The purpose of the Middle-Management Center (M-MC) is to engage educational organizations, individuals, and groups in the metropolitan New Orleans area in simultaneous research and action to facilitate the development of more productive and responsive schooling while focusing on the problemsolving processes and practices of management. The center has successfully initiated an operational model that engages the school middle managers. By using the research-action context, M-MC is able to continually become more definitive and precise in its goals and participant roles, to efficiently utilize and respond to member capabilities and needs, to restructure and time-manage more efficiently, and to generally adapt to a dynamic educational environment. (Author/NM)
THE RESEARCH-ACTION CONTEXT:
AN INTERVENTION STRATEGY IN
EDUCATIONAL MANAGEMENT DEVELOPMENT

EDUCATIONAL MIDDLE-MANAGEMENT CENTER
TULANE UNIVERSITY, NEW ORLEANS

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PART I
MIDDLE-MANAGEMENT CENTER
BACKGROUND AND PURPOSE

Background

During early-1972, a group of practitioners and trainers in the fields of education, behavioral science, and management had been conferring regularly about shared concerns regarding the need to establish effective problem-solving processes and mechanisms to aid in the development of school leadership. This concern reflected a shared set of philosophical and theoretical beliefs that the delivery of improved educational services could be increased through improving the problem-solving capabilities and management practices of the principalship.

In November of 1972, this group was formally organized into the Middle-Management Center (M-MC) and made a division of the Center for Education at Tulane University.

During this same period a biracial group of parents organized in the University-Area of New Orleans and became active in school improvement programs. By early-1973, the community group -- University-Area Public School Development Association, Inc. -- was recognized as a pilot effort with support from The Rockefeller Foundation and the New Orleans Public Schools. The organization generated an unprecedented degree of interaction with school principals regarding school-community issues.

The Middle-Management Center (M-MC) utilized a ready laboratory for the initiation of its work among the principals of the schools in the pilot area. While faced with the unfamiliar problems of responding to an organized school community, principals began to work with personnel of the M-MC. This early development of the M-MC was supported by the New Orleans Public Schools and a
grant-in-aid from The Charles F. Kettering Foundation.

**Problem**

Innovations in education have not fulfilled their promise, and there are many reasons. One such reason may well be that too much attention has been paid to isolated aspects -- scheduling, curriculum, media, etc. -- and too little attention to the school as an organization and a complex social system.\(^1\) Another reason has been the failure to recognize that the quality of the work environments and learning environments depend primarily on the school principals and their supervisory-management teams who are ill prepared for their current roles.\(^2\)

There is considerable evidence regarding the significant influence the management system of an enterprise has on the effectiveness of that enterprise as a whole. In particular, the rate of effective application of new knowledge in the management system of an organization is characteristic of the rate of effective application of new knowledge within that system as a whole. Educational management can be looked upon as an important causal factor in the improvement or lack of improvement of education.\(^3\)

The need to reduce the disparity between the level of performance of practicing school leaders and the expectations held for their positions is crucial. Over the last decade there has been much activity to develop remedies to improve the condition of education. The years have brought forth massive federal efforts, substantial foundation grants, and increased efforts at state and local levels. In our massive thrust toward educational improvement, however, it is a sobering fact that the educational leader himself has been most neglected.\(^4\)
Schools have traditionally been managed as individual entities while assuming a reactive rather than a proactive stance toward problem situations. The prevailing conditions resulted in little interaction with other school managers and even less response to community input or genuine involvement. The need requires a focus on people and organizations -- the people whose organizational problem-solving capability is essential for any major improvement.

This paper addresses itself to the developing Middle-Management Center which maintains the propositions that the problem-solving management system is important, this problem-solving management system is underdeveloped, and the present means to develop this system in urban centers are inadequate.

The Middle-Management Center As An Organization

The purpose of the Middle-Management Center (M-MC) is to engage educational organizations, individuals and groups in the Metropolitan New Orleans Area in simultaneous research and action to facilitate the development of more productive and responsive schooling while focusing on the problem-solving processes and practices of management.

The Middle-Management Center (M-MC) has successfully initiated an operational model which engages the school middle managers. The intervention strategy being designed is a way to engage the local educational agency and its local administrators as participants in a systematic search for improved problem-solving structures, processes, and skills. As a vehicle, the M-MC engages the individuals who are confronted with real problems in educational management, the analytical capabilities that exist within area universities, and participants from other public and private sectors who have management problems and problem-solving capabilities. Figure 1 shows these relationships in graphic form.
School principals, the interdisciplinary-interuniversity Resource Team, and management resources are interfaced in a research-action context at both the individual school and school cluster levels to address problem-solving and school management practices.
Middle-Management Center Resource Team

Participants from public and private management practice and the interdisciplinary-interuniversity base comprise the M-MC Resource Team. Individuals are sought on the basis of their commitment to public education, their ability to contribute to the development of problem-solving management competencies, and their willingness to engage with others as learners in a research-action context.

There are currently 17 highly active members of the Resource Team: 6 university education specialists; 8 university personnel from non-educational fields -- management, psychology, social work, sociology, etc.; and 3 members from both public and private management practice. Additionally there is an identified group of 11 "Resource Team associates" whose current availability is more limited but who enter into active roles as needs evolve or personal circumstances permit. Resource Team members all contribute on a part-time, voluntary-time, or otherwise discretionary-time basis.

Current Operational Status. Under present goal and funding arrangements, the scope of the program has been (1) the development of a M-MC Resource Team, (2) the establishment of mature linkages with the two existing clusters and the individual schools within them, (3) identifying critical principal needs, (4) the facilitating of research-action activities at both the individual school and school cluster level, (5) providing experiential learning opportunities, (6) the monitoring and recording of developments and critical incidents, and (7) the searching for means to create a problem-solving legacy. This developmental activity has been focused on the operations of approximately
one and one-half years (1973-74) within the pilot school clusters.

Twenty four schools in the pilot areas have developed into two cluster organizations each composed of a senior high feeder system -- The University-Area and Lake-Area Clusters. The middle managers (principals) of these schools are mutually involved with a M-MC's resource team in the search for improved problem-solving and organizational improvements.

The Middle-Management Center Intervention Method

The adoption of the organic value in a research-action context underlies the intervention methods of the Middle-Management Center (M-MC).

Research-Action. Through direct engagement in simultaneous research (increased understanding) and action (constructive change), the M-MC seeks to develop the problem-solving capabilities and proactivities of participating school principals. Such a strategy has been described by Clark as:

A change oriented, knowledge gathering technique which is aimed at practical concerns of people in an immediate problematic situation and one in which the intention of all involved is to gather data about and to make changes in the properties of the system itself.5

While clearly exhibiting the qualities referenced by Clark, research-action in the M-MC context is unique in two respects.

First, the M-MC employs both formal surveys and systematic observation as techniques for generating a data base for managerial action (see Figure 2). Survey feedback from the administration of periodic formal diagnostic instruments is supplemented by continual systemic observation of day-to-day school occurrences and events. Once conceptualized and reflected upon, data from both sources forms a starting point for increased understanding of the action contexts faced by participating principals.
FIGURE 2

THE MIDDLE-MANAGEMENT CENTER AND THE RESEARCH-ACTION CONTEXT
Second, the M-MC is unique in applying this strategy at two levels of action (see Figure 2). Research-action experiences involving school principals are facilitated at both the individual school and school cluster levels. At the individual school level, a principal and a clinical helper relate to one another in research-action; at the school cluster level, groups of principals and their associated clinical unit engage in similar research-action experiences. As so applied, research-action provides for adult learning as school principals individually and in groups, develop and pursue these action orientations.

The M-MC is an intendedly temporary structure; principal dependencies on the M-MC as the ultimate source for research-action experiences are avoided. The principals learn by doing; they learn through participation in situationally relevant problem-solving activities.

Management Structure of the Middle-Management Center. Overall developmental activities and operations are presently coordinated by a part-time project director, a part-time research-evaluation assistant, and a full-time administrative assistant.

The capabilities of the Resource Team have been developed to reflect an interdisciplinary-interuniversity collaboration representing education, non-education, and management practice. Figure 3 describes the distribution and organization of personnel for school clusters and the inter-locking task group structures.

A representative group from the total interdisciplinary Resource Team links with schools from each cluster with identified cluster managers facilitating linkages and research-action activities. In addition, Figure 3 shows the relationship of the existing Research-Evaluation Task Group and the Skills Development Task Group. The task group chairmen and the school cluster managers
FIGURE 3

DISTRIBUTION OF M-LC RESOURCE PERSONNEL
BY SCHOOL CLUSTERS AND TASK GROUPS
working in concert with the project director and the administrative assistant comprise the management team of the M-MC.

The management structure, as outlined above and in Figure 3, developed through the experience gained during the initial eighteen month's operations. The development of the M-MC itself, represents a research-action effort, and the described structure permits "organistically-oriented research."6

The Linkage Model. During the experience of the first year's operations (1973-74), the M-MC began to consciously develop a linkage model which would represent the nature of the relationship between the M-MC and the school middle manager (principal).

An engagement of the M-MC resource team is initiated with a group of principals (cluster) representing a senior high school feeder system. Typically in an urban setting, the members of such a cluster are essentially unacquainted with each other and possess a low sense of psychological groupness at the start of their work together.

In the University-Area (first) Cluster dyadic relationships were initiated between clinical resource team members and principals early in the linkage stage. While the research-action activities become more conscious, linkages become increasingly mature at both the individual school and cluster level.

In the initial stages of linkage development principals recognize the M-MC as a resource capability and identify the potentialities of their own school cluster organization. Productive peer relationships begin to develop among principals. While dyadic relationships were maintained during the cluster's maturation period, cluster-wide task groups were established to address problems and issues in the three identified dimensions of major concern to middle-managers -- teacher-learner activities, community involvement, and top-management.
In the Lake-Area (second) Cluster it was possible both to build a sense of psychological groupness and address individual school problems without the use of long-term dyadic relationships.

At the mature linkage stage, it is projected that a self-sustaining problem-solving capability will have been generated which requires only intermittent interaction between the M-MC resource team and a cluster of schools.

The Organic Value in Middle-Management Center Research-Action Activities. A particular value orientation towards the relationships between the M-MC resource team members and school principals was adopted early. This value dictates an "organic" relationship between school principals and the clinical-researcher helper. Consequently, the activities of the M-MC tend to provide both for research validity through the complete involvement of the principals in the research process and for a built-in commitment to action through their direct participation-involvement in the diagnosis and analysis of the data base provided through survey and systematic observation at the school level.

At both dyad and cluster levels and within the M-MC itself the combination of research-action and the organic value provides a unique problem-solving posture. The accumulation of valid, useful information and free choices of research-action executed within an organic context is expected to lead to a strong and sustained internal commitment to action from all participants.

Through the adoption of this organic value and research-action, the M-MC capitalizes on an andragogical approach to management development in schools and minimizes the unintended consequences associated with a more prescriptive and mechanical approach to research-action. Argyris includes among these unintended consequences the development of the dependency relationship between
clients and interventionists and the withdrawal of the client from direct confrontation of any data gathered through a research team.

As so applied in the M-MC setting, a primary purpose is to have the school principals psychologically committed to change through the research-action process and to facilitate within them a sense of ownership regarding M-MC associated activities. This will impart a commitment to an adult learning (andragogical) process and support the generation of an improved problem-solving capability among school principals as a managerial legacy of the M-MC endeavor.

**Research Hypotheses**

In a recent book on intervention theory, Chris Argyris argues for making intervention studies hypothesis-testing ones. Argyris believes this approach will contribute to more complete diagnostic efforts and better follow through on intervention activities. The basic M-MC intervention method may be conceptualized on these terms. Given the basic assumption that better school organizations will mean better and more responsive schooling for children, the research questions elaborated in Figure 4 address the ability of the M-MC to 1) mobilize and organize itself as a vehicle for management resource delivery in a research-action context, 2) successfully engage school principals in activities increasing their individual and group problem-solving capabilities and proactivities, and 3) to further impact positively school managerial work and learning environments through its work with school principals. The research hypotheses associated with these questions, as illustrated in Figure 4 and 5 are the following:
M-MC

(mobilizing capability for management resource delivery)

FIGURE 4
INTERVENTION AND EVALUATION
HYPOTHESES

A PRINCIPAL
AS PROBLEM-SOLVER
(Dyadic M-MC Relationships)

I

SCHOOL
PRINCIPAL

II

PRINCIPALS
AS PROBLEM-SOLVERS
(Cluster-M-MC Relationships)

III

SCHOOL
MANAGEMENT

RESEARCH QUESTIONS

I Can M-MC concept be operationalized to deliver management resource development capabilities to the active continuing school principal?

II Can M-MC successfully interface principals and management resources such that improved problem-solving capabilities are accomplished over time?

III Can M-MC impact school organization effectiveness through management resource delivery at the school principal level?

ASSUMPTION

More effective school organizations will better be able to offer high quality responsive educational services.
SKILLS
DEVELOPMENT
RESOURCES

INTERDISCIPLINARY
RESOURCE TEAM

HYPOTHESIS I

HYPOTHESIS II

HYPOTHESIS III

IMPROVED PRINCIPAL
PROBLEM-SOLVING CAPABILITIES
(INDIVIDUALLY AND BY CLUSTER)

-- Principal as manager
perceived by: self, faculty, superiors
-- School as work place
perceived by: principal, faculty
-- School as learning environment
perceived by: principal, faculty

BETTER SCHOOL
MANAGEMENT

ASSUMPTION

BETTER SCHOOLING

FIGURE 5

THE MIDDLE-MANAGEMENT CENTER AS A MOBILIZING CAPABILITY
Hypothesis I. The M-MC can be organized and mobilized as a management resource delivery capability to engage school principals, individually and in clusters, in research-action experiences with an interdisciplinary resource team.

Hypothesis II. The M-MC intervention will result in improved individual and group problem-solving capabilities and pro-activities among participating school principals.

Hypothesis III. The M-MC intervention will have a positive impact on the managerial, working and learning environments in schools of participating principals.

These research questions and their associated hypotheses provide a specific departure point for the implementation of the M-MC as an intervention strategy and the evaluation of its effectiveness at both program and outcome levels.

Goals and Objectives

The research hypotheses lead to the generation of specific statements of research-evaluation goals and objectives. Table 1 shows the four formative research-evaluation goals associated with Hypothesis I. Summative goals V & VI are associated with Hypotheses II and III. A restatement of each of the four formative goals and the elaboration of each into specific objectives is included as an appendix.

The objective format described above and the case analysis format, briefly described in Part III of this paper, permit the addressing of both formative and summative aspects of evaluation. The research-action context of all M-MC operations facilitates the documentation of valid information. Evaluative issues and materials, therefore, represent an inherent part of all M-MC operations rather than a separate, isolated dimension. The documenting and cataloguing of information for goals and objectives established during the first full-year's operations supports the continuing needs of the case analysis research design.
### TABLE 1

**FORMATIVE AND SUMMATIVE RESEARCH-EVALUATION GOALS**

<table>
<thead>
<tr>
<th>M-MC HYPOTHESES</th>
<th>M-MC RESEARCH-EVALUATION GOALS</th>
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<tr>
<td><strong>FORMATIVE</strong></td>
<td><strong>SUMMATIVE</strong></td>
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<tr>
<td>I. The M-MC can be organized and mobilized as a management resource delivery capability to engage school principals, individually and in clusters, in research-action experiences with an interdisciplinary resource team.</td>
<td>I. Mobilize an interdisciplinary resource team to engage school principals in research-action experiences at the individual school and school cluster levels.</td>
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<td>II. The M-MC intervention will result in improved individual and group problem-solving capabilities and proactivities among participating school principals.</td>
<td>II. Mobilize linkages with school principals from a senior high feeder system at both individual school and school cluster levels.</td>
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<tr>
<td>III. The M-MC intervention will have a positive impact on the managerial, working, and learning environments in schools of participating principals.</td>
<td>III. Formulate and implement a mechanism engaging school principals in research-action experiences at the individual school and school cluster levels.</td>
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<td>IV. Identify or create management resource and facilitate the interface of these resources with school principals.</td>
<td>IV. Identify or create management resource and facilitate the interface of these resources with school principals.</td>
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<td>V. Examine and document the effect of M-MC participation on school principal problem-solving capabilities at both the individual school and school cluster levels.</td>
<td>V. Examine and document the effect of M-MC participation on school principal problem-solving capabilities at both the individual school and school cluster levels.</td>
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<td>VI. Examine and document the effect of M-MC participation by school principals with respect to:</td>
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<td>a. The principal as a manager</td>
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<td>b. The school as a work environment</td>
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<td>c. The school as a learning environment.</td>
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Research Design

The Middle-Management Center (M-MC) research design is consistent with the operational and evaluative implications of the above research hypotheses, as well as with the organic value guiding the intervention strategy. The design described in Figure 6 is a reiterative pre-post-test case study. This reiterative character provides for continual refinement and adaptation of the M-MC over time through self-applied research-action. Each academic year (9-10 month period) is considered a treatment period; each summer session (2-3 month period) is considered an analysis period. Analysis periods are used to provide the empirical base for renewing M-MC treatments in the succeeding periods. While each treatment is likely to be different from those employed in prior periods, the differences are logically based on direct consideration of prior periods of operating experience. This type of research design thus offers not only an ability to evaluate M-MC operations at both the program and outcome level, but offers as well a research-action base for continual refinement of the basic model over the total experimental period.

The following sections of this paper report preliminary findings from M-MC activities during the period February, 1973 through June 30, 1974.
### Figure 6

#### K-LC Research-Evaluation Design

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**Possible dimension of analysis.**

*Specifics of the 1975-76 academic year and subsequent periods are to be further developed.*

- X — Original K-LC Treatment
- © — Refined K-LC Treatment
- O — Original Observations/Measurements
- © — Refined Observations/Measurements
- A — Refinement of K-NC Treatments and Observations/Measurements
- FO — Follow-up Observations/Measurements subsequent to treatment period(s)
PART III
FIRST YEAR RESULTS

Formative Evaluation

A research-evaluation case analysis of the M-MC’s performance with respect to its stated Formative Goals was undertaken in June-August, 1974. Processes, results, the interrelationships between process and result, the effects of uncontrollable variables, and evaluation were all included in the case analysis. After the data was collected it was presented to the M-MC Resource Team members as an empirical base for modified action during the second analytical year.

Goal I Findings:

(Mobilize an interdisciplinary Resource Team to engage school principals in research-action experiences at the individual and school cluster levels.)

Competent personnel resources are available to contribute amounts of marginal or discretionary time as Resource Team members to a management development center based on a university campus.

-- Compensated and non-compensated personnel resources are available both from 1) the field of public and private management practice, and 2) the multi-university and multi-disciplinary base.

-- While maintaining the "organic value" and the associate ambiguity, long-term and continuous team building is essential to establish ownership, clarity of goals, and priorities of action among Resource Team members.

-- With varying degrees of training and modeling, Resource Teams accept the simultaneous research-action mode in their own development as a team.
-- The management of marginal time contributions from competent professionals is one of the highest costs for a center.

-- Leading attractions to membership on a Resource Team are the 1) interdisciplinary team structure, 2) opportunity to impact school management, 3) affiliations/relationships and 4) research-action focus. Seventy-five percent of more say that money is not a motivation.

-- The achieving of clarity about the general Statement of Mission is an essential prerequisite for developing "teamness" or a team action in the developmental stages of the center.

-- Clarity of purpose, an action focus, and positive reinforcement from each other as well as school managers are identifiable factors in nurturing Resource Team members commitments. Verbal commitments tend to exceed action.

-- Most Resource Team members recognize their own training needs and say that they would accept such opportunities as an alternative within their marginal time commitment.

Goal II Findings:

(Mobilize linkages with school principals from a senior high feeder system at both individual school and school cluster levels.)

The majority of individuals and groups of school principals are sufficiently receptive to their personal and organizational development to effect formal linkages with a management resource delivery.

-- The cluster of school managers derived from a senior high school feeder system is a highly effective intervention linkage.

-- Group problem-solving procedures can be effected when common community, curriculum, and administrative concerns are addressed in the research-action mode.
-- A senior high feeder cluster usually averages about eleven schools and, while there is no screening or selection within a cluster, active group participation approaches 100% voluntarily.

-- The existence of an organized school-community involvement group paralleling the identified senior high feeder system facilitates the progress of both the principalship cluster and the community organization.

-- Group solidarity and distributive leadership among principals become evident within the first year of cluster formation.

-- Early dyadic relationships between individual school principals and a Resource Team member contribute to cluster formation. The dyadic relationship is the most valued aspect of a management center as expressed by school principals.

-- For a variety of reasons, the dyadic relationship is the most resisted and least valued by Resource Team members. When successful, dyadic relationships are highly task oriented.

-- A high sense of ownership develops when principals recognize the cluster as a source of increased influence, power, and autonomy.

-- Evidence of problem-solving proactivity by a cluster does not become clearly evident until approximately one year after formation of the cluster.

-- While demonstrating "measured" encouragement and support, top-management personnel have not been found to be threatened by the organizing of school principals into clusters.

-- There is an observable and essential sequence of success stages through which principals develop greater problem-solving proactivity:
1. Phase of dyadic relationships
2. Phase of cluster-wide relationships
3. Phase of system-wide relationships

-- Sufficient tension to facilitate organizing seems to be provided by at least two of the following:
   1. School cluster membership issues
   2. Simultaneous organizing of community
   3. Expectations for managerial role changes
   4. "Organic" agenda development and summary memoranda

Goal III Findings:
(Formulate and implement a mechanism engaging school principals in research-action experiences at the individual school and school cluster levels.)

The research-action concept is neither widely understood nor consciously applied by practicing school principals. This diagnostically based approach to problems gains acceptance only after long-term modeling, success, and reflective activity.

-- As compared to an individual school, research-action experiences are more successfully introduced at a macro or cluster level.
-- Although principals are initially reluctant to accept conceptualizations, the research-action posture assists in the derivation of problem conceptualizations by principals and Resource Team members working jointly.
-- Research-action as an intervention strategy is more effective and accepted by Resource Team members in the development of a management center than by principals in the development of a cluster.
-- The premature "uncovering" of problems by both principals and Resource Team members before the necessary action skills are possessed is temporarily dysfunctional.
-- School principals and Resource Team members both require simultaneous training in research-action and management skills.

-- The increased, conscious use of data is associated with greater proactivity of principals, individually and in clusters.

-- The combination of 1) a principal's tendency to be reactive and 2) the lead time required for scheduling marginal time from a Resource Team member creates a difficult context for greater research-action and proactive problem-solving activities.

-- Research-action is initially viewed as traditional "research" and thus, disruptive. Within one year, however, most principals accept the research-action mode and give priority to data-based activities.

Goal IV Findings:

(Identify or create management resources and facilitate the interface of these resources with school principals:)

School principals and Resource Team members alike perceive each other's groups and other people as their most valued management resources.

-- A management center can effectively facilitate assessment of management needs through the feeder cluster as an intervention linkage.

-- A management center can identify and create management resources.

-- The need for management skill development as perceived by principals is associated with a problem conceptualization. In these cases, behavioral changes are evidenced.

-- Principals very actively accept random experiential learning exercises and skill development seminars, but resulting behavioral changes are rarely evident.

-- Training and consultative relationships with Resource Team members from business and industry tend to be well-received by school principals.
-- A lack of support and positive reinforcement is evident throughout
with the greatest deficiency at the lower levels of the educational
hierarchy.
-- The receipt of support and positive reinforcement is among the highest
values at all levels. Yet, the provision of support and positive
reinforcement for subordinates and colleagues is among the lowest
values at all levels.

Summative Evaluation

Primary emphasis during the first case analysis period (1973-74) was on
the development of M-MC's organizational delivery capacity as reflected in the
Formative Goals. The M-MC did not actively compile data on or research measurable program outcomes. The first evaluation of these "bottom line" or
Summative Goals is now in progress for the 1974-75 analysis period.

During 1973-74, new knowledge concerning management research and intervention was created and published. There was an increased consciousness of and
interest in M-MC intervention concepts exhibited throughout the management structure of the client school system accompanied by a self-recognition of
personal management development needs. Some observational data concerning
improved principal problem-solving capabilities and healthier school climates
was recorded in vignette form. However, the major summative outcomes for
1973-74 was the reiterative case analysis format and the changed practices
exhibited in both organizational and team member behavior as a result of M-MC's
application of research-action strategies to its own development.
Case Analysis

One of the functions which the Middle-Management Center (M-MC) has fulfilled is the development of a prototypic model which could be generalized to other similar types of organizations in different settings. Central to this function was the development of an evaluation model which was flexible enough to incorporate the many subtle organizational decisions and structural evolutions, yet definitive enough to delineate the relationships between strategies and outcomes on more than a merely idiographic basis. This task was deemed to be of sufficient import, and commanded enough time and energy, to be considered an important free standing contribution of the first full-year’s activity.

For each M-MC Formative objective, a five-part series of research-evaluation questions was formulated to explore:

(1) processes
(2) results
(3) process, result interaction
(4) uncontrollable internal, external variables
(5) evaluation

Each of the five parts was addressed to each objective. Indicators and data sources were identified for each research-evaluation question. Findings were made and tabulated. These findings were presented to the M-MC Resource Team who explored possible options and decided on the appropriate future actions. (See Figure 7).
Taken together with a filing system following the same conceptual and goal-related structure, it forms the nucleus of a flexible data-based management information system offering a goal oriented comprehensive documentary history, data for action decision and a schema for evaluation of outcomes and extraneous intervening variables.

**Case Analysis Effects.** Several changes have been instituted within U-MC resulting from case analysis feedback, some examples of which are follow.

**Goal I:** The case analysis indicated that there was an underutilization of resource team member talent and a need for further Resource Team development. In the following year, M-MC resource team members, as well as principals and top management personnel of the client system, responded to a talent
survey detailing both training competencies and learning needs. This information has then been matrixed and used to plan skill development sessions for the M-MC and associated personnel.

**Goal II:** In the initial school cluster, client roles were not sufficiently specified. Because of case analysis information and self-applied research-action by M-MC, roles of both principals and Resource Team members were clarified for the second intervention and an immediate task emphasis was established.

The role of the principals immediate supervisor (District Superintendent) in the client school system was still not sufficiently clarified after two school cluster interventions. For the proposed third school cluster, the existing data suggests that working agreements be based on more information provided by the proposed school cluster members and their immediate superior.

**Goal III:** The case analysis revealed that research-action, as the concept was previously applied, was not uniformly understood by the Resource Team members. The Resource Team was confronted with this information and the M-MC management team assumed proactivity in facilitating conscious reflection on the behavioral outcomes of research-action. The Resource Team was facilitated, made conscious of, and encouraged in the use of research-action. The result is that meetings and task group activity have been judged by participants to be more effective as they have become increasingly information or data-based.

**Goal IV:** The case analysis generated some concern among Resource Team members as to whether the highest priority training needs of school principals were being addressed. In the following year principals are encouraged to state their needs in terms of goals. Experiential learning opportunities are made
available only after principals identify --

The training goal

The desired behavioral outcomes

The criteria for effectiveness of the training session

Sessions are followed by group reports and documentation of personal applications of learned concepts.
PART IV
CONCLUSION

The M-MC case analysis format is consistent with the operational and evaluative implications of the research hypotheses as well as with the organic value guiding the intervention strategy. The reiterative pre- and post-test case analysis of both processes and results has proved extremely functional for M-MC allowing for an early and smooth transition from a Formative to a Summative emphasis. By using the research-action context, M-MC is able to continually be more definitive and precise in goals and participant roles, to efficiently utilize and respond to member capabilities and needs, to restructure and time-manage more efficiently, and to generally adapt to a dynamic educational environment.

Finally, the M-MC posture of seeking valid data, exploring action options, and making choices in a "hands on," client-involved context is applied to schools only to an extent that the M-MC successfully models the concepts in its own organizational behavior. The ongoing case analysis that includes an examination of processes, results, process-result interaction, environmental effects, and evaluation provides a mechanism within which this research-action posture can be efficiently exercised.
REFERENCES


7. Ibid.


10. Further information regarding case analysis methods is available in Developing a Prototype Educational Middle-Management Center: A Report of Phase II -- Case Analysis to The Charles F. Kettering Foundation submitted by the Middle-Management Center, Tulane University, November, 1974.

11. Ibid.

12. Ibid.
GOAL I: Mobilize an interdisciplinary Resource Team to engage school principals in research-action experiences at the individual school and school cluster levels.

Objective 1: Staff team with sufficient quantities of qualified personnel.

Objective 2: Secure and maintain individual commitments to action from team members.

Objective 3: Develop shared (team) commitments to action.

Objective 4: Develop action of team.

Objective 5: Document the process through which the interdisciplinary Resource Team is mobilized.

GOAL II: Mobilize linkages with school principals from a senior high feeder system at both individual school and school cluster levels.

Objective 1: Include as M-MC participants principals from a high school feeder system.

Objective 2: Secure mutually satisfactory dyadic relationships between individual school principals and Resource Team members.

Objective 3: Secure mutually satisfactory cluster relationships between school principals and Resource Team members.

GOAL III: Formulate and implement a mechanism engaging school principals in research-action experiences at the individual school and school cluster levels.

Objective 1: Continually assess principals' needs at both the individual school and the cluster level.
Objective 2: Develop the alternative research-action technologies available to the M-MC.

Objective 3: Facilitate the development of leadership roles in research-action for the M-MC Resource Team members.

Objective 4: Facilitate the engagement of school principals in research-action experiences.

Objective 5: Document research-action experiences in the schools.

GOAL IV: Identify or create management resources and facilitate the interface of these resources with school principals.

Objective 1: Continually assess the principals' needs at both the individual school and the cluster level.

Objective 2: Identify all available management resources.

Objective 3: Create additional resources not currently available in response to expressed needs.

Objective 4: Facilitate the interface between principals with needs and available resources.