this direction. Upon completion of a recent action research project (Coughlan, Cooke, and Safer, 1972), control school administrators and faculty representatives requested that their schools be the focus of future organization development programs. Aside from increased observability of the results of the interaction, the motivation of these individuals possibly increased as a product of competitive, conformity, or "bandwagon" factors.

There are a number of factors inherent to temporary system activities which may motivate user-system members to continue and increase their participation. For example, as the change activities are perceived to be consistent with organizational goals and functions, motivation will increase. High perceived participation in a productive and effective development program will have a similar effect. Furthermore, to the extent that change involves bringing about something that did not exist before, creativity is implied. This may appeal to uncreative as well as creative individuals and increase their interest in the activities.

Temporary systems and program change are often associated with dysfunctional transitional consequences, such as organizational disequilibrium (Hage and Aiken, 1970, p. 100). It is hypothesized here



that change programs, particularly organization development strategies, also bring about functional transitional consequences. For example, most organizational development strategies stress early technical core involvement and high participation in decision making. As technical core members perceive greater participation and collectivity in organizational decision making, the new situation is easily contrasted to the previous, possibly authoritative, decision structure. The implication is that satisfaction may be greater in a newly-democratized organization than in an on-going democratic system because in the former case, individuals can more readily compare their new status to a recently-experienced, less desirable situation.

A second functional transitional consequence of temporary systems is related to the Hawthorne effect: as organizational members are chosen for observation and experimentation, the members feel honored, identify with each other as a close work team, and increase productivity (see Roethlisberger and Dickson, 1939). While this effect sometimes presents problems in the evaluation of strategies, it also implies that the organization development process will be enhanced by an ancillary increase in cooperation. It is proposed that these transitional consequences will increase user-system members motivation to participate in the temporary system.

#### Trust in Temporary Systems

The ingredient of trust is essential to the effectiveness of any temporary system operating to bring about an improvement in the user-system. Mutual trust is either directly or indirectly related to important aspects of the interaction such as credibility, openness, cooperation, and the eventual acceptance and adoption of the innovation or development program. It has often been noted, unfortunately, that this element is missing in many researcher-practitioner relationships (see, for example, Schmuck, 1969).

An attempt will be made in this section to deal with the relatively abstract concept of trust as it pertains to the change agent-educational relationship. For the purposes of this presentation, trust is described as the user's or client's tendency to cooperatively interact with the agent to utilize that agent's expertise in improving conditions in the school or school system. The user's trust in the change agent is directly related to the extent to which the agent meets the user's expectations along a number of dimensions, and indirectly related to the client's perceived dependency, perceived freedom of the coupling process, and agent-client homophily (Inzerilli, 1970; Cooke and Inzerilli, 1971). This tentative conceptualization of the professional-client relationship, based upon the work of Erickson (1959), Hovland and his associates (1949, 1953), Goffman (1961), and Giffin's review (1967), will be utilized in this section to examine trust in educational temporary systems.

Expectations. Clients' expectations of professionals have at least two components: (1) a normative component related to how the practitioner thinks the ideal change agent should be and (2) an experiential component related to how he thinks change agents are, based on his previous experiences with them. The relative strength of these two components in the determination of the client's expectations is related to the extent to which he has trusted these professionals in the past. In the particular case of the change agent-practitioner relationship, it is possible that the practitioners generally have not trusted the agents. As such, the practitioner's tendency to cooperatively interact with a change agent may be based primarily on the extent to which the agent meets his normative, rather than experiential, expectations.



Research on source credibility has indicated that there are certain communicator dimensions perceived by the communicatee which influence the receiver's perceptions of the speaker's credibility. Exploratory research and factor analytic studies provide evidence that an important factor influencing credibility is expertness or the competence of the communicator (Hovland et al., 1953; Lemert, 1963; King, 1966; Giffin, 1967). A second factor which influences credibility is the speaker's character in terms of the receiver's value system (Giffin, p. 118; see Andersen, 1961; McCroskey, 1966). Other factors include goodwill, the speaker's intention to communicate assertions most valid to the needs of the situation, and dynamism, the speaker's style of presentation (Giffin, 1967). It is hypothesized here that these factors influencing credibility are similar to or the same as the factors along which the practitioner has expectations concerning the change agent. Two of these factors, as they are related to the educator's propensity to cooperatively interact with the agent, are discussed below.

The dimension of expertness or competence includes such factors as experience, training, intelligence, and knowledge (see Lement, 1963). Andersen and Clevenger (1963) conclude that expert opinion is influential in bringing about attitude change and Hovland et al. (1953) assert that expertise is positively related to credibility. The extent to which perceived competence influences the decision to cooperatively interact with a change agent is presently unknown. Possibly more important, there has been little research on the type of change agents perceived to be most competent by practitioners.

School administrators may feel that university-based change agents are more competent in their teaching roles than in their change agent roles. Expertness in one role does not necessarily imply expertness in another role, even if the two are closely related. Sibley's finding that Philippine

villagers do not necessarily accept agricultural innovations disseminated by respected school teachers indirectly supports this proposition (see Niehoff and Anderson, 1964). Educational administrators possibly place greater emphasis on experience than on intelligence or education in their appraisal of change agents' expertness. As such, the educator may feel that the expertness of the university-based agent is not high enough in view of the agent's probable lack of recent experience.

The users' perceptions of change agents who are members of permanent linking institutions will probably be the subject of research as these organizations become a more integral part of educational development and diffusion. At present, the role, the qualifications, and the competence of these institutionally-based agents may be unclear to the practitioner. According to Havelock, "How the linker is judged and how well he is welcomed will depend greatly on the image of the organization of which he is seen to be a part" (1968, p. 104).

Practitioners possibly perceive the competence of internal change agents differently than that of external or university-based agents. Change agents situated within the user-system may be rated slightly higher in experience and slightly lower in theoretical knowledge than the university-based agent. While the internal agent is better able to understand the particular needs and problems of his school district, he is simultaneously removed from the resource institutions. However, understanding of the particular school's situation is probably a heavily weighted factor; practitioners have a tendency to feel that their school is different than all others and that this understanding is necessary (see Watson, 1967, p. 22). However, internal change agents are often situated within Research and Development departments in school systems. In industry, these R and D departments are often so highly differentiated from other departments within the organization that, in the absence of elegant integration, inter-

action may be difficult (see Lawrence and Lorsch, 1967, on differentiation-integration in business organizations).

Educational administrators, as a consequence of their training and their personal characteristics, may be oriented in the direction of flexibility rather than rigidity, collectivity rather than authority, and innovation rather than status-quo. These "change-administrators" may constantly initiate temporary systems to further improve organizational health, to effectively solve problems, and to determine organizational needs. It is possible that these change-administrators are perceived to be more competent and are trusted to a greater degree than external agents by practitioners.

The second dimension to be discussed is that of goodwill and the client's perceptions of the change agent's intentions and motivation. In temporary systems, this dimension encompasses the extent to which the client perceives that the agent has internalized his interests and goals. Hovland and his associates (1953, pp. 23-25) assert that as communicators attempt to persuade or manipulate others, it is perceived that the communicator has something to gain, and his credibility is lowered. Rogers and Shoemaker generalize that the success of a change agent is positively related to his credibility as perceived by the client. It is then noted that "...The commercial change agent's motives, as perceived by his clients, may be one reason for the low credibility they place in his recommendations" (1971, pp. 245-246). The results of two studies seem to indicate, for certain types of innovations and particular clients, that source credibility decreases as its commercial base increases (Rogers with Svenning, 1969; Herzog, 1967). Similarly, Havelock relates credibility to the perceived "legitimacy" of the educational change agent's role. As a change agent is identified with a commercial organization, clients question his credibility on the basis that the agent has something to sell. It is noted:

There is no question that private enterprise should be heavily involved in diffusion to our educational system. It would appear from the above findings that the government would be ill-advised to leave the field entirely, however (Havelock, 1971, pp. 7-30; also 5-17).

As explicated in the other sections of this paper, members of the user-system most likely feel that the motives of university-based agents are not consistent with their own motives. The practitioner often feels that the agent is immediately motivated to produce an article, an Office of Education report, or a dissertation and that the interventionist's interest in the school will terminate "once the book is completed." Agent initiated temporary systems which self-destruct after a one, two, or three year funding period probably reinforce the client's perception of goal inconsistency. On the other hand, university-based agents who maintain an ongoing, long-run relationship with the school district are probably trusted to a high degree.

Perceived Dependency. As indicated earlier, there are three conditional, or possibly intervening variables which potentially influence the extent to which the client will cooperatively interact with the change agent. The first of these variables is the perceived dependency of the members of the user system, which involves:

- (1) The importance of the need as perceived by the user;
- (2) The users' perceived inability to alleviate the need by themselves;
- (3) The extent to which the user perceives that the change agent can help alleviate the need; and
- (4) The users' perceived inability to control the change agent

(adapted from Cooke and Inzerilli, 1971).



Some of these subdimensions will be discussed in the following paragraphs.

As individuals within a school perceive a need or a problem, their propensity to interact with the change agent will increase. This does not imply, however, that members of schools with the greatest needs, objectively defined, will have the greatest propensity to cooperatively interact with the agent. However, if this subdimension does affect the trust relationship, it is implied that the change agent-practitioner relationship will improve as the practitioner is assisted in identifying the needs and problems of the school. The assumption is that needs cannot be perceived as important until they are properly specified.

Organization development and change implementation strategies emphasize the discussion of and identification of the client's needs at the early stages of the intervention. Argyris's first level dialogue between the interventionist and the client involves problem diagnosis (1970, p. 157). The survey feedback and problem solving approach is based upon the user-system members' ability to specify organizational problems through the use of feedback data (McElvaney and Miles, 1971). The Schmuck and Runkel (1970) educational organization development approach focuses on group problem identification and problem solving. In each of these strategies, precise problem specification is stressed to bring about more adequate decision making and problem solving in the organization. It is proposed here that this problem and need specification, by increasing the salience of needs, increases user-system members' trust in the change agent. The process of need specification will further increase the clients' trust in the agent, as the interventionist becomes increasingly aware of the organization's problems and responds to those needs.



The extent to which the user perceives that the change agent can help alleviate his need depends upon the relevancy of the change agent's skills. While a school administrator may respect an agent's competence in a certain specialty, he may feel that the particular skill is not relevant to the needs of the school. Rogers and Shoemaker (p. 238) generalize that compatibility of a change agent's program with client's needs is positively related to change agent success. Havelock (1971, p. 4-7) notes that "...salience of a need can lead to rather quick acceptance if the innovation is directly relevant and effective in fulfilling that need." It is proposed here that as the change agent's program is perceived to be relevant to and can help alleviate the needs of the school, the practitioner will be willing to cooperatively interact with the agent.

In the early stages of an organization development program, it is probable that the administrator will perceive the agent's strategy as irrelevant. This can result from the "discrepancy between the interventionist's and the client's views on causes of problems and designs of effective systems" (Argyris, 1970, p. 125). Additionally, educational practitioners frequently expect the consultant or change agent to solve the school's problems; the consultant's strategy of developing rational ways for the clients to solve their own problems may initially be questioned (Lake and Callahan, 1971). Unless the clients perceive this strategy as relevant, they may be inclined to avoid the agent and his methods.

As the client's perceived inability to control the change agent increases, trust in the agent will decrease. As the practitioner feels that his ability to control the interventionist is minimal, his propensity to cooperatively interact with the agent will be low for two reasons.

Firstly, lack of control literally implies that the client is not able to exert much influence over what the change agent does during or after the interaction. For example, the "... educator is anxious over the kinds of information that the researcher may discover ..." and how he will subsequently use that information (Schmuck, 1968, p. 153). Secondly, lack of control and high dependency implies that the user is unable to evaluate the performance of the change agent. As such, the potential client is unlikely to delegate great responsibility and freedom to the agent. Referring again to Rogers and Shoemaker, it is generalized that the success of a change agent is positively related to the extent to which he increases the client's ability to evaluate innovations (p. 247).

In their rationalization of this hypothesis, they note that evaluative abilities minimize the misuse of innovations and promotes self-renewing and self-reliant behavior on the part of the client. It is suggested here that as educators are better prepared to evaluate the interventionist's methods and performance, xenophobia will decrease and their propensity to cooperate with change agents will increase.

Perceived Freedom. The second conditional variable is the client's perceived freedom in the coupling process, which includes his perceived freedom to identify the need and perceived freedom to select the change agent or consultant. It is hypothesized that as the client's perceived freedom in the coupling process increases, his propensity to cooperatively interact with the change agent will increase. If this generalization is, in fact, valid, it is suggested that involuntary participation in temporary systems will create dissonance on the part of the practitioner and adversely affect the change relationship.

Clients may perceive relatively high freedom when interacting with university-based or commercially-based change agents. In agent initiated interventions, the members of the user system have absolute freedom to accept or reject the change agent. Similarly, in school initiated linkages, the clients select the change agent and agency of their choice. Perceived freedom increases as the selected agent develops the client's ability to identify and specify school needs.

Practitioners probably perceive high freedom when interacting with personnel from the government-funded research laboratories. The labs apply basic research to practical educational problems, generate solutions to problems, and test and retest the alternatives. "When the success of the model has been verified, schools can make the decision to adopt it on the basis of demonstrated performance" (Stiles and Robinson, 1973, p. 33). This arrangement implies high freedom for the practitioners and, on the basis of this conditional variable, probably increases their tendency to cooperate with regional lab or Title III personnel.

The extent to which administrators and teachers perceive that they are free, rather than forced, to interact with internal change agents probably varies. If members of a school or large department are directed to interact with a change agent or team internal to the district, their initial perceptions of freedom will be correspondingly low. Their perceived freedom to identify their need will be minimal as will be their perceived freedom to select the change agent. Conversely, as the members of the sub-user-system exert more influence over the coupling process, their perceived freedom will increase.

Homophily. The third intervening variable in the trust model, homophily in the change agent-practitioner relationship, is inherently related to the independent variable of expectations. In many cases, practitioners' normative expectations for change agents will be influenced by their self-perceptions. Communication credibility research has indicated that the receiver's perception of the speaker's competence is influenced by perceived similarities regarding values, interests, needs, and status (see Hovland et al., 1953). As noted earlier, a "factor influencing the receiver's perception of the reliability of a communicator is his character in terms of the value system of the receiver" (Giffin, p. 118). Communicator-communicatee similarities, particularly those relevant to the message, enhance the degree of the receiver's opinion change (Berscheid, 1966).

However, homophily also affects the trust relationship in another manner. Rogers and Shoemaker generalize that change agent success and agent-client homophily are positively related (p. 242). Similarly, to the extent that homophily brings about attraction, empathy, and reduces communication difficulties, it is hypothesized that homophily will increase a practitioner's trust in the change agent.

#### Stereotypes in Temporary Systems

A most pervasive aspect of the change agent-practitioner relationship is the propensity for the individuals involved to hold mutual stereotypes. Intergroup stereotypes, whether ethnic or professional, are beliefs which are "simple, inadequately grounded, at least partially incorrect, and held with considerable assurance by many people" (Harding, et al., 1969; Lippman, 1922). These intergroup attitudes have at least three components: (1) cognitive--the beliefs and expectations which individuals hold regarding members of other groups; (2) affective--the general feelings of friendliness versus unfriendliness and related emotions regarding the target group; and

(3) conative--the predisposition to act, the manner in which ingroup members react to target group members. In educational temporary systems, change agents and clients hold fairly well developed stereotypes along these dimensions.

There have been no direct attempts to measure the cognitive components of client-change agent stereotypes in education through the use of check lists (as initiated by Katz and Braley, 1933) or open-ended questionnaires (see Ehrlich and Rinehart, 1965). Nevertheless, commonly held stereotypes have been documented by researchers in the fields of knowledge utilization and evaluation research. Schmuck observes that:

School administrators are viewed by the researchers as being unsophisticated, anti-intellectual, and dependent, while researchers are viewed by educators as wanting to base everything done in the school on research and as having their 'heads in the clouds.' Administrators are seen as 'flying by the seat of their pants,' as not interested in achieving educational goals, and as primarily concerned with organizational maintainence and smooth functioning (Schmuck, 1968, p. 150).

In another field, Schulberg and Baker (1968, p. 563) note that researchers suspect "malicious surreptitiousness among those charged with the implementation" of research findings and "inappropriate defensiveness" among administrators in attempting to maintain the status quo. Administrators believe that researchers present their findings, which have "precious little application to the complex realities of his program," in an "unnecessarily frustrating abstract manner."

The affective and conative aspects of the change agent-practitioner stereotypes are similarly unfavorable. Specific feelings which give the mutual stereotypes an unfavorable affective coloring include hostility, alienation, fear, distance, and general unfriendliness. Klein notes, for example, that alienation pervades many change relationships, particularly alienation on the part of the change agent from the "... world of those for whom they are planning" (1967, p. 29). Fear on the part of the client

is not unusual, particularly when the client is secure in his present situation and the change agent presents threatening alternatives (see Gallaher, 1964). These feelings of fear possibly minimize the agents' ability to bring about an attitude change in the practitioner: "... in situations where individuals show some concern about an issue, high fear would not be effective ..." in changing attitudes (Havelock, 1971, pp. 4-12; McGuire, 1966). And, in general, these unfavorable affective aspects are associated with conative aspects detrimental to the change relationship. The action-orientation of both groups may involve avoidance rather than approach, withdrawal rather than non-withdrawal, aggression rather than non-aggression, and competition rather than cooperation.

Havelock's review of expectations of others' behavior and "Self-Fulfilling Prophecies" notes the importance of the first and early contact between individuals. "... Expectations developed in early phases of a relationship lead one to develop certain expectations about another individual, and about one's relationship to him ..." (1971, pp. 4-15). These resulting expectations often lead to self-fulfilling prophecies. Unpleasant initial interactions bring about withdrawal and avoidance (conative component), and this prevents the earlier impressions (cognitive and affective) from being modified on the basis of greater experience. Even when the individuals do subsequently interact, future behavior is distorted to be consistent with the earlier impressions [see Havelock's review and Newcomb (1947) on "autistic hostility"] .

On the other hand, certain research on ethnic attitudes indicates that direct observation of target group members over a period of time probably contributes to the formation of stereotypes (Harding *et. al.*, p. 30; Horowitz, 1944). This is somewhat consistent with Klineberg's (1950) "kernel of truth" hypothesis which states that if the characteristics of a social group could be objectively determined and compared to the beliefs



of another group about that target group, the correspondence between the two sets would be better than random. It is possibly true that many of the stereotypes present in the client-change agent relationship are somewhat valid. Administrators and researchers operate under two different sets of pressures and expectations and two inconsistent sets of group norms. As the researcher and school administration develop mutually unfavorable attitudes, "...Both sets of perceptions are partially accurate, especially when the respective reference group pressures serve as the frameworks of each party" (Schmuck, 1968, p. 154). However, it is probable that these stereotypes are aggravated and exaggerated as a result of imprecise goal specification, perceived low goal inconsistency, ambiguous role prescriptions and role expectations, and status problems common to educational temporary systems.

Direct observation and contact often results in favorable changes in intergroup attitudes when group members are working cooperatively, under equal-status conditions, to attain common objectives (see, for example, Merton, West, and Jahoda, 1949; Watson, 1950). It is questionable whether these conditions are met in present educational temporary systems. Practitioners may often feel superior to the researcher due to their perceptions of the agent's inability to be practical and the marginality of the agent's role. The change agent may also feel superior, as it is perceived the administrators and teachers are unable to understand and apply research findings. On the other hand, both types of individuals may feel threatened by the other's presence. This status ambiguity is increased as a result of the relatively unstructured nature of temporary systems.

Similarly, the change agent and the practitioner sometimes feel that they are not working toward the same goal. Even if temporary



system members are, in fact, attempting to bring about the same change, their respective intermediate objectives are compromised by their professional, organizational, or departmental identifications. It is expected that the researcher-practitioner goals would be most consistent if the change agents are based within the user-organization, for example, within the research and development department of a large urban school district. However, even in this case, the subgoals of the line and staff personnel will be differentiated due to the location of their offices within the organization and the professional characteristics they bring to their roles (see March and Simon, 1958, pp. 152-154).

The change agent-practitioner contact may fulfill the condition of cooperation to a greater extent than these other two conditions. Collaboration and cooperation are important elements of organization development strategies, including those based on sensitivity training, survey feedback and problem solving, group problem solving, and inherent to cooperative knowledge retrieval systems such as the Physical Science Study Committee (see Clark, 1965) and the derivation conference (Jung and Lippett, 1966). As cooperation and collaboration increase, there is a concomitant increase in perceived goal consistency. Additionally, this cooperation implies continued interaction which minimizes withdrawal and the self-fulfilling prophecies discussed earlier. Confrontation and continuous feedback between researcher and practitioner "... probably has the effect of creating a common ground for understanding; it might also create greater attraction through continued interaction" (Havelock, 1971, pp. 4-17). As such, agent-client collaboration is potentially the most practical and effective means for creating favorable changes in inter-group attitudes.

### Temporary System Structure and Role Expectations

Organization, in the social psychological perspective, is based upon the ability of individuals to coordinate their recurring actions with the behavior of others in order to yield a predictable outcome. The resultant set of interdependent behaviors comprise a social system, "a stable collective pattern in which people play their parts" (Katz and Kahn, 1966, p. 174). As individuals interact with other members of the system (the members of his role set), prescriptions and proscriptions regarding his behavior are established as his role expectations. Role expectations in temporary systems are generally, at present, poorly developed. Participants in temporary systems are not certain what to expect of those they are interacting with and are possibly unsure of what is expected of them.

The relatively low specificity of role prescriptions in temporary systems can be related to a number of factors. Firstly, a rigid, mechanistic, and highly standardized organization structure would be inappropriate for the effective introduction and production of change. The management of innovation and the effective coordination of a system with a dynamic and complex environment is contingent upon that system's ability to assume a flexible or organic structure (Burns and Stalker, 1961; Woodward, 1965). In discussing community development, Arensberg and Niehoff (1971) stress that the change agent and his strategy must be flexible enough to adapt to varying local conditions, different needs in different communities, and frequent unexpected occurrences. Similarly, it is proposed here that educational temporary systems must possess built-in flexibility, in both roles and procedures, to bring about change under different environmental conditions.

However, temporary systems are presently less structured than the dynamic nature of the task requires. In part, this is due to an inadequate understanding of the functioning and design of temporary systems and the interaction among the interdependent roles in those systems. The wisdom literature and the systematic experimental research on role prescriptions in relation to temporary system effectiveness is minimal. (There are however, a number of exceptions to this generalization, including: Argyris, 1970; Schmuck, 1968; and Lake and Callahan, 1971.)

This situation is further complicated by the frequent ad hoc nature of temporary systems. In this respect, temporary systems are similar to synthetic organizations which emerge "... to overcome the effects of large-scale natural disasters in communities" (Thompson, 1967, p. 52). While the synthetic organization must determine the extent of the problem to be coped with and search for available resources, it must simultaneously coordinate participants' activities without the benefit of established roles, procedures, and communication networks. To an extent, present temporary systems must cope with the same problem; however, they have neither the high consensus among members regarding the goals of the group nor the freedom to acquire resources that synthetic organizations possess. As temporary system members simultaneously begin functioning and structuring, they may be coordinating their activities in a manner not conducive to the production of change.

The structure and organizational integration of research, development, and diffusion departments within larger systems has been the topic of research in non-educational organizations (Lawrence and Lorsch, 1967; Radnor, Rubenstein, and Bean, 1968). There has been some research on and preliminary evaluation of permanent linking institutions, such as

that offered by Boyan (1968) and Guba (1968). However, research on the structure and coordination of temporary linking systems is as needed today as it was in 1968 when Havelock called for the comparative study of these systems (Lippett and Havelock, 1968, pp. 59-60). As such, a few additional structural dimensions for the analysis of temporary systems are presented, briefly, below.

The structural dimension of formalization reflects the extent to which communications and procedures are written down in organizations (Pugh, et. al., 1963, p. 303). Formalization encompasses the use of handbooks and statements of roles as well as procedures. As the role of the change agent (and the client) becomes more fully developed, manuals and handbooks will be available and will possibly be used to guide temporary system members' activities. Similarly, the use of diagnostic tools, such as questionnaires and checklists, is reflected in the formalization dimension. As these instruments are developed and utilized in temporary systems, information concerning user-system needs and progress feedback will be documented (see Lippett and Havelock, 1968). It is hypothesized that as this type of formalization increases, temporary systems will become increasingly effective.

Stratification refers to the differential distribution of rewards and differences in prestige among organizational members (Hage and Aiken, 1970, p. 45). It is suggested, that as stratification increases in a temporary system, effectiveness will decrease. As change agents and practitioners become hierarchically differentiated, upward communication will be filtered and distorted. As such, stratification probably interferes with feedback to the change agents concerning the success of the change program. Additionally, high stratification may make temporary system members less

comfortable and more inhibited during group meetings, and may interfere with the group's problem solving capabilities (see Hage and Aiken, pp. 45-49; Bridges, 1965).

Specialization (Pugh et al., 1963, p. 301) refers to the division of labor within the temporary system. As educational change becomes increasingly sophisticated, the degree of role specialization will increase. The number of specialisms within the temporary system will grow beyond the present roles of change agent and practitioner. As teams of change agents become more common, the individual agents will assume different roles, each being relatively highly specified. Team members, on the basis of their personal characteristics and individual training, will assume responsibility for complementary activities. Additionally, the role of practitioners will probably become more specialized in reference to temporary system activities.

The structural dimension of differentiation has been used in industrial research to reflect "... Differences in the cognitive and emotional orientations among managers in different functional departments ..." within organizations (Lawrence and Lorsch, 1967, p. 11). Functional units in organizations may be differentiated on the basis of: (1) orientation towards particular goals; (2) time orientation; (3) interpersonal orientation; and (4) the formality of the departments' structure. It is suggested here that temporary systems are commonly highly differentiated from the more permanent departments in the user-system. The particular objectives and functions of temporary systems demand that the effective system be different than the permanent sub-units of the user-organization. As the temporary system is increasingly differentiated and is theoretically structured for effectiveness, it becomes increasingly difficult to reconcile and coordinate temporary system functions with user-system

activities. In the case of school systems, practitioners participating in temporary systems may find that the orientation of that system is incompatible with the orientation of their respective departments. It is tentatively hypothesized that as this differentiation increases, temporary system effectiveness will initially increase, reach an optimal level, and then decrease due to problems of coordination and overwhelming conflicts. Differentiation, as well as some of these other structural dimensions, may be too abstract to utilize for the comparative analysis of present temporary systems. However, the dimensions are useful concepts for consideration in the designing of temporary systems and the training of change agents and change teams.



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