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ABSTRACT

The final report of the Mid-Atlantic Region Special Education Instructional Materials Center (MAR-SEIMC) describes field services, information services, library services, and research and evaluation activities conducted from 1967 to August 1974. It is explained that 39 affiliate centers were established throughout Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and the District of Columbia. Information services included development and maintenance of an information clearinghouse on materials, processes, and projects which served educators in the region. Library activities described include circulation of materials, publication of topical bibliographies, abstracting of documents, and development of indexes for use by associate centers. Noted are research activities such as development of a test to measure impulsive-reflexive behavior. Appended are such items as information services quarterly reports, a report on a conference on the educational needs of the trainable mentally retarded, results of internal evaluation of the MAR-SEIMC, and a report of the consumer information analysis project. (DB)

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FINAL TECHNICAL REPORT

Project No. 7-0680
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Mid-Atlantic Region Special Education Instructional Materials Center
August 31, 1974

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U.S. Department of Health, Education, and Welfare
Office of Education
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ABSTRACT

The beginning and continuing goal of the MAR-SEIMC was to establish an Instructional Materials Center which would strengthen the quality of education and training for handicapped children and youth. The objectives set forth in the original proposal were to 1) collect and house instructional materials, 2) disseminate information to special educators, 3) demonstrate materials and train teachers in the use of new materials, and, 4) provide research and evaluation services.

To accomplish these objectives four(4) components evolved: 1) Field Services, 2) Information Services, 3) Library, 4) Research and Evaluation.

The Field Services component dealt with the establishment of a system of associate centers throughout the five-state area served: Pennsylvania, New Jersey, Delaware, Maryland, Virginia and the District of Columbia; and determined the best methods for providing media and materials information to each particular area.

The Information Services component developed and maintained a clearing-house of information and was responsible for the dissemination of information to special educators throughout the geographical area served.

The Library component was devoted to the systematic collection of media and materials, the maintenance of the collection and the development of an abstracting system which would describe materials according to teacher's objectives.

The activities of the Research component focused on materials for the "trainable mentally retarded"(TMR) and on "evaluation". These activities included the development of user evaluation forms, a materials evaluation form, an Evaluation Committee Task Force Meeting, research on the use of a basic information test (TOBI) with handicapped children (TMR and deaf, specifically), a conference on the educational needs of the TMR's, and the publishing of two(2) monographs on evaluation processes and practices.

Total net project costs over the approximately 7-1/2 years were \$2,106,000 with the Bureau of Education for the Handicapped/USOE support responsible for over 93% of that sum. Because of the complex interactions, which are the rule rather than the exception in the behavioral sciences, it is impossible to identify with certainty what the results of those expenditures are. However, in addition to some identifiable products they contributed to the establishment of similar centers under SEA and LEA control, development and dissemination of an enlarged and more sophisticated information

base relative to instruction of handicapped children and youth, training of variant intensity to a variety of personnel, and, indirectly, to improved educational opportunities for many children with handicaps who at some time resided within the Mid-Atlantic region.

The stimulatory effects on state and local education agencies, the contribution to the appropriate knowledge base, and the dissemination and training activities conducted should have a noticeable wake within the region for many years, and perhaps a ripple effect nationally.

PREFACE

The majority of the body of this final report was written prior to the grant expiration date (1974 August 31). What remained to be done at that time was related to materials and property disposition and completion of financial matters. The information presented is, unless otherwise indicated, accurate as of that expiration date. As is inevitably true, changes in personnel have since occurred which are not reflected. As a matter of fact, it may be observed that there was at least one change of director (or comparable title) in each of the six SEAs served over the 7-1/2 years of this project.

Plans for both materials and property disposition have been approved and all financial transactions, which included deficit spending in the last year of the project, have now been completed. The principal investigator welcomes any feedback or discussion concerning this final report.

Raymond S. Cottrell

1975 January 13

INTRODUCTION

It became apparent in the United States during the mid-twentieth century that commercial America had the resources to design and produce instructional materials for the field of special education. However, to properly place such resources in the hands of teachers so that they could be used effectively, expertise and resources not then available to teachers were required. The teacher whose time should actively be spent in the teaching role rather than as producer and researcher should have special services available to her. The President's Task Force suggested an organ to collect extant instructional materials related to special education, catalog, loan, store, consult, and publish acquisition lists and information pamphlets. Instructional materials centers were set up to regionally coordinate those specific needs mentioned. In an effort to facilitate this activity some regional centers set up satellite centers within the various states in their region, to coordinate services and information dissemination.

Prior to the funding and existence of the Mid-Atlantic Region Special Education Instructional Materials Center (MAR-SEIMC) there was a very sporadic inter-state flow of information of current interest to special educators. In many instances this included even a poor intra-state flow of information. After the inception of the MAR-SEIMC some progress was being made to ameliorate this existent void. Slowly, with assistance from the states, inroads were being made and change elements began to form.

Teachers, parents, and administrators who had unanswered questions and unfulfilled needs now were becoming aware of a resource, part of a national network, that could be tapped to provide, if not the answer, the proper secondary resource that knew the answer.

In response to that need, the regional SEIMC at The George Washington University was funded in 1967, March 15. Although the original proposal envisioned serving only Maryland, Virginia, and the District of Columbia, it was later revised to add Delaware, Pennsylvania, and New Jersey to its service area. This addition resulted in producing the largest SEIMC region in terms of population. At the conclusion of a 17-1/2 month "first" year, the continuation request modified the original project name by preceding it with "Mid-Atlantic Region". It has since that time been identified as "MAR-SEIMC."

As was true for all the SEIMCs until very early in 1971, the projects were funded and monitored by the Division of Research, of the Bureau of Education for the Handicapped, USOE. Dr. Raymond Cottrell was the original director, and Ms. (now Dr.) Margaret Moss served as associate director until 1969, May 31. Primarily as a result of Dr. Moss' interests, some early activities focused particularly on materials for the "trainable mentally retarded" and on "evaluation". Although considerable time and effort have continued to be addressed to the latter topic, the former became a special interest of another unit of the Network after Dr. Moss' departure from the staff.

Two other foci of activities are discernable in the summary of project strategies--information services and delivery system development.

There has been a steady increase in the quantity and quality of affiliate centers developed and planned. Part of this development can be attributed to various forms of direct assistance to four of the six SEAs which comprise the MAR. Each of the MAR constituent states has an operational plan for further ASEIMC development.

Information service development was always a major area of concern. A bi-weekly news release was distributed to SEAs and ASEIMCs and naturally individual requests (both via letter and telephone) were received and answered. The use of the computer in an accessioning, storage, and retrieval process used in the center was designed to facilitate basically human inquiry information systems. The center's efforts appear to be compatible with those of a Network-wide task force.

In the latter part of 1971 the MAR-SEIMC initiated and maintained a telecommunications system within the region that employed the Xerox 400 telecopier to augment voice communication between and among the SEAs, the ASEIMCs and the Network Office. The continued maintenance during FY '74 was highly endorsed by regional personnel.

Dr. Cottrell's scheduled sabbatical leave for the 1972 fall semester was a major contributing factor toward the selection of a new project director. Mr. Robert R. Carter who had been Coordinator of Field Services one year and Assistant Director the next year was appointed as Project Director for the final two years. Dr. Cottrell served as Principal Investigator for the life of the project.

FIELD SERVICES

In the original Demonstration Proposal, 1967, the objectives of the center fell into three general areas: a) material collection and dissemination, b) demonstration and training, and c) research and evaluation.

In the first years of operation the field services component dealt primarily with the establishment of a system of associate centers. It focused on the development of satellite centers throughout the geographic area served: Delaware, Pennsylvania, New Jersey, Maryland, Virginia and the District of Columbia.

A field coordinator served as liaison between the center and the five-state area for which MAR-SEIMC was responsible. During the first year of operation it was the aim of the field coordinator to set up an effective communication system within the region. The field coordinator made contact with professional groups, private and Federal agencies, other instructional materials centers and with teachers and other professionals in the states and made recommendations for the establishment of satellite centers in those states. His duties included the demonstration of materials within the classroom, in-service training meetings, and regional teacher workshops.

In studying the needs of a particular geographic area, an effort was made to determine the best future methods for making instructional media available to teachers of handicapped children, and to explore the viable methods for training teachers in the optimal use of such media.

In 1971 BEH's goal was to increase trained personnel so that 60% of the handicapped children have adequate instructional and supportive services by 1976.

The manpower shortage in the education of the handicapped is such that a major effort must be made within the next five years. Federal monies would be used 1) to stimulate planning at university, state, local levels, 2) to develop new models to recruit and train teacher trainees, 3) to upgrade certified teachers and retrain unemployed teachers to become teachers to work with special educators thus eliminating the segregation between special and general education.

This objective appears to be in agreement with stated goals of other regional centers. It was MAR-SEIMC's intention to communicate with these centers in order to coordinate activities and avoid duplication of efforts. Participation in a network interlock focused on the development of packaged multi-media training units.

The objectives of the '71-'72 proposal clearly showed that the direction was to maximize services to the states in the region. The process objectives specified for the MAR-SEIMC and the strategies suggested for achieving these objectives were based on recommendations made at a combined meeting of the MAR-SEIMC Advisory Committee and Regional Associate SEIMC Directors held in Harrisburg, Pennsylvania, on April 7-8, 1971.

Participants were asked to consider the following statement of the overall problem to be considered: "How should MAR-SEIMC organize for regional operation (develop its proposal) in order to maximize its service to your state?" Three topical areas were identified. They were:

1. Information Services (including retrieval of information and/or materials)
2. In-service Training for ASEIMCs
3. Intra-regional Communication Systems

Following recommendations made by the Network Coordinator's office, participants were asked to brainstorm about each topic. The format utilized was as follows:

1. Topics stated
2. Statement of problem (as it related to your state or center)
3. Clarification of problem
4. Recommendations that may resolve problem (at this time participants were asked to exchange papers)
5. Formulation of strategy that provides solutions -- actions to be taken by MAR-SEIMC (participants work on their own papers)

Summary of recommendations for action to be taken by MAR-SEIMC. Two general recommendations were made:

1. MAR-SEIMC should develop and maintain an intra-regional communication system and become a clearinghouse of information for the associate centers and their clients.
2. MAR-SEIMC should provide leadership and in-service training activities for the ASEIMCs. The in-service phase should include new trends in special education and preparation of packaged programs for use by associate centers.

To implement these objectives, five specific strategies were proposed.

1. MAR-SEIMC planned 15 in-service programs on media, materials, and technology in special education. Each program consisted of mediated materials, selected readings, listings of resources,

and a guide for using the package. These units were available to MAR-SEIMC personnel, State Departments of Education, local education agencies, college and universities, and other appropriate and eligible clients in the Mid-Atlantic Region. Together with the units, MAR-SEIMC provided consultative services on basic elements of developing and maintaining collections of instructional materials, dissemination of materials, and general procedural information relative to the operation of a SEIMC, to existing ASEIMCs and clients interested in establishing ASEIMCs.

2. MAR-SEIMC provided direct financial assistance to the states of Delaware and Virginia. MAR-SEIMC sub-contracted its field consultant services to the appropriate department or agency in each state.

The contractual agreements required each state to complete its plans for the operation of a state supported SEIMC program. The states involved demonstrated their commitment to the SEIMC concept by including in their state plans components indicating project growth and source of financial support for its intra-state network for the next three fiscal years.

MAR-SEIMC's direct financial assistance would be terminated on 31 August 1972. No consideration for future direct financial assistance could be made by MAR-SEIMC.

Evaluation of the direct assistance strategy was as follows. If two states involved had a state network of SEIMCs that were functional, MAR-SEIMC would consider that strategy a success.

Time Line:

Oct. 15 - Nov. 1: Final approval of contract documents

Oct. 15, 1971: First payment

Jan 15, 1972: Second payment and site visitation

May 15, 1972: Third payment and interim report

Aug. 31, 1972: Fourth payment and site visitation

Sept. 30, 1972: Final report

3. MAR-SEIMC conducted and/or participated in local, regional and national programs and activities that would increase staff and center efficiency in meeting the previously stated goals and objectives. Specifically, the SEIMC/RMC Network would work towards the selection of the system for providing information about instructional materials to special educators.

Staff development activities included all areas of involvement from MAR-SEIMC staff meetings to participation in regional and national conferences, as well as involvement in Network meetings and activities. The intent of staff development strategies was to maximize staff efficiency in meeting stated goals and objectives.

Several SEIMCs developed systems to provide information about instructional and professional materials; other centers contemplated other systems. All SEIMCs and RMCs involved or concerned with these systems explored the similarities and differences, the advantages and disadvantages, and the needs of special educators and decided if any of the systems that were developed would be sufficient. If one of the systems would meet the objectives then procedures would be

developed to make the information available to all centers.

If not, other alternatives would be explored.

The MAR-SEIMC took an active role in this exploration.

4. MAR-SEIMC sponsored a joint meeting of its advisory committee ASEIMC directors. The purpose of these meetings was twofold:
 - a. To evaluate the services of MAR-SEIMC to state departments of education and ASEIMCs.
 - b. To provide participants with the opportunity to direct MAR-SEIMC toward programs that will meet expressed needs within the region.
5. MAR-SEIMC participated in SEIMC/RMC Network Directors meeting. MAR-SEIMC was represented by the project director. The strategy to accomplish the objective of a common information system was developed by all components of the Network.

Status Report

The Mid-Atlantic Region is comprised of six states:

Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and the District of Columbia. Statistically, this area incorporates approximately 107,000 square miles with a total population of thirty million or 280 persons per square mile. The area includes many of the large urban centers which comprise the megalopolis that runs along the East coast from Norfolk, Virginia, to Boston, Massachusetts. The Mid-Atlantic Region includes cities like Philadelphia, Baltimore, Washington, D. C., Richmond, Newark and Norfolk along its eastern population corridor and many sparsely populated rural communities along the Central Appalachian mountains on its western border.

The number of handicapped children identified within this region is approximately 1.25 million. Of this amount, 375,000 are currently enrolled in public school programs (K-12). The process of identification is expected to reveal well over one million additional students within the next two years. Quite obviously current litigation has played an important role in speeding the identification process and the implementation of appropriate programs.

The MAR-SEIMC has worked with the six SEAs in an effort to provide and establish the IMC concept as a functioning, legislative mandate to supplement the state plans for special education. In four states (Virginia, Maryland, Delaware and the District of Columbia) it was necessary to invest some "seed money" to initiate state support of the SEIMC concept.

These investments have produced an on-going commitment of state monies, resources and personnel.

Collectively, the six states now have a total of twenty-five Associate Centers and fourteen Satellite Centers. (The distinction between the two types of Affiliate Centers is that the Satellite Centers are usually school-based, smaller in terms of staff, size of collection and budget and usually dependent upon their closest Associate Center for delivery of materials and services.) This structure is concomitant with the MAR-SEIMC's philosophy of materials and services delivery. This philosophy is to develop a pipeline (directly to schools, where possible) through which services and goods can flow in either direction. From a field standpoint, more emphasis has been given to the construction of this pipeline than to the make-up of its content. The reasons for this are twofold: (1) of what significant value is a materials collection and a centrally located pool of intellectual and practicing expertise if it is not readily available to the classroom teacher; and (2) the content is monitored by the Regional staff, professional producers, BEH guidance, etc.

From a financial standpoint, the thirty-nine Affiliate Centers manage an annual total budget of approximately \$2 million. This total is derived from a multitude of sources: local, state, federal and university. (Exact amounts and sources are described in some detail in the individual state reports.) This total budget reflects the entire cost of the Mid-Atlantic Region affiliated network for current maintenance. This figure was

expected to increase 5%-10% during FY'74. Again, the MAR-SEIMC's plan of operation has always been to work with the SEAs, eliciting their cooperation, guidance and support. This procedure can be recommended as a guideline for any Regional Center working with states and/or state supported Affiliate Centers.

There are 122.5 full-time equivalent staff positions among the thirty-nine Affiliate Centers. The jobs are the usual assortment for this type of operation: principal investigators, directors, assistants, media, curriculum and materials specialists, field coordinators, home visitors, clerks, typists, photographers, para-professionals, etc. The important administrative link in the personnel picture is that five of the six Mid-Atlantic Region states have appointed an individual to serve in each state as the SEIMC coordinator. The sixth state, Pennsylvania, has a consortia composed of three center directors and the State Director of Special Education, which manages IMC development. This arrangement again underlines the states' cooperation and commitment to the Regional Center as well as the SEIMC concept.

The MAR-SEIMC consists of eight and a half full-time equivalent professional staff employees and four full-time equivalent clerical staff employees. A recently compiled inventory of field services indicated that approximately 23% of the professional staff time during FY'73 was devoted exclusively to fulfilling commitments to the states comprising the Mid-Atlantic Region. The bulk of these commitments were in the

form of workshops for in-service special educators. These workshops were given in the areas of effective and efficient use of media, materials and technology, selection of instructional material usage. Subject areas covered reading, math perception, language, speech, physical education, etc. The disability areas were as numerous as the materials used. The remaining portion of time was devoted to conference and/or convention participation, professional planning and/or coordination meetings, consultant and supportive services, and MAR-SEIMC sponsored graduate classes. It is important to note that this 23% does not take into account the generous amount of hours consumed by the professional and clerical staff in support of these activities. Such additional efforts included: shelving, packing and shipping instructional materials, coordinating meeting times, travel and reservations, typing, Xeroxing, mailing, etc. A conservative projection is, for FY'73, between 25%-30% of the total MAR-SEIMC staff was spent on support and delivery of personnel services to the field. This amount of time satisfied the "on-demand" requests received from the states and various professional organizations within the Mid-Atlantic Region as well as those negotiated commitments.

Another facet of service delivery is the shipment of instructional materials to Affiliate Centers. A model for low cost shipment, specifically Greyhound Package Express, was evolved. A test of the model concentrated on the State of Delaware. Over 1,200 instructional materials were delivered and returned during FY'73. It is the intent of the MAR-SEIMC

to extend this service to and encourage its usage by all MAR-ASEIMCs. This process should help increase the benefits of a large materials collection across the board.

In an effort to physically and psychologically unite the MAR-ASEIMCs as well as extend the information pipeline, the Regional Center is currently supporting a telecommunications system comprised of Xerox Telecopiers. This system has the capability of sending or receiving an 8-1/2 x 11 printed page, photograph, illustration, etc. in either a four or six minute mode. The FY'73 Telecopier Network Evaluation revealed an average of 42 pages were transmitted through the system weekly. This rapid-response service adds dimension to the MAR-SEIMC's information delivery.

The following is a state-by-state breakdown of MAR-SEIMC composition and Regional Center/ASEIMC interaction through 31 December 1973.

BEST COPY AVAILABLE

DELAWARE

State Supervisor of Special Education
Richard Connell (302) 678-4632
Department of Public Instruction
Dover, Delaware 19901

State Coordinator of SEIMCs
Mrs. Edee Fenimore (302) 678-4667
Department of Public Instruction
Dover, Delaware 19901

Associate Centers (Personnel and Budget)

Betty Warren, Coordinating Teacher (302) 678-1069
Margaret Cannon, Aide
South Dover Elementary
955 S. State Street
Dover, Delaware 19901
Budget: \$5,000.00 Staff: 1

James Damatt, Coordinating Teacher (302) 798-1474 x24
Aloah Hatz, Aide
Green Street Elementary
Claymont, Delaware 19703
Budget: \$5,000.00 Staff: 1

Cammie Cairns, Coordinating Teacher (302) 322-3538
Doris Workman, Aide
Wallace Wallin School
Basin Road
New Castle, Delaware 19720
Budget: \$5,000.00 Staff: 1

Jimmie Randall, Coordinating Teacher (302) 422-6720
Janice Abbott, Aide
Benjamin Banneker Elementary
North Street
Milford, Delaware 19963
Budget: \$5,000.00 Staff: 1

Esselee Davis, Coordinating Teacher (302) 856-0035
Mary East, Aide
Howard T. Ennis Elementary
Georgetown, Delaware 19947
Budget: \$5,000.00 Staff: 1

John Oates, Coordinating Teacher (302) 429-7468
Linda O'Donald, Aide
Highlands Elementary School
Wilmington, Delaware 19808
Budget: \$5,000.00 Staff: 1

Funding Sources: Title VIB (ESEA), Title I

The MAR-SEIMC established the ASEIMC concept in FY'72 in the State of Delaware. An agreement was reached whereby the Department of Public Instruction matched a sum of flow-through money from the MAR-SEIMC to establish, endorse and promote the SEIMC concept. Thus, an initial investment of approximately \$10,000 has generated state support of approximately \$80,000 in two years.

The State of Delaware has progressed through the growing pains of establishing, evaluating and relocating Satellite Centers. Originally eight centers were established for school year 1972. Operationally, it became apparent that six centers would be appropriate. Thus, six centers are in operation for school year 1974. Although the number of centers has decreased, the financial support has remained constant, and the accumulated size of their collections has increased substantially.

As an indication of increasing support, the Delaware Department of Public Instruction (DPI) invested another \$6,000 above the \$33,000 commitment during FY'73 for the centers to purchase additional materials.

Each center is school based with an aide and a practicing teacher responsible for its operation. During FY'73 the center serving the Capitol District has had the responsibility of being a central point for instructional material dissemination. The hours of operation run approximately from noon to six, allowing teacher access during and after school hours.

The MAR-SEIMC pioneered a regional delivery system with the Delaware Satellite Centers. Utilizing the MAR-SEIMC cataloging system, the Xerox Telecopier, the MAR-SEIMC clerical

staff, Greyhound Package Express and the ASEIMC aides, a classroom teacher was able to identify and order a material from the Regional Center on Thursday and have that material in his or her classroom on Monday. The process model and a possible timeline is as follows:

Thursday morning: teacher identifies problem

Thursday afternoon: teacher uses MAR-SEIMC catalog
in satellite center and orders material

Friday morning: center's order is telecopied to the
Dover center

Friday afternoon: all orders reviewed and duplications
eliminated

Friday afternoon: one order compiled and sent to
MAR-SEIMC

Friday/Saturday: order received, items pulled from
shelves and boxed

Saturday afternoon: boxes delivered to Greyhound

Monday morning: boxes are picked up in Dover and
delivered to ASEIMC aides' weekly meeting

Monday morning: materials are divided according to
original orders

Monday morning: aides bring materials back to respective
centers

Monday afternoon: requesting teacher picks up materials

Monday afternoon: teacher uses the materials

This process was designed to maximize the usability of a Regional Center's collection in the field. This delivery approach has proven quite successful in reaching the special education student with a minimum time delay and maximum impact. Clearly this method of service will not only continue but be substantially increased. Special educators and the DPI staff have both endorsed this delivery concept as an invaluable ASEIMC service. It should be noted that in two years the state has developed from a position of no programs or plans in SEIMC development to a well-equipped, functional and highly used SEIMC Network.

Negotiations for a graduate class in Media, Materials and Technology were begun during FY'72. Cooperative lines of communication were established by the MAR-SEIMC with the Delaware Department of Public Instruction and the Special Education Department of the University of Delaware. Arrangements were made to have the MAR-SEIMC staff teach the class and supply the required materials. The University agreed to give three hours of course credit and the DPI paid for the tuition of the enrolled students. Class composition was a cross section of approximately thirty special education teachers and administrators.

The MAR-SEIMC did not make provision in its continuation request to teach the course for more than one semester. There has been an overwhelming number of requests from Delaware special educators directed to the MAR-SEIMC staff and the University of Delaware to offer the course as a continuing requirement. As a result, the University of Delaware has offered the

course for the Fall semester, 1973, utilizing some of the original students as instructors.

Some of the services that will be delivered to the State of Delaware during FY'74 include:

1. Providing long-term loan of selected materials through the established delivery system
2. Development of a slide-tape overview of the Delaware ASEIMCs
3. Orientation of new teachers to the ASEIMC concept
4. Providing staff development for each ASEIMC

DISTRICT OF COLUMBIA

Director of Special Education

Merle Van Dyke, Assistant Superintendent (202) 629-2441
Special Education
415 12th Street, N.W., Room 602
Washington, D.C. 20004

State Coordinator of ASEIMCs

Dorothy Hobbs (202) 363-3955 or 5573
Reno School
4821 Howard Street, N.W.
Washington, D.C. 20016

Associate Center (Personnel and Budget)

Eloise Brown (202) 363-3955 or 5573
Reno School
4821 Howard Street, N.W.
Washington, D.C. 20016
Budget: \$225,000 Staff: 10

Satellite Centers (Personnel and Budget)

Mrs. Maveritte (202) 629-7126
Keen School (severe learning problems)
Rock Creek Church Road & Riggs Road, N.E.
Washington, D.C. 20011
Budget: \$15,000 Staff: 1

Mrs. Avery (202) 629-8530
Simon School (severe learning problems)
4th Street & Mississippi Avenue, S.E.
Washington, D.C. 20032
Budget: \$15,000 Staff: 1

Mrs. Cyrus (202) 629-7077
Sharpe Health School (physically handicapped &
13th & Allison Sts., N.W. other health impaired)
Washington, D.C. 20011
Budget: \$15,000 Staff: 1

Mrs. Staggs (202) 629-5671
Woodson School (general special education)
54th & Eads Place, N.E.
Washington, D.C. 20019
Budget: \$15,000 Staff: 1

Laverne Early (202) 381-2010
St. Francis Xavier (general special education)
2700 O Street, S.E.
Washington, D.C. 20020
Budget: \$15,000 Staff: 1

Kia Garnett (202) 629-6174
Ruth K. Webb School (general special education)
Mt. Olivett & Holbrook Place, N.E.
Washington, D.C.
Budget: \$15,000 Staff: 1

Georgia Davis (202) 629-7168
Jackson Elementary School (visually impaired)
30th & R Streets, N.W.
Washington, D.C.
Budget: \$15,000 Staff: 1

Funding Source: D.C. Public Schools, Title VIB (ESEA)

The MAR-SEIMC has worked for three years to bring about the establishment of school-based Satellite Centers. During FY'73 five Satellite Centers were opened, each managed by a former special education teacher. Each Satellite Center has a Xerox Telecopier as does the ASEIMC at Reno Road School and the two D.C. Special Education administrative offices. Thus, the potential for the same type of pipeline delivery system such as Delaware's has been created in D.C. as well. Again, it has been and continues to be a primary concern of the field representative to construct delivery systems for materials, and services with little attention paid to what the flow-through content will be.

In the process of moving to a limited circulating collection in 1973, the MAR-SEIMC sent a multitude of walk-in clients to the Reno Road Associate Center. This freed a large part of the Regional collection, previously on loan to walk-in clients. Negotiations have indicated that the Satellite Centers will rely heavily on the MAR-SEIMC for materials delivery, while the Associate Center, Reno Road School, fulfills the needs of both Satellite Centers and the additional walk-in client business.

In retrospect, the MAR-SEIMC was responsible for the establishment of the Reno Road Center via what was alluded to previously as "seed money." A staff position was provided to the Special Education Department of the District of Columbia. The structural plans for a District-wide media service were conceived and consequently endorsed by the Director of Special Education. Thus, an investment of approximately \$6,000 has realized a supportive gain of approximately \$900,000 in the last three years.

As in the State of Delaware, when the Affiliate Centers are located in the schools, the delivery of SEIMC services to the child is much more expedient. This model of service from a Regional Center, directly to the child's immediate environment, while not unique to the MAR-SEIMC, has certainly been utilized and promoted to a greater extent than in most regional delivery systems.

Some of the services to be delivered by the MAR-SEIMC to the District of Columbia in FY'74 are as follows:

1. Make needs and materials known to all qualified clients
2. Inform all eligible clients of the location of all deliverable media and materials
3. Respond to client inquiries
4. Produce catalogs, bibliographies and profile matching materials lists
5. Maintain inventory records, including demands, circulation and reaction information on collection content

6. Long-term loan of media and materials
7. Evaluate materials by standard criteria and recommended usage incorporating teacher/child evaluations

MARYLAND

Director of Special Education

Mr. Stanley Mopsik (301) 796-8300 x466
Coordinator of Special Education
Maryland State Department of Education
600 Wyndhurst Avenue
Baltimore, Maryland 21210

State Coordinator of SEIMCs

Dr. Donald F. Hall (301) 923-3425 or 26
Director of SEIMC Project
R-175
Millersville, Maryland 21108

Associate Center (Personnel and Budget)

Dr. Donald F. Hall, Director (301) 923-3425 or 26
Maryland Training and Development Center
R-175
Millersville, Maryland 21108
Budget: \$138,000 Staff: 7

Funding Source: Title VIB

In FY'71 the MAR-SEIMC supplied one person to the State of Maryland (at a cost of \$25,000) in an effort to create a state plan for the development of the SEIMC concept. The result of this investment was the creation of the Maryland Training and Development Center (MTDC). Funded in FY'72, the MTDC was designed to provide direct services to four pilot continuum schools and eleven PIED PIPER (Project to Initiate Early Discovery of Problems and Intervene through Programs of Educational Remediation) schools operating within the continuum framework. These services include disseminating information on available instructional materials and their utilization, educational assessment of learning deficits, strengths and styles, and the special education classroom utilization of appropriate and highly stimulating/motivating instructional materials.

In an effort to continue the learning processes, the MTDC is planning to open a number of Satellite Centers throughout the state located co-jointly with teacher training centers operating within the continuum. The proposal is that as teachers are learning new instructional skills, the learning process will be supplemented with preparation in selection and use of appropriate or available media and technology. Upon completion of training, the teachers will continue to use the center in reference to updating teaching skills and short-term loan of instructional materials.

The MAR-SEIMC is currently working to assist in the completion of this project. It is estimated that the entire structure will be operable by FY'75. On the basis of its structural design, the MTDC network of centers will be concomitant to the State of Delaware and the District of Columbia in the sense of creating a potential delivery system. The same pattern of supplying these smaller centers with the Regional Center catalogs and resulting ordering of materials is expected.

Some of the services to be delivered to the State of Maryland in FY'74 include:

1. Screening instructional materials appropriate to specific learning disabilities on certain developmental levels
2. Utilizing instructional materials within a contingency management system
3. Evaluating and modifying reading readiness materials

NEW JERSEY

Director of Special Education

Dr. Daniel Ringelheim (609) 292-7602
Deputy Assistant Commissioner
Branch of Special Education & Pupil Personnel Services
State Department of Education
225 W. State Street
Trenton, New Jersey 08620

State Coordinator of SEIMCs

Dr. Nicholas J. Maldari (609) 292-7610
Coordinator of SEIMCs
Branch of Special Education & Pupil Personnel Services
State Department of Education
225 W. State Street
Trenton, New Jersey 08620

Associate Centers (Personnel and Budget)

Charles Barthe, Director (609) 589-3410
Southern New Jersey SEIMC
Savitz Library
Glassboro State College
Glassboro, New Jersey 08028
Budget: \$35,000 Staff: 4

Dr. Nagy, Chief Librarian (201) 527-2225
Dorothy Sked, SEIMC Librarian
Kean College of New Jersey
Morris Avenue
Union, New Jersey 07083
Budget: \$15,000 Staff: 1.5

Dorothy Henry, Director (201) 383-2521
Northwest Satellite Center
County Services Building
18 Church Street
Newton, New Jersey 07860
Budget: \$15,000 Staff: 1.5

Marion Leibowitz, Director (609) 448-4840
Project COPE-SEIMC
East Windsor Regional Board of Education
Hightstown, New Jersey 08520
Budget: \$19,000 Staff: 1.5

Dr. Frank Paoni, Director (201) 842-1900
Brookdale Community College SEIMC
Brookdale, New Jersey 07003
Budget: \$15,000 Staff: 1.5

Joyanne D. Miller, Director (609) 465-9354
Cape May SEIMC
Middle Township Board of Education
Cape May Court House, New Jersey 08210
Budget: \$10,000 Staff: 1

Edwin York, Director (201) 985-7744
Occupational Research and Development Resource Center
Edison, New Jersey 08817
Budget: \$22,000 Staff: 1

Richard Saxer, Director (201) 341-4430
Project TRIM-SEIMC
Tom's River, New Jersey 08753
Budget: \$22,000 Staff: 1

Susan Elting, Director (201) 539-0331
Northwest EIC
Cedar Knolls, New Jersey 07927
Budget: \$35,000 Staff: 4

~~Funding Sources: Title VIB, Title III, Title II, State Voc. Ed.~~

The State of New Jersey has maintained a long standing commitment to the SEIMC concept. It has not been necessary to implant seed money in an effort to create a pasture of co-operation. The acceptance of the SEIMC concept is reflected not only in the growing number of New Jersey ASEIMCs but in the well coordinated method of their establishment.

New Jersey has five Learning Resource Centers (LRCs) currently in operation. These centers usually specialize in a specific type of identified learning problem (e.g., sparse population, bilingual migrant workers, urban population) and are located in that section of New Jersey where the problem is most prevalent. In an effort to fulfill SEIMC concept requirements as well as utilize existing space, resources and personnel to supplement LRC activities, four ASEIMCs and LRCs are located co-jointly. This has proven successful in so far as capitalizing

on existing client usage. In addition, there are five centers established apart from LRCs. Kean College serves a densely populated urban college environment and the Northwest Satellite Center serves a sparsely populated agrarian region. The latter has a van that travels an established "circuit" bringing materials literally into the classroom.

Some of the services to be delivered by the MAR-SEIMC to the State of New Jersey during FY'74 include:

1. Provide the State of New Jersey with consultative services for staff development
2. Co-sponsor local in-service meetings and workshops on media and materials for special educators
3. Develop and provide a "bank" of materials and equipment which support high priority special education programs in the state

PENNSYLVANIA

Director of Special Education

Dr. William Ohrtman, Director (717) 787-1360
Bureau of Special Education
Department of Education
Box 911
Harrisburg, Pennsylvania 17126

Associate Centers (Personnel and Budget)

Dr. Robert L. Kalapcs, Director (215) 265-7321
Regional Resource Center of Eastern Pennsylvania for
Special Education
443 South Gulph Road
King of Prussia, Pennsylvania 19406
Budget: \$399,000 Staff: 17

Dr. Annette Rich, Director (717) 599-5771
Central Pennsylvania Special Education Resource Center
5601 No. Front Street
Harrisburg, Pennsylvania 17110
Budget: \$325,000 Staff: 15

Dr. Hal Chew, Director (412) 443-7821
Western Pennsylvania Special Education Regional Resource
Center
5347 William Flynn Highway
Gibsonia, Pennsylvania 15044
Budget: \$250,000 Staff: 12

Kenneth Schreffler, Director (215) 265-7324
Special Education Student Information Network
443 South Gulph Road
King of Prussia, Pennsylvania 19406
Budget: \$44,000 Staff: 8.5

Satellite Centers (Personnel and Budget)

Dr. Andrew Karpinski
Bloomsburg State College
Bloomsburg, Pennsylvania 17815
Budget: \$2,000 Staff: 1

Dr. Richard Kettering
Millersville State College
Millersville, Pennsylvania 17551
Budget: \$2,000 Staff: 1

Joseph Burak
Holy Family College
Philadelphia, Pennsylvania 19114
Budget: \$2,000 Staff: 1

Dr. Herman Axelrod
Penn State University
King of Prussia, Pennsylvania 19406
Budget: \$2,000 Staff: 1

Dr. Howard Freeman
West Chester State College
West Chester, Pennsylvania 19380
Budget: \$2,000 Staff: 1

Joseph Comi
Edinboro State College
Edinboro, Pennsylvania 16412
Budget: \$2,000 Staff: 1

Marilyn Roehm
LaSalle College
Philadelphia, Pennsylvania 19141
Budget: \$2,000 Staff: 1

Funding Sources: Title I, Title III, Title VIB

It is somewhat ironic that the first special education descrimination case filed against a state was done so against Pennsylvania. The state has been in the forefront of developing programs and testing new methods to assist the handicapped. A quick look at the budgets and programs of the State Regional Resource Centers (SEIMCs) indicates that heavy emphasis is placed on special education. Each handicapping condition is taken into account and instructional materials are made available at the centers themselves as well as taken to the field via specially equipped vans (e.g., the Smile Mobile). In addition to the Regional Resource Centers, the state has funded a Special Education Student Information Network (SESIN) located co-jointly with the SEIMC at King of Prussia. Working cooperatively with the MAR-SEIMC, SESIN has concentrated heavily on informing and instructing both undergraduate and graduate

students on the effective use of media and materials in the special education classroom.

Pennsylvania has recently developed two documents--Commonwealth Plan for Identification, Location and Evaluation of Mentally Retarded Children (COMPILE), and Commonwealth Plan for the Education and Training of Mentally Retarded Children (COMPET). They are designed to be used as a framework for common procedures in the special education classroom (e.g., identification, diagnosis, prescription, etc.). The documents as they currently exist are quite simplified and sketchy. The MAR-SEIMC has agreed to work cooperatively with the appropriate state agencies during FY'74 to expand and complete those areas of the documents that deal with instructional materials selection and use. The enhancement of the documents is a true cooperative effort in that the National Regional Resource Center is also helping in the identification and location of children, programs and curriculum. The ultimate phase of this process of course will be locating and facilitating delivery of materials and services once they have been selected by the classroom teacher. To this end the MAR-SEIMC will serve primarily in a consultant or advisory capacity, in that the materials collections in the existing centers are quite extensive and should be sufficient for the state's needs.

Some additional services to be delivered by the MAR-SEIMC to the State of Pennsylvania during FY'74 include:

1. Provide a list of learner characteristics that selected materials purport to accommodate

2. Provide products listing for classroom use
3. Provide an intellectual access to IMC/RMC/RRC center-developed and selected commercially produced "training packages."

VIRGINIA

Director of Special Education

Mr. James Micklem (804) 770-2673
Supervisor of Special Education
Division of Elementary and Special Education
State Department of Education
Richmond, Virginia 23216

State Coordinator of SEIMCs

Dr. Betty J. Wilson (804) 770-4639
Coordinator of Special Projects--Education of the
Handicapped
State Department of Education
Richmond, Virginia 23216

Associate Centers (Personnel and Budget)

Robert Byrd, Director (703) 679-2180
DILENOWSICO Media Center
1032 Virginia Avenue
Norton, Virginia 24273
Budget: \$82,592 Staff: 7

Peter Yanker, Coordinator (703) 433-6119
Madison SEIMC
Madison College
Harrisonburg, Virginia 22801
Budget: \$19,000 Staff: 1

Dr. Rizpah Welch, Chairman (804) 770-7333
Virginia Commonwealth University
Department of Special Education
901 W. Franklin Street
Richmond, Virginia 23220
Budget: \$4,000 Staff: .5

Dr. Helen Bessant, Director (804) 627-4371 x853
Instructional Resource Center
Special Education Department
Norfolk State College
Norfolk, Virginia 23504
Budget: \$10,000 Staff: 1

Sarah Irby, Director (703) 373-0040
Rappahannock SEIMC
1201 Caroline Street
Fredericksburg, Virginia 22401
Budget: \$8,000 Staff: 1

Funding Sources: ARC 302/202, Title III, Title VI, Title VIB,
Title IV, TVA, ETDA, Career Education, LEA Funds,
91-230

The Commonwealth of Virginia has been the most recent state within the Mid-Atlantic Region to create a state plan for ASEIMC development. During FY'73 the state plan (written with the aid of the MAR-SEIMC) has been adopted, in principle, but to date has received no state funding. This is not attributable to a reluctance on behalf of Virginia to fund SEIMCs, but is a delay related to state special education needs. Each of the 141 school districts comprising the state were charged to submit by 1 July 1973 a needs assessment and proposed plan of correction in the area of special education. As these documents are massaged into a total state plan, it is expected that the currently established ASEIMCs will receive at least partial state funding. However, given current commitments this funding will probably not occur until FY'75. As an indication of intent, the Virginia State Department of Education has funded a tri-county model center (the Rappahannock ASEIMC) for FY'73. The state will continue its financial commitment to the Rappahannock ASEIMC through FY'74.

The four additional Virginia ASEIMCs are operating under varied means, ranging through the gambit of federal, local and university financial support. Consequently, Virginia ASEIMC individual budgets are comparably small in relation to peer ASEIMCs in the remaining Mid-Atlantic Region where state support has been forthcoming.

Some additional services to be performed by the MAR-SEIMC in the State of Virginia during FY'74 include:

1. Five, two-day leadership conferences

2. Provide in-service workshops and consultant services
3. Lobby for the legislative acceptance of the proposed state plan
4. Long-term loan of equipment and materials

DEMOGRAPHIC ANALYSIS OF MAR

State	State Population ^a	School Population (K-12) ^b	Teacher Population (K-12) ^b	Special Education Teachers	Number of Handicapped Children	Number of Children Served ^d
Delaware	565,000	134,317	500,706	^d 454	^d 14,000	5,490
District of Columbia	748,000	143,411	7,200	^d 450	^d 18,000	6,158
Maryland	4,056,000	920,896	41,688	^{bc} 3,677	^d 150,000	31,000
New Jersey	7,367,000	2,000,000	76,260	^d 2,926	^d 200,000	130,000
Pennsylvania	11,926,000	2,361,285	111,682	^d 6,351	^b 655,800	156,047
Virginia	4,764,000	1,054,643	51,570	^d 1,733	^d 110,000	45,000
TOTALS	<u>29,426,000</u>	<u>6,614,552</u>	<u>789,106</u>	<u>15,591</u>	<u>1,147,800</u>	<u>373,695</u>

1. Data received from the following sources: (all figures based on data obtained in 1972)

^a Bureau of Census ^b State Department of Education ^d State Department of Special Education

^c includes aids, ancillary personnel

Center	Annual ¹ Budget	# FTE	Funding Sources	Value of ² Holdings
<u>Delaware</u>				
Claymont	\$ 5,000	1.0	Title VIB	\$ 3,000
Dover	5,000	1.0	Title I	3,000
Indian River	5,000	1.0		3,000
Milford	5,000	1.0		3,000
New Castle	5,000	1.0		3,000
Wilmington	<u>5,000</u>	<u>1.0</u>		<u>3,000</u>
Subtotal	\$ 30,000	6.0		\$ 18,000
<u>D.C.</u>				
Reno Road	\$ 225,000	10.0	Title VIB	\$ 10,250
Jackson	15,000	1.0		750
Keene	15,000	1.0		5,500
Simon	15,000	1.0		3,075
Sharpe Health	15,000	1.0		4,200
Webb	15,000	1.0		1,050
Woodson	15,000	1.0		3,050
Xavier	<u>15,000</u>	<u>1.0</u>		<u>3,500</u>
Subtotal	\$ 330,000	17.0		\$ 31,375
<u>Maryland</u>				
MTDC	\$ 138,000	8.0	Title VIB	\$ 30,770

Center	Annual ¹ Budget	# FTE	Funding Sources	Value of ² Holdings
<u>New Jersey</u>				
Brookdale	\$ 15,000	1.5	Title VIB	\$ 40,000
Cape May	10,000	1.0	Title III	40,000
COPE	19,000	1.5	Title II	100,000
Kean	15,000	1.5	State Voc. Ed.	300,000
NW EIC	35,000	4.0		100,000
NW Satellite	15,000	1.5		40,000
ORC	22,000	1.0		40,000
So. SEIMC	35,000	4.0		300,000
TRIM	<u>22,000</u>	<u>1.0</u>		<u>40,000</u>
Subtotal	\$ 188,000	17.0		\$1,000,000

Pennsylvania

King of Prussia	\$ 399,000	17.0	Title VIB	\$ 60,000
Central	325,000	15.0	Title III	70,000
Western	250,000	12.0	Title I	120,000
SESIN*	44,000	8.5		
Bloomsburg	2,000	1.0		
Holy Family	2,000	1.0		
Millersville	2,000	1.0		
Penn State	2,000	1.0		
West Chester	2,000	1.0		
LaSalle	2,000	1.0		
Edinboro	<u>2,000</u>	<u>1.0</u>		<u> </u>
Subtotal	\$1,032,000	59.0		\$ 250,000

*SESIN relies on King of Prussia and MAR-SEIMC for materials needs.

Center	Annual ¹ Budget	# FTE	Funding Sources	Value of ² Holdings
<u>Virginia</u>				
DILENOWISCO	\$ 82,592	7.0	ARC 302/202	\$ 100,000
VCU	4,000	5.0	Title III, TVA,	60,000
Norfolk	10,000	1.0	Title VIB, EPDA,	60,000
Madison	19,000	1.0	Title IV, 91-230,	45,000
Rappahannock	<u>8,000</u>	<u>1.0</u>	Career Ed,	<u>20,000</u>
Subtotal	\$ 123,592	15.0	LEA Funds	\$ 285,000
ASEIMC Total	\$1,841,592	115.5		\$1,615,145
MAR-SEIMC	<u>360,000</u>	<u>12.5</u>	Fed. Grant	<u>100,000</u>
TOTAL	\$2,201,592	135.0		\$1,715,145

1. Budget does not include management salaries (i.e., State Coordinator of SEIMCs) or indirect funds and/or services (i.e., free space, phone, college credit, etc.)

2. Value of each item set at \$10.00.

INFORMATION SERVICES

From the inception of the MAR-SEIMC, one of the goals was to disseminate information on instructional materials to special educators in the MID-ATLANTIC REGION.

In the continuation request of '71-72 the objectives related to the dissemination of information included:

1. To develop and maintain a clearinghouse of information about materials, processes and projects.

A data bank of information about materials, instructional processes and projects of interest to special educators in the MID-ATLANTIC REGION was expanded. Information was disseminated upon request within one week. Information was widely sought and selected for dissemination bi-weekly to ASEIMCs, State Departments of Special Education and units of the IMC/RMC Network and bi-monthly to 65% of all special educators within the MID-ATLANTIC REGION. The primary responsibility of a SEIMC was to make instructional materials and information about those materials available to special educators. Information about materials, knowledge of the material itself, about a process which might include the material, and trends in the field of special education should qualify.

The ERIC system was developed by USOE to provide educators with access to "fugitive" materials--speeches, unpublished manuscripts, government reports and obscure journal articles. Unfortunately, there is much information which is not included--in most cases

because it is not submitted by the author or because little has been written. There are innovative projects within each region which fit into this latter category; the projects are innovative and effective but little information about them is disseminated. The system being developed included both the ERIC system, which is not always available to the special educator, and that information which has been excluded from ERIC.

Sources of information in the D.C. Metropolitan area are many. When an individual might not have ready access to the sources, the MAR-SEIMC would. These sources included professional organizations, the federal government and ERIC/CEC. In addition, the center had access to the members of the IMC/RMC Network and other ASEIMCs in the MID-ATLANTIC REGION. The information service component can provide information to ASEIMCs, units of IMC/RMC Network and clients which would otherwise not be available.

Associate centers and state departments of special education requested information about legislation for writing proposals and about innovative projects carried on in other states. Individual clients requested information about appropriate materials. If the MAR-SEIMC is to serve special educators, this information must be available.

To provide information faster a communications system was installed linking the ASEIMCs in two states and all MAR-SEAs with the MAR-SEIMC. Asking the right question was important; the communications system would permit us to help the client formulate the right question.

2. To provide abstracts of any library holdings.
3. To provide CBRUs (Computer Based Resource Units).
4. In 1972, as the library concept was being de-emphasized, more emphasis was being placed on the entire in-house operations. Information dissemination techniques included answering client requests, information packets, telex system and a newsletter disseminated bi-monthly.

As requests from clients, ASEIMCs and state departments of special education were answered, information used was classified for future retrieval. Persons involved in answering requests perused all journals and newsletters received by the MAR-SEIMC in order to become familiar with the contents. Information in newsletters which had relevance to special educators was classified.

All sources of information would be identified and contacted to obtain their cooperation in answering requests. Sources included professional organizations, National Reading Center, ERIC/CEC, Library of Congress, Federal Government Agencies, state directors of Title IV Projects, ASEIMCs, appropriate committees in the U.S. Congress, and colleges and universities within the region.

Information about materials, processes and services were disseminated weekly to associate centers and state departments of special education.

Sources of information were identified and contacts made to determine validity of information and to facilitate obtaining the

information when it was needed, that is, cutting red tape. Sources included newsletters, federal and state governmental agencies, special projects within the region and the ASEIMCs. A professional member of the staff determined what information was to be circulated on a regular basis. All information gathered was classified and filed for retrieval upon request. Dissemination was facilitated by regional communication system.

This permitted the MAR-SEIMC to determine if communication was increased when more rapid communication was possible.

Information about events within the region, commercially produced and teacher-made materials available at the regional SEIMC and trends in special education were disseminated bi-monthly to all clients. Articles for the newsletters were solicited from clients and ASEIMC personnel. Assistance was provided in writing these articles. Each member of the professional staff contributed articles.

All activities of the MAR-SEIMC were advertised in the newsletter. ASEIMCs which do not publish newsletters were encouraged to submit calendars of activities.

Evaluation:

To determine if 65% of the special educators in the Mid-Atlantic Region have received information from the MAR-SEIMC.

Oct. 1 - Nov. 1: develop logs for phone, mail and communication system and walk-in clients

Nov. 1 - Aug. 15: collect data

June 1 - June 15: contact each state department of special education
to determine total number of special educators
within state

Aug.15 - Aug. 30: analyze data

To determine if 75% of the information provided on request
was useful as perceived by the requestor.

Oct.15 - Oct. 22: develop self-addressed questionnaire to be mailed
with each request excluding those to be interviewed

Oct.22 - Oct. 30: print questionnaire

Nov. 7 - Aug. 15: collect questionnaire data

Oct.22 - Nov. 1: develop procedures with ASEIMCs to interview
sample of clients receiving information

Nov. 1 - Dec. 15: train one interviewed from each ASEIMC

Jan. 1 - June 1: collect interview data

June 1 - July 1: analyze data

To determine if communications between ASEIMCs and MAR-SEIMC
increases significantly.

Oct. 1 - Dec. 1: establish baseline data by analyzing logs

Dec. 1 - Aug. 15: collect data

Aug.15 - Aug. 31: analyze data

To determine if requests are answered within one week of
receipt.

Oct.15 - Aug. 15: collect data via log

Aug.15 - Aug. 31: analyze data

LIBRARY

One of the basic goals of the MAR-SEIMC since its inception has been to provide teachers of handicapped children with physical and intellectual access to information about instructional materials.

Since 1967 the MAR-SEIMC has maintained a circulating collection of materials for clients. They began as a functional library in the fall of 1967 with 1,000 volumes donated to the SEIMC by the Department of Special Education at the George Washington University. The original library staff cataloged the materials and prepared author, title, and numerical files. A collection of publishers' catalogs was begun during the library's first six months of operation. Staff searched the catalogs for both professional and instructional materials suitable for collection. By the fall of 1967, 180 books were numbered and shelved and other materials were awaiting accessioning. By the summer of 1968, the collection increased to approximately 2,000 professional titles and 1,000 instructional titles. By March 1970, instructional and professional materials amounted to 4,000 books and 1,000 non-book materials.

During the library's first year of operation there were many requests made by teachers for lists of holdings in the areas of major disability such as mental retardation, emotionally disturbed, speech pathology and audiology. It became cost effective to prepare bibliographies from manual searches in these areas:

Trainable Mentally Retarded Child (12 pages, November 1967)

Speech Pathology and Audiology (9 pages, December 1967; revised to 15 pages, March 1968)

Emotional Disturbance (11 pages, March 1968)

Mental Retardation (13 pages, April 1968)

By May 1968, six bibliographies were made and distributed in quantity. Stenciled copies of each were distributed upon request, in person or by mail to special educators in the region. Many other brief bibliographies were prepared in answer to requests from the field.

Teachers and students were then able to make specific requests based on the bibliographies. Clients who visited the Center could use the bibliographies to identify new books in their field of interest. They could pull the books themselves from the shelves and examine or borrow them without further help from the library staff. Special education lecturers used the bibliographies to expose students to a greater range of writing. Parents and professional organizations found them ready reference tools. The bibliographies could easily be updated. Frequent requests for lists in two areas of instruction required bibliographies to be prepared in these areas:

Books of High Interest/Low Vocabulary (8 pages, May 1968)
Technical and Vocational Training (8 pages, May 1968)

Only professional books were listed since instructional materials would be valuable only to those familiar with the materials.

The library located at the SEIMC was operated and maintained for the convenience of all those who wished to use the service. The major policy regulating library service during the '67-'68 academic year was that clients were allowed to borrow as many materials as they could transport with help. The staff often helped transport materials to and from clients' cars. To accommodate working clients, the library was kept open after closing time. Often a client's child was watched to free the user to browse and borrow materials.

By the summer of 1968, it was clear that better service could be accomplished if stricter rules were made regarding the loan services. The loan period was limited to two(2) weeks, and each client was allowed to borrow no more than five(5) books and five(5) non-book materials. Before a client was allowed to use the center, a registration card was required to show the user's relationship to handicapped children. A new card check-out system was instituted so that in lieu of signing one card for all items borrowed, the client had to make out a separate card for each item.

There was approximately a 250% increase in circulation between the last quarter of the 1967-68 academic year and the first quarter of the 1968-69 academic year. Thereafter, there was a steady decline, but the low period for the second year was only slightly below the high point of the first year. (1271 items in the last quarter of 1968-69, 1361 in the last quarter of 1967-68) The marked increase in the number of items borrowed is attributed to: 1) word being spread by user's that the center existed; 2) workshops stimulated teachers to try out new materials.

During the course of 1969, it was decided to maintain a representative collection at the center at all time. "For Demonstration Only" was marked on one copy of each non-book item for which there were multiple copies in the collection. Further restrictions were imposed on the number of materials each individual could borrow; exceptions were made for special programs of the Department of Special Education at George Washington University, such as pilot diagnostic classes, and the Diagnostic Nursery at the Georgetown University Hospital.

The demonstration copies were often used by County supervisors of special education, audio-visual specialists, teachers with small budgets for class supplies, and persons with federal grants which had to be spent in a limited time. The SEIMC performed a valuable service to these individuals since here they had access to the catalogs of more publishers than they could find elsewhere. Even more important was the opportunity for users to examine, first hand, instructional materials from a variety of publishers without the pressure of having a representative from the company to influence the consumer.

The SEIMC was viewed as a vehicle that facilitated communication between supervisors and their teachers. Often visits to the SEIMC by teachers were followed by visits from their supervisors. They often discovered the use and values of materials their schools already owned but that remained unused.

A reduction in the circulation of materials occurred during the 1969-70 academic year. This was in part due to the fact that more resources were available to special educators in the region. Many schools and counties had enlarged their collection of instructional materials and teachers were more willing to invest their own funds in the purchase of materials and equipment. Moreover, as the collection increased, there was less physical space for clients to work in comfort.

The move in February, 1970 to more spacious facilities had a positive impact on the numbers of clients who frequented the library.

TABLE 1 MATERIALS CIRCULATED FROM MAR-SEIMC LIBRARY

	<u>JANUARY</u>	<u>FEBRUARY</u>	<u>MARCH</u>
1968	302	328	366
1969	860	864	831
1970	354	418	631*

*Figures for first three weeks of March, 1970.

Additional areas now available in the new facility made the library more attractive to clients. There was adequate working space for the library staff and a separate room where groups viewed films or participated in workshops without disturbing clients wishing to work quietly.

Prior to November 1, 1968 user traffic was counted at one time in the middle of two hour time periods. With this method some users were counted more than once in a given day and others went uncounted. In March, 1970, the method used was changed. The desk attendant recorded each individual instance of other than in-and-out usage of the SEIMC.

This change in method makes direct comparisons pre and post November 1968 tenuous. The most frequent users were graduate students in special education and related fields.

During the 1971-72 academic year the MAR-SEIMC continued to develop and maintain a clearinghouse of information about materials processed, and projects of interest to special educators.

The collection of instructional materials was available to individual clients who came to the center or requested them by mail or

by telephone. Where there was a functioning associate center available to the clients, MAR-SEIMC loaned the material to the ASEIMC who in turn loaned the material to the client. By the ASEIMC providing direct service, the state became more aware of services they needed to offer their special educators. Professional consultation in the selection and use of instructional materials were also available.

Library hours were changed to better meet the needs of teachers. The center maintained hours of 12 noon - 7 p.m., Monday through Thursday, 12 noon - 5 p.m., Friday, and 11 a.m. to 3 p.m., Saturday to permit clients to examine and check out materials. Special appointments were accommodated.

Of special importance is the commitment to create a document which described a material in terms appropriate to a teacher's objectives. When a teacher has specified what is to be taught in terms of three levels of curricular information and an ability/grade level, access to a document describing the appropriate materials is provided. These documents, called abstracts, were printed and distributed to the associate SEIMCs within the Mid-Atlantic Region. The teacher using these with their accompanying indexes at any one of those centers is provided with an immediate response to her request. The abstracting system is open-ended. Descriptions of materials not in the collection can be included. The system has the capability to maintain and disseminate information about any instructional or professional material within any SEIMC or ASEIMC.

Abstracting at MAR-SEIMC has been done in two phases. The library creates the traditional bibliographic information for an item. This partially completed abstract is added to the computer files and indexes, and a copy with a pre-printed form is given to the curriculum

analyst for completion. Since the bibliographic information can be gathered by non-professionals, better usage is made of the professional staff member's time. This procedure facilitates easy entry of the bibliographic information to the file while the item awaits full analysis by the professional members of the staff. It also relieves the library of maintaining the traditional card catalog.

There are two types of abstracts: one contains basic bibliographic information only, the second contains information resulting from a complete curriculum analysis. From this analysis is generated the unique "structured index". In it materials are categorized into three levels of curricular information and a grade level. This enables the user to "browse" the abstracts directly applicable to his specific teaching objective.

These print-outs were distributed to each ASEIMC and State Department of Education in the Mid-Atlantic Region. The coordinator of field services was involved in orienting the recipients on how to utilize these print-outs to maximize services between the MAR-SEIMC and clients in their areas.

During FY. '72, in addition to its own collection, MAR-SEIMC maintained for demonstration and display purposes, a collection of IMC/RMC Network developed products for use by the Network Office of the USOE. In August, 1972, the Coordinator of Information Services, our present Materials Dissemination Coordinator and the Library Assistant wrote Bbling and Libbing Guidelines, rules to use when accessioning.

Between September 1971 and August 1972, a reorganization of the center's staff resulted in a de-emphasis of the library concept of the center with more emphasis on the entire in-house operations as being primarily that of information services.

These services included the library loans; the newsletter, which was published bi-monthly (excluding summer months); an information packet sent to ASEIMCs, State Departments of Special Education and MAR-SEIMC staff members on a bi-weekly basis; film and audiovisual loans and instruction; referral services where information could be given best by other sources; the preparation of abstracts on materials in the collection; and preparing for in-service training workshops on methods, media and materials.

From 1967 to July 1973, the MAR-SEIMC maintained a circulating collection of materials for clients not served by an associate center. Since July 1973, the MAR-SEIMC has maintained a non-circulating collection available only for examination at the center. The collection could be circulated through the associate SEIMCs which did not have the materials available which were requested by their clients. A collection of materials was maintained. The materials were accessioned, that is, identified that they belonged to the MAR-SEIMC, re-packaged if the original package was not suitable, records prepared to provide clients with information that the item was a part of the collection, and placed in the proper storage area. In addition, materials were reshelfed after use and had to be replaced when lost or damaged. And, of course, new items were ordered.

A computerized system was developed by the MAR-SEIMC to record each transaction. Each client (individuals, associations, ASEIMCs) completed a registration form which was keypunched. The library received a punched card for each registrant. After materials were accessioned, the library received a punched card for each material. When a client wished to check out a material the material punched card was combined with the client's punched card. At the end of the day the client's registration number and date were duplicated onto the material's card. Each day the cards were run and a print-out of all items which were out was received by the library. In addition, the cards could be used to gather circulation data.

Materials were ordered when approved by two professional Special Educators. One of the persons had to be a member of the MAR-SEIMC staff.

The system required no duplication of effort. That is, once the information was key punched, that information was duplicated, not key punched again. It required a minimum of the client's time. Statistics were gathered and analyzed through the use of the transaction system to determine the number of different clients checking out materials at least once. The thirty clients using this service most often and least often were interviewed to determine the quality of the service rendered.

Most materials were made available for a two-week loan period. The material could be renewed for one loan period. Films and audio-visual equipment were loaned for one week. The collection finally consisted of approx-

imately 8,000 separate titles and included instructional and professional materials, journals, newsletters, tests, publisher's catalogs, audio-visual equipment, films and a topic file.

A thesaurus of descriptions arranged in a hierarchical structure was constructed in 1970. This hierarchy consisted of a major curriculum area followed by a specific curriculum area. The third element in the hierarchy is a teaching objective or goal. The fourth and final element was a grade or ability level. Thus, the special educator referring to the indexes generated from this hierarchy within his particular area of interest, i.e. general and specific curriculum, was quickly led to information about materials relevant to his specific teaching objective.

It cannot be too greatly stressed that by placing these indexes in the associate centers within our region MAR-SEIMC provided immediate access to the information for the special educator. It was possible for the center to use the computerized data base for searches when this index was not sufficient to handle the request; but here, as with any such search, manual or computerized, there was an inevitable amount of delay.

In an effort to achieve compatibility with the standard network cataloging format, curriculum analyses of MAR-SEIMC's 3,000 instructional materials was undertaken. These analyses were merged with an existing file of 500 documents containing this analysis.

In FY '73, 2,000 materials were added to the existing data base. All materials in the collection were added to the catalog by the end of FY '73.

Proofreading Guidelines, January, 1973, and Manual of Library Procedures, June, 1973, were products put out by MAR-SEIMC in 1973.

During 1973 the MAR-SEIMC was actively involved in the Area IV Consortium and pursued strategies that were continuations of on-going activities. Acquisitions and accessioning proceeded according to MAR-SEIMC procedures. Materials were maintained in good condition and readily accessible for dissemination throughout the region. Emphasis was placed on block shipping of materials to ASEIMCs for relative long-term use. ASEIMCs were requested to utilize the telecommunication system, catalogues and indexes and abstracts for requesting materials from MAR-SEIMC of a turn around time of two days. During 1973 the MAR-SEIMC continued to program the computer based transaction system to compile a daily print-out. The log contained user information, materials records and circulation data.

During FY '74, the close-out year, the instructional materials collection became essentially a "non-circulating" collection. Bulk shipment of materials germane to a specific curricula or subject materials area were made to ASEIMCs for the purpose of updating the local collection or in support of a specific materials demonstration or training activity.

RESEARCH

Research efforts received high priority within MAR-SEIMC at its establishment in March, 1967. They were somewhat hampered after June, 1969, when the then Associate Director for Research, Mrs. Margaret H. Moss, resigned. Mrs. (now Dr.) Moss not only served the Center, but she also functioned as chairman of the IMCN Evaluation Committee.

In June of 1969, Miss Carol Gross was promoted to Research Coordinator and assumed many of Dr. Moss' responsibilities. The 1970 site visit team recommended a de-emphasis of research, especially in the separate quarters which resulted in 1970 February in moving the project physically onto the campus. The change was implemented in 1970 September, shortly before the project monitoring was transferred within BEH from the Division of Research to the Division of Educational Services.

MAR-SEIMC experiences, especially relative to evaluation, were made available to the SEIMC/RMC Network task force on "Evaluation of instructional materials," a major group within the media and materials information system task force.

A series of activities, some occurring singly and others concurrently, were undertaken. Sometimes the sequence was evolutionary; however, in other cases a decided shift or change may be noted.

Chronology of Research Activities

MAR-SEIMC User Evaluation Forms

Conference of the Educational Needs of the Trainable Mentally Retarded

An Investigation of the Use of the Test of Basic Information (TOBI) with the Handicapped--TMR and Deaf

Development of a Test to Measure Impulsive-Reflexive Behavior

Conference on the Evaluation of Instructional Materials

Internal Evaluation of the MAR-SEIMC

Survey of 16mm Film Resources Available to Special Educators in the
Mid-Atlantic Region

Evaluation Committee Task Force Meeting

Project ELF

Consumer Information Analysis Project

Individual reports of the ten activities are contained in the appendix
(I thru R), although some have already been disseminated in other ways.

RESULTS AND CONCLUSIONS

Results in the sense of cause and effect are extremely difficult to ascribe with certainty when one is involved in the highly complex and interactive behavioral sciences. The operation of the Mid-Atlantic Region SEIMC clearly falls within this category.

One identifiable result is the report of expenditures required to carry out this project. Annual reports of expenditures have been submitted as required. The following chart presents the annual expenditures in more detail than that required by the government, and presents that information over the approximately 7-1/2 years of the project. It also includes a column showing totals over the seven fiscal periods.

Naturally, the greater portion of the approximately \$2,106,000 expended came from the Bureau of Education for the Handicapped/USOE. However, The George Washington University's contribution of approximately \$138,000 represents a significant 6.5+% of the total cost.

In addition to the traditional line item budget included in this report, one could analyze the total by type of activity or strategy. Still another way might be to break it down by focal point of project efforts--national, regional, SEA, intermediate (intra-state regions) unit or SMSA, and LEA. The latter methods were employed on occasion but not consistently over the life of the project. These methods require much more effort in order to be charged consistently and because, in many if not most cases, decisions have to be made (e.g., "dissemination" vs. "training" or "regional" vs. "local") to prorate costs that in a traditional line item budget are relatively easy to ascribe to a particular line. This problem is com-

	626-120 67/3/15 thru 68/8/31	626-122 68/9/1 thru 69/8/31	626-123 69/9/1 thru 70/8/31	626-124 70/9/1 thru 71/8/31	626-128 & 129 71/9/1 thru 72/8/31	626-132 & 133 72/9/1 thru 73/8/31	626-134 & 135 73/9/1 thru 74/8/31	LINE TOTALS
Faculty Salaries (105 C)	\$ 0.00	\$ 0.00	\$ 15,505.96	\$ 13,614.95	\$ 17,509.89	\$ 15,662.10	\$ 15,133.91	\$ 77,426.81
Faculty Salaries (116 OC)	26,741.95	20,625.00	0.00	0.00	0.00	0.00	793.96	48,160.91
Non-academic Salaries (110 C)	0.00	0.00	141,106.43	132,842.92	116,937.62	137,191.60	103,165.40	631,243.97
Non-academic Salaries (111 OC)	102,369.23	109,540.07	0.00	0.00	0.00	0.00	10,506.79	222,416.09
Wages (121 C)	0.00	0.00	12,284.03	7,012.97	5,629.74	6,524.23	1,913.61	33,364.58
Wages (129 OC)	17,008.05	18,591.34	0.00	0.00	0.00	0.00	0.00	35,599.39
Subtotal: Salaries & Wages	(146,119.23)	(148,756.41)	(168,896.42)	(153,470.84)	(140,077.25)	(159,377.93)	(131,513.67)	(1,048,211.75)
Employee Benefits (430)	23,493.12	24,544.82	27,867.90	25,322.69	23,112.74	26,297.36	21,699.76	172,338.39
Leave Credits (191)	-8,443.24	-7,593.45	-14,309.24	-13,284.86	-10,743.71	-12,022.86	-14,989.69	-81,387.05
Subtotal: Fringe Benefits	(15,049.88)	(16,951.37)	(13,558.66)	(12,037.83)	(12,369.03)	(14,274.50)	(6,710.07)	(90,951.34)
Consultants (131)	5,312.50	900.00	625.00	1,040.00	200.00	270.00	44,573.53	52,921.03
Honoraria (132)	825.00	0.00	0.00	0.00	0.00	0.00	0.00	825.00
Services (293)	273.82	180.19	0.00	0.00	130.50	1,352.43	8,459.07	10,396.01
Subtotal: Cont. Pers. Svcs.	(6,411.32)	(1,080.19)	(625.00)	(1,040.00)	(330.50)	(1,622.43)	(53,032.60)	(64,142.04)
Communications & Shipping (204)	2,507.04	2,304.69	1,777.15	1,597.64	8,827.45	5,037.59	3,169.29	25,220.85
Office Supplies (310)	3,658.00	3,236.25	2,747.21	1,665.37	2,689.89	2,584.20	4,747.99	21,328.71
Reproduction & Duplication (249)	1,969.28	3,139.45	3,591.90	6,549.48	9,584.87	9,061.80	9,008.63	42,905.41
Travel (235)	14,762.88	10,209.27	6,799.74	8,946.53	4,515.93	11,452.18	19,638.81	76,325.34
Conferences Expenses (289)	968.70	415.12	598.07	1,195.62	2,070.45	2,858.93	8,099.29	16,206.18
Virginia (272)	0.00	0.00	0.00	22,500.00	6,041.54	0.00	0.00	28,541.54
Delaware (273)	0.00	0.00	0.00	0.00	8,459.41	0.00	0.00	8,459.41
Subtotal: Misc. Admin. Exp.	(968.00)	(415.12)	(598.07)	(23,695.62)	(16,571.40)	(2,858.93)	(8,099.29)	(53,207.13)
Publications (265)	2,239.43	605.74	331.10	317.58	494.95	179.73	5.71	4,174.24
Teaching Aids (315)	7,017.45	6,339.45	3,655.40	7,323.85	7,211.53	17,083.72	18,862.25	67,493.65
Subscriptions (440)	1,073.75	473.59	523.92	788.20	1,028.95	1,155.80	21.00	5,065.21
Books (940)	7,877.70	932.27	453.26	505.85	361.78	189.48	273.86	10,594.20
Subtotal: Materials	(18,208.33)	(8,331.05)	(4,963.68)	(8,935.48)	(9,097.21)	(18,608.73)	(19,162.82)	(87,327.30)
Data Processing (424)	3,380.71	5,346.38	11,185.31	10,102.54	11,936.45	6,375.22	3,027.13	51,353.74
Rental of Space (421)	12,976.83	11,499.96	0.00	0.00	0.00	0.00	1,190.00	25,666.79
Alterations (217)	963.24	0.00	0.00	0.00	0.00	0.00	0.00	963.24
IBM Equipment Rental (420)	633.20	528.00	671.66	831.60	783.60	831.60	808.92	5,088.58
Equipment Rental (422)	838.15	0.00	0.00	460.00	1,015.00	14,371.36	18,837.70	35,522.21
Equipment Purchase-SEIMC (934)	8,026.52	4,167.91	1,488.06	531.75	895.00	11,299.81	9,262.01	35,671.06
Equipment Purchase-GWU (935)	15,776.40	804.12	0.00	0.00	0.00	0.00	0.00	16,580.52
Equipment Repair (226)	247.55	256.54	205.90	125.00	293.42	639.88	1,074.35	2,842.64
Total Direct Costs	252,497.26	217,046.71	217,108.76	229,989.68	218,986.80	258,396.16	289,283.28	1,683,308.65
Indirect Costs (463)	39,671.37	38,884.93	(C) 67,558.57 (OC) 9,472.67	61,388.33	56,030.89	82,876.53	(C) 62,510.72 (OC) 4,294.29	422,688.30
Total Costs	\$292,168.63	\$255,931.64	\$294,140.00	\$291,378.01	\$275,017.69	\$341,272.69	356,088.29	2,105,996.95
GWU Costs	\$ 11,938.06	\$ 12,796.58	\$ 14,728.21	\$ 27,680.91	\$ 19,866.06	\$ 22,378.21	28,676.39	138,064.42
OE/BEH Costs	\$280,230.57	\$243,135.06	\$279,411.79	\$263,697.10	\$255,151.63	\$318,894.48	\$327,411.90	1,967,932.53

pounded when more than one unit is involved.

As indicated earlier in this report, a major focal point of project efforts was the stimulation of and provision for back-up or support services to associate, affiliate, and satellite centers. As the regional totals for just one year reflect (p. 39), the direct federal grant dollars are multiplied many times by state and locally controlled funds.

Especially evident the last year of the project was an effort to provide the states even more voice in the operation of the MAR-SEIMC. As part of Area V of the SEIMC/NCEMNH workscope, MAR-SEIMC allocated \$25,000 per state to be expended at the state's direction. The obvious restriction was that it be justified as an activity directly related to the workscope. The total thus set aside was almost 50% of the project's budget, and an even higher percentage of the project's direct costs.

This effort probably would get mixed reviews from national, regional, state, and local points of view. Following is a summary of expenditures other than staff time and administrative costs for services provided under this arrangement. The omissions would bring each state's total in excess of the \$25,000 set aside.

<u>Delaware</u>		<u>District of Columbia</u>	
Consultants	\$12,465.00	Consultants (Mediastax)	\$ 7,674.53
Travel	3,642.62	Travel	401.80
Telecopier Rental	723.35	Telecopier Rental	4,289.97
Printing	558.00	Itek Rental	5,090.00
	<hr/>	Supplies (Itek)	1,575.79
	\$17,388.97		<hr/>
			19,032.09

<u>Maryland</u>	
Consultants	\$ 6,047.62
Travel	288.08
Printing	3,982.00
Telecopier Rental	723.35
Teaching Aids	6,119.51
	<hr/>
	\$17,160.56

<u>New Jersey</u>	
Consultants	\$ 300.00
Travel	1,644.79
Conference Expenses	5,021.10
Telecopier Rental	1,874.87
Teaching Aids	3,090.55
Equipment Purchase	2,362.45
	<hr/>
	\$14,793.21

<u>Pennsylvania</u>	
Consultants	\$16,394.00
Travel	1,453.66
Telecopier Rental	1,535.36
	<hr/>
	\$19,383.02

<u>Virginia</u>	
Consultants	\$ 1,500.00
Communications and Shipping	162.80
Travel	5,157.81
Reproduction and Duplication	1,209.40
Conferences Expenses	1,763.27
Supplies	11.52
Telecopier Rental	2,303.04
	<hr/>
	\$12,107.84

State Totals

Delaware	\$17,388.97
District of Columbia	19,032.09
Maryland	17,160.56
New Jersey	14,793.21
Pennsylvania	19,383.02
Virginia	12,107.84
	<hr/>
AREA V TOTAL	\$99,865.69*

Centers will (and do) exist in each of the six SEAs after the termination of the regional center (i.e., MAR-SEIMC). In every case, the SEA has its own plan and monitors its own operation.

Some particular products may be identified with support to centers and activities within the region. Still others are related to training and/or dissemination activities conducted. Still others were national net-

*exclusive of MAR-SEIMC staff time and related costs

work efforts in which MAR-SEIMC staff were active and responsible participants.

Overall, it is felt that the majority of the expenditures went for less tangible, or at least directly tracable, results. This includes contributions to a now much larger data base pertaining to instructional materials for the handicapped. It also includes the residual of training and disseminations activities which is still primarily within the Mid-Atlantic region but is certainly not now restricted to its political boundaries, especially given the mobility of our population.

The particular collection of resources related to the MAR-SEIM Center was always viewed as a foundation for all other activities, and while any accountant could demonstrate that the bulk of the direct benefits occurred in the Washington SMSA, and to the University in particular, its indirect benefits crossed state and regional boundaries. It provided the MAR-SEIMC staff with the first-hand and demonstration kinds of experiences so necessary to knock down the traditional ivory-tower appearance of many university-affiliated activities.

Finally, and unfortunately all on an indirect basis at best, hundreds if not thousands of handicapped children are beneficiaries of this BEH supported activities and its sibling centers throughout the United States.

A program which originated in the Division of Research/BEH (even before there was a BEH) as a research and development activity and later was transferred to the Division of Educational Services has now been somewhat institutionalized as part of the Learning Resources Branch of the Division of Media Services. The former program (SEIMCs and RMCDs) have been restructured in a new ALRC/SO/NCEMHH configuration which has much promise for continued improvement in instruction of handicapped children.

It is hoped that development will continue with a strong partnership that recognizes most of the answers come out of the field, and the structure helps to test them, shape them, and disseminate them. A network existed for 8 years primarily in name only (dependent on choice of definition) and was evolving toward the creation of a true network. MAR-SEIMC contributed toward that development, and is hopeful of continuing to contribute toward that goal via whatever means it can.

APPENDICES

Information Service

Quarterly Report

I. Information Request September - November 1971

A. Written Requests

	<u>From ASEIMCs</u>	<u>From Individuals</u>	<u>From SEIMCs & CEC</u>	<u>Foreign</u>
Delaware	7	3	0	0
Washington, D.C.	6	0	0	0
Maryland	3	9	0	0
New Jersey	4	7	0	0
Pennsylvania	7	18	0	0
Virginia	5	14	0	0
Outside MAR	0	3	13	9
TOTAL	32	34	13	9

B. Referrals to ASEIMCs and Regional SEIMCs

ASEIMCs

Eastern Pennsylvania - 9	Northern New Jersey - 5
Central Pennsylvania - 1	Southern New Jersey - 3
TOTAL - 18	

Regional SEIMCs

Alabama - 3	Kentucky - 2
California - 1	Michigan - 3
Kansas - 2	New York - 2

II. Library Services

A. Walk-In Clients (TOTAL -- 1279)

September - 410

October - 542

November - 327

B. Number of Items Returned (TOTAL -- 2363)

September - 349

October - 929

November - 1085

III. Information Packet

4 disseminated to 45 persons and ASEIMCs

IV. Newsletter circulation

Total Number of Registrants - 4078

Information Service

Quarterly Report

I. Information Request December - February 1971-72

A. Written Request

	<u>From ASEIMCs</u>	<u>From Individuals</u>	<u>From SEIMCs & CEC</u>	<u>Foreign</u>
Delaware	19	5	0	0
Washington, D.C.	6	2	0	0
Maryland	3	2	0	0
New Jersey	6	9	0	0
Pennsylvania	9	18	0	0
Virginia	6	18	0	0
Outside MAR	0	0	14	2
TOTAL	40	54	14	2

B. Referrals to ASEIMCs and Regional SEIMCs

ASEIMCs

Eastern Pennsylvania - 28	Northern New Jersey - 8
Central Pennsylvania - 12	Southern New Jersey - 2
Western Pennsylvania - 4	Norfolk - 1

Regional SEIMCs

Alabama - 4	New York - 1
Kansas -	Oregon - 2
Michigan - 2	Wisconsin - 1

II. Library Services

A. Walk-In Clients (TOTAL -- 883)

December - 299

January - 198

February - 386

B. Number of Items Returned (TOTAL -- 1793)

December - 666

January - 516

February - 611

III. Information Packet

4 packets disseminated to 44 persons and ASEIMCs

IV. Newsletter Circulation

Total number of registrants - 4260

Information Services

Quarterly Report

March 1972 - May 1972

Strategy II: Information Packet

Seven packets disseminated to 42 persons and ASEIMCs

Strategy IV: Newsletter

Two newsletters mailed; circulation -- 18,000

Strategy I: Information Requests

A) Written Requests

	<u>From ASEIMCs</u>	<u>From Individuals</u>	<u>From SEIMCs & CEC</u>	<u>Foreign</u>
Virginia	6	12	0	0
Maryland	4	17	0	0
Delaware	5	6	0	0
Pennsylvania	7	41	0	0
New Jersey	8	2	0	0
Washington, D. C.	5	38	0	0
Outside MAR	0	7	8	2
TOTAL*	13	123	8	2

*Totals include 47 requests for "freebies" mentioned in May issue of newsletter

Strategy I: Information Requests (cont.)

B) Referrals to ASEIMCs and Regional SEIMCs

ASEIMCs

Eastern Pennsylvania - 36	Northern New Jersey - 4
Central Pennsylvania - 10	Southern New Jersey - 1
Western Pennsylvania - 4	Norfolk - 1
TOTAL - 56	

Regional SEIMCs

Alabama - 3	Massachusetts - 1	Tennessee - 1
Illinois - 1	New York (city) - 3	
Kansas - 2	New York (Buffalo) - 1	

Strategy II: Library Services

A) Walk-In Clients (TOTAL -- 1581)

March 551

April 603

May 427

B) Number of Items Returned (TOTAL -- 2289)

March 941

April 722

May 626

Registrations as of 5/31/72: 3310

CG:mas
7/5/72

Information Services
Quarterly Report
September - November, 1972

I. Information Requests

A. Written Requests

	from ASEIMCs	from Individuals	from SEIMCs & CEC	from Foreign
Delaware	7	3	0	0
Washington, D.C.	6	0	0	0
Maryland	3	9	0	0
New Jersey	4	7	0	0
Pennsylvania	7	18	0	0
Virginia	5	14	0	0
Outside MAR	0	3	13	9
TOTAL	32	34	13	9

B. Referrals to ASEIMCs and Regional SEIMCs

ASEIMCs

Eastern Pennsylvania - 9	Northern New Jersey - 5
Central Pennsylvania - 1	Southern New Jersey - 3
TOTAL -- 18	

Regional SEIMCs

Alabama - 3	Kentucky - 2
California - 1	Michigan - 3
Kansas - 2	New York - 2
TOTAL -- 13	

II. Library Services

A. Walk-in clients (TOTAL -- 1279)

September - 410

October - 542

November - 327

B. Number of items returned (TOTAL -- 2363)

September - 349

October - 929

November - 1085

III. Information Packet

Four information packets disseminated to 45 persons
and ASEIMCs

IV. Newsletter Circulation

One newsletter published--18,000 copies

V. Total number of registrants -- 4078

Information Services

Quarterly Report

December, 1972 - February, 1973

I. Information Requests

A. Written Requests

	from ASEIMCs	from Individuals	from SEIMCs & CEC	Foreign
Delaware	19	5	0	0
Washington, D.C.	6	2	0	0
Maryland	3	2	0	0
New Jersey	6	9	0	0
Pennsylvania	9	18	0	0
Virginia	6	18	0	0
Outside MAR	0	0	14	2
TOTAL	40	54	14	2

B. Referrals to ASEIMCs and Regional SEIMCs

ASEIMCs

Eastern Pennsylvania - 28	Northern New Jersey - 8
Central Pennsylvania - 12	Southern New Jersey - 2
Western Pennsylvania - 4	Norfolk - 1
TOTAL -- 55	

Regional SEIMCs

Alabama - 4	New York - 1
Kansas - 1	Oregon - 2
Michigan - 2	Wisconsin - 1
TOTAL -- 11	

II. Library Services

A. Walk-in clients (TOTAL -- 883)

December - 299

January - 198

February - 386

B. Number of items returned (TOTAL -- 1793)

December - 666

January - 516

February - 611

III. Information Packet

Four information packets dissemination to 44 persons
and ASFIMCs

IV. Newsletter Circulation

One newsletter published--18,000 copies

V. Total number of registrants -- 4260

Information Services
Quarterly Report
March, 1973 - May, 1973

I. Information Requests

A. Written Requests

	from ASEIMCs	from Individuals	from SEIMCs & CEC	Foreign
Delaware	11	2	0	0
Washington, D.C.	1	2	0	0
Maryland	0	4	0	0
New Jersey	1	2	0	0
Pennsylvania	0	3	0	0
Virginia	2	2	0	0
Outside MAR	0	0	9	0
TOTAL	15	15	9	0

B. Referrals to ASEIMCs and Regional SEIMCs

ASEIMCs

Eastern Pennsylvania - 4 Maryland - 2
Northern New Jersey - 4 TOTAL -- 10

Regional SEIMCs

Alabama - 1 California - 1
Kentucky - 2 Massachusetts - 2
Oregon - 1 Texas - 1
TOTAL -- 8

II. Library Services

A. Walk-in clients (TOTAL -- 504)

March - 292

April - 285

May - 27

B. Number of items returned (TOTAL -- 2102)

March - 782

April - 760

May - 580

III. Information Packets

Four information packets disseminated to 44 persons
and ASEIMCs

IV. Newsletter Circulation

One newsletter published--18,000 copies

V. Total number of registrants -- 4289

Information Services
Quarterly Report
September - November 1973

I. Information Requests

A. Written Requests

	<u>From ASEIMCs</u>	<u>From Individuals</u>
Delaware	4	5
Washington, D. C.	2	3
Maryland	5	5
New Jersey	6	5
Pennsylvania	4	5
Virginia	7	14
Other	1	2
	—	—
TOTAL	29	59

II. Library Services

III. Information Packet

4 information packets disseminated to 45 persons and ASEIMCs.

Information Services
Quarterly Report
December - February 1973-74

I. Information Requests

A. Written Requests

	<u>From ASEIMCs</u>	<u>From Individuals</u>
Delaware	3	7
Washington, D. C.	1	4
Maryland	2	7
New Jersey	5	12
Pennsylvania	4	9
Virginia	3	7
Other	6	18
TOTAL	<u>24</u>	<u>64</u>

II. Library Services

III. Information Packet

4 information packets disseminated to 45 persons and ASEIMCs

MAR-SEIMC User Evaluation Forms

The attached evaluation forms have been developed by the MAR SEIMC. The first form was used from the Fall of 1967 to the Spring of 1968. The second form was used during the Summer and the Fall of 1968. The last form was developed cooperatively with a class of graduate students during the Fall Semester, 1968. All the forms were to be completed by the users of the instructional materials.

APPENDIX I

EVALUATION OF BOOKS, MATERIALS, AND EQUIPMENT

Name _____ School _____

School Address _____

Students with whom material was
used have been diagnosed as:

Students' classified grade level is:

1. slow learners
2. educable mentally retarded
3. trainable mentally retarded
4. culturally disadvantaged
5. specific learning problems
of disabilities
6. neurologically handicapped
7. emotionally disturbed
8. physically handicapped
9. speech or hearing problems
10. visually handicapped
11. other (specify) _____

1. primary
2. intermediate
3. junior high
4. high school
5. other (specify) _____

I. Name and/or describe the material. _____

II. For what purpose was material used? Be specific. _____

III. Rate effectiveness of material

- a. suited purpose state above
- b. creative and innovative
- c. durable
- d. appealed to students
- e. easy to use
- f. other (specify) _____

VERY	GOOD	GOOD	AVG.	AVG.	POOR
5	4	3	2	1	
5	4	3	2	1	
5	4	3	2	1	
5	4	3	2	1	
5	4	3	2	1	
5	4	3	2	1	

IV. Indicate age level and areas of handicap for which you think the
material would be especially suitable. _____

V. Would you use this material again? State reasons. _____

VI. What innovative or creative ways of using the material can you suggest? _____

USER EVALUATION.

Name: _____ Date _____
ID# _____

Name of Material: _____ Acquisition # _____

1. Was this material effective for your purposes? _____

2. What were these purposes? _____

3. Suggestions for use of the material other than those described
by the producer (author, publisher). _____

MAR-SEINC
Materials Evaluation Form

1. Name of Material _____
2. Acquisition # _____
3. Educational Setting:
 - a) level (pre-primary, primary, etc.) _____
 - b) pupils diagnosed as _____ or description of children _____
 - c) chronological age range of pupils _____
 - d) type of program (diagnostic, resource-crisis, treatment center, etc.) _____

IF YOU USED THE MATERIAL:

4. Describe why you used the material. _____

5. Was the material used for (check one space per line)
 - a) _____ supervised activity _____ independent activity
 - b) _____ individual _____ group
6. Describe how you used the material. _____

7. Was the material effective? _____ Yes _____ No _____ Why? _____

8. Physical characteristics of material:

a) durable? ☐ Yes ☐ No

b) reusable? ☐ Yes ☐ No

c) easy to use? ☐ Yes ☐ No

d) attractive to pupils? ☐ Yes ☐ No

9. How could the material be improved? _____

10. Comments (strengths, weaknesses; pupils' reactions, etc.) _____

11. How could this evaluation form be improved? _____

Conference of the Educational Needs of the Trainable Mentally Retarded

Late in 1967 a working group was called together to study the educational needs of the trainable mentally retarded in order to provide direction in MAR-SLIMC's efforts to help the TMR. Assembled at the request of Margaret H. Moss, the ten professionals met in Tucson, Arizona, on November 30 to share ideas for 2 1/2 days. Members of the group were: Margaret H. Moss, Lloyd M. Dunn, Harriet Blodgett, Sidney Bijou, Ivy M. Mooring, Julia Volloy, Gerard J. Bensberg, Harvey Stevens, Samuel A. Kirk and Wayne L. Sengstock. Samuel Kirk as host and co-chairman for the working conference chaired the meetings.

In contacting the participants, Mrs. Moss suggested for their information that the sessions deal with some of the following topics:

1. What kind of children are in trainable programs?
2. Should there be differential programs for the various kinds of children?
3. What are the goals for education of the trainables and what kinds of programs should there be?
4. What special instructional techniques are required to achieve these goals within these programs?
5. Issues with respect to teacher-training, facilities and research.

One recurring theme throughout the conference was that little could be accomplished in the way of change in TMR teacher-training at the classroom level via university programs. A good deal of pessimism was expressed that a university probably would not yield to the innovative type of program required for professionals to work with the TMR. Margaret Moss expressed the

opinion that training of people to work with the TMR must be radically different from other training programs in special education, so different that it not even be included in the department of special education.

The ultimate recommendation which came from the discussions was that federal monies be set aside in the training and research division of PEH to be used for training programs for teachers of the TMR. This recommendation centered around the fact that there is no training program in any university in the United States to prepare personnel who will work specifically with the TMR child.

Another recommendation was that a position be created on the MAR-SEIMC staff for a talented and resourceful young Ph.D. who could study literature regarding training and research relating to the TMR and make some specific recommendations.

The young Ph.D. was never recruited although Mrs. Moss made a number of attempts to locate such a talented employee.

Notes from the conference were typed and edited but never published.

An indirect result of the conference was the publication of a previously compiled resource: the Trainable Mentally Retarded Bibliography. Mrs. Moss called upon special education classes and the other SEIMC's for their help in compiling it and the result was a 55 page volume.

Participants in meeting of Special Education Group--Aztec Inn, Tucson,
Arizona--November 30, December 1-2, 1967

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Assistant to Dr. Kirk

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An Investigation of the Use
of the Test of Basic Information (TOBI)
with the Handicapped--TMR and Deaf

Trainable mentally retarded (TMR) and deaf children by nature of their handicaps present special educational problems. It is difficult to assess the amount of information acquired by these children due to the dearth of adequate testing instruments and lack of information in regard to the nature of the "past experience" of these children. Studies done on the Binet Test (Sarason, 1959) show that "those items which are easy for defectives are slightly less dependent upon experience than those which are more difficult for them." Past experiences (psychological and otherwise) would not be the same for the garden-variety defective as the child whose deficiency resulted from prenatal or postnatal pathological processes, and certainly would be widely different from the experiences of the deaf child whose intellect has not been impaired but whose language is practically non-existent in the early years. It has been shown that "intellectual development is an important part of general learning of one's culture, and since language is the primary modality of such cultural learning, it follows that an impairment in language can be expected to affect all areas of intelligence."

(McCandless, 1952) Recognizing these factors then, it was the object of this study to investigate the feasibility with such children of a test to assess the amount of basic information the child had acquired and which would yield an evaluation of the child's test score in terms of a behavior variable, MA, and experience (i.e., CA).

The Test of Basic Information (TOBI), a pre-academic achievement test which would serve the same purposes at the preschool level as the academic achievement tests at subsequent levels, was developed and used with a group

of Head Start children. TOBI was developed primarily for use with socially disadvantaged children in order to assess the amount of school relevant information acquired prior to their entrance into school. The purpose of achievement tests already developed is to assess the amount of information specific to various curricular areas. They are oriented toward the kind of achievement expected of typical children enrolled in regular school classes. None pertain specifically to the preschool child. The rationale behind TOBI was that the poverty child had two basic areas of deficit: a) language and related skills, and b) basic information and concepts on which subsequent school learning can be built. TOBI was concerned with assessing the latter. Since the test was developed for use with children who have a limited experiential background, it was thought that it might also be suitable for use with certain handicapped children.

Description:

TOBI is a picture test to which the child responds either by marking or pointing to the appropriate picture of a set of four depending upon whether the test is administered individually or in groups. TOBI, an untimed test, consists of 54 items and four demonstrations items. It may be administered by a teacher rather than a psychologist, and usually takes between 15 and 20 minutes. In group testing, experience has shown that it is desirable to have one adult including the examiner for every three or four children being tested and that the total group should not exceed 15 children.

Procedures:

Deaf Population:

The deaf population was made up of children from the Kendall School

for the Deaf, an elementary school associated with Gallaudet College in Washington, D. C. There were 160 students, most of the school population, who took the TOBI. Their IQ's ranged from dull normal to bright. The tests were given individually by examiners who were speech teachers at the Kendall school. A pretest was devised to train the children to take the test. The signing was standardized--i.e., both teachers used the same signs. (The syntax of questions was changed on some items due to an impossibility to sign.) The school population consisted of advantaged and disadvantaged children. Fifty out of 185--27% of the children--were from suburban areas.

TMR Population:

TOBI was given to 116 children from the Lincolnia school in Fairfax County, Virginia, a suburban school for trainables. These were divided according to IQ into three groups:

- 1) 50 and below
- 2) 51-60
- 3) 61-70

Children were tested individually by three trained examiners from the SEI

Results:

The deaf students were classified in nine groups on the basis of chronological age, all but the first and last including a one year range. With one exception, the average scores between each group increased from year to year as chronological age increased. The exception was the reversal of positions by the 10 and 11 year olds, as may be seen in Table 1.

An analysis of variance (Table 2) showed the hypothesis of equal group

TABLE 1
Group Means in Original Order (Deaf)

Age	Group Number	CA _{low}	Mean	S.D.	Number of Replications	Rank
<7 yrs.	1	63	26.4	10.7	11	1
7 ⁰ -7 ^{II}	2	84	30.6	5.0	10	2
8 ⁰ -8 ^{II}	3	96	37.0	4.7	21	3
9 ⁰ -9 ^{II}	4	108	37.4	7.4	26	4
10 ⁰ -10 ^{II}	5	120	42.3	7.7	8	6
11 ⁰ -11 ^{II}	6	132	39.9	4.8	17	5
12 ⁰ -12 ^{II}	7	144	43.7	6.4	10	7
13 ^C -13 ^{II}	8	156	44.7	4.6	15	8
14 ⁺	9	168	45.4	5.5	42	9
Total			39.8	8.3	160	

TABLE 2
Analysis of Variance (Deaf)

	Sum of Squares	Df	Mean Square	F Ratio
Between Groups	5075.0938	8.0	634.3867	16.4559***
Within Groups	5821.1641	151.0	38.5508	
Total	10896.2578	159.0		

***significant at the .001 level

means of TOBI scores to be highly untenable. Duncan's Multiple Range Test (Table 3), using $\alpha=.05$, showed four homogeneous subsets among the nine means.

Attempts at investigating other factors such as IQ, MA, SES, and cause of deafness were discontinued, primarily because of the questionable validity of the data available.

The data compiled after the administration of the TOBI to the TMR population was first analyzed after division into three groups on the basis of IQ. One of the resulting groups included those scoring in the 61-70 IQ range, somewhat unusual for inclusion in a TMR population. Table 4 shows a comparison among the three groups on the factors of MA, CA, and TOBI scores. The analysis of variance (Table 5) indicated rejection of the hypothesis of equal mean TOBI scores among the three IQ groups. Analyses of covariance (not shown) support the same conclusion, whether controlling for CA or MA singly or in combination.

Discussion:

As already indicated, TOBI was initially developed for use with pre-school disadvantaged children. Some comparisons among these Head Start children and the handicapped populations--the deaf and the TMR--are presented in Tables 6 and 7. Table 6 makes the comparisons with the total handicapped samples; Table 7 employs sub-samples which may be more appropriate than the total samples.

The results can be interpreted as supportive of the potential use of TOBI with portions of at least two handicapped populations--the deaf and the trainable mentally retarded.

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TABLE 3

Treatment Mean in Ranked Order (Deaf)

Rank	CA _{low}	Mean	Number of Replications	Treatment Number
1	63	26.4	11	1
2	84	30.6	10	2
3	96	36.7	21	3
4	108	37.4	26	4
5	132	39.9	17	6
6	120	42.3	8	5
7	144	43.7	10	7
8	156	44.7	15	8
9	168	45.4	42	9

TABLE 4

Comparison of MA, CA and TOBI Scores of
Trainables Grouped by IQ Ranges

Group	IQ Range	N	Mean MA (in months)	Mean CA (in months)	TOBI Score
A	≤ 50	24	62.0	142.0	27.6
B	51-60	63	80.3	143.8	39.7
C	61-70	29	93.4	149.6	44.8

TABLE 5

Analysis of Variance (TMR)

	Sum of Squares	DF	Mean Square	F Ratio
Between Groups	4,088.8750	2	2,044.4375	29.24***
Within Groups	7,902.0625	113	69.9297	
Total	11,990.9375	115		

***significant at the .001 level

TABLE 6
Comparison of MA, CA, and TOBI Scores
of Head Start Normative Population
with Total Deaf and Total Trainable Populations

Group	N	Age in Months (CA)		Mental Age		TOBI Score		Correlation of CA & TOBI	Correlation of MA & TOBI
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Head Start	539	60.5	5.0			30.3	9.2	.38	
Total Deaf	160	138.3	40.9			39.8	8.3	.62	
Total TMR	116	144.9	35.3	79.9	22.9	38.5	10.2	.44	.70

TABLE 7
Comparison of MA, CA and TOBI Scores
of Head Start Normative Population
with Young Deaf and Lower Trainable Population

Group	N	Age in Months (CA)		Mental Age		TOBI Score		Correlation of CA & TOBI	Correlation of MA & TOBI
		Mean	S.D.	Mean	S.D.	Mean	S.D.		
Head Start	539	60.5	5.0			30.3	9.2	.38	
Deaf (15 youngest)	15	77.9	9.3	78.2	14.1	27.7	10.2	-.19	.71
TMR (IQ ≤ 50)	24	142.0		61.7	15.3	27.7	8.5	.55	.60

Post Script

Before Dr. Margaret Moss resigned from her positions in the Department of Special Education and the SEIMC, she began negotiations with McGraw-Hill (California Test Bureau division) to further develop, standardize, and publish a successor to TOBI. TOBI was originally the product of an Office of Economic Opportunity contract and as such is in the public domain. Her new test will be called TOBE, Test of Basic Experience.

Although TOBI is in the public domain, it is unavailable for all practical purposes and thus further exploration of its potential use with the handicapped seems rather pointless.

Bibliography

McCandless, Boyd R. Environment and intelligence. American Journal of Mental Deficiency, 1952, 56.

Sarason, Seymour B. Psychological Problems in Mental Deficiency. New York: Harper & Row Publishers, 1959.

Development of a Test to Measure Impulsive-Reflective Behavior

Rationale:

Impulsive-reflective behavior has been identified in normal children by Jerome Kagan and his associates. The test (Matching Familiar Figures) that he developed to measure this behavior consists of a standard and responses of two banks of three each. The child who responds quickly (the response time is recorded) and is wrong is categorized as impulsive while the child who takes longer and is right is labeled reflective.

While testing the TMR's with the TOBI, the examiners noticed that some of these subjects responded in the same manner that Kagan's impulsive subjects had responded. It seemed that some of these children did not consider the alternatives. There was evidence that emotionally disturbed children behaved in a like manner. This behavior could help account for their low scores on tests where alternatives were to be considered before a response was made.

Purpose:

The purpose of this project was to develop a test (Test of Familiar Figures--TOFF) to measure the impulsive-reflective behavior of handicapped children. It was felt that Kagan's test would not be adequate for the two populations being considered, since the pictures used were not familiar objects and the response alternatives were not equidistant from the standard. Therefore, the pictures chosen were, in fact, familiar--i.e., house, animals, clothes--and the alternatives were placed in a circle around the standard.

A stratified TMR sample was chosen from those already tested with the TOBI. The criteria used was IQ and sex. Thirty emotionally disturbed

children enrolled in a program in the Fairfax County Public Schools were randomly selected. One form with only four responses was administered to the TMR's and another form with six responses was administered to the ED students. The responses and response time were recorded.

To determine the validity of TOFF a teacher rating form was developed. This form consisted of a list of classroom behaviors that were considered to display impulsive or reflective behavior. The teacher completed a form for each child who took TOFF.

This activity was completed by Dr. Moss as her dissertation.

Conference on the Evaluation of Instructional Materials

The Conference on the Evaluation of Instructional Materials was hosted in Washington, D. C. on April 5 and 6, 1968 by the Mid-Atlantic Region Special Education Instructional Materials Center.

The purpose of the Conference was to provide the national network of Special Education Instructional Materials Centers and CEC-ERIC with information and/or guidelines pertinent to the evaluation of instructional materials.

Margaret H. Moss proposed the Conference, envisioning it as an aid to realizing the SEIMC network's goal of improving education of the handicapped.

In general, speakers invited to address the Conference had competencies in one of the following areas: a) issues and/or theories relating to evaluation, b) the role of education and industry in evaluation and c) specific guidelines and procedures for evaluating materials.

Nine speakers addressed a group of 75 invited participants during the one and one-half day proceedings.

The Conference began at 9:00 a.m. on Friday, April 5 as Margaret H. Moss, Associate Director of MAR-SEIMC, made opening remarks and Raymond S. Cottrell, Director, welcomed participants.

George Olshin of the Division of Research, Bureau of Education for the Handicapped, United States Office of Education spoke briefly about "Evaluation: A Challenge and Opportunity for the SEIMC Network." He hoped that solutions to the following questions would be forthcoming from the Conference or as a later result of it: a) How to determine priorities, b) How to develop a master plan, c) Who will evaluate, d) How will evaluation be done, e) How can the SEIMC Network coordinate efforts with industry, and finally, f) What should be the role of the United States Office of Education?

Richard A. Dersheimer, an executive officer of the American Educational Research Association addressed himself to "Evaluation and the Decision Making Process." He focussed on evaluation as the dilemma encountered by everyone on the educational scene. He encouraged conference participants to undertake evaluation; although they would encounter problems and not be completely successful at first, their efforts would become more systematic and fruitful.

Terry Denny, the coordinator of the EPIE Research Office, explained "The EPIE Model for Evaluating Instructional Materials" and discussed the evaluator's goals in relation to the goals of a school.

David R. Dorsett, a Regional Consultant for Creative Playthings spoke about "The Role of Industry and Evaluation" and stressed the need for cooperation between industry and education.

Richard L. Darling, Director of the Department of Instructional Materials, Montgomery County Public Schools, described "Evaluation Procedures in Montgomery County Public Schools' Department of Instructional Materials."

Joseph L. Dionne, Vice President for Research and Development of the Educational Developmental Laboratories, addressed himself to "Implementing Evaluation of Educational Problems: The Role of Industry."

Arthur A. Lumsdaine, Chairman of the Department of Psychology at the University of Washington, discussed "Standards for Empirical Evaluation." He suggested that an evaluator first must make a judgment about how a material is to be used before he can begin to analyze it.

Allen Leitman, Director of the Educational Development Center, spoke about "Evaluation as it Relates to Program Development."

Morris Kaplan, Technical Director of Consumer's Union described "The Consumer's Union Model," explaining how Consumer's Union tests products.

Robert Gelhart of the Rocky Mountain SEIMC, Charles F. Williams of American Institutes for Research and Margaret H. Moss moderated the Conference. A question and answer period followed each presentation.

Two monographs were published as a result of the Conference. One, the Proceedings, contained all speeches and comments which MAR-SEIMC was given permission to print; the other, Evaluation: Processes and Practices, contained four speeches and related comments and remarks by Margaret H. Moss.

The speeches and discussion suggested a few evaluation models and answered some questions, but the 65 participants left the Conference cognizant of problems in evaluation that they had not been aware of before.

Perhaps the most significant result of the Conference was to make participants aware of how complex a process is evaluation. For MAR-SEIMC this has meant increased attention to evaluation.

Internal Evaluation of the MAR-SEIMC

Following the appointment of some new members to the staff, communication among all the staff was at its lowest. At various times discussions between individual members revealed that this lack of communication might be attributed in part to 1) lack of understanding of what each member of the staff did; 2) a discrepancy between what the person thought he should do and what he actually did; and/or 3) the establishment of, or lack of, certain policies and guidelines. Therefore, in May, 1968, every member of the staff (professional and secretarial) was asked to complete the attached questionnaire.

There were some significant (not statistical) results obtained. The associate director for research was viewed by most of the staff as head of the research staff rather than as the associate director. The research staff as a whole was viewed as not being an integral part of the total staff. Procedures for acquiring materials were viewed as inadequate.

As a direct result procedures for acquiring materials were changed. The research staff as a whole and individually made a more concerted effort to become a part of the total effort. We not only participated in other activities but asked other staff members to participate in our activities.

COVER SHEET

Date:

Name:

Check 1 or 2 below:

- ☐ 1. My name is to be removed from this report, and will not be connected with this report.
- ☐ 2. My name may remain on this report and may be connected with this report for internal discussion and planning at the appropriate staff meetings.

Please fill out the sections (indicated previously) on separate sheets and attach this cover sheet. Please answer all the sections that you are able to and as fully as possible.

GWU Instructional Materials Center
822 20th Street, N. W.
Washington, D. C. 20006

May 7, 1968

In an effort to improve the operation of the GWU IMC and to provide for better communication among the staff, you are being asked to fill out the following statements on a separate sheet, using the appropriate numeral (and letter, if applicable) for each section. The information you provide will be considered private to Dr. Cottrell and Mrs. Moss if you so designate. In any case, your name will be used only to seek further clarification, if necessary, of what you have stated. Your cooperation is very much appreciated.

Please attach the following cover sheet to your report which should contain the following, enumerated sections.

Turn this information in to Dr. Cottrell or Mrs. Moss by May 20, 1968.

- I. Job Title
- II. Describe your job position. A. What do you actually do? B. What should you ideally do or not do?
- III. Draw a staff and line diagram to show your relationship now to the rest of the IMC staff. What do you think your relationship should be?
- IV. What policies or guidelines have been established which affect your work? Specify.
- V. What policies or guidelines need to be established? What form should they take? In other words draw up some policies or guidelines as you wish them to be. If it would be helpful, describe why they are needed.
- VI. Do you think the IMC is being implemented appropriately in terms of its overall goals? Discuss pros and cons.
- VII. General Comments:

Survey of 16mm Film Resources
Available to Special Educators
in the Mid-Atlantic Region

Rationale:

The MAR-SEINC staff had previewed many 16mm films and had recommended many of these films for purchase by the SEINC. Few were actually purchased. This was due, in part, to our lack of data about the availability of 16mm films to special educators in the Mid-Atlantic Region. Some IMC staff members felt films were generally available and therefore to establish a film library would be duplicating services already available. Other staff members felt the opposite was true.

Purpose:

To solve this dilemma a survey was conducted to determine if there was a need for the SEINC to establish a film library.

Procedures:

A letter and a questionnaire were sent to five colleges of universities in each state having special education training programs, to five urban school districts in each state, and to five rural school districts in each state. This was initiated during August, 1968.

Results and Conclusions:

The responses indicated that films for use in the classroom were generally available, however, films for pre- and in-service education of teachers were not. The responses indicated a need for information about new films. Based upon these findings it was recommended to the

SEIMC staff that we do not establish an extensive film library but that we continue to preview films and make this information available to our clients.

An Evaluation Committee Task Force Meeting was held in Washington, D. C., October 30-November 1, 1968, which was called by Mrs. Margaret Moss, chairman of the committee. The purpose of this meeting was to define the role of the committee and to formulate proposals that would be submitted to the Council of Directors. These proposals were accepted by the Directors at their meeting in Tampa, January, 1969.

Evaluation Committee Task Force Meeting

October 30-November 1, 1968

Washington, D. C.

Proposed Topics for Discussion

- I. Role of Evaluation Committee
 - A. Coordination and collection of report
 - B. Dissemination of information about evaluative activities
 - C. Assume position of leadership in defining policy matters, issues and standards relating to the centers' evaluation of materials
 - D. To provide for change and continuity of evaluation efforts
- II. Develop rationale as to the centers' responsibility to carry out the evaluation of materials
- III. Discussion of management model for evaluation presented at Evaluation Conference
- IV. Development of criteria to establish priorities
- V. Operational need of Evaluation Committee

The Evaluation Committee Task Force proposes that the Council of Directors consider and adopt the following relating to center and Evaluation Committee cooperations:

Network Support

Rationale

The adequate financing of a committee may involve additional costs which a particular center may be financially unable to assume. Alternative sources for meeting committee costs need to be worked out either at the center or the network level.

Proposals

Funds shall be made available when and if necessary for the following:

- a. Four committee meetings a year
- b. Committee expenses such as secretarial costs, printing costs, etc.

The Role and Duties of the Evaluation Committee

Proposals

- a. The Evaluation Committee shall take a leadership role in defining--for proposed network adoption--policy matters, issues, criteria and standards relating to the centers' evaluation of materials, network coordination of evaluation activities and the dissemination of reports and results.
- b. The Evaluation Committee (EC) is to coordinate (when appropriate), collate (when desirable) and disseminate evaluation materials, re-

ports, and the like on evaluation activities of the individual centers. It shall be considered "appropriate" to coordinate activities when the centers concerned specifically request the assistance of the Evaluation Committee. In all cases it shall be appropriate for EC to call attention to possibilities for coordination.

c. When feasible and desirable, similar forms shall be collated and then edited as a service to those centers who will not be developing a form of their own and who are interested in such a form.

d. The Evaluation Committee will disseminate information to the network president, the network coordinator, center directors, person(s) designated responsible for evaluation at the centers, Division of Research--BEH, and to other persons or organizations to be agreed upon by the Council of Directors.

Center Cooperation

Rationale

The individual centers have a responsibility to the network to "communicate and disseminate" concerning their evaluation activities.

Proposals

a. Copies of all forms, reports and written materials pertaining to evaluation activities, on-going or proposed, shall be forwarded, without delay, to the Evaluation Committee (EC) Chairman.

b. Drafts as well as final versions are to be forwarded. Early drafts may be marked "For Limited Distribution," in which case,

only the voting members of EC, the network president and the network coordinator will receive the materials or reports.

Evaluation of an Instructional Material For the Handicapped

1. Trade name of item:
5. 15-25 word description of the item and its use:
6. Handicap for which it is most relevant:
8. Were you or did you use it before being asked to prepare this evaluation?
yes/no
9. Are its contents and/or subject matter relevant and accurate? yes/no, or
explain:
10. Is it attractive to pupils? yes/no, or explain:
11. Is it adequately durable? yes/no
12. Is the teacher manual or instruction booklet adequate? yes/no/there is none
13. Is its use educationally sound? yes/no, if no, explain:
14. Does its teaching value or effectiveness justify its cost? yes/no
15. Is the use you make of this substantially what the producer recommends
of intends? yes/no, if no, please clarify:
16. Would some special teacher training be advisable in order to make
effective use of it? yes/no

17. CIRCLE (below) the age of the pupils and the teaching tasks for which you have used the material:

18. CHECK (✓) other ages or functions for which you would expect this material, as it stands (without modification), to be useful.

Age: 1-3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Learning Characteristics: Fast, average, slow, all

Curricular Function: Regular, supplementary, remedial

Teaching Procedure: Group, small group, unsupervised study

Evaluation Form for User of Instructional Materials

B

Title _____ Date _____

Note: Please check appropriate items.

1. User's professional title:
 - ☐ Special class teacher
 - ☐ Regular class teacher
 - ☐ Speech and/or hearing therapist
 - ☐ Student teacher
 - ☐ Teacher aide
 - ☐ Parent
 - ☐ Volunteer
 - ☐ Other (Please specify): _____
2. Teaching experience:
 - ☐ Total number years _____
 - ☐ _____ years in regular classroom
 - ☐ _____ years in special classroom
3. Training: (Please indicate highest held)
 - ☐ High school diploma
 - ☐ Bachelor's degree
 - ☐ Master's degree
 - ☐ Doctoral degree
4. Certification:

Teaching Level: Elementary _____

Secondary _____

Other _____

Area(s) of special endorsement: _____

5. Professional classification of pupil(s) for whom material requested:
 - ☐ Blind
 - ☐ Partially sighted
 - ☐ Deaf
 - ☐ Hard of hearing
 - ☐ Speech impaired
 - ☐ Physically handicapped
 - ☐ Special health problem
 - ☐ Emotionally disturbed
 - ☐ Minimally brain-injured
 - ☐ Language/learning problem
 - ☐ Educable mentally retarded
 - ☐ Trainable mentally retarded
 - ☐ Profoundly retarded
 - ☐ Multi-handicapped
 - ☐ Regular class
 - ☐ Other (Please specify): _____
7. Chronological age (range) of pupil(s) for whom material requested: _____
8. Estimated educational level/grade (range) of pupil(s) for whom material requested: _____
9. Current location of instructional program:
 - ☐ Public school, regular class
 - ☐ Public school, special class
 - ☐ Homebound
 - ☐ Hospital
 - ☐ State school/hospital, residential
 - ☐ State school/hospital, day school
 - ☐ Private day school
 - ☐ Private residential school
 - ☐ Publically funded special day school
 - ☐ Other (Please specify): _____
10. Curriculum area(s) for which material requested:
 - ☐ Reading
 - ☐ Mathematics
 - ☐ Spelling
 - ☐ Handwriting
 - ☐ English and grammar
 - ☐ Health, safety, and physical education
 - ☐ Science
 - ☐ Social studies
 - ☐ Social studies, vocational guidance
 - ☐ Speech and language
 - ☐ Music
 - ☐ Art
 - ☐ Practical arts
 - ☐ Perceptual-motor
 - ☐ Other (Please specify): _____
11. Material used:
 - ☐ with pupil(s)
 - ☐ for examination purposes only

(Over)

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Evaluation Form for User of Instructional Materials

Directions: On the following selected variables please indicate the effectiveness of this material on the continuum ranging from poor to excellent which is to the right of the statement. Mark a point on the continuum which best represents your evaluation of this material as presented by the publisher without modification. Should a statement not apply, please place a check on the line labeled "Not Applicable."

A place for additional comments is provided for information which you think might be of value to us.

	Poor	excellent	Not Applicable
Curriculum Emphasis:			
1. Fits into existing curriculum	1.		
2. Can be correlated with other phases of curriculum	2.		
3. Helps accomplish objectives of curriculum	3.		
Content:			
4. Organized for sequential development of concepts/skills	4.		
5. Opportunities provided for student to practice and maintain concepts/skills (optional materials, perhaps)	5.		
6. Provision made to evaluate progress	6.		
7. Opportunities provided for student exploration, problem-solving, and/or discovery	7.		
8. Allows flexibility, provides for individual differences	8.		
9. Continued value and use	9.		
10. Multi-sensory in approach	10.		
Appropriateness:			
11. Content	11.		
12. Interest Level	12.		
13. Reading Level	13.		
14. Vocabulary	14.		
15. Graphic Illustrations	15.		
Instructions:			
16. For the teacher are clear, concise, and easily understood	16.		
17. For the student are appropriate and easily followed	17.		
18. Allow independent use by student	18.		
Physical Characteristics:			
19. Format	19.		
20. Type size, paper, binding, material used in construction	20.		
21. Size, number of parts, portability, storage factor	21.		
22. Durability	22.		
Please check yes/no on the next two statements:			
25. Requires in-service training by users	(Yes)	(No)	Comments:
26. Cost material available for the expenditure	(Yes)	(No)	

Do you plan to buy this material?

YES _____ NO _____

Please complete the attached form, being as specific as possible, and return it with the materials. We will then attempt to analyze the members' comments and be able to make more specific recommendations for the use of materials available.

MATERIAL USED

Author _____

Title or Series _____

Type of classroom or group _____

	Ages of child for which material used	Appropriate for children of what ages
Chronological Age	_____	_____
Mental Age	_____	_____
Educational Level	_____	_____

OPINIONS OF THE MATERIAL

1. How was it appropriate or not appropriate for your type of class, age group and I.Q. range?

Material Evaluation Form

2. What group or groups do you think could benefit from the use of it?

3. Does it do what it's designed to do?

4. Would you recommend it be used with other materials, tapes, records, programs, etc.? If so, what?

Name _____ Position _____ KU-SEINC Number _____

School Address _____
Street City State Zip Code

Project ELF

The IMC's have been working on the development of software, including evaluation forms and questionnaires, as a means of collecting valid and reliable data, or as a means of objectifying subjective information regarding materials. Most questionnaires consisted of information either of a factual nature or of opinion. The more reliable information obtained was that which required little opinion.

Project ELF developed out of a need to find such an evaluation form. Preliminary studies resulted in forms which did not yield usable information. These were:

- 1) a checklist and open-ended form
- 2) a completely open-ended form
- 3) a more extensive and in-depth checklist and open-ended form

The last form mentioned was used by members of a special education class of teachers at George Washington University who had used the materials evaluated in classroom situations. These results still did not yield usable information. The forms contained contradictory answers. The question arose then as to the reliability of the form itself or the questions contained therein (as opposed to the reliability of the users).

Other IMC's had developed forms which were already in use. It was decided then to do a study comparing three different forms (already developed and used) to see if more reliable information could be obtained. The forms selected were from MSU, Texas and Kansas.

OBJECTIVE

The objective of Project ELF was to show that all forms are inadequate, and that the problem lies not in the form, but in the person responding to the form. Teachers fill out evaluation questionnaires responding generally from the point of view of like or dislike.

PROCEDURE

Population: The forms were distributed to 30 special education in-classroom teachers from two suburban elementary schools, from one public and two private schools for exceptional children and from the National Rehabilitation Center. These schools were located in suburban Maryland and Virginia and in Washington, D. C.

Staff members travelled to the schools to recruit teachers to participate in the study, and addressed the faculties on procedures in filling out the forms. A written set of instructions also accompanied each set of forms:

1. Select one material that you are currently using with your students (or one that has been used within the past 2 weeks). Evaluate that one material on the form or forms you are given.
2. You have been given 3 forms, complete them in the sequence in which they are clipped together.
3. Ignore any items crossed out on the forms.
4. If you have any comment about a form, please note it on the attached sheet of paper. Also, please comment on any questions you omit.
5. In answering items on the forms, please answer the questions

with the particular class in mind with which you used the material.

In one case the oral instructions were given only to a supervisor who later distributed the forms. It was noted that four of these subjects failed to select materials they had used, consequently their evaluation was not valid for this study.

Since this study was a comparison of forms it was decided that it would not be necessary for the staff to select the material to be evaluated. The teachers involved were paid \$3.00 for their time in filling out the forms as motivation to approach the task as seriously and critically as possible.

The forms were identified only by a designated letter--A, B, or C. The order was staggered to prevent a bias, so that a participant might have forms in any of the following arrangements: A, B, C; B, C, A; C, A, B.

The participant was allowed 5-7 days to do the evaluation, so that he could select a time that would be convenient to do such an analysis and that would allow the necessary time to complete the forms. The forms were then either collected from the teacher by a member of the SEINC staff or mailed in.

CONCLUSIONS

On form A (appendix A) most of the subjects answered "yes" to all the questions (with the exception of #16 where most answered "no".) The responses under "comments" frequently contradicted previous responses.

On form B on the continuum, most of the answers fell in the "excellent" column.

On form C the question on appropriateness was not answered adequately by anyone and only a few subjects addressed themselves to "appropriateness" at all. (Examples of the type of answers are cited on the Tally Sheet in the appendix). The third and fourth questions were answered largely "yes" again with very little explanation or critical analysis.

These facts indicate 1) that subjects selected materials they favored to begin with and 2) that the answers were on the whole uncritical. Most of the contradictions occurred between forms A and B.

APPENDIX

Directions

1. Select one material that you are currently using with your students (or one that has been used within the past 2 weeks). Evaluate that one material on the form or forms you are given.
2. You have been given 3 forms; complete them in the sequence in which they are clipped together. Yours are in the following order: — — —
3. Please ignore any items crossed out on the forms.
4. If you have any comment about a form, please note it on the attached sheet of paper. Also, please comment on any questions you omit.
5. In answering items on the forms, please answer the questions with the particular class in mind with which you used the material.

Evaluation of an Instructional Material for the Handicapped

1. Trade name of item:

5. 15-25 word description of the item and its use:
 Brief physical description--16
 Explanation of use--13
 Did neither; described pupils--1 Nothing--1

6. Handicap for which it is most relevant:

8. Were you or did you use it before being asked to prepare this evaluation?
 yes/no
 Yes--19 No--5

9. Are its contents and/or subject matter relevant and accurate? yes/no, or explain:
 Yes--22 No--0 No answer--1
 Accuracy, but not relevant--1

10. Is it attractive to pupils? yes/no, or explain:
 Yes--24 No--0 No answer--1

11. Is it adequately durable? yes/no
 Yes--24 No--0

12. Is the teacher manual or instruction booklet adequate? yes/no/there is none
 Yes--25 No--0 No answer--2 None--5

13. Is its use educationally sound? yes/no, if no, explain:
 Yes--25 No--0 Neither--1 "Review only"

14. Does its teaching value or effectiveness justify its cost? yes/no
 Yes--21 No--2 No answer--1

15. Is the use you make of this substantially what the producer recommends of intends? yes/no, if no, please clarify:
 Yes--21 No--1 No answer--1 Unknown--2

16. Would some special teacher training be advisable in order to make effective use of it? yes/no
 Yes--5 No--9 No answer--1

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17. CIRCLE (below) the age of the pupils and the teaching tasks for which you have used the material:

1 yr -- 3	4 yrs -- 5	7 yrs -- 2
2 yrs -- 4	5 yrs -- 2	8 yrs -- 1
3 yrs -- 2	6 yrs -- 1	12 yrs -- 1

18. CHECK (✓) other ages or functions for which you would expect this material, as it stands (without modification), to be useful.

Age: 1-3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Learning Characteristics: Fast, average, slow, all

fast--0 average--3 slow--7 all--6

Curricular Function: Regular, supplementary, remedial

regular--6 supplementary--13 remedial--15

Teaching Procedure: Group, small group, unsupervised study

group--5 small group--19 unsupervised study--3
individual--1

Title _____

Date _____

Note: Please check appropriate items.

1. User's professional title:

- ☒ Special class teacher
☐ Regular class teacher
☐ Speech and/or hearing therapist
☐ Student teacher
☐ Teacher aide
☐ Parent
☐ Volunteer
☐ Other (Please specify):
 remedial reading

2. Teaching experience: (on back)

- Total number years
 years in regular classroom
 years in special classroom

3. Training: (Please indicate highest held)

- ☐ High school diploma
☐ Bachelor's degree
☐ Master's degree
☐ Doctoral degree

4. Certification:

- Teaching Level: Elementary 11
 Secondary 9
 Other 5

Area(s) of special endorsement:

- spec ed--5 phys han--1 remed read--2
EMR--1 ortho han--1 english--1
TMR--1 soc--1 biology--1
lib sc--1 sp. ther.--1 soc stud--1
 home ec--1

5. Professional classification of pupil(s) for whom material requested:

- ☐ Blind
☐ Partially sighted
☐ Deaf
☐ Hard of hearing
☐ Speech impaired
☐ Physically handicapped
☐ Special health problem
☐ Emotionally disturbed
☐ Minimally brain-injured
☐ Language/learning problem
☐ Educable mentally retarded
☐ Trainable mentally retarded
☐ Profoundly retarded
☐ Multipli-handicapped
☐ Regular class
☐ Other (Please specify):
 remedial reading

7. Chronological age (range) of pupil(s) for whom material requested: _____

8. Estimated educational level/grade (range) of pupil(s) for whom material requested: _____

9. Current location of instructional program:

- ☐ Public school, regular class
☐ Public school, special class
☐ Homebound
☐ Hospital
☐ State school/hospital, residential
☐ State school/hospital, day school
☐ Private day school
☐ Private residential school
☐ Publically funded special day school
☐ Other (Please specify):
 residential treatment center

10. Curriculum area(s) for which material requested:

- ☐ Reading
☐ Mathematics
☐ Spelling
☐ Handwriting
☐ English and grammar
☐ Health, safety, and physical education
☐ Science
☐ Social studies
☐ Social studies, vocational guidance
☐ Speech and language
☐ Music
☐ Art
☐ Practical arts
☐ Perceptual-motor
☐ Other (Please specify):
 1. story dramatizations
 1. gross motor co-ord balance

11. Material used:

- ☐ with pupil(s)
☐ for examination purposes only

(Over)

2. Teaching experience:

1 yr--2	7 yrs--1	13 yrs--0	19 yrs--1
2 yrs--5	8 yrs--0	14 yrs--1	22 yrs--1
3 yrs--4	9 yrs--0	15 yrs--0	23 yrs--1
4 yrs--0	10 yrs--0	16 yrs--0	27 yrs--1
5 yrs--1	11 yrs--0	17 yrs--1	28 yrs--1
6 yrs--0	12 yrs--1	18 yrs--1	

Years in regular classroom

1 yr--4	6 yrs--	11 yrs--	16 yrs--
2 yrs--2	7 yrs--	12 yrs--	17 yrs--
3 yrs--1	8 yrs--	13 yrs--	18 yrs--1
4 yrs--	9 yrs--2	14 yrs--	19 yrs--
5 yrs--	10 yrs--1	15 yrs--2	20 yrs--1

Years in special classroom

1 yr--3	6 yrs--0	11 yrs--0	16 yrs--0
2 yrs--8	7 yrs--2	12 yrs--0	17 yrs--1
3 yrs--0	8 yrs--3	13 yrs--0	
4 yrs--0	9 yrs--2	14 yrs--0	
5 yrs--1	10 yrs--1	15 yrs--0	

Evaluation Form for User of Instructional Materials

Directions: On the following selected variables please indicate the effectiveness of this material on the continuum ranging from poor to excellent which is to the right of the statement. Mark a point on the continuum which best represents your evaluation of this material as presented by the publisher without modification. Should a statement not apply, please place a check on the line labeled "Not Applicable."

A place for additional comments is provided for information which you think might be of value to us.

	Poor	excellent	Not Applicable
Curriculum Emphasis:			
1. Fits into existing curriculum	1.	1.	1.
2. Can be correlated with other phases of curriculum	2.	2.	2.
3. Helps accomplish objectives of curriculum	3.	3.	3.
Content:			
4. Organized for sequential development of concepts/skills	4.	4.	4.
5. Opportunities provided for student to practice and maintain concepts/skills (optional materials, perhaps)	5.	5.	5.
6. Provision made to evaluate progress	6.	6.	6.
7. Opportunities provided for student exploration, problem-solving, and/or discovery	7.	7.	7.
8. Allows flexibility, provides for individual differences	8.	8.	8.
9. Continued value and use	9.	9.	9.
10. Multi-sensory in approach	10.	10.	10.
Appropriateness:			
11. Content	11.	11.	11.
12. Interest Level	12.	12.	12.
13. Reading Level	13.	13.	13.
14. Vocabulary	14.	14.	14.
15. Graphic Illustrations	15.	15.	15.
Instructions:			
16. For the teacher are clear, concise, and easily understood	16.	16.	16.
17. For the student are appropriate and easily followed	17.	17.	17.
18. Allow independent use by student	18.	18.	18.
Physical Characteristics:			
19. Format	19.	19.	19.
20. Type size, paper, binding, material used in construction	20.	20.	20.
21. Size, number of parts, portability, storage factor	21.	21.	21.
22. Durability	22.	22.	22.

Please check yes/no on the next two statements:

23. Requires in-service training by users (Yes ☐ No ☐)
24. Best material available for the expenditure (Yes ☐ No ☐)

Comments:

Do you plan to buy this material?
YES _____ NO _____

Please complete the attached form, being as specific as possible, and return it with the materials. We will then attempt to analyze the members' comments and be able to make more specific recommendations for the use of materials available.

MATERIAL USED

Author _____

Title or Series _____

Type of classroom or group _____

	Ages of child for which material used	Appropriate for children of what ages
Chronological Age	_____	_____
Mental Age	_____	_____
Educational Level	_____	_____

OPINIONS OF THE MATERIAL

1. How was it appropriate or not appropriate for your type of class, age group and I.Q. range?

Most of the answers were not directed to the question of appropriateness. The following were some of the comments.

#1 "concepts difficult" (no explanations)

#2 "most appropriate"

#3, #8 ----- #4 "appropriate in vocabulary"

#5, #19, #20 "adaptable to any group" #11 nothing

#12 "too advanced for spec ed students, cannot be used without supervised study"

#13 "material good for review"

#14 "appropriate for end of day".

Material Evaluation Form

- #16 "students liked it because it made them feel more normal"
#17 "material held students attention"
#18 "extracted only parts of each compartment because of low level of achievement"
#22 "it motivated the children"
#23 "children enjoy game . . . it's fun"
#25 "class too disturbed to benefit"
#26 "provided listening experience"; "gave names to speech sounds"
#27 "aroused imagination, but did not offer long term challenge"

2. What group or groups do you think could benefit from the use of it?

3. Does it do what it's designed to do?

Yes--23 No--1 ("no answer; only valuable for review")
Other--1 (no instructions)

4. Would you recommend it be used with other materials, tapes, records, programs, etc.? If so, what?

Yes--20 No--4

Name _____ Position _____ KU-SEINC Number _____

School Address _____
Street City State Zip Code

Consumer Information
Analysis Project

MAR-SEINC

PRIMES,
Department of Public Instruction,
Harrisburg, Pennsylvania

INTRODUCTION

It is a well recognized problem in special education that teachers of exceptional children have difficulty finding effective and usable instructional materials. The volume of instructional materials is great but the quality varies. The teacher usually does not have an opportunity to examine, let alone evaluate, the available materials before he considers them for purchase. Consequently, materials are purchased which are of no use because they are inappropriate or ineffective.

Instructional materials can improve the effectiveness and economy of instruction. They can aid in the learning process by offering systematic presentation as well as by increasing motivation. Teachers of handicapped children recognize these values of instructional materials; a special classroom without basic instructional aids would be considered an educational wasteland.

To provide high quality education for exceptional children requires that such quality exist in all aspects of the teaching-learning process. The Instructional Materials Centers (IMC's) were established to provide special educators with ready access to instructional materials and related information about these materials.

Consequently, the network of federally funded special education instructional materials centers have been concerned with the evaluation of materials. A network evaluation committee was established two years ago and a conference for the evaluation of instructional materials was held in Washington, D. C. in April, 1968.

Dershimer (1968) suggested in his conference address that:

"In short the evaluator should concentrate on providing the most valid, the most reliable information and the most relevant information and the best judgments concerning the information he gathers. After that it becomes the administrator's [and the teacher's] responsibility to act or not to act as he sees fit." (p. 16)

Therefore the goal of evaluation activities is to acquire and disseminate reliable and relevant information for the decision-maker (Moss, 1968).

The majority of the IMC's have developed and are field testing evaluative instruments (checklists, questionnaires, etc.). Typically such forms are filled out by those who borrow materials from the library. The questions asked on the forms currently in use generally fall into these categories: physical characteristics, contextual adequacy, classroom transactions, curriculum and behavioral objectives, and an opinion regarding the effectiveness of the material.

The use of teachers (specifically, IMC library clients) as sources for evaluative information has not been very successful to date. Differences in teachers' use, in classroom setting, and in the total number of materials on loan have resulted in few forms whose information could be tabulated together. To add to this problem, it appears that many teachers are unable to specify behavioral objectives or analyze tasks. Examination of those forms which the teachers have completed generally shows that the teacher's critical assessment of materials falls within one or two categories, such as "it's fun", or "they liked it."

Viewing evaluative information from library clients as one end of the evaluation-information continuum, the other end would be data from experimental research studies of the materials. Such experimental research is not practical because of the amount of time and the number of variables that would have to be controlled. In any case, even if one could control

the variables, and had sufficient resources, it is unlikely that the educational community, particularly the teacher, would make decisions based upon statements such as, "Significant at the .05 level." Furthermore, it is fairly obvious that any material, even a dried-up autumn leaf, is a superlative teaching device with some teachers at some times for some learners. There is also the problem of having the necessary information to make a decision at the time the decision is being made. This by itself rules out such time-consuming experimental research.

Such problems as these suggest that another approach is necessary.

STATEMENT OF THE PROBLEM

Considering the wide range of individual needs of children enrolled in special education classes, three kinds of information are needed by the teacher to help him select the appropriate materials. They are:

- 1) Behavioral objectives
- 2) Instructional content
- 3) Attributes of materials.

The PRIMES project provided the behavioral objectives and the instructional content. This data base had been derived from print materials. The purpose of the present study was to determine the feasibility of categorizing and the describing non-print materials, that is, manipulative devices and games. There were two tasks--the development of a form and the actual analyses of a selected number of instructional materials.

PROCEDURES

Selection of Materials

The time limit of the feasibility study necessitated concentrating on one type of material. A sample of manipulative devices was selected which seemed most instructionally relevant to the acquisition of knowledge and the development of mathematical concepts and skills for handicapped children having a mental age of approximately 3 to 7 years. Criteria which were considered included size, simplicity, concreteness, durability, and ease in holding and manipulating.

The following types of materials were excluded from this phase of the study: kits, workbooks, textbooks, familiar traditional games (such as bingo and flashcards), and audio-visual media (such as films, film strips, transparencies, tapes and records).

Approximately 10 of the 77 materials originally selected were not analyzed. These materials arrived without teacher's manuals or component pieces.

Development of the Analysis Form

Interesting materials help to increase motivation and attention. However, the teacher needs to consider other factors such as handicapping conditions. The use of only one hand or blindness, for example, preclude the use of some materials. In most cases, a catalog description of the material, while useful, does not give sufficient information to help the teacher consider the many factors involved in selecting materials. Very seldom does

the catalog indicate whether instructions or descriptive literature are included with the material. Sometimes, the catalog information is even misleading.

The final analysis form (Figure 1) evolved from earlier forms used on the project. There was considerable change as the committee found a more and more detailed and precise form was necessary to adequately describe a variety of materials.

Stimulus

The category Stimulus required no changes and appears on the final form as it did on the first forms. The primary stimulus of most manipulative devices is visual; however, most include another stimulus. If the material had two stimulus modes--visual and tactile--only the stimulus other than visual was noted.

Response

The category Response, which indicates the skills required to use the material, underwent the greatest change of any category on the form. On the earlier forms the responses speech, motor and written were listed, with motor response further divided into fine or gross movement. It readily became evident to the committee that describing all motor response as either fine or gross was a confusing oversimplification and that other refinements were needed. In discussing this point, fine and gross movement came to be seen as descriptive of thumb and finger grasp and could not be applied so

generally to describe all motor movement as initially attempted. This resulted in the subdivisions Thumb and finger grasp (qualified as fine or gross), Finger Use, Use of Arms, and Eye-Hand Coordination. Further qualifications under these subdivisions were added at this time, and with the exception of those under Eye-Hand Coordination, appear unchanged on the final form.

On the earlier forms Eye-Hand Coordination was qualified as general arm placement, placement of object in large area, placement of small object in small area, and exact placement of tiny objects. Upon experimentation the committee discovered that such descriptions were ambiguous without careful definition of "large area" "small object", "small area" and "tiny objects". Qualifications under Eye-Hand Coordination were changed to placement in an unconfined area and placement in a confined area as they appear on the final form.

Mode of Transaction

The category designated on the final form as Mode of Transaction was significantly different on the earlier forms where it was labelled Approach. Subdivisions under Approach were group, individual, supervised and independent. The first two indicated whether the material could best be used in group activity or individual instruction, and the latter two indicated whether children needed supervision as they used the material or could work independently. There was some confusion with this category and the committee was not certain that fine differences in approach would be easily discerned as defined by this original format. The category was then labelled Mode

of Transaction and subdivided into teacher-centric or pupil-centric, which indicated whether or not teacher supervision was necessary for use of the material.

Stages of Conceptual Development

On the earlier forms the category now labelled Stages of Conceptual Development was designated Kind of Learning and was subdivided into preliminary, structural and practice (see Definition of Terms, p. 8). However, the original label was not compatible with its subdivisions, as they described the development of a concept and not "kinds of learning." For example, the term "preliminary exploration" describes the process of "free play" as a child experiments in a random fashion with a material; it can not be labelled a "kind of learning", but rather an approach to the development of a concept. The subdivisions therefore remained the same, but the category was relabelled Stages of Conceptual Development.

Organization

Organization, a category not on the first forms, was envisioned as a classification of the structure of the material, that is, whether the material is meant to teach selected concepts in a selected order, (sequence). Subdivisions describe whether the material or task lacks this internal sequencing; whether it is sequenced but not a component of an instructional system, and is therefore ordered in a specific sequence in relation to other materials in the system, as well as internally sequenced.

There are primarily two reasons to include information about the organization of a material. First, a material that is part of a system or is sequenced can be used for a wider range of achievement levels than a material that is not. Second, the material that is part of a system may require more teacher-preparation time than a material that is not. If the teacher thinks he doesn't have the time to adequately prepare himself to use a system, then he must weigh the time available against the advantages of a system.

Instructions

The category Instructions shows some change on the final form from its original format. It describes the explanatory literature that the manufacturer includes with the material. On the early forms Instructions was subdivided into instructions for teacher and for pupil, just as on the final form. However, the following further subdivisions appeared on the original form: rationale, general procedures, specific/prepared lesson plan, description and philosophical background. On the final form many of these divisions were eliminated and only rationale (objectives), general procedures, and specific/prepared lesson plan remain.

As the committee discovered many materials were accompanied by sketchy instructions or none whatever, provisions were made on the final form to indicate whether or not descriptive or instructive literature was included with the material or had to be purchased separately, if available at all.

Each Child Needs to Manipulate Material

The category Each child needs to manipulate material was not included on the earlier forms. This information was provided to help the teacher in planning for the purchase of duplicate materials and/or the organization of small group activities.

Physical Description and Points of Comparison

Neither a Physical Description of the material nor Points of Comparison were included on the early forms, but they became important parts of the final form. The committee wanted to provide teachers with a thorough description of the material. Points of Comparison developed when the committee found it necessary to point up certain significant features of a material and/or compare it with other similar materials. In some cases this information could not be categorized because the attributes were unique to only a few materials.

Definition of terms

Stimulus: attribute of the material that elicits some behavior.

Response: an answer

fine grasp--use of thumb and one finger

gross grasp--use of three or more fingers

Stages of Conceptual Development (Dienes, Hutchinson, 1960):

preliminary: undirected activity

structural: activity directed by the material or by the teacher

5
practice: repetition through applied use

Teacher-centric: teacher exercises control over mode of transaction

Pupil-centric: largely self directing

Instructional system: presentation of more than one concept either by a logical progression of more than one material or by a logical progression of tasks.

Sequenced material: progression of tasks for one concept.

General procedures: method(s) of using material outlined.

Detailed lesson plan: those procedures which were outlined in a sequence both between concepts and within a given concept. Procedures are explicit and specific.

Analysis of Materials

The materials were analyzed by a committee of three persons who discussed each item and shared "expert opinions" until a consensus was reached on each category of the form. Each analysis took an average of 15-20 minutes; simple items were often completed in 5 minutes, while components of an instructional system demanded up to an hour of the committee's time in order to understand the underlying philosophy and objectives.

Problems and Resolutions

Many problems confronted the committee members in the process of analyzing the materials.

It was necessary to define a consistent policy for designating either the manufacturer or the distributor of each item. In many instances, es-

pecially those of imported materials, items are distributed by several outlets which may offer different packaging and/or prices. If the committee had listed only one distributor on the analysis form the problem arises of seeming to promote one distributor over others. In addition, the name of a local distributor is useless to a teacher in another state. Equally useless is the name of a foreign manufacturer without the indication of an American source for purchase of the material. It was decided to designate the manufacturer in order to avoid the promotion bias; however, if the material was purchased from one of several distributors, this source was indicated as a reference point for the price stated on the form.

In the beginning of the project, it was necessary to designate a general primary purpose for each material in order to analyze that material. However, as the specific primary purposes were completed by PRIMES, it was clear that the committee's and PRIMES' listed primary purposes were in agreement. Consequently the committee decided to drop this category from its analysis form.

The determination of the appropriate stage of conceptual development was largely based on the primary purpose. While a material could conceivably be used at all levels, it was felt that the characteristics of the material suggested a most appropriate level of usage. This judgement was shaped by the committee's familiarity with alternative materials which might be better used to teach the concept in question.

The term "structural" was the source of some confusion in considering the stages of conceptual development. Materials which are structured; in that they embody a concept in concrete form and are self correcting, are

not necessarily most appropriate for the level of structural learning. They may best be used at the level of preliminary exploration as readiness for a more direct learning experience. This problem was the source of much discussion until agreement was reached for each material.

A problem arose in analyzing materials which are similar to components of an instructional system, but which vary in some aspect. These items were treated as individual materials, but the similarity to a system component was mentioned in the points of comparison. It was felt that teachers needed to be aware of the differences. The committee desired to inform teachers of the system component, in the hope that the information would assist a teacher in determining his use of the similar but unrelated material.

The instructions category was included to indicate the type of information available for teacher and pupil use. In analyzing the instructions which were included or available separately, the committee recognized the limitations of the categories of rationale, general procedures and specific/prepared lesson plan. No differentiation is made between the brief rationale presented on a single instruction sheet and the rationale described in a complete manual. Likewise, the committee did not specify the extent of the general procedures. It was felt, however, that a breakdown into "limited" or "extensive" rationales and procedures would be equally inadequate. These vague terms are open to varying interpretations as to how limited or extensive the instructions are. A clear differentiation would necessitate a lengthy form, such as that presented by Maurice Eash (1969).

The points of comparison were suggested to aid the teacher in evaluating

each material in light of his goals and the characteristics of the materials. While the points were not stated in terms of good or bad, the selection of points necessarily represents the biases of the members' educational philosophies and goals for teachers. By building in an awareness of ways to look at materials, it is hoped that teachers will be guided toward critical thinking in the selection of materials and their creative use in the teaching process. This process involves children in active learning of the concepts underlying the number system; in this way, computational skills have a meaningful conceptual foundation.

CONCLUSIONS

The purpose of this study was to determine the kind of information that could be provided for the teacher to help him make a decision about acquiring and using instructional materials. The information that is provided can be likened to the kind of information a shopper uses to determine whether or not to buy a head of lettuce, and to determine which head of lettuce to buy. The shopper must first of all decide what he will use the lettuce for. In some cases only lettuce could be used; in others an alternative such as cabbage might be appropriate. One can compare heads of lettuce--weight, color and price. It is impossible to know how the lettuce will taste before using it.

So it is with instructional materials. Until they are actually used the teacher cannot really determine their effectiveness. The teacher who acquires instructional materials without reliable information is like the grocery shopper who is blindfolded.

When the present system is completed, that is, when all math materials have been described, the teacher will be in a position to compare all the available materials. That task would be impossible now. Acquiring all the manufacturers' catalogs and comparing the descriptions (assuming the information is accurate and relevant) would, indeed, be an inefficient use of the teacher's time. This is probably one of the reasons why teachers have not been intelligent shoppers.

In any information system the user must have not only physical access but also intellectual access. In other words, the information must be available

when the decision is to made and the user must know how to use the information. It is conceivable that the system presented in this study will influence the way a teacher considers all instructional materials.

December, 1969

MAR-SEINC

Date analyzed _____

Name of material _____

Publisher _____

Purchased from _____ at _____
Distributor Price

Acquisition number _____

Stimulus:

auditory _____

visual _____

tactile _____

Response:

speech _____

motor _____

thumb and finger grasp _____

fine _____

gross _____

finger use _____

individual finger or thumb _____

coordinated finger use _____

use of arms _____

tracing movement _____

one hand holding; other hand manipulating _____

two hands performing separate functions _____

eye-hand coordination _____

placement in unconfined area _____

placement in confined area _____

leg and foot _____

written _____

Mode of Transaction:

teacher-centric _____

pupil-centric _____

Stages of Conceptual Development: (stated or implied use)

preliminary exploration _____

structural learning _____

practice _____

Organization:

component of instructional system _____

sequenced material not in instructional system _____

not sequenced _____

Instructions:

included with material _____
purchase separately _____
none available _____

for teacher's use:

rationale (objectives) _____

general procedures _____

specific/prepared lesson plan _____

for pupil's use: _____

Y

N

Each child needs to manipulate material _____

Physical Description:

Points of Comparison:

Bibliography

Dienes, Hutchinson, Building Up Mathematics, 1960.

Moss, M.H., "Foreword," Evaulation; Processes and Practices, MAR-SEIMC, 1968.

Dershimer, R.A., "Evaluation and Decision Making," Evaluation: Processes and Practices, MAR-SEIMC, 1968.

Eash, M.J., "Assessing Curriculum Materials: A Preliminary Instrument," Educational Product Report, February, 1969, Vol.2, No.5.