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ABSTRACT

Described is the implementation of an inservice training program (designed in response to Massachusetts legislation on special education) for teachers and administrators in schools served by the Merrimack Education Center. It is noted that the Center's purpose is to foster collaboration and provide support services for a group of 22 school systems in the most cost-effective manner possible. Discussed are various aspects of the program which include an annual needs assessment study in the communities served, fostering school personnel awareness of available resources, and evaluation of the program which involves measuring program effectiveness and obtaining feedback for future program design.

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A CASE STUDY OF A PROGRAM IMPLEMENTED IN THE REGION  
SERVED BY THE MERRIMACK EDUCATION CENTER

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## INTRODUCTION

In 1972, the passage of comprehensive special education legislation (Chapter 766) posed an enormous challenge to public schools in Massachusetts. The educational reforms in this law necessitated major organizational changes for public schools as they sought to serve children who had long been denied. This effort also created a need for massive staff development programs in all segments of the public school community. Principals would now have to assume significantly new involvement and responsibilities. All teachers would now need additional skills to serve children with special needs in regular grades. Consulting and other professional and paraprofessional resource personnel would be necessary to support these new programs. The long overlooked parent became a very active participant in educational planning under this law. The need for staff trained to work closely and effectively with parents became increasingly apparent. New responsibilities for pre-school children required trained personnel in early childhood development. The retooling process goes on and will continue to challenge educators in Massachusetts as they strive for excellence in serving children.

The role of the collaborative in assuring that these great challenges will be met, represents, in my judgment, a most exciting chapter in American education. The flexible diversity of functions inherent in the collaborative, as well as the potential scope of their activities, makes them a most useful resource to their constituent--the public school member. Their effectiveness can be measured not only in the quality of their responses to the problems which public schools are facing, but also by their capability of rapid response to public school problems.

This case study reviews a small percentage of the exciting benefits which can be derived from the collaborative model. Many important advances will be made in the next few years to assure that public schools in Massachusetts are: (a) accessing all of the various fiscal supports which are available for their program; (b) receiving the benefits of responsive management information systems (including computer programs); and (c) more easily meeting Federal and State reporting requirements.

Merrimack Education Center is one of the most well-developed collaboratives in Massachusetts. It is a model which is worthy of emulation by other collaboratives within Massachusetts, as well as by clusters of public schools in other parts of our Nation. This case study should provoke the interests of State and local leaders in education who recognize the necessity for change to more cost effective methods of providing education for all children.

## INSERVICE TRAINING FOR PROFESSIONAL EDUCATORS

### A Case Study of a program implemented in the region served by the Merrimack Education Center

This case study describes, with some specific examples, the implementation of an inservice training program for teachers and administrators in the school systems served by the Merrimack Education Center. The Center has one major purpose: to foster collaboration among participating school systems and to link those systems with needed educational resources. The Center maintains support services for a group of twenty-two geographically contiguous school systems in the most cost-effective manner possible. Physically located near them, the Center can reach outside via numerous nationwide connections, both computerized and human contacts.

MEC can provide an example for other Centers, similarly serving schools, and performing the now-recognized function of linker and resource center. Indeed, the Center works with numerous and varied forces outside its region, refining the services for use within the region. Outside forces include federal and state governmental agencies, R&D laboratories, foundations or other private groups. MEC has stimulated working relationships among various levels in its districts as well. These include school committees from the region, administrators and teachers.

In 1968, MEC was the recipient of a Title III ESEA grant<sup>1</sup> which funded an early childhood program, a career guidance program, and a training program for paraprofessionals in learning disabilities. Subsequent federal grants include the "LINKER" project under the National Center for Educational Communication (now reporting to National Institute of Education), and a project funded by the Education Professions Development Act (EPDA) to implement timely inservice learning experiences to coincide with mainstreaming legislation. The EPDA program, one of many projects undertaken at MEC, is a cooperative model among the school systems and outside educational organizations.

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<sup>1</sup> Elementary Secondary Education Act

The EPDA funding assisted in exploring various linkages between regular and special educators and between teacher training institutions and school districts. The proposal to EPDA was designed to serve the needs of the Merrimack Valley, an impacted urban-suburban area with approximately 125,000 students and approximately 10,000 teachers and administrators. Member school districts belong to three counties encompassing 750 square miles (more than one-sixth of the State's land area) and containing one-tenth of the total population of Massachusetts.

Massachusetts State Laws (Chapters 753 and 797) encourage collaborative projects of this nature that offer direct or indirect services selected by the policy board for collaborative programs. The comprehensive special education law (Chapter 766 of the Acts of Massachusetts, 1972) also encourages the formation of collaborative agreements among school districts. If a school district is unable to provide a full range of services, for example in low-incidence handicapping conditions, the law permits that the district pool resources with neighboring districts to offer the program. This is presently the case in offering classes for developmentally disabled students, for the hearing impaired, and for children in clinical nursery schools.

Within a multi-purpose collaborative, training is offered to keep practicing educators abreast of new developments, concepts, and techniques. The objective of the inservice component is to develop a practical training system for special education mainstreaming. The program stresses instructional management while training procedures set a context of total systems approaches to improvement of instruction. During the 1974-75 school year nearly 750 Massachusetts elementary and secondary school teachers, administrators, and special education professionals from more than twenty Merrimack Valley communities participated in this unique staff development program. Many course modules are offered in special education while others are geared to such high priority topics as career education, individualized education, or guidance programs.

Perhaps the most significant association of the project has been maintained between the Center and Fitchburg State College. The relationship during the past five years has been marked by close communication, better addressing of needs, more stress on accountability and greater specification of educational priorities. Stronger partnerships have developed between the College and the

school districts working with MEC as a result. The relationship has helped to renew educational practitioners in this central region of the Commonwealth as change teams of Center staff, college faculty, and peer enablers<sup>2</sup> provide an organizational link with school districts. Successful change teams have been formed with the inservice commission as needs assessment and professional development have progressed.

The Graduate and Continuing Studies Division of Fitchburg State College, under the leadership of Dr. John F. Nash, accredits regional courses which meet graduate study requirements. The opportunity for teachers and administrators to receive credits toward advanced degrees satisfies their expressed learning needs and system goals while greatly enhancing the incentive and qualitative value of the program. There is now a well grounded, experienced collaboration between MEC and Fitchburg State College. Both institutions have certain resources such as the ERIC<sup>3</sup> microfiche and some hardware which can be used jointly. The College taps the computer terminal capability that MEC has and trains its staff in the full development of microfiche technology. Thus a pooling of both personnel and resources occurs between the agencies.

Students in Fitchburg State's pre-service programs in Special Education experience their practicum in MEC League and Central Massachusetts League schools. A blend of pre-service and inservice teacher education is established and occurs in a realistic field setting. This has resulted in Fitchburg's moving more of its undergraduate training into the field giving a more valid experience to the students. Fifth-year interns from Fitchburg serve as teaching assistants in the developmental day care programs administered by the Center.

In yet another project, College administrators and MEC link separate regional school systems in college-supported IGE leagues to the State IGE Coordinating Council. Fitchburg College directs the Central Massachusetts

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<sup>2</sup> In the concept of peer enabler, Evelyn Deno initiated the general resource teacher who, teamed with regular classroom teachers, serves children with varied special needs. While meeting local inservice needs, the enabler can serve an entire city or a broader collaborative region with the backing of a corps of consultants.

<sup>3</sup> ERIC - Educational Resources Information Center

League of the IGE network,<sup>4</sup> an offshoot and direct link to the Massachusetts State IGE Coordinating Council. The College and MEC are further connected by joint approval of personnel appointed to coordinate College-MEC projects. The College and MEC have developed and submitted joint applications and proposals for grants. Staff members of MEC teach appropriate courses in the collaborative inservice program. Specialists who teach actively in school districts served by MEC also teach inservice courses.

Transfer of College staff into active roles within communities offers training in real-life settings and better experience than classroom lecture formality. As an example, a one-and-a-half credit module was run during three successive days for building principals, taught by College faculty and external consultants. Forty administrators left the three-day session, the Principals Training Program, with skills for selecting organizational alternatives. The initial training program was then followed by an eight-session module for instructional personnel in their own schools, in four different communities.

Programs generated include workshops, clinicals, seminars, and institutes. Times and places are adaptable to the needs of working educators through all-day sessions, three-day sessions, evening seminars, Saturday workshops, and two-week clinicals. The program has been made even more flexible by the availability of one, one-and-a-half, two and three-credit modules. College faculty with expertise in special areas of expressed need teach certain inservice modules. They also serve as consultants on the EPDA Advisory Board, and serve on program action committees of the Center.

Improving the knowledge base of the teaching staff is so important that districts offer salary and promotion incentives to teachers who return to the classroom for continuing professional development. Not all districts, however, are independently able to offer a sufficient range of courses to satisfy interested teachers. Examining regional needs and offering programs through a collaborative can ameliorate this problem.

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<sup>4</sup> IGE - Individually Guided Education

With EPDA funding, MEC has been able to mount the project for special education mainstreaming despite budget cuts at the local and state levels. In this scheme of things, a group of cooperating districts can renew its operations and reach out to new resources by pooling funds. The MEC special education project has seeded a number of new concepts in this region and provided exchange in a laboratory consisting of actual practice in the field. A collaborative network promotes not only sharing of experience and insight but also stimulates the positive application of new concepts and practices.

### NEEDS ASSESSMENT

The special education project, a case in point, is designed around a thorough needs assessment study in the communities served. The needs assessment process has been developed under the MEC policy board made up of local Merrimack Valley school districts superintendents<sup>5</sup> who meet in executive sessions on a regularly scheduled basis. This group, together with the EPDA Advisory Board and an inservice commission, decides upon comprehensive goals and priorities which stimulate professional growth and development.

Both formal and informal needs assessment techniques are used in the region. An annual survey increases the effectiveness of the Center itself through carefully planned and targeted responses. As a result, MEC devotes maximum effort to answering bona fide needs of the client community with a multi-service capability including inservice, information exchange, consultation and technical assistance.

The annual needs assessment evaluates client familiarity with current topics related to special education, individualized instruction, instructional management, and the like. The surveys develop data about the level of familiarity with selected topics and provide a new tool (in the form of a questionnaire survey) for group sharing of information. Topics are grouped according

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<sup>5</sup> The superintendents of these school districts constitute the governance through the Executive Board which meets on a regularly scheduled basis, and acts in a capacity similar to that of a school board.

to the degree of interest in them when the computer analysis is performed. Levels of familiarity and interest are obtained by observing items on the response scale. Each contingency identified has a special meaning for the local planner in each area. An action of response can then be tailored to meet needs particular to the locale.

Reports developed for the executive board emphasize the regional priorities, feasible solutions to the needs and direct action in terms of program offerings and targeted resources. This analysis is used for developing policy guidelines related to future developmental efforts. The Special Education faculty of the College also use the needs assessment data to help project graduate program offerings on campus.

Topic responses are analyzed for the aggregate of communities in the region and a detailed topic report is produced. The report displays frequencies and percentages for each response category on the scale. It provides a complete description of performance on given topics for groups being analyzed (e.g., principals, teachers, school board members.) Results of the survey are compiled by school system, by total region and by individual school within each system as well. Regional data become the basis for planning programs to be presented in locations where high needs are expressed. Local data are exchanged with each community through members of the inservice commission and the Advisory Board to be used for local planning. Effective programs and packages inform professional educators about topics with which they wish to become more familiar. Topics ranking high on the interest/need scale for the 1975 school year are shown in Figure 1.

In addition to the annual formal needs assessment questionnaire, the interview process at meetings and in the field provides further indication of need. The needs identification process resembles peeling a cabbage. Interviewees tend to name solutions rather than identify needs. For example, an individual will say: "We need more special education." The interviewer then probes deeper to find out why, or in what areas a service might be needed. The peeling process is carried out in activities such as the two-day superintendent and school board conference recently sponsored by MEC.

FIGURE 1

TEACHER PERCEIVED NEEDS

1 9 7 4 - 1 9 7 5 P R I O R I T I E S

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- RECOGNIZING LEARNING DIABILITIES IN CHILDREN
  - ORGANIZING CLASSROOMS FOR INSTRUCTION
- TEACHING CHILDREN WITH LEARNING DISABILITIES
  - BEHAVIOR MANAGEMENT
  - SMALL GROUP ACTIVITIES
- UNDERSTANDING OF THE PURPOSES OF 766 LEGISLATION
  - UTILIZATION OF OUTSIDE RESOURCES
  - INSTRUCTIONAL STRATEGIES
    - LEARNING STYLES
- PREPARING PRESCRIPTIVE LEARNING PROGRAMS

Individuals participate in modified delphi exercises to arrive at a second level of needs much closer to the real needs. Deeper level problems are uncovered, e.g., the difficulties in the high school dropout rate. During the modified delphi, the participants give considerable thought to the presumed solutions as they relate and the deeper level problems. This process is also used with the inservice commission, with other panels, and individually with interested parties.

By reviewing a log of information requests maintained by MEC information services component, more needs are identified for further clarification and eventual response. As a comprehensive information/training complex, MEC uncovers both unexpressed needs most strongly felt by clients or cited by them in a direct request for information. Some of these needs are individualistic and may only surface on one occasion. MEC monitors these requests through the log procedure to determine which needs are able to be met by practical actions. Also of concern are problems which might become "full blown" areas of concern for regional solutions. Figure 2 represents direct requests made to the Center for information and assistance during the Fall of 1975. MEC analyzes and resolves the statements of implicit and explicit needs from these various sources of information.

In discussions with clients, MEC conveys State priorities such as the special education mandate or the equal access law so they can compare them with existing local situations. In translating the needs, MEC does not follow the specific language of the query slavishly; synonyms are often negotiated with the client to vary the language so the ERIC system may be tapped. Subtle differences between such terms as "teacher evaluation" and "teacher effectiveness" are negotiated with the client to determine what specific problem he is trying to solve. This process, similar again to the peeling of a cabbage, requires more probing and deeper understanding of client statements about needs or solutions.

All principal staff members at MEC have had previous experience in school settings and make frequent visits to clients in the field. They are often able to sense problems and determine priorities before needs are expressed by clients. The Center can thus often anticipate needs and offer programs and information to meet them. For projects of small scope and short duration,

Figure 2

INFORMATION REQUESTS OF THE CENTER

<u>Topic</u>	
Alternative schools	
Teacher Evaluation	
Individualization	
Individually Guided Education	
Career Education	
Early Childhood	
Special Education	
Inservice	
Behavior Modification	
Metrics	
Needs Assessment	
Learning Styles	
Sex Sterotypes	
Textbooks	
Enrollment Projections	
Vandalism	
Time Management	
Special Education Training Resources	
	Delivery systems* are primarily "on-demand" for individual requests
	<ul style="list-style-type: none"><li>• microfiche</li><li>• search</li><li>• existing resources</li><li>• recommended source</li></ul>
	*Responses are primarily reactive using what resources are stored in the "bank."

Reviewing a log of the response systems the following represent topics most often requested.

a full array of information is less frequently obtained. This is particularly true when requests for materials on specific topics such as "metrics" are received by the Center. These may be sent out with no accompanying supportive information and no extensive dialogue.

### LINKING TO RESOURCES

Most school personnel have not developed formal problem-solving skills and are not aware of ways in which they might individually tap external and internal resources. MEC works to make school personnel more aware of the possibilities of decentralizing resources. Progress has been made in the sharing of information and experience. Intra-regional personnel exchanges among schools in this geographical service area has helped. The program models developed at MEC stimulate the sharing of significant information and multiply the benefits of new educational practices through appropriate linking strategies.

Peer enablers, trainers of teachers, carry useful information to teachers and administrators in local schools. The information is relevant to professional growth through learning about current resources. The peer trainers, coordinated through MEC, maintain interstitial positions within school districts. This kind of problem-solving consultation offered by peer enablers has been identified consistently and favorably in the literature. Until recently, this process for carrying it out has been lacking in individual school systems which become even more introverted as the economic crunch is felt.

MEC acts as a catalyst to encourage clients to analyze their own needs. When similar needs are expressed by more than one client (at the system level), MEC first diagnoses the common problem and follows up with responsive programs, often on a cluster basis. Principals and superintendents are becoming involved in defining and prioritizing needs as a part of the professional development program. Meetings are held which increasingly emphasize this type of involvement. First, emerging in MEC management programs, client involvement has been fully realized already in the IGE schools. There, ongoing cycles of diagnosis and planning are already in place. In the early years of MEC more attention was devoted to building relationships; now the Center concentrates more intensively

on diagnostic issues and on acquiring relevant resources.<sup>6</sup>

EPDA funding was used for the purpose of investigating various linkages between regular and special educators, and between teacher training institutions and school districts. An external orientation is emerging to the extent that use is made of the Center. In addition, there has been an increase in the amount of sharing of information, practices and personnel among schools in the region.

Figure 3 illustrates the nature of contact with numerous resource systems and centers. The list suggests the vast range of resources in program areas generally within MEC responsibility and interest. The scope of two-way interchanges which MEC enters is growing. There is a continuing search for new resources, limited only by time and funds available for this activity. Accessibility and relevance are chief factors in establishing linkages. Readily available materials are identified, captured, and used extensively.

One example is the acquisition of training materials generated by the Education Service Center in Austin, Texas. Most nationally available information systems have been acquired and tapped. Interpersonal relationships with colleges, universities, and private organizations are formed primarily on the basis of geographic accessibility, although there are notable exceptions. MEC staff has participated in NOVA University programs, in Florida. MEC also has a special relationship with Wisconsin R&D Center for Cognitive Development, in connection with IGE and teacher training programs. Other associations may arise, depending on the needs and cost-effectiveness of the solution -- if a solution demands additional association with agencies possessing pertinent resource strength.

MEC has been able to build the skills of peer enablers who are often called on to help clients apply technical assistance to solve problems. Known as "opinion leaders" these peer enablers are given the legitimacy of an organizational system (MEC) which identifies them definitely to their administrators. A climate highly conducive to change generally results.

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<sup>6</sup> Havelock discusses six stages required for the adoption of innovations; relationship building, diagnosis, acquisition, choosing, acceptance, and self-renewal. These stages are only mentioned here and can be found more explicitly in "Case Study of the Merrimack Education Center, 1972."

TABLE 3: MFC LINKAGE TO RESOURCES

RESOURCE	MATERIALS AND IMPERSONAL CONTACTS	INTERPERSONAL CONTACTS
<p>1. <u>Government Agencies</u>                      NCEC/NIE                      Mass. Dept. of Ed.                      Mass. Governor's Comm.                      Human Service Task Force</p>	<p>PREP Packages, Mini-Kits,                      Funding                      Title III funding</p>	<p>Discussions                      Discussions                      Consultations</p>
<p>2. <u>Regional Laboratories</u>                      Far West Lab                        Northwest Lab                      Research for Better                      Schools                      Carolinas</p>	<p>EIC and Management Materials                      ALERT, IIU                      RUPS, Pool Management                        IMS</p>	<p>IPI Consultant                      Training in IMS</p>
<p>3. <u>R&amp;D Centers</u>                      Univ. of Wisconsin                      R&amp;D Center                      Northeast Area Learning                      Resource Center</p>	<p>IGE Materials</p>	<p>IGE Training; Conferences</p>
<p>4. <u>Educational Centers</u>                      IGE Centers                      Pilot State Dissemina-                      tion Centers                      Educational Collab.                      (EDCO)                      Texas Education Center</p>	<p>Information Exchange                      Information Exchange                        Austin/IGE Training Mat.</p>	<p>Needs Assessment Collaboration                        Discussions/Consulting</p>
<p>5. <u>Colleges &amp; Universities</u>                      Fitchburg State College                      Boston University                        Boston College                        Univ. of Minnesota                      Board of State Colleges                      Indiana University                      Univ. of Mass.                      Other State Colleges</p>	<p>Computer Services (Needs                      Assessment)                      L.T.I.</p>	<p>Inservice Collaboration                      Professors for Inservice,                      Graduate Students                      Professors for Inservice                      Conferences                      Early Childhood Study                      Collaboration - IOTA                      Consultants                      Source of Interns                      Professors for Inservice</p>
<p>6. <u>Private Foundations</u>                      I/D/E/A (Kettering)                      Children's Television                      Workshop                      Rockefeller Foundation</p>	<p>IGE Materials</p>	<p>Consultant                      Fiscal Conduit</p>
<p>7. <u>Private Development                      Organizations</u>                      Educ. Dev. Corp.                      General Learning Corp.                        National Computer Serv.</p>	<p>Film Materials                      Toy Lending Library (Far                      West Lab original                      developer)                      Wisconsin R&amp;D Materials</p>	<p>Discussions</p>

<u>RESOURCE</u>	<u>MATERIALS AND IMPERSONAL CONTACTS</u>	<u>INTERPERSONAL CONTACTS</u>
<u>8. Private Corporations</u>		
Xerox	IMS	Discussions
Arthur D. Little		Consultant
OSTI		Discussions
Raytheon		Discussions
Systems Dev. Corp.	Computer Services (ERIC)	
Mitre	Computer Services	
<u>9. Information Systems</u>		
ERIC	Library (fiche), Indexes Training Materials	
Kettering	Successful Practices File (fiche)	
N. Y. State	Curriculum File (fiche)	
ASCD	Curriculum File (fiche)	
MASCD	Local Curriculum Bank (fiche)	Collaboration
ALERT	Catalogue of Innovative Programs	
EPIE	Magazine, Newsletters	
NCEC	Current Topics, PREP	
AIR	Products Reports	
EdSel	Edited Abstracts from ERIC and NTIS	
Prof. Assoc.	Journals	
RISE	Exchange of Bibliographies	
AASA	ERIC Abstracts Series	
<u>10. Professional Associations</u>		
Mass. Organization of Educational Collaboratives		Executive Secretary

The enablers must foster within a school building the capacity to select and utilize identified resources. The project develops strategies for improvement of both the school system and the individual school. Also encouraged is the formation of mini-collaboratives of schools which cross district lines to form cooperative external relationships. The linking center acts as the middleman and translator communicating R&D results to educational practitioners and assisting through the stages of awareness, adaptation, and implementation.

This organizational support must be made up of three fundamental factors:

1. The linking agency must be able to help the practitioner assess his own needs and system-wide needs. Before a practitioner can use information, he must know specifically what the problems are.

2. The linkage personnel (enablers) must have knowledge of the resources readily accessible to solve the educational practitioner's problems. These resources may take the form of consultants, other practitioners, developers, or other human resources as well as the forms of research, successful practices, and training programs. The combination of process and product support ensures success where one of these alone would not be as helpful.

3. The linker must have access to the resources and then assist in transforming them so that they can be made available to the local practitioners in a site-specific implementation.

Since innovations cross district lines, a success in one school is shared with other systems to show neighbors the value of the new program. Again, the IGE League is a case in point; thirteen schools initially elected to join the League. At the present time, forty schools comprise four IGE Leagues coordinated by MEC. The acceptance of Center programs and the gaining of acceptance of the Center itself as an innovation are considerable.

Over the nine years of the Center, staff have employed strategies to account for different rates of adoption by different communities in an incremental fashion. Center staff have used innovative and "lighthouse" communities to illustrate acceptance of the innovations to communities which may be more conservative in their approach to change. Training and

technical assistance are developed through a support system thereby increasing local capabilities to utilize knowledge for improved program development locally. Project efforts focus on the development of strong mainstreaming support services and the implementation of non-categorical special education instructional services modeled after the diagnostic prescriptive approach or the instructional programming model.

Acquiring relevant resources is an activity engaged in to identify, analyze and build solutions. The degree of fulfillment of resource acquisition strategies and practices has been monitored and reported in an earlier case study of the Center. This strategy is fulfilled as part of a long-range planning effort. In the future direction of the Center, MEC will serve as a site for the Massachusetts Area Learning Resource Center to provide instructional materials, and teacher training materials for the region while serving as a model for other regions of the State. While building a permanent capacity for resource acquisition, MEC has been able to build the skills of peer enablers who help clients make application of technical assistance for problem-solving.

It cannot be overemphasized that the enabler must foster within a building or school system the capacity to select and utilize identified resources. The project develops strategies for improvement where the emphasis is on the school system and the school building level as well as on the formation of mini-collaboratives of schools which cross district lines forming cooperative external relationships. The linking center acts as the middleman or translator in this process of communicating R&D results to educational practitioners and assisting them through the steps of awareness, adaptation, and implementation.

As a part of its long-range planning and need forecasting, the Center attempts to keep abreast of emerging products and services around the country and is ready to supply these when a local need surfaces. The Center has most definitely built a permanent capacity for resource acquisition and has also been building within the client schools the capacity to utilize these resources.

## EVALUATION AND FUTURE DIRECTION

Evaluation is an intrinsic part of the inservice program. MEC uses a program evaluation procedure which measures the effectiveness of each program and obtains feedback valuable for future program design. This procedure does not replace evaluation techniques of individual instructors but rather supplements them. Instructors use staff development sheets and objectives feedback forms. These forms are filled out by course participants at the end of a workshop or seminar. The supplemental forms both make the instructor's task easier and provides feedback for MEC. The form obtains data about participants' reactions to the course and measures how well each course objective is met. The rating scale is generally a five-point Likert type, with means and standard deviations printed out by respondent groups for each program.

Beyond specific changes in the MEC staff development program, more systems must be developed to establish internal capabilities on a continuing basis. The present picture gives hope for the future since the capacity for self-renewal in the area schools is growing. Evaluative feedback from the MEC exchange economy model can be instructive for other groups and individuals wishing to create similar organizations; already established groups may profit from studying the data. Payment by MEC clients for services is important to the survival of the Center. It also accompanies necessary feedback data. Programs are dropped, modified or added according to feedback. If programs were continuously funded by grants or other sources, making them "free" to clients, it would be difficult to know if the client really needed the program. Payment indicates the client is deeply involved and appreciates the program, even if only to gain a return from his investment. Fifty percent of funds on each project are related to exchange economy mechanisms.

Eventually, self-renewing systems will exist with permanent peer enablers at management and instructional levels to act as internal change agents. Peer enablers (unit leaders, principals, and superintendents) are now training other school administrators and instructional personnel. A number of classroom teachers in the region are potentially good graduate level instructors. By giving teachers in the region an opportunity to select and teach portions of

the inservice, some highly competent graduate level teachers are emerging. As this occurs, the staff development program provides practicing teachers as part of its instructional staff--a resource infrequently found in schools of education.

Future Directions During the past several months, problems have been exposed--some solved, others recognized but not completely removed. Successes of MEC in presenting inservice programs for teachers provide experiences on which further improvements can and should be built. The collaborative model of staff development has been very well received by teachers and administrators and, judging from the feedback from participants, these programs have met a real educational need.

MEC will continue to help school system management to perform necessary diagnostic roles by initiating a new needs assessment program in 1976. The new program reinforces school building awareness of the need for information and materials support. Instructional competence in prescriptive diagnosis will also be strengthened. MEC has formed a link with the State Resource Center at the Massachusetts Department of Education, thereby with the North-east Area Learning Resource (ALRC) Center in New Jersey. There is in this trio a primary network for training and technical assistance through appropriate resource support.

MEC will be opening up more direct contacts and working connections between individual schools within its service area. As schools build their own linkages, resources will be shared and the role of MEC may change accordingly. As the Center's role changes, optimum size and function will be adjusted appropriately. Self-renewing and problem-solving school systems may indeed demand more and different resources from the Center. The support system in place should provide trained personnel in each school system who are qualified to train the staffs in their own schools. In this way, MEC resources can be efficiently stretched to enable schools to link more directly with resources.

As a program model for the State of Massachusetts, MEC also links with the Massachusetts Organization of Educational Collaboratives demonstrating innovative processes and strategies for resource exchanges. Contrasts with multi-purpose, innovative programs through MOEC will give an excellent opportunity

to help others who undertake new projects. The kinds of support needed by the schools, issues exposed, problems encountered, etc. are constantly identified and communicated through these channels. Figure 4 illustrates some problems encountered during this past year of Center operations.

Past performances of MEC suggest that its mechanism for sharing scarce resources among participant LEA's can help improve the quality of education while improving the flow of the immense quantity of information generated in today's world. We have found instances of the collaborative environment facilitating the transfer of insights to the policy level. These events and insights lead to new assumptions and some modified views of the school problem which are then incorporated into future direction.

The record shows that MEC goals have been accomplished to a satisfactory degree. The MEC needs assessment procedure has been completed and tested. Revisions are proposed for 1976 assessment forms. Emphasis is placed upon the use of peers as assessors and trainers, since their acceptance is clear. The most important results of the entire process thus far have been a better understanding of problems faced by educational managers, and of their approaches to problem-solving.

Opportunities are afforded by problem-solving activities to explore the connection between professional development, policy and practice. Therefore MEC will also work through executive board seminars to evolve a course in improvement of professional education. Continued attention will be centered on policy issues directly related to inservice practice. The development of alternative inservice policies now appear valid items for inclusion. New program audit procedures instituted by the Bureau of Special Education at the State Department will also reflect new light on these issues.

The skills of educational practitioners can be improved as system goals are reached. MEC will be contributing to the internal capability of its client systems to build toward these problem-solving skills. Implicit in this concept is the notion that there must be better means of applying theory and practice to actual situations. MEC project activities will be aimed at the interface between institutions that operate schools and those which serve as external R&D resource agencies. At this interface, new programs in training

Figure 4

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PROBLEMS ENCOUNTERED

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- STATE GOALS AND PRIORITIES ARE NOT ALWAYS THE NEED OF TEACHERS
- VOLUNTARY ENROLLMENT TO PROGRAMS DOES NOT PROVIDE FOR ALL TEACHERS
- SCHOOLS RELUCTANT TO MANDATE TRAINING
- MODULAR PROGRAMS (CUSTOMIZED) REQUIRE HIGH INVESTMENT IN PROGRAM DEVELOPMENT
- SCHOOLS AS A RULE DO NOT INVEST IN DEVELOPMENT ACTIVITIES
- COLLEGES CONTINUE TO SET A PRECEDENCE WITH 3 CREDIT COURSES LOCATED AT THE COLLEGE
- LOCAL SCHOOLS SLOW TO RECOGNIZE CONSUMER OR CLIENT POWER OVER WHAT IS TAUGHT
- LOCAL SCHOOLS CLOSED TIGHT THROUGH UNION AGREEMENTS--LACK OF RELEASED TIME, ETC.

and resource utilization will be aimed at:

- pooling information and energies through a training complex
- focusing upon needed competence and skills of instructional staff and leadership personnel
- measuring effectiveness of exchange models to accomplish the objectives of quality education

Figure 5 presents some of the present products as well as future MEC programs and directions. MEC welcomes comments and direct critiques of policy and philosophy. The staff will also appreciate any parallel experiences and information which may help problems more efficiently and quickly. Questions regarding specifics will be answered when directed to the Center. Having responded to the needs of its client schools, MEC is now a model for regional support, demonstrating there is an important place for similar organizations where the need is proven. MEC has rewarded cooperation and focused school system energy where it yields the most benefits. MEC itself has matured through solid achievement, as well as by learning from mistakes. The information dissemination system, begun at the outset, has grown tremendously and the support component will continue to be central long after outside funding has ended. The collaborative is a successful working model which has experienced many gains, been responsible for numerous benefits, confronted a host of problems and provided meaningful solutions. As a system, MEC is itself flexible, adaptive, and responsive. Figure 6 summarizes future directions for the project.

Figure 5

MERRIMACK EDUCATION CENTER

PRIORITY ADDRESSED	RESOURCES AVAILABLE	RESOURCES NEEDED	RESULTS OR BENEFITS	RESOURCE AGENCY
Mainstreaming model for Individualized Instruction	ICE System (presently in 40 schools in Massachusetts. Now being readied for urban areas)	Dissemination Funds	Building-based model for integration	<ul style="list-style-type: none"> <li>• University of Wisconsin</li> <li>• I/D/E/A Kettering</li> <li>• Sears Roebuck Foundation</li> <li>• Association for ICE</li> </ul>
Training regular classroom teachers in special education	<ul style="list-style-type: none"> <li>• Bank of inservice programs developed from</li> <li>• EPDA Program</li> <li>• Mass. ALRC</li> </ul>	Year Two funds for dissemination through MOEC	Inservice programs customized to local school systems	<ul style="list-style-type: none"> <li>• Maynard Reynolds, University of Minnesota-LTI</li> <li>• Donroy Hafner, Education Service Center, Austin, Tex</li> <li>• USOE -</li> <li>• Mass. State College Board</li> </ul>
Building local information systems (needs and resources)	Needs Assessment research completed. Active program in operation. Training Resource Bank	1st year 5 collaborative project funds for DDC/CCNS	Initial cut of data on regional needs of handicapped and Resource Inventory	<ul style="list-style-type: none"> <li>• Northeast ALRC (N.J.)</li> <li>• ERIC, CEC, etc.</li> </ul>
Early Childhood Pre-School Identification	<ul style="list-style-type: none"> <li>• MACE study - Child Care in Massachusetts. Simulation techniques.</li> <li>• Proposal submitted to BEH.</li> </ul>	Project assistance if BEH funds are not available	ACCESS Center for parents/pre-school proposed	<ul style="list-style-type: none"> <li>• MACE study - Child Care in Massachusetts</li> <li>• Literature review of gaming/simulation</li> </ul>
Training collaborative managers and special needs administrators	Development of collaborative and management training system	Training grant Proposal submitted Title IV	More effective regional and local operations; Linking/networking of mini-collaboratives MOEC, etc.	<ul style="list-style-type: none"> <li>• U. of Michigan - CRUSK</li> <li>• Title IV</li> <li>• Mass. Organization of Educational Collaboratives</li> </ul>

## FIGURE 6

### FUTURE DIRECTIONS

#### OUTLOOK - ONGOING

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- TRAINING SYSTEMS ARE CONTINUALLY BEING DEVELOPED AND UPDATED
- LOCAL SCHOOLS PROVIDE BUDGET FUNDS FOR TRAINING ON ANNUAL BASIS
- LOCAL IN-SERVICE COMMISSIONS ASSESS NEEDS ANNUALLY
- PROGRAMS ARE EVALUATED FOR ADDITIONS, MODIFICATIONS OR DISCONTINUING
- TRAINING RESOURCE BANKS AND TALENT POOLS ARE ESTABLISHED