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**THE SCHOOL
LIBRARY MATERIALS CENTER:
ITS RESOURCES AND THEIR UTILIZATION**

Allerton Park Institute



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ALLERTON PARK INSTITUTE

Number Ten

**THE SCHOOL
LIBRARY MATERIALS CENTER:
ITS RESOURCES AND THEIR UTILIZATION**

Papers presented at an Institute
conducted by the
University of Illinois
Graduate School of Library Science
November 3-6, 1963

Edited by
Alice Lohrer

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Foreword

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In the relatively short history of school library development, each decade since 1920 could be characterized as centering attention on a particular phase of organization or service pattern. In the 1920's, quantitative standards were developed for the establishment of high school libraries; in the 1930's evaluative criteria focused attention on qualitative characteristics of book and print resources in the school library; in the 1940's attention was centered on the service aspects of the library program to children, youth, and faculty at all levels of education; and in the 1950's clarification was made for the profession concerning the responsibility and the role of the school library in providing multi-media resources and services for the school. The school library profession in the 1960's is concerned with the implementing of standards that reflect the philosophy of the school library serving as an instructional materials center, with the identifying of significant programs of library service at each educational level which fits the accepted philosophy, with experimenting in creative designs for housing, and with organizing resources to implement these programs of service.

In the past eleven years the library school at the University of Illinois has held three conferences and institutes for school librarians. One section of the "Institute on New Library Trends" held in 1952 was devoted to aspects of school library development. In 1954 school library supervisors were invited to an Allerton Institute; and now in 1963 attention is centered on "The School Library Materials Center: Its Resources and Their Utilization."

In this volume, the papers presented at the 1963 Institute held April 3-6 at Robert Allerton Park, Monticello, Illinois, are reproduced essentially as they were given.

The keynote address sets forth the rationale justifying the present trend in the direction of the school library becoming an instructional materials center for the school. Explored are the implications of the changed objectives of education, of the needs of modern society, of technological achievements and developments that have educational significance, and of educational media research as it affects school library programs and the professional preparation of staff for these centers.

Newer resources, facilities to make effective use of these materials for individual and group needs, and educationally designed equipment available or in progress of becoming available to use these

media are brought to the attention of school librarians and administrators in three of the papers. One relates specifically to the possibilities of the 8mm film and another to the expanded use of electronic learning centers.

Experiments in designing new techniques for central processing of all types of materials used in the school libraries today are reported as they exist in representative school systems throughout the United States. Local and commercial ventures are discussed, and sources of information are tabulated for reference by those faced with this administrative problem.

The role of the librarian, administrator, and architect in planning new and remodelled functional quarters and facilities in which to house and service the multi-media instructional materials are presented with a view to the limiting factors of quarters as well as the need for creative and flexible designs for the future.

Effective utilization of instructional materials by teacher and pupil depends in no small part on the understanding and cooperative efforts of school administrators, school library supervisors, and school librarians in providing specialized advisory and consultant services to users of multi-media resources provided. The dynamic role of school administrators, library supervisors, and librarians is each highlighted in such a way as to give insight into the educational objectives of the school. Steps to take in rethinking and in redesigning a traditional school library program to meet the modern needs of the school are graphically developed for those who need help in the beginning stages of planning for the future. Where to find well designed and functional programs of school library service are also suggested. Evidence that school libraries functioning as instructional materials centers are to be found in all parts of the country and at all levels of the educational ladder is both encouraging and challenging to leaders in the profession who often become discouraged with the knowledge that we still have a long way to go before we are providing these services and programs to all the youth of our nation. There is much to be done, but each decade brings us closer to achieving our goals.

Assisting me on the planning committee for this Institute were Dr. Herbert Goldhor, Director, University of Illinois, Graduate School of Library Science; Winifred C. Ladley, Associate Professor of Library Science at the University; and Cora E. Thomassen, Assistant Professor of Library Science at the University. My thanks to them and to Mrs. Susan Bush Lindsey, formerly, Instructor in Library Science, Division of University Extension; Mr. Hugh Davison, Institute Supervisor and his staff of the Division of University Extension; Mr. Eugene H. Schroth, Assistant Director of Allerton House, and his colleagues; Mrs. Maija Harris, Credentials Analyst, Graduate

School of Library Science; and Miss Jean Somers, Assistant to the Editor in the Graduate School of Library Science.

Alice Lohrer
Chairman, Planning Committee

Urbana, Illinois
May 1964

TABLE OF CONTENTS

	Page
FOREWORD	v
RESEARCH AND PRACTICAL EXPERIENCES OF RECENT YEARS THAT SUPPORT THE CONCEPT OF THE SCHOOL LIBRARY MATERIALS CENTER C. Walter Stone	1
NEW RESOURCES FOR THE SCHOOL LIBRARY MATERI- ALS CENTERS (With Appended Bibliography) Carolyn I. Whitenack	12
THE ELECTRONIC LEARNING CENTER IN THE LIBRARY Harry Regenstreif	27
THE 8MM FILM: A NEW MEDIUM FOR SCHOOL LIBRARIES *Louis Forsdale	
PATTERNS FOR ADMINISTERING THE PROCESSING OF RESOURCES FOR THE SCHOOL LIBRARY MATERIALS CENTER (With Affixed Appendices) Viola James	33
DESIGNING FACILITIES FOR SCHOOL LIBRARY MATERIALS CENTERS Sara Krentzman Srygley	59
THE ELEMENTARY TEACHER AND THE INSTRUCTIONAL MATERIALS COORDINATOR PLAN TOGETHER FOR MEDIA INTEGRATION WITH CLASSROOM TEACHING AND LEARNING Ruth A. Davies	69

*We very much regret that due to pressure of a heavy schedule Dr. Louis Forsdale was unable to send to us his manuscript entitled "The 8mm Film: A New Medium for School Libraries." His excellent presentation and demonstration of 8mm films that have been developed experimentally for school use give hope that this revolutionary media will soon be available for use in our school libraries.

NEWER TEACHING METHODS AND THE LIBRARY PROGRAM IN THE JUNIOR HIGH SCHOOL John A. Ratliff	76
SERVICES OF THE SCHOOL LIBRARY MATERIALS CENTER IN THE HIGH SCHOOL Mary Louise Mann	87
THE SCHOOL LIBRARY BECOMES A MATERIALS CENTER: STAGES OF DEVELOPMENT Cora Paul Bomar	93
FUTURE POSSIBILITIES IN THE DEVELOPMENT OF THE SCHOOL LIBRARY MATERIALS CENTER Alice Lohrer	101

Research and Practical Experiences of Recent Years That Support the Concept of the School Library Materials Center

C. Walter Stone

*Director, Center for Library and Educational Media Studies,
Graduate Library School, University of Pittsburgh*

I have said before and I would like to begin by saying again that, "in my book," there is no more challenging or exciting work and there is no job of greater importance to progress in every sector of society than that of managing the availability and flow of knowledge through all media. This is the business of librarians everywhere and within elementary and secondary education, it is the business of the school librarian.

The School Library Materials Center concept is one answer given by our profession to the challenge of modern educational communication and information service requirements. It is an important idea, and since the approval in 1956 by the American Association of School Librarians of an affirmative statement which defined the role of the school library as an instructional materials center, this idea has become increasingly a guiding principle employed in planning school media services. The chief limitation of the concept, and of the philosophy behind it, is that it does not go far enough.

I believe the rationale we need today is one more similar to that used in justifying formation of the new Division of Learning Resources at Florida Atlantic University. This rationale identified two sorts of professional responsibility in educational media service: (1) To put at the disposal of the teaching faculty all media technology, services, and systems which will enhance the effective communication of ideas in a pre-programmed phase of learning; and (2) To put at the disposal of the student all media technology, services, and systems which will enhance the effective communication of ideas in a self-programmed phase of learning. For me, this statement expresses our professional responsibility clearly. To date, however, we have not been prepared to meet such a challenge.

In November 1963, over half the schools in America had libraries; however, many did not feature instructional materials centers. Less than half of the elementary schools support any form of library service. The shortage of professionally trained school librarians is more than acute across the country; many jobs remain unfilled and new ones are constantly opening up. There appears to be almost no

prospect whatsoever of recruiting and training the thousands of new librarians who will be needed. Most teachers themselves remain unknowing and untrained in proper media use and in use of resources afforded by libraries. And they are not, therefore, prepared to demand or even to recognize good service.

Looking ahead to a day (less than 20 years from now) when the U. S. population may number 270,000,000 and when something like three-fourths of the increase in American public school enrollments will be concentrated in fewer than 200 metropolitan centers, it is disturbing to note that the regional planning necessary to establish arrangements for media service which then will be needed by schools and colleges to sustain their expanding programs has not yet taken place except in a few of our largest cities.

Fortunately, the conditions are now right for change. American Education is ready to put new, needed programs into effect. National recognition of our manpower and citizen requirements for new and improved kinds of educational opportunity is reflected generally in educational planning. During World War II, and more especially in the last decade, there emerged a new communications technology which is now being harnessed for instruction and about which others will talk at length during the course of this institute. Within business and industry, as well as formal education, we find broad recognition of the vital importance of library and information services and of the need for training all Americans to use information and learning resources to maximum advantage for self-education as well as in-school activity.

The changed nature of modern society (created by the burst of technology, a world-wide explosion of population, etc.) is changing educational goals rapidly. In recent years we have established some wholly new emphases in teaching, for example, in the language arts, in science, in mathematics, and in the study of world cultures. The changed objectives of education are also reflected in new teaching methods, e.g. the current shift away from teacher-centered presentations towards self-paced learning, as well as in the places chosen to carry forward learning processes. Witness the influence of the Trump Plan advanced for secondary education, and note the laboratory settings created for individual study of modern languages as well as experimental use of computer controls for instructional systems keyed to individual learning requirements and to profiles of student accomplishment. These innovations, when assessed in terms of the short time in which we have moved from traditional classroom forms of teaching to emphasis on the seminar, large group instruction and tutorial approaches, are more than significant indications of where we are heading in the schools and how fast we are moving.

In a struggle to do more for more people in less time, to stretch our school dollars farther than we could before, many new patterns of administration have been conceived and are now being tried out in

American schools. For example, to cope with the clock and calendar problems, new plans for class scheduling are being tried. New arrangements for teacher deployment and student grouping are characteristic of better schools. New definitions of student and teacher responsibility are being accepted for management of the learning process. And with increased stress on self-education has come a new dependence on learning resources and upon instructional technology per se.

Supporting these new approaches to instruction are new techniques for producing and distributing locally the kinds and amounts of materials needed. We have instituted some new practices in commercial as well as non-profit publishing. New organizations have been created (e.g. The Educational Media Council) and new educational aims have been adopted by established professional associations—goals which encourage among other things the use of “systems” approaches in teaching. We are demanding and getting new levels and kinds of public and private support of education; new sources of educational service (for instance, in-school television, as provided by MPATI); and the design of new media reference aids (e.g. the educational media index—which is a cross media guide to films, filmstrips, recordings, and tapes scheduled for publication by McGraw-Hill in the Spring of 1964). But perhaps the most dramatic of all such changes can be seen in new school facilities.

The shape of the future, as I see it reflected in physical terms, implies major shifts in education and in all component activities relating to instruction, including those managed by school librarians and by other school media specialists. For instance, here are the closing paragraphs of an article which was published recently in the Architectural Forum magazine:

As electronic teaching systems get into ever wider use, the implications for school planning seem clear. Someday entire school systems may be planned around central production and program-storage facilities, which can be tapped through an underground network by students in individual schools (there are those who suggest using the same network for distributing mechanical services, and even refills for the food-vending machines). Learning stations, with their high content of electronic devices, would be ideally suited to low-cost factory production as appliances are today. And if portable receiving stations could be plugged into the learning-service network, a computer could schedule periodic redistributions of such units to keep pace with population shifts.

This ultimate flexibility in school planning is strongly suggested by schools being planned today. In adding a science wing to the seven-year-old Wheatley School in East Williston, Long Island, where relatively new equipment was found to be

educationally obsolete, the architects sought a scheme that would insure against rapid obsolescence. What they came up with was a plug-in science laboratory with a service network that can be tapped by a wide variety of moving laboratory modules. Designs like this one may soon eliminate the quandary of the school board trying to decide which way education will go in the future. They are, indeed, forerunners of tomorrow's "plug-in" school.¹

The implications of educational media research conducted in recent years and practical experience gained in schools which are using newer media extensively are major factors encouraging change in education. For instance, media research and experimentation have taught us that school and college instruction is not always most effective when conducted in little square boxes of 20 to 30 feet on a side. Also, we have learned that people having different backgrounds often learn different things at different rates; some may learn better from one type of material while others may need quite different help.

We have also discovered from research and experimentation completed during recent years that there is not any magic in a nine-month school year or in a 40 to 50, or 55 minute class period. We have learned that sometimes people become more interested in what they are studying and that they remember much more of it afterward if they can work alone and have a brief review shortly after initial study (and then receive only occasional guidance through informal faculty consultation); that others may learn very well indeed from the "give and take" of seminar discussion; that parental assistance in learning languages taught via television produces excellent results; and that some ideas are easily mastered by large groups of several hundred or more students.

We have also learned that, unless our educational facilities are made sufficiently flexible to provide for the kind of instruction implied, they probably will not be worth the very large and, indeed, ever-increasing amounts of money they now seem to cost.

With regard to media, we have learned that today we must have immediately at hand a full spectrum of learning and information resources including books, magazines, and other forms of printed material; pictorial and graphic aids; motion pictures, discs, and recordings; television and teaching machines. We need them all for instruction and reference purposes. Sometimes we need many of them at one time—at other times, only a few or single units. Especially with respect to materials used directly in teaching, we have learned to look among all available media to seek out those which will help most directly to achieve a given goal of instruction, individual study, or review, and classroom presentation.

And here are some additional facts concerning needed research and the field experience of recent years. Television can, and is now being used successfully in teaching more than one-fifth of American

youngsters. Programmed instructional approaches are accelerating rates of learning as well as individualizing study in thousands of American homes, schools, and colleges. The single laboratory unit has virtually become standard equipment for teaching languages and, increasingly, other subjects. Computers are actually being used experimentally, for example, by the Systems Development Corporation in California, not only to make available a full range of modern techniques for storage, retrieval, and correlation of information, but also for instructional sequencing and the simultaneous recording of student response to any form or combination of forms of instructional media presentation.

Work being done in Monmouth, Oregon, suggests new approaches to instruction using simulation devices. These are devices which place students in artificial environments and present specific situations in which the student must respond by choosing among alternatives and by actually carrying out one particular course of action, not unlike the Driver-Trainer, but not limited to manual skills. Such systems make extensive use of slides, films, graphic materials, and recording equipment as well as supplementary printed aids. Technimation which animates the use of overlay transparencies through changing the polarization of light, and "Telemation" which makes use of multiple split-screen techniques for making comparisons in teaching as well as a broad range of new duplication and data transmission devices and other electro-mechanical aids—(some of which have been created solely to serve the needs of education—an innovation in this country) are important fruits of research effort also completed in recent years.

One point should be made in discussing school media research, and it is that often in such discussions we tend to compare the "apples" with "oranges" and thus confuse the contributions offered by specific media. What I mean to say is this. The development and application of programmed learning in elementary and secondary schools does not represent the invention and educational use of a new medium of communication. Programmed instruction is simply a new, small step-by-step approach to the organization of learning experience—an approach which is keyed to some rather explicit principles of stimulus-response psychology discovered quite a while ago, and first tested with pigeons and rats in the laboratory.

Educational broadcasting amounts to use of an electronic transmission belt which, at least in the case of television, is, indeed, capable of multi-media montage, but which should now be studied by educators more for administrative implications than as a unique form of communication.

The learning laboratory station or carrel is not a medium at all. It is simply a place or environment designed especially for learning which may cluster a variety of media. It is an environment, incidentally, which according to studies now under way may be influenced more significantly in effectiveness by its actual size, its relative

isolation of one student from others, design of the control panel, and so on, than by what it actually communicates through tapes, films, slides, etc.

Or, to take the case of the motion picture, which I define as a distinct medium of communication, we have finally learned in education to stop making instructional films in the image of textbook chapters or sections and to use film more imaginatively—whether to illustrate dynamic concepts involving motion or to induce appreciation of a dramatic sequence, create a mood, or present vicariously, with an appropriate editing of space and time, the elements of a scientific process.

Multi-screen approaches (for example, those mentioned earlier as represented in “Telemation”) which make possible the use of several projection devices at once are most significant, as I see it, in the sense that they foster a learning process accomplished as a result of a new synthesis. To present an example, one might show at one time in fixed position several elements of a demonstration on crystal formation while utilizing the motion picture to show ways in which the crystal changes in time and final results of the experiment.

Two more points regarding current media research and experimentation—we do now have available for use in education a rich variety of improved and newer media capable of single and multiple use. But when considering their instructional values, I would like to suggest that it may be most important—for instance, in the case of television—to recognize that because of its inherent technology and its capacities as a carrier, television too frequently is introduced in schools from the “top down” as a result of administrative decision. One consequence of this can be that the content of education is determined more by persons concerned with technology and mass dissemination of messages and less by professional personnel truly concerned with the needs of youngsters.

Also with respect to programmed instruction, the most essential concepts which underlie programming are now making contributions in team teaching, in ungraded programs, in dual progress activities, etc. Programming methods have also been integrated on trial bases into many other kinds of school work, for instance, in the laboratory, in homework, group discussion, for investigation, for self-correction, writing, etc. But from my point of view, programmed learning approaches are more significant for their encouragement of improved educational engineering and as almost unequalled sources of feedback from the learning process, with specific contributions being made to production of better textbooks, better instructional television, motion pictures, lesson plans, etc., than for any uniqueness in the form of programs themselves or in teaching machines. Incidentally and conversely, some of the skills of good text writing, demonstrations, and visual communication have much to contribute to programmed learning.

The implications of recent research and experimentation do have relevance for planning and operating school libraries, but they can not all be applied directly, a point I shall return to later.

But what then should a school library materials center be or become if answers do not come immediately from research or from experience? Or, to ask a different and I think maybe a better question, what media service functions must be performed in American schools and colleges today and what recommendations can be offered now which may help these functions to be performed well in the future?

My first answer calls for a definition for some, possibly a re-definition-of our field of professional responsibility. It is my view that a cluster of six functions represent the chief media service requirements of American schools and that increasingly these functions should be performed under single professional management. These six functions include the following: (1) Continuing research and experimentation involving both instructional uses of media as well as study of media service arrangements essential to satisfy school needs; (2) Local adaptation of teaching materials as well as production of new learning resources, taking into account any special requirements of single types of media as well as the need for "conceptual interlock" which increasingly must guide preparation of new materials in terms of their anticipated use in teaching; (3) Distribution of all types of materials and equipment essential to aid the instructional and research work of groups and individuals within the school community; (4) Counseling and training of individual teachers, students, and student groups to identify media requirements and to improve their use; (5) Demonstration and display services which will be more adequate than those normally provided in schools operating under typical present-day arrangements (arrangements which often tend to place responsibility for such work in the office of a harried superintendent or busy principal); and (6) Full use of modern computer technology to be employed not only to solve problems of an advanced statistical nature and to undertake information storage and retrieval work, but also to generate new instructional programs and, by what amounts to massive data correlation and actually, through synthesis, to create new knowledge by "intellectronic" processes. This is the way I would like to define our area of professional interest and responsibility.

A second recommendation I would like to offer concerns recruiting and professional education. In my view, the school librarian is one of several specialists in educational communication and information sciences—a specialist whose training must not only include sound undergraduate preparation and thorough training in education with a capital E—whose training, beginning in the fifth year and frequently extending through and beyond sixth year levels (especially for those anticipating acceptance of top management posts, i.e., supervisory

jobs in large schools, school systems, county and state agencies) must include basic study of learning and information theory; communications theory, institutions, and processes; systems development and engineering; mastery of administrative science; a thorough grounding in economics, research methods, and statistical procedures; a full understanding of media production arts, crafts and sciences; as well as capacity to appraise the methods and techniques of instruction.

And this is not all I would like to suggest concerning the training of future professional colleagues. Although most of us accept technology in many aspects of our life, we still tend to fear it in education. We have begun to acknowledge only recently that one can not talk intelligently about a School Library Materials Center (or about any aspect of the modern school media service program) without discussing the program as a whole and without seeing it as an integral part of our total system of modern instructional services and technology.

Further, if it is to be truly in keeping with our need, the professional education of school librarians must be conceived as preparation of individuals to acquire detailed knowledge of current school subject emphases in terms of specific knowledges, attitudes, and skills which instructional processes are designed to elicit. Further, it should also be the education of those who will come to know intimately the full range and types of materials available covering given subject matters--in single media forms and/or in multi-media units.

Nor is it enough to know content and materials; one must also know the equipment required for use of materials and optimum environments for learning. This idea again suggests once more the need for understanding in depth of learning processes.

The school library function can not be performed well without detailed understanding of some very practical problems in school administration. Capacity for management of technology and technical personnel must be cultivated as well as comprehension of budget-making processes, curriculum planning skills, and intra-school as well as external public information and public relations know-how. (Are we to have a new school, for instance, a new gym-auditorium-- [or swimming pool when the floor is rolled back], a new stadium, field house, or, a new learning resources unit?)

At the base of any professional training program there will, of course, be education for understanding and ability at least to supervise all basic library processes and routines and trained competency for application of specific library techniques and technology.

This list of responsibilities assigned to professional education in our field is awesome if you expect one person to be and to do all things in performing the library service function in schools. But I do not believe that school librarianship at the local level can or, indeed, ever should be expected to embrace in a single professional area the full range of concerns we have listed above. Rather, what

I do believe is that we have just described a number of management responsibilities associated with media service programs generally—programs which may call increasingly for new clustering of instructional resources personnel, some of whom will probably be given new names and trained in new ways to accomplish fulfillment of School Library Materials Center functions—EXPANDED—with the help of school administrators, teachers, research personnel, specialists in media production, et al who will have been trained to know much about instructional media services.

(Let me add in a final parenthesis to this section that new teaching methods and resources available to us today lead me to believe it may now be time to put together again service, training, and research components in our graduate programs of professional education.)

As important as the several hundred discreet studies completed during recent years on school uses of newer media have been, I recommend that the research we need most today must be developed more in sociological and organizational terms and be of the kind which relates more to educational practice as such than to the psychological laboratory. In the same way that studies of aerodynamics and carburetors have little or nothing directly to do with the influence of jet-age transportation or world business and industry, although, in a sense, one clearly is cause and the other effect, so discreet studies of learning behavior will not give us all the answers we need urgently concerning the planning of media services in schools or for the design of optimum plans for administration.

It is my view that over time (and it probably will not be long at that) we shall see develop on a regional basis—crossing municipal, county, and state lines—new instructional media service programs created for the purpose of serving both public and private education. I recommend that these new programs should give special attention to production of teaching materials (especially instructional television and related aids), provision of research and evaluation services, in-service training of teachers for optimum use of learning resources generally, and the regular exchange and distribution of instructional materials and equipment required for their use. The authority for and support of such regional efforts will have to be obtained through delegation by those who benefit directly from the service provided, probably using some type of council or federation plan. Such instructional media service “reservoirs” will, as I see it, enlarge logically and extend greatly the “reach” of the School Library Materials Center concept.

Finally, I would like to recommend that we continue to acknowledge in public—and loudly—our need for vastly increased public as well as private dollar support, especially at state, regional, and federal levels. The new demonstration school library programs initiated, and those to be initiated, with Knapp Foundation money (administered by the American Association of School Librarians) are certainly

steps in the right direction. But these are such very small steps that, in a sense, they might prove simply to be frustrating. We can not take forever to do our job of "tooling up" in education to prove the worth of our ideas. We need, therefore, to use every resource at our command to make the School Library Materials Center program a national effort which, in turn, may evolve logically into a media service complex approach—a complex capable of being tied, as it must eventually become, directly into a nation-wide system of educational inter-communication and information services. A massive program of state and federal aid must be developed which goes very far beyond present provisions of any support legislation in existence or being planned if we are to realize goals that we have been describing.

In closing, let me remind you of a statement—familiar I am sure to some in the room—"There should be a library and gallerie furnished for . . . schools . . . with all manner of books, mappes and spheres and instruments of astronomy, and all other things apperteninge to learning which may be given to schools or procured with the schools' money."

Certainly, here is our School Library Materials Center concept set forth clearly in Ashton's ordinances, issued in Shrewsbury, England, in 1578. How long does it take to realize a logical and relatively simple idea!

I suggest we try in the next 15 years, and not wait 400, to encourage the rapid evolution (by revolution if need be) of the School Library Materials Center idea to meet the challenge of our times and our professional responsibility.

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New Resources for the School Library Materials Centers (With Appended Bibliography)

Carolyn I. Whitenack

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As a graduate of the University of Illinois Graduate School of Library Science, one continues to carry in his life-long learning activities those ideals, concepts, and goals that were first given to him in his graduate training. Thus I have been exposed to a multi-materials philosophy for many years, and this philosophy is so much a part of me that I feel highly honored to speak with you about "New Resources for Library Materials Centers." Dr. Stone, our keynote speaker, set the tone of this conference and was able to express so clearly all the potential of the school library materials center. I think that in practice we do not as yet reach this goal, but we are moving in that direction. It is hoped that this audio-visual presentation (Colored slides were used throughout this presentation illustrating titles, equipment, or uses of library resources in individual libraries.) will amplify what Dr. Stone said, and in addition, expand your understandings of the new things that are happening in the school library world.

Before presenting slides of the many types of resources available today, I should like first to recommend to each of you the publication, The School Library, Facilities for Independent Study in the Secondary School, published by Dr. Harold Gores, President, Educational Facilities Laboratories, 477 Madison Avenue, New York 22, N. Y. I hope each of you will write for a copy and express appreciation to him for this very thoughtful and imaginative publication. And I hope you will also write to Dr. Ralph Ellsworth and thank him for his authorship of this significant publication. Someone in the audience asked last night, "What can we do to communicate with our superintendents?" The Education Facilities Laboratories, because it was primarily designed to assist the superintendent, is one agency that is respected by them. Your superintendent has already received this publication. Go in and ask him for his copy, borrow it, and discuss the principles expressed in it in relation to your own library program.

In The School Library, Facilities for Independent Study in the Secondary School, Dr. Ellsworth begins with a very provocative statement: "In most of today's secondary schools, the library will be found in a small room with a few hundred books around the wall. Seats for a few readers are presided over by a librarian whose main

task is to keep order over a reluctant group of students who are there, not because they want to be, but because they have been sent there to study their textbooks." On the other hand, that is not the total picture of the school library; nor does he project this concept in the book. But rather Dr. Ellsworth reports that we should have a collection of about 30,000 books and that we should be able to seat 60 per cent of our students in libraries in individual study units. Illustrations in this publication show the imaginative space use of the library as a learning laboratory. The study carrels provide spaces where students may teach themselves and provide for individualized learning as a part of modern education.

Many types of resources for self-study are being used in the school library today and are shown in the slides. Teaching machines and individual study carrels are in use in some of the libraries in the East. A pace reader for improving reading speed is to be found in the Ridgewood High School in Norridge, Illinois. In this slide a young man from Cold Spring Harbor High School in New York is conducting science research in one of the individual study units close to the informational resources which is a part of the Science Library of the High School. Next are the study carrels from the University of Chicago Laboratory School. Again, this slide is another type of an individual study unit, a mechanical core, a do-it-yourself type, where you can typewrite as well as view and listen. A microfilm reader is also to be found in the laboratory school at the University of Chicago. We are using more and more of these resources in school libraries. A picture of a typical busy day shows many kinds of activities going on in a school library. Illustrations in The School Library show the attractive use of screens and free standing carrels as well as opportunities for reading in a garden and for sitting in comfortable seats provided by the school library. Another new facility is the central processing center for films, filmstrips, and books for a system or region. We need to work toward developing more cooperative processing centers. These are desirable because they release time for the librarian to work with students and teachers.

Those of us who for many years have been promoting the library as a materials center, are sometimes described as having more interest in the new types of materials than in books and print. Yet we who are promoting an overall multi-media use of materials in the library are not promoting these at the expense of books but along with books. All types of materials are needed to meet the needs of education today. With this in mind, I am going to show rapidly many slides of bibliographical resources listed in the bibliography and well known to every librarian. Many of the new resources are now available in paperback form. School librarians certainly ought to examine the many types of paperbacks in science, biography, and fiction.

More time, however, needs to be spent with some of the resources in the audio-visual field because they are not so familiar to many.

Many resources are available from local university libraries and large libraries. These include: The National Tape Recording Catalog, Sources of Information on Educational Media, Margaret Rufovold's Guide to Newer Educational Media, and the recent Programs '63, the guide to programmed instruction from the U. S. Office of Education. These are all inexpensive items that every school library can afford. Sources of free films, filmstrips, and recordings are available from the Educators Progress Service. These are additional sources for gaining information for obtaining free materials, as for example, the George Peabody College learning resources booklet which is very inexpensive. Every school librarian working with multi-materials should receive Audio-Visual Instruction, the magazine of DAVI, and should also be a member of the Department of Audio-Visual Instruction. Of all the publications that are available in the total audio-visual instructional field, this publication is far superior to any other publication at the present time. Research interests can be met by reading Audio-Visual Communication Review and also some of the magazines in the field of programmed learning which are listed in the bibliography. Programmed learning is just beginning to take hold in this country, and school librarians have a great stake here as well as a great opportunity. The Center for Programmed Instruction Bulletin is not too expensive and is one that should be in the school library.

The new publication Teaching Aid News is excellent for keeping up with the newest materials in educational technology. For example, it has already reviewed The School Library, Facilities for Independent Study. Even though it costs \$10, and the paper and format are not worth \$10, the immediate information is invaluable. An agency that we should familiarize ourselves with is NAEB, the National Association of Educational Broadcasters. These people are friends of librarians and are working for the broad approach to the use of materials, and we should be knowledgeable about their activities. Everyone should be familiar with Dr. Jim Finn's Technology Project for NEA and the studies published from the project. These include research about the fields of print, media, textbooks, and audio-visual materials. Titles include: HISTORY OF INSTRUCTIONAL TECHNOLOGY, I: TECHNOLOGY IN AMERICAN EDUCATION, 1650-1900; HISTORY OF INSTRUCTIONAL TECHNOLOGY, II: THE TECHNICAL DEVELOPMENT OF THE MEDIA; TEACHING MACHINES AND PROGRAMMED LEARNING, 1962: A SURVEY OF THE INDUSTRY; INSTRUCTIONAL TECHNOLOGY AND THE PRESS: A CASE STUDY; AUTOMATION IN EDUCATIONAL ADMINISTRATION, I: VENDING MACHINES IN SCHOOLS AND COLLEGES; STUDIES IN THE GROWTH OF INSTRUCTIONAL TECHNOLOGY, I: AUDIO-VISUAL INSTRUMENTATION FOR INSTRUCTION IN THE PUBLIC SCHOOL 1953-1960 A BASIS FOR TAKE-OFF; THE DESIGN OF INSTRUCTIONAL EQUIPMENT: TWO VIEWS; STUDIES IN THE GROWTH OF INSTRUCTIONAL TECHNOLOGY, II: A DIRECTORY OF CLOSED

CIRCUIT TELEVISION INSTALLATIONS IN AMERICAN EDUCATION WITH A PATTERN OF GROWTH.

Serving on the Educational Media Council and sharing the responsibility for directing the planning of the Educational Media Index has been most rewarding. This publication by the Council is being compiled by McGraw-Hill and will include all types of non-print resources: film, both 16 mm and 8 mm, with a symbol for each: filmstrips, records, slides, tapes, and video tapes, sets of pictures, models and mockups, programmed instruction, and cross-media or multi-media kits as well as maps, globes, and charts. These materials will be collected in fourteen directories: one a master title directory and thirteen sub-directories for the following areas:

- Volume 1, PRE-SCHOOL AND PRIMARY, GRADES K-3--\$4.70
- Volume 2, INTERMEDIATE, GRADES 4-6--\$5.70
- Volume 3, ART AND MUSIC--\$4.50
- Volume 4, BUSINESS EDUCATION AND TRAINING--\$3.70
- Volume 5, ENGLISH LANGUAGE--\$4.20
- Volume 6, FOREIGN LANGUAGES--\$4.70
- Volume 7, GUIDANCE, PSYCHOLOGY, AND TEACHER EDUCATION--\$4.50
- Volume 8, HEALTH-SAFETY AND HOME ECONOMICS--\$4.70
- Volume 9, INDUSTRIAL AND AGRICULTURAL EDUCATION--\$5.00
- Volume 10, MATHEMATICS--\$3.20
- Volume 11, SCIENCE AND ENGINEERING--\$5.10
- Volume 12, GEOGRAPHY AND HISTORY--\$5.20
- Volume 13, ECONOMICS AND POLITICAL SCIENCE--\$5.20
- Volume 14, MASTER TITLE INDEX--\$6.75

If a teacher were planning a unit on the history of the Civil War, he would find under that subject: films, filmstrips, tapes, recordings, sets of prints, sets of slides, and all the media just mentioned, which would help him do a better job of teaching. This tool is based on a publisher's description in telegraphic English and is not evaluative like the Standard Catalog series. We still need librarians to take a look at the total universe of materials, and then select from these the best. The following is a sample entry from the Educational Media Index:

*FRENCH CONVERSATIONAL PROGRAM--RECORD SET. L1 7" rec 45-33 1/3 rpm jh-sh-c-g&p -ad \$57.50. French conversation lessons in continuous discourse of every day speech for advanced auditory comprehension. Covers audio-training, reading, writing, structure, 3,000-word vocabulary. Native speakers. Directed by Professor P. Fouche, Director of the School for Teaching French to Foreigners, of the Sorbonne, Paris. Same material as paused version.

There will be many subject headings throughout the directories. This information is assembled by IBM cards and photographed by a system that is used to print out negatives from which the positives are printed. It is hoped that every center of any size will buy the Educational Media Index and that additional sets will be purchased to sub-divide for departments. This is a very expensive venture, and there has been difficulty getting a publisher interested in publishing this index because of the cost. The Educational Film Guide and the Filmstrip Guide have already ceased publication. This educational tool is needed; librarians should inform others about the publication. At least 5,000 orders are needed to put it on a sound financial basis.

Returning to books, we now have slides of special types of books that we need in our libraries. As one example I have chosen Exploring Science from the Golden Book Series. Our science professors at Purdue University have checked these books and report that they are excellent resources for learning and should be used in school libraries. Another example is Planets. The reason I have chosen these books is that they are inexpensive, they are beautifully illustrated, and the information is correct and up to date. Because librarians are inclined to look at literary value only and not at some of the other criteria that are just as important, I am emphasizing some of these resources. This 50¢ book on How and Why: The Wonder Book of Stars is one resource that should be available in every elementary school. Some of these resources that are inexpensive can make a real contribution to learning.

Paperbacks have already been mentioned, and one on Birds from the University of Michigan is a fine example.

Other slides include new films from Encyclopedia Britannica Films, Coronet, and McGraw-Hill. Librarians should examine carefully the various films series, e.g. those of the Physical Science Study Committee, the New Mathematics series, and the AIBS materials. The new biology series uses the technique of micro-photography in a way that has not been seen before in many commercial materials. There are kits of recordings, sound films, and study prints altogether in one correlated teaching unit. One of the new films "Why Explore Space" causes young people to think about the "why" of things and not so much the "how" or "what." Well known are the books put into the film series of the Weston Wood Publications--the Picture Book Parade series.

The next series of slides shows a system for putting filmstrips into a small library and identifying them as one might the books and other resources. Filmstrip reviewers are also available in the library for students to use individually, or to take to individual carrels, or to check out in the same manner as other library materials. This is only one way in which filmstrips can be organized for use.

There are many newer kinds of tools which are available on the commercial market. One is the new stereo recording unit produced by Revere. A stack of tapes will play for sixteen hours. A student

brought in this picture of a jukebox for motion pictures—a clipping from last week's paper. It is a new motion picture exhibiting device capable of showing forty different sound motion pictures without changing reels. It is just like a jukebox for recordings, but it is for motion pictures. Many of these devices are self-operating, and fifth and sixth graders have no difficulty using these new resources, nor should librarians.

Other slides show tape tables, listening tables in units, and a language laboratory which is also being used for other kinds of learning situations. Many teachers and librarians are finding language laboratories helpful in speech, English, and social studies programs.

The teaching machine is very useful in libraries; it is really a book, programmed so that it takes the best that we know about a subject and the best we know about learning and puts these together. The programs are adaptable to library use. Some of these are programmed texts; others range from very simple devices that any child could check out of a library for individual use to extremely complicated and expensive electronic devices. One example is the Temac Series which is produced by the Encyclopedia Britannica Press. Another example is the audio-lingual textbook, which uses tapes, filmstrips, and texts in addition to teaching machines for teaching. This represents the multi-media approach to learning. One does not need to understand how the machines are built. We only need to know how to use them with students and teachers.

Some librarians are saying, "Where on earth would we store this?" "How would we manage it?" There are many examples of compact storage areas, such as those planned for the Chicago public schools under the direction of Dr. Philip Lewis. A great many resources can be planned for a small space. Other storage areas have been devised by Margaret Nicholson. One of the outstanding materials centers is the Evanston Township High School Library. Other materials centers are described by James Boula in the October 1964 issue of the Illinois School Journal on instructional materials. Mary Louise Mann of the North Central High School library in the Washington Metropolitan District, Indianapolis, Indiana, has another fine example of a school library which functions as a multi-materials center.

Other multi-media resources include the International Communications Foundations Kits on countries of the world, such as the one on Turkey. There are filmstrips, recordings, printed resources, realia, and other kinds of materials, all available in one kit. More of these resources are needed in libraries. Other kinds of kits from the International Communications Foundations are those on electricity, magnetism, and basic electronics. Shop teachers and physics teachers would be vitally concerned with these resources.

The overhead projector is a practical device for teaching, and many teachers are making use of it. Preparation laboratories are

being planned for new schools where pupils and teachers can prepare transparencies for class use. Library schools provide the opportunity for students to make some overhead transparencies for library teaching. The Indiana Librarians had a workshop last summer under the auspices of Technifax. A set of thirty-four transparencies were made for teaching the use of the library. The Graduate Library School at the University of Pittsburgh is producing imaginative transparencies for teaching cataloging and classification. Encyclopedia Britannica Films has sets of transparencies available, for example, one from the Bullfrog Series in science. Industrial firms are now making available transparencies for subject fields. Many are of high quality. Librarians should not take the time to reproduce materials that are already available commercially. It will take enough time to produce those things that are not yet available.

Looking for toys for my nephews and nieces, I found some excellent science materials in the catalog from Creative Playthings, located in Princeton, New Jersey. These science resources sell about like toys so can be afforded in a library. There are also similar resources for reading and the language arts.

Mathematics materials can be secured from the Mathematics Laboratory Materials Corporation. Some are very imaginative materials for teaching the new mathematics. Many parents are also interested in these resources because they do not understand the new mathematics any more than you do.

Another new teaching device is the 8mm film. Many of these single concept films are being used in science and foreign language classes. Dr. Louis Forsdale is going to discuss this topic later. Mention will be made of these with a slide to show the Technicolor projector with a single concept film. These single concepts films have great possibilities for us in teaching the use of the library. We should prepare single units on the card catalog, reference books, and the Readers' Guide so that students may teach themselves. Another type is the Kodak 8mm film to which sound can be added. This has been developed primarily for the home, but it has great potentials for school use. With an A-V specialist on the staff such as the specialist at North Central High School, Indianapolis, locally prepared materials can be produced.

Next is the Revere Slide Sound Projector which puts thirty seconds of voice on the disk around the slide. Again one could prepare slides for teaching the use of the library and put sound on them; these would be self-instructional devices for young people. Another method is to coordinate a set of slides with sound on tape such as those Mrs. Juanita Landman from Andalucia School, Phoenix, Arizona, has prepared.

Rear projection devices are going to be used more extensively in schools and libraries in the future. It is not educationally sound to have children sitting in classrooms in total darkness. Commercial

equipment industries are working on new equipment which will be produced when financially feasible.

Other new types of materials include microprojection equipment and portable display units that can be set up in various places in the school. There are also commercial processing companies who catalog, classify, and prepare books for library use, thus making it possible to set up several new libraries which will be simultaneously ready for student and teacher use.

The Midwest Program on Airborne Television Instruction is a new resource for learning. Instructional television, including closed circuit, requires many resources for teaching and makes new demands on school libraries. The American Association of School Librarians is working with Airborne Television at Purdue on a national bibliography project to improve the resources available in school libraries by up-grading the bibliographies in the various study guides. This project was an outgrowth of a study that Dr. Harold Goldstein of the Graduate School of Library Science at the University of Illinois reported in Illinois Libraries, November 1962. It was exciting to see how responsive MPATI personnel were to one small study where librarians said "Why don't you ask us to help you?" MPATI now belongs to the schools of the six state area, and the schools pay a fee of a dollar a student in order to participate. This project will be as good as the people in the six state area want it to be, for these schools will direct the organizing of the television curriculum. MPATI is now doing forty hours of telecasting for twenty-two courses. In addition to MPATI there are also local television stations, the regional networks, and the National Education Television Center in New York. The national center has a potential of improving the programs needed for instructional television. Instructional Television Materials: A Guide to Films, Kinescopes, and Videotapes Available for Televised Use is published by the Center to demonstrate the feasibility of a national library system for the exchange and use of recorded telecourses.

A school in Plainedge, New York, has been experimenting with a new type of 2,000 megacycle band for broadcasting in small areas. Stan Lapin has described this system in Audio-Visual Instruction, June 1963. Use can be made of as many as ten channels. Imagine having a channel in a central center that could send out all the films that one wanted by dialing from a classroom. This is possible now with the new Federal Communications Regulations which permits a fixed service for instructional television.

New portable television equipment also has great potential. With a good camera one could go out and take scenes that might be used in the teaching process. Eight mm films could be made from these.

Three new television tapes machines that may be of major importance in advancing the fast-growing market of TV tape recording products have been announced by the Radio Corporation of America, 30 Rockefeller Plaza, New York 20, New York.

The new tape playback machine, the TR-3, is analogous to the film projector in the motion picture field. It provides a professional yet economical device for playback of tape-recorded programs and commercials for broadcast and for such other purposes as previewing and editing. Until now, all professional TV tape recording equipment has had a dual function, i.e., record and playback.

The new transportable tape recorder, the TR-5, is contained in a small cabinet which can be wheeled into a station wagon for travel to a remote recording location. Because of the compatibility feature, tapes recorded in this manner may be played back on any standard broadcast-type recording equipment at the TV studio.

A learning laboratory that has been very successful has been developed at Purdue University with one professor teaching Botany to 480 freshmen. This laboratory operates from 7:30 in the morning until 11:00 at night. Students meet for one lecture a week and then they have an opportunity to do their work in this learning laboratory in individual stations using an audio-tutorial system. The tapes, the diagrams, and the specimens are altogether in one center, and the student may stay for the day if he likes and if his schedule will permit, or he may stay for as short a time as needed. Students are taking this system with them when they go into the teaching field, and we are seeing these learning laboratories being set up all over the country in the teaching of science at the secondary school level.

An automated teaching response system has been developed by Edex Teaching Systems, 3940 Fabian Way, Palo Alto, California. The system teaches, tests, and grades students. Its essential elements include:

- (1) A multi-media programmer unit which records the audio portion of an instructional presentation and a series of inaudible magnetic pulses to control the operation of various types of audio-visual equipment or to perform other tasks (counting scores, turning lights on and off, sounding signals, etc.)
- (2) The necessary audio-visual equipment. (Each system is equipped with either an Eastman Kodak Carousel for 2 x 2 slides or a DuKane 35 mm filmstrip projector.)
- (3) Student response stations (available in groups of 10, 20, 30, or 40). Each station is equipped with four pushbuttons (ABCD) related to answer choices to questions presented audiovisually or by the instructor.
- (4) A classroom communicator unit containing four meters (ABCD) which permits instructors to read directly and to gauge immediately the percentage of responses to each choice.

The man of the future is our student now. To help him, the computer and data processing equipment hold great potential for assisting

librarians in the utilization of information. The possibility of a regional and national network for libraries that Dr. Walter C. Stone discussed in his paper is similar to a system based on ASTIA, which is one of our governmental units. With the new electronic equipment now available, all of library resources can be retrieved. They can be projected by television and copies can be made on special kinds of paper. Another resource for the library of the future has been developed by AVCO Corporation in Cincinnati. This is an electronic file prepared by microphotography. The library book will be reduced to 140th of its original size so that one can put books in reduced space and retrieve the information from a computer in two seconds. These items could be recalled from the film and sent out on television or on sensitive paper.

This brings us back to symbols. Ever since man learned how to develop symbols, he has worked to record them so that he could share his knowledge with his fellow man. At various times these records were clay tablets, stone, wood, papyrus, scrolls, handwritten books, printed books, recordings, films, tapes, wires, electronic impulses, and the like. What if we have to learn a new language? What if, as librarians, we do not have books in their present form? Librarians since the time of King Ashabanabul in 662 BC, have been managing, preserving, and recording the ideas of man, and I am sure that librarians will continue to do this in whatever form knowledge is presented.

A BIBLIOGRAPHY OF LIBRARY AND AUDIO-VISUAL RESOURCES

Starred items are evaluative.

BOOKS, MAGAZINES, AND PAMPHLETS

*Adventuring with Books, a Reading List for the Elementary Grades, compiled by the Elementary Reading List Committee, Mabel F. Alstetter, Chairman. Champaign, Illinois, National Council of Teachers of English, 1960. 75 cents.

*The AAAS Science Book List for Children, compiled by Hilary J. Deason. 2d ed. Washington, D. C., AAAS, 1963. \$1.50, cloth \$2.50.

*A Basic Book Collection for Elementary Grades, 7th ed. Compiled by Miriam Snow Mathes. Chicago, American Library Association, 1960. \$2.00.

*Basic Book Collection for Junior High Schools; ed. by Margaret V. Spengler. 3d ed. Chicago, Illinois, American Library Association, 1960. \$2.00.

*Basic Book Collection for High Schools. 7th ed. Compiled by Eileen F. Noonan. American Library Association, Chicago, Illinois. 1963. \$3.00.

Bibliographic Index. H. W. Wilson Co. N. Y. 1938- (in print, 1951-) Service basis. Rates quoted on request.

*Books for Beginning Readers, by Elizabeth Guilfoile, Champaign, Illinois, National Council of Teachers of English, 1962, pa. \$1.00.

*Books for You. Champaign, Illinois, National Council of Teachers of English, 1959. 1961 supp. \$.60.

Books in Print; an author-title-series index to the Publishers Trade List Annual. New York, Bowker, \$18.00.

*A Catalog of Paperbacks for Grades 7-12, by L. Boylan and R. Sattler. New York, Scarecrow Press, Inc., 1963. \$5.00.

*Children's Books to Enrich the Social Studies; for the Elementary Grades, by Helen Huus. Washington, D. C., National Council for the Social Studies, 1961. pa. \$2.50.

*Children's Catalog, edited by Dorothy H. West and Rachel Shor. 10th ed. New York, H. W. Wilson, 1961. \$12.00. Annual supplements through 1965 included in purchase price.

Cumulative Book Index; World list of books in the English language. New York, H. W. Wilson. Service basis.

*Dobler International List of Periodicals for Boys and Girls, compiled by Lavinia Dobler. Muriel Fuller, P. O. Box 193, Grand Central Station, New York 17, N. Y., 1960. Price \$2.00.

Fiction Catalog. 7th ed. New York, H. W. Wilson Co., 1960. \$12.00.

*Gateways to Readable Books, by Ruth Strang, Ethlyne Phelps, and Dorothy Withrow. 3rd. ed. New York, H. W. Wilson, 1958. \$3.00.

*Good Books for Children, by Mary K. Eakin. Rev. and enl. ed. Chicago, University of Chicago Press, 1962. \$6.50. Paper \$1.95.

*Good Reading for Poor Readers, by George Spache. 3rd ed. Champaign, Ill., Garrard Press, 1963. \$3.00.

*Guide to Popular U. S. Government Publications, by John L. Andriot. Washington, D. C., GPO, 1960. \$7.50.

*Guide to the Study of the United States of America: representative books reflecting the development of American life and thought. Library of Congress. General Reference and Bibliography Division. Reference Department. For Sale by Sup't of Documents. 1960. \$7.00.

MLA Selective List of Materials, by Mary J. Ollmann. New York, Modern Language Association, 1962. \$1.00.

Paperbacks for High School by Norman R. Lee. Reading Center, Syracuse University, Syracuse 10, N. Y., 1962. 50 cents.

Paperbound Books in Print. Monthly. New York, R. R. Bowker Co. \$16.00 a year.

*Patterns in Reading. by Jean Carolyn Roos. 2nd ed., Chicago, ALA, 1961. \$2.25.

Publishers' Trade List Annual. New York, Bowker, \$6.50.

*Reading Ladders for Human Relations, edited by Muriel Crosby. 4th ed. Washington, D. C., American Council on Education, 1963. Paper \$2.50, Cloth \$4.00.

*Standard Catalog for High School Libraries, 1962. 8th ed. New York, H. W. Wilson Co., 1962. With suppl. service through 1957. \$15.00.

*Standard Catalog for Public Libraries. 4th ed. New York, H. W. Wilson Co., 1958. Service basis. Rates quoted on request.

Subject Guide to Books in Print, an index to the Publishers' Trade List Annual. New York, Bowker, \$17.50.

Subject Index to Books for Primary Grades, by Mary K. Eakin and Eleanor Merritt. 2d. ed. Chicago, American Library Association, 1961. \$4.50.

Subject Index to Books for Intermediate Grades. 3rd ed. Mary K. Eakin. Chicago, ALA, 1963. Cloth \$7.50.

Textbooks in Print. Annual. New York, Bowker. \$3.00.

Vertical File Index. New York, monthly; annual cumulated volume. H. W. Wilson. \$8.00.

*Your Reading. A book list for Junior High Schools. Champaign, Ill., National Council of Teachers of English, 1960. 75 cents.

GENERAL A-V

The Educational Media Index. 14 v. New York, McGraw-Hill, 1964. \$62.45. With Supplement, \$79.95.

FILMS AND FILMSTRIPS

Blue-Book of Audio-Visual Materials. . . Chicago, Educational Screen, 1920. Now issued as August Educational Screen and Audio-Visual Guide. \$1.00.

Educational Film Guide, compiled by Frederic A. Krahn. 11th ed. New York, H. W. Wilson, 1953. 1954-58 edited by Josephine S. Antonini. New York, H. W. Wilson, 1958. Annual Supplements to 1962. Price apply. Publication ceased.

*EFLA Evaluations. Education Film Library Association, 250 West 57th Street, New York 19, N. Y. . . Service Charge.

Educators' Guide to Free Filmstrips, compiled and edited by Mary F. Horkheimer and John W. Dirror. Randolph, Wis., Educators Progress Service, 1949--. Annual \$6.00.

Filmstrip Guide, compiled by Frederic A. Krahn. 3rd ed. H. W. Wilson, 1954 . . . 1954-58, edited by Josephine S. Antonini. New York, H. W. Wilson, 1958 Annual supplements to 1962. Price apply. Publication ceased.

Guides to Newer Education Media . . . by Margaret I. Rufsvold and Carolyn Guss. Chicago, ALA, 1961, \$1.50.

*The Landers Film Reviews. Published monthly except August, Bertha Landers, 4930 Coliseum St., Los Angeles 16, Calif. June 1956. \$27.00 per yr.

Library of Congress Catalog: Motion Picture and Filmstrips. Washington 25, D. C., Library of Congress, 1953 to date. \$20.00.

Sources of Information on Education Media, by John A. Moldstand. Office of Education, U. S. Department of Health, Education, and Welfare, No. 2. Washington, D. C., U. S. Government Printing Office, 1963. 20 cents.

U. S. Government Films for Public Educational Use - 1960, by Seerley Reid, Katharine W. Clugston, and Annie Rose Daughterty. Office of Education, U. S. Department of Health, Education, and Welfare, Washington 25, D. C. 1961. Available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. Price \$2.75. 502 p.

See also catalogs for audio-visual materials from the nearest colleges and universities and the major producers and distributors in the area.

FREE AND INEXPENSIVE MATERIALS

Elementary Teachers' Guide to Free Curriculum Materials, edited by Patricia H. Suttles. Randolph, Wis., Educators Progress Service. Annual. \$7.50.

Free and Inexpensive Learning Materials. Nashville, Tenn., George Peabody College for Teachers. Annual. \$1.50.

PICTURES

Learning from Pictures. Washington, D. C. DAVI of NEA, 1963. \$4.50.

PROGRAMMED INSTRUCTION

Programs, 1963. New York, Columbia University, The Center for Programmed Instruction and USOE, 1963. \$2.50.

RECORDINGS

*Audio Cardalog. Larchmont, N. Y., Max V. Bildersee. \$25.00, per year.

*Building Your Record Library, edited by Roy H. Hoopes, Jr. New York, McGraw-Hill Book Co., 1956. \$4.50.

*Children's Record Reviews. Box 192, Woodmere, N. Y. October, 1957, to date. Price \$10, per year, and \$2 for cumulative index. Issued five times per year.

Educators' Guide to Free Tapes, Scripts, and Transcriptions, compiled and edited by Walter A. Wittich and Gertie Hanson Halsted. Randolph, Wis. Educators Progress Service. Annual. \$5.75.

Library of Congress Catalog: Music and Phonorecords. Washington 25, D. C. 1953 to date, Library of Congress, Price \$20. Semi-annual with annual and quinquennial cumulations, at \$4.25 plus 25 cents postage annually.

National Tape Recording Catalog, 1962-63: sponsored by the Department of Audio-Visual Instruction, National Education Association, and the National Association for Education by Radio-Television. 3d ed. 1201 16th Street NW, Washington 6, D. C., 1962. Price \$1.50.

Satisfactory selected lists for use in choosing recordings are not yet available. Useful in locating long-playing records are such comprehensive monthly catalogs as the Schwann Long Playing Record Catalog, 137 Newbury Street, Boston 16, Massachusetts, Catalogs of commercial producers such as Califone, Columbia, Decca, Enrichment Records, Folkway Records, RCA Victor, etc., will be helpful.

SLIDES

Where to Buy 2" x 2" Slides: a subject directory. Baltimore, The Enoch Pratt Free Library, 1953. 10¢

TELEVISION

Educational Television Motion Pictures. 1960 Catalog: Descriptive Catalog Containing Series Data, Subject and Use Level Index for 16 mm Educational Television Programs. Net Film Service, Audio-Visual Center, Bloomington, Ind., Indiana University. 1960.

Instructional Television Materials 1964, 3d ed. New York City, National Instruction Television Library, 1964. Free.

PERIODICALS LISTING CURRENT MATERIALS

*Audio-Visual Instruction. Published monthly except July, August, by the Department of Audio-Visual Instruction, NEA, 1201 16th Street, N. W., Washington 6, D. C. \$4.00.

*The Booklist and Subscription Books Bulletin, a Guide to Current Books. American Library Association. Published twice a month September through July and once in August. \$6.00 a year.

*Educational Screen and Audio-Visual Guide. Published monthly except July and August by Educational Screen and Audio-Visual Guide. 415 N. Dearborn, Chicago 10, Ill. Subs. \$4.00 per year.

*Film Review Digest. Published 8 times a year by Educational Film Assn., 250 West 57th St., New York 19, N. Y. Subs. \$4.00.

Bulletin of Programed Instruction. Published 9 times a year by the Center for Programed Instruction, Teachers College, Columbia University, New York 25, N. Y. Subscription \$3.00 per year.

NAEB Journal. Champaign, Ill. National Association of Educational Broadcasters. Bimonthly. \$4.00.

NSPI Journal. Monthly except June and August. National Society for Programed Instruction, Trinity University, 715 Stadium Dr., San Antonio 12, Texas. \$6.00 for non-members. Members \$4.00.

*Saturday Review. Saturday Review Associates, Inc., 25 West 45th St., New York 19, N. Y. Weekly. \$7.00.

Teaching Aids News. Semi-monthly. Educational News Service, P. O. Box 508, Saddle Brook, N. J. \$10.00.

Reviews of books and materials appear monthly in such other magazines as: Childhood Education, Elementary English, Top of the News, (American Library Assoc.) Wilson Library Bulletin, Library Journal, and in the New York Times Book Review and other newspaper book sections. See also audio-visual sections of professional magazines.

The Electronic Learning Center in the Library

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In 1961 the University of Michigan published in the Language Laboratory Technical Report #12 an article by this author entitled "The Electronic Study Center." Outlined in this article were the reasons and methodology for expanding the ordinary language laboratory into an installation which would serve as a teaching aid for all subjects. The term "electronic study center" is rather cumbersome, and since I am addressing a group which is library-oriented, I shall refer to the same concept in this report as the "audio-library."

In preparing this report for an institute sponsored by a school of library science, one of my major endeavors has been to try to see the problems involved through the eyes of the librarian. Being woefully ignorant of those finer points of library science which go beyond the Dewey Decimal System and the card catalog, I hope I have not oversimplified or overlooked too many all-important details.

Most universities, colleges, high schools, and quite a few junior high schools have installed language laboratories. These installations are being used with varying amounts of success by foreign language teachers as a tool for teaching the spoken foreign language. Quite naturally, these language laboratories are controlled by, and under the direction of, the language teachers. At this time I should like to question seriously the wisdom of having these installations under the control of the foreign language department in the respective schools. I believe, rather, that that collection of teaching aids and the concepts which we at present call the language laboratory should be viewed as one of the several components of a modern well-equipped library and so operated.

Why do I hold this view? The school library and materials center has long been the repository for materials which aided and enriched class activities in all subjects. Most, but not all of these materials were printed matter, usually books. I believe a new type of volume, one on tape, would be an extremely valuable addition and complement to the usual collection of books and other materials. There is little doubt that the language laboratory has proved a useful tool for the teaching of foreign languages. If it can be demonstrated that such an installation can be equally useful as an aid to teachers of all subjects, then the school library as a materials center is the obvious choice to handle this inter-departmental teaching aid. Having accepted this concept, it becomes necessary to discard the term "language laboratory," and, as I mentioned earlier, in this paper I shall use the

term "audio-library" to refer to an installation similar to a language laboratory but adapted and available for use by all departments as part of the library's offerings and services.

How may a language laboratory be adapted to serve all departments? First, it is important to understand what functions a language laboratory may perform. A well-equipped language laboratory (or audio-library) is capable of performing three basic functions: (1) Simple listening—a passive activity in which the student listens to recorded material; (2) The listen and respond function, with its two variants—listen and repeat, and listen and answer (In this activity the student listens to recorded material and then either repeats or answers as the situation requires.); and (3) The recording function in which the student may record either what he has said in response to the pre-recorded material, or may record original oral composition.

Beginning with the first function, simple listening, I see the audio-library employing this activity as a means of supplying the student with enrichment material for any number of different subjects. The use of tapes and records (frequently supplied by the instructional materials center) to bring into the classroom great literature read by professional actors has long been standard procedure in many English classes. This is an easy and effective way of varying and stimulating classroom content and interest, but it has a certain minor drawback in that employing the same presentation for the whole class does not take into consideration individual differences and interests. The primary drawback, however, is that class time is so limited that the teacher is restricted in the amount of recorded material that may be played. An audio-library open to students during study-hall time or after school would relieve the problem by making available to a student more and different programs which would complement the material presented in class. For example, an English teacher might very likely present on tape or record, in class, part of Stephen Vincent Benét's "John Brown's Body" which is included in many high school literature books. Either as homework assignment or as an enrichment offering for those who are interested, the teacher might have the audio-library play another of Benét's classics, perhaps "The Devil and Daniel Webster."

(TAPE SELECTION WAS PLAYED AT THIS POINT.)

This is a rather good performance and illustrates the point that an audio-library can do some things better than the teacher or a book. The teacher and the book will always be necessary, but a good professional tape brings material alive in an exciting manner that captures and holds student interest. There is also no reason to restrict this type of activity to English. There are many tapes and records that would be useful to social studies classes. Brief excerpts from two tapes: one, a series of on-the-spot recordings made just before and during the Normandy Invasion, and the other a dramatization of

the Lewis and Clark Expedition can be used to illustrate the material now available.

(TAPE SELECTIONS WERE PLAYED AT THIS POINT.)

There are many other tapes in various subject matter fields that could be used in the same way. Another possible use of instructional tapes is as an aid to those students who do not read well. Very frequently we find that these students respond well to oral presentations, although unable or unwilling to do reading assignments. It is for this reason that the Personalized Curriculum Program (in earlier days called the "special room" or "ungraded room") at Ann Arbor High School is planning to install a small language laboratory (or audio-library) type installation which could be used to present taped lessons in home economics, driver education, and social studies.

Thus far the discussion of audio-library utilization has been restricted to passive listening on the part of the students. When possible, it is advisable to employ tapes that require student response. One kind of student-response tape, the "listen and repeat" type has long been used by foreign language teachers to improve oral proficiency and does not require elaboration here. However, some other listen and respond types that could be employed in an audio-library would include a shorthand dictation tape.

(TAPE SELECTION WAS PLAYED AT THIS POINT.)

Tapes and records of this type have been used for some time by business education teachers, but almost always with the entire class taking dictation at the same rate of speed. Using an audio-library with facilities for sending out many programs simultaneously, it would be possible to have the most skillful students practicing dictation at a speed of 120 words per minute while others were practicing at different speeds ranging down to 60 words per minute.

A different type of listen-respond lesson is the "audio-tutorial" tape which begins with a lecture section followed by a question section which requires active student involvement in answering. A biology tape on leaf structure will illustrate the audio-tutorial tape.

(TAPE SELECTION WAS PLAYED AT THIS POINT.)

The teacher whose students use a tape of this nature might wish to use it as a testing tape, and eliminate the answers which the tape supplies as reinforcement. The students' answers might be written down and handed in as with a regular test, or the teacher might employ the third language laboratory function, that of recording, as a means of evaluating the students' grasp of the subject matter. A more rewarding use of the record function, however, is its use as a device to assist students in preparing for oral reports. Oral reports

are attractive assignments in that they compel active student participation in the learning process, vary the usual classroom routine, and should yield significant and valuable side effects in training students to gain mastery of that most useful and difficult instrument, the tongue. However, experience shows that with many students the oral report is a rather dismal and embarrassing failure marked by poor organization, flat, lifeless delivery, insufficient material, and no rehearsals. But using the audio-library's record function as a rehearsal tool several times before giving the report "live" in front of a class would go a long way towards eliminating some of the problems which plague oral reports.

Up to this point examples have been cited and samples have been used of taped lessons most suitable to secondary level students. Needless to say, the same concept may be extended to both the elementary and university levels, the only major change being the level of difficulty of the taped lessons employed.

At the elementary level especially, teachers are sometimes at a loss over what to do with those pupils who have made a "great leap forward" in learning and who finish their seat work long before the rest of the class. Nancy H. Davis of Lincoln Elementary School in San Bernardino, California, gives a very good blueprint for using taped lessons at the elementary level in her article "A Second Teacher," in the April 1961 issue of Audiovisual Instruction. In addition to explaining how taped lessons may be used with elementary pupils, the article also includes scripts for a science and a phonics lesson.

Working at the university level, there are many excellent tapes of lectures given by experts in various fields ranging from cloud chambers to Latin American socio-economic problems. These taped lessons preserve lectures given by noted authorities which might otherwise have been consigned to oblivion, or at least not be available to students in the original form. The "listening room" is a fixture of long standing in many university and public libraries but is too often limited to playing music and literature selections.

The different procedures and practices mentioned thus far are ones which can be carried out at present with components available from the many firms which sell language laboratory equipment. One important factor to consider in planning an audio-library is how many program sources to include. The number of different program machines will be determined by how many different lessons should be offered simultaneously. In some university laboratories the number is several hundred. At the Ann Arbor High School in Michigan, there are facilities for sending out 100 programs simultaneously. A few slides which show the electronic installation similar to that found in a telephone company will give an idea of what such an installation entails.

(SLIDES WERE SHOWN AT THIS POINT.)

The central program room, located in the Ann Arbor High School, has facilities for sending programs to the high school laboratory and to the three junior high schools which have laboratories of their own. This concept of a central laboratory installation with one or more satellite labs can easily be adapted to an audio-library so that there could be auxiliary listening rooms in different parts of a library, in different buildings on a campus, or even in different cities. At Ann Arbor High School the laboratory network is tied together by leased telephone lines; another possibility is to connect the units by radio or private cables.

Thus we see the basic language laboratory idea extending in two directions; first, from one subject-matter field to all fields, and, secondly, from one room to any number of rooms and buildings, including even the students' homes during after-school hours. When the audio-library is extended to the students' homes or dormitories by radio, or phone lines, or some similar device, then taped lessons will be almost on a par with circulating volumes which a student may take home to peruse at leisure and as often as necessary. Making the resources of the audio-library this accessible is going to go a long way towards moving this material far to the right on the "A-line" (accessibility line). As Dr. Louis Forsdale of Columbia University has so aptly pointed out, any material, of whatever value, achieves its full potential only when it is easily accessible to the student, so that a radio program which is broadcast only once and at a time not convenient for student use is not very far to the right on the "A-line," whereas a circulating book in an open stack would be far to the right. In any event, an audio-library should be planned so that a student will be able to have ready access to the offerings of the audio-library in as many different places and at as many different times as is possible.

Still one more extension of the audio-library that I should like to propose is the inclusion of visual aids as a complement to the taped material. The value that visual stimulus in the form of slides, films, filmstrips, and similar devices would add to the taped lesson is so obvious that I shall not belabor the point but rather content myself with pointing out that there are at present devices which can project an 8mm color motion picture, and in many cases play an accompanying sound track, employing equipment that would easily be accommodated within the confines of an audio-library booth or carrel.

In summary, then, it would be wise for all schools not already doing so to investigate the advisability of implementing the following procedures:

- (1) Expand the offerings of the language laboratory to include taped lessons for all subjects.
- (2) Expand the number of listening positions so as to include the library, study hall, dormitories, and if possible, the students' homes.

(3) Explore the possibility of including in the listening posts projection devices which add visual reinforcement for the taped lessons.

A word of caution to those junior and senior high schools whose language laboratories were purchased with NDEA funds, since these laboratories were approved for use by the foreign language department it would be unwise and very likely illegal to so modify the scheduling of classes using the language laboratory that the foreign language classes did not have sufficient time to use the laboratory. After all, a debt of gratitude is owed to the foreign language teachers who pioneered in the development of a learning aid which seems to have great promise as a teaching tool for all subjects.

Patterns for Administering the Processing of Resources for the School Library Materials Center (With Affixed Appendices)

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School libraries and school library materials centers are being evaluated in terms of services they offer to the many changing philosophies and methods of education. If the objective of the school library is to contribute to achieving the objectives formulated by the school, the objectives are more nearly attained when the major function of the library is to provide high quality work with teachers and students.¹ The librarian of this library or materials center must work with the teachers of a team in the major emphasis of each; he must provide materials for every level of maturity whether material is presented by television or classroom teacher; he must watch for and follow the changes in subject matter, such as the new mathematics presents; he must have material ready for large groups of students and for individuals. In addition to providing materials, he must teach. He instructs both teachers and students in the use of all library resources. The provision of materials and the teaching function are two time-consuming activities. But before these functions can be performed, the material, printed or audio-visual, must be ordered, cataloged, and processed. These, too, are time-consuming activities. Administrators and supervisors began to realize that library service could be improved if a part of these responsibilities would be taken from the librarians to provide more time for working directly with teachers and students. The administrator of a school district where no library service had been provided questioned from the beginning the fact that similar and overlapping routines were planned for each library. The search for the most effective way to handle this problem of providing as much time as possible for direct work with teachers and students is the topic of this paper.

The term, search, is used, for all involved seem to be making plans, making studies, experimenting, changing systems, or wondering what others are doing in like circumstances. This paper will attempt to point out what seem to be emerging patterns for programs of centralized processing of resources in instructional materials centers. Statements favoring the plan and questions of doubt are presented. Data and information from nineteen programs will be

briefly explained and analyzed, in order to formulate guiding principles for organizing or improving the services of a program. At the end of the paper will be a list of references to help in further study, followed by a list of names and addresses of companies providing duplicating equipment, and a list of names and addresses of companies providing commercial cataloging and processing. These resources are ever changing, but they represent the ones most useful to the programs presented in the paper and to those desiring to purchase processed materials.

Sources for the information in the study are varied and of necessity quite subjective. They represent articles of the journals of the library profession; information from a simple questionnaire received from nineteen school districts; information from the Library Technology Project of the American Library Association; an unpublished paper, "Central Technical Services for School Libraries; a Manual of Procedures for Centralized Purchasing, Cataloging, and Processing of Library Materials," prepared by The School Library Technical Services Committee, Resources and Technical Services Division, American Library Association, edited by Mary Louise Mann, Chairman, 1960; unpublished papers from students of the Graduate School of Library Science, University of Illinois; literature from companies providing commercial cataloging and processing, and companies selling processing equipment, blended with experience of the author who helped to organize a program which has been in operation about four years.

The terms for the paper are simply defined. The word, processing, in the title will be broken down to include the responsibilities for cataloging, physical processing, and distributing. The term centralized processing will be employed to mean that all these responsibilities will be carried on in one location and not in the individual library. Resources will include all types of audio-visual as well as printed materials. The term, center, for purpose of distinction in this paper, will refer to the location where the processing is accomplished. The term, library, will be employed for the resources center in the individual building of the school district. This definition of library still maintains the connotation of including all types of materials, and not just books.

Since this is to be a discussion of patterns of programs, very little will be presented of historical nature; indeed, there is little of historical background to present. Those who are involved in planning and administering the programs are making history and usually are too involved to take time to record steps of the development of the program. Administrators and supervisors have recognized the problems involved in obtaining good library service and have exercised imagination and courage to implement their plans.

Two major situations seem to be responsible for the creating of a center where both professional and clerical work is carried on with materials. One is that situation where the librarian is needing more

and more time to work with teachers and students; but even supplied with clerical assistance, she is forced to spend a high per cent of the day doing the work herself or supervising it. If student help is available, it must be carefully planned and supervised to make it a valuable educational experience for the student. This takes time. Where there may be several schools with library services in the district, the alert administrator and librarians are aware that many processes are being duplicated; each librarian may be cataloging some of the same titles, making or ordering catalog cards, checking invoices, typing pockets, pasting, and lettering books. They question the economy of these procedures.

The second situation is that where library programs are in the process of starting, but the supply of trained personnel is not sufficient. In providing services the administrator from a center employs as many trained librarians as possible and provides clerical assistance to help spread the professional work as far as possible. The students and teachers can have collections of materials, card catalogs, and library facilities during the interim before a librarian can be employed for the individual school.

When a center for centralized processing is being discussed, the following factors both pro and con are considered. The advantages of the center are presented first.

1. Expensive cataloging tools may be purchased for the center and not be purchased for each school.
2. The school librarian would be freed from much technical and clerical work to give more time for reading guidance, reference work, promotion and publicity, gathering resource material for enriched instructional activity, instructing in effective use of the library, and keeping abreast of professional developments and new materials.
3. Consistent technical library services may be provided where there is a high turnover of personnel. Cataloging policies are determined once instead of being determined by librarians individually, thus giving a uniformity among the libraries.
4. Time and money may be saved for the participating schools. A duplication of effort in working with identical titles is expensive.
5. A union catalog may be organized more easily to make known available resources.
6. The advice from the center may prevent unwise duplication of materials, especially those of an expensive nature. It may assist librarians by calling to their attention materials they overlooked or did not know about.
7. A school district may be able to obtain better discounts because of size of order.

Following are a number of questions librarians want considered before they wish to have the technical processing handled by a center:

1. Will the centralized processing slow up the processes of ordering, processing, and making available to the library materials needed by the school?
2. Will centralized cataloging make it difficult for schools to have subject heading and classification numbers which meet the needs of each individual school? What of cross reference and similar cards?
3. By not handling the technical processes himself, will the school librarian find it difficult to keep informed of the new resources added to the school library?
4. Will another cataloger have all each librarian wants on the catalog card and in the book, or will all processes become so simplified and standard to hinder services?
5. Can the library afford the services?
6. How will uncataloged material already owned by the school be handled?
7. How will centralized processing affect the selection of materials? If it is cheaper to process duplicate titles, will the librarian be restricted to a basic list selected by another?

These questions and others can rightfully be asked, not only through the beginning stages of the planning for a center, but continuously through each stage of operation. Those districts which have realized the need for such a center have usually planned the program in steps to include ordering, but not selection, for all buildings. Ordering pamphlets, subscriptions to periodicals, reference books, and trade books with various types of binding, requires time and skill; but it can be more accurately handled if one person is responsible for each library in the district. Checking invoices, correcting errors, and paying invoices with accompanying bookkeeping are extremely time-consuming activities for librarians. These could be handled more efficiently by the center. Cataloging in the center includes classification of materials with descriptive cataloging, and reproduction of card sets. Associated with this responsibility is the making of the union author or shelf list file. The physical processing includes preparation of pockets, book cards, pasting of pockets and date due slips, stamping, numbering, and lettering of books. Following these steps would come the packing of books with accompanying records for each school and the delivery to the school.

Each district which has a center may have all or several of these processes. Some centers process for only elementary schools; some only secondary schools; others provide card sets only; others

leave the physical processing to the personnel in each building, but order and catalog materials; others care for every step because of lack of trained personnel in the buildings. A district usually begins by locating the most pressing need first, proceeds to care for it, then expands its services to care for others less pressing; for example, requests for initial collections for new elementary schools are coming rapidly. Books in older buildings need to be cataloged for central collections, too. If new books for all elementary collections are processed first, the older ones may have lost their value or may have worn out, therefore they will be fewer in number to be considered. Some centers may process first for elementary and junior high libraries, for there are fewer trained personnel serving those positions and there is more duplication in titles.

Since there is little in the professional literature about these processing centers, it seemed advisable to obtain information directly. A questionnaire was sent to twenty-five centers which were known to be in operation, to try to determine the patterns, if any, these services might be forming. Nineteen replies were received. Tabulations from these nineteen will be found in Figures I and II.

Data from these centers cannot be treated scientifically. It would be false reasoning to assume each has been so perfected in efficiency that it could prove to be a model for another center. They vary in number of years they have been in operation, and they vary in so many other ways that comparison is almost impossible and unrealistic. But interesting factors may be pointed out, factors which may prove to be guidelines for others to follow, and which may be forming pieces of a pattern in the making. School districts with as few as three schools and as many as 204 have developed processing centers. However, several stated that, to date, all buildings were not being serviced. More elementary schools than any other type were benefiting by the services. Seven included a professional library or a materials center as one type included in the processing.

The columns giving the budgets for printed materials represent that spent on pamphlets and periodicals as well as books, for central ordering would include ordering these materials, too. Figures for the audio-visual budgets may be interpreted several ways; four provided no amount because audio-visual materials were purchased and processed through another department. But it was encouraging to see that eleven centers were including audio-visual materials in every part of the processing. Others gave some evidence that these materials were handled, but they had not kept data called for in the questionnaire. Only two differences were pointed out in handling A-V materials from that of handling of books; different order slips were used and colored catalog cards were provided with an identifying word, such as "filmstrip" on the card. This would seem to indicate, too, that libraries are becoming true instructional materials centers with all types of materials available.

FIGURE I
PATTERNS FOR PROCESSING CENTERS, 1962-1963

School District	Number of Schools				Budget, '62-'63		No. of Personnel		Number of Materials Processed, '62-'63	
	Elem.	Jr. Hi.	Sr. Hi.	Prof. Libr.	Printed Materials	A-V Materials	Professional	Clerical	Printed	AV
Hermantown Pub. Sch. Duluth, Minnesota	1	1	1	-	\$ 2,425.00	\$ 2,200.00	1 1/2	1	797	125
Oak Park Elementary Oak Park, Illinois	10	-	-	1	27,550.00	8,366.95	1/2	1	7,590	69
Kern Co. Union Sch. Dist., Bakersfield, Calif.	-	-	10	-	43,650.00	24,825.00	1	4	10,460	92
David Douglas Pub. Sch. Portland, Oregon	13	0	2	-	33,000.00	43,000.00	1	3	7,500	1,000
Comm. Cons. Schools Evanston, Illinois	16	3	-	1	34,600.00	9,250.00	2	5	10,393	206
Board of Education Frederick County Frederick, Maryland	14	2	7	1	44,700.00	8,194.00			12,826	do not know
Edmonds School Dist. Alderwood Manor, Wash.	18	4	3	-	70,913.00	47,500.00	2	6	21,291	1,707

Peoria Pub. Schools Peoria, Illinois	25	2	3	-	20,000.00	4,850.00			7,332	diff. to est.
Brevard County Titusville, Florida	27	6	4	-	450,000.00	114,848.00			25,989	11,000
Greensboro Pub. Sch. Greensboro, N. C.	28	5	3	-	40,421.53	Not part of Libr. budget	2 1/2	4	18,959	2,946
Tulare Co. Dept. Ed. Tulare, Calif.	47	-	-	1	29,558.37	Separate from library	1	7	11,823	-
City Schools Gary, Indiana	36	3	8	-	72,178.00	43,230.00	1 for books	2	17,300	26,000
Charlotte-Mechlenburg Charlotte, N. C.	70	20	13	1			1	7		
Des Moines Pub. Sch. Des Moines, Iowa	61	11	5	1	86,290.00	not inc. now in libr. bgt.	1	4	19,544	0
Portland Pub. Schools Portland, Oregon	92	-	12	1	136,000.00	45,000.00	6	7	50,000	977
Montgomery County Pub. Schls., Rockville, Md.	101	17	19	-	227,000.00	53,000.00	2	12	93,241	135
Baltimore Pub. Schools Baltimore, Maryland	152	40	12	-	100,000.00	Separate department	1 semi- pro	4	70,000	0
San Diego City Schools San Diego, California	112	18	12	-	450,000.00	190,000.00	1	10	36,000	no figures
Dade County Miami, Florida	149	34	20	-	317,901.00	131,635.53			28,929	none

FIGURE II
PATTERNS FOR PROCESSING CENTERS, 1962-1963

	Buy Printed Card Sets		Duplicate Card Sets		Duplicator Used	No. of Card Sets Distributed 1962-1963	Unit Cost per Book 1962-1963	Use of Data Processing	
	Yes	No	Yes	No				Yes	No
School District									
Hermantown Pub. Sch. Duluth, Minnesota	X			X	--	?	ca. 2.10		X
Oak Park Elementary Oak Park, Illinois	X		X		Cardmaster	No figures	Running cost study		X
Kern Co. Union Sch. Dist. Bakersfield, California	X	Bks	X	A-V	Cardmaster	9,472	ca. 1.15	X	A-V
David Douglas Pub. Sch. Portland, Oregon	X			X	--	7,000	.90		X
Comm. Cons. Schools Evanston, Illinois	X		X		Zerox (direct copy)	5,000	?		X
Board of Education Frederick County Frederick, Maryland	X			X	--	0	.55		X
Edmonds School Dist. Alderwood Manor Washington	X			X	Rex Rotary mimeo. and Flexowriter	7,756	Do not have info. now	X	IBM order
Peoria Pub. Schools Peoria, Illinois	X		X		Cardmaster	7,000	1.12-1.50		X

Brevard County Titusville, Florida	X		X	--	20,000	ca. 65		X
Greensboro Pub. Sch. Greensboro, N. C.	X		X	Mimeograph	No record kept	1.29		X
Tulare Co. Dept. Ed. Tulare, California	X	P. Lib.		No	--	--		X
City Schools Gary, Indiana		X	X	Addressograph Books	cards 80,021	ca. .60-.65		X
Charlotte-Mechlenburg Charlotte, N. C.	X		X	Flexowriter	--	--		X
Des Moines Pub. Sch. Des Moines, Iowa	X		X	Multilith #750	15,798	ca. 1.00		explor. X
Portland Pub. Schools Portland, Oregon		X	X	Multilith	54,000	Figures not computed		X
Montgomery Co. Pub. Schs., Rockville, Md.	X		X	Haloid-Zerox Multilith #2550	93,241	Unknown process all		explor. X
Baltimore Pub. Schools Baltimore, Maryland	Some		X	A.B. Dick #350 offset	prepared 85,000	ca. .75		X
San Diego City Schools San Diego, California	X		X	Offset	ca. 36,000	estimate 2.50-3.00	X	
Dade County Miami, Florida	X		X	Multilith	10,534	ca. .73		X

Numbers of personnel were difficult to obtain. The blanks in the columns indicate that the data provided did not seem appropriate for personnel at the center only. In added remarks at the close of the questionnaire, several stated that the small size of staff meant slow and limited services. It is safe to make no generalization about the ratio between professional and clerical. Only a detailed time study of all steps, professional and clerical, would seem to provide basis for sufficient number to be employed.

Printed materials processed ranged from 797 for three schools to 93,241 for 137 schools. Again these materials varied in degree of processing. Since the provision of catalog cards is one of the major purposes for the center, it is interesting to note how they are supplied. All nineteen centers except two purchased printed cards for some use. Some bought for small collections such as a professional library requiring one copy of a title. One purchased them for books, but duplicated cards for audio-visual materials. Several purchased printed cards for all titles available, but duplicated the remainder. Others obtained one set of each title to use as an aid for the cataloger. Four centers used printed cards only, duplicating none; two of these four had no data for the number of sets distributed; one of the remaining two centers distributed 7,000 card sets, the fourth one distributed 10,000 sets. Again, each is trying to work out his own solution; no pattern or constant ratio is evident. One center with one professional and four clerks processed 10,460 books and distributed 9,472 card sets; another center with the same number of personnel processed 19,544 books and distributed 15,798 card sets. Factors which make the difference in production can be additional responsibilities given to members of the staff.

The unit cost per book in cataloging and processing varies from \$.55 to an estimate of \$2.50 to \$3.00. Again, many variables are used to determine unit costs. The length of time the center has been in operation is one factor, raises in salaries of clerks, moving to larger quarters and buying additional equipment, methods of buying supplies in quantity, turnover and frequent training of clerks are others, the processing for a new library or processing for additions to an established one, all are factors which influence the cost of operating the center. The average cost of the twelve districts which presented costs is \$1.19, using the higher figure when a range was given. It is interesting to note that the four centers which purchased printed cards duplicating none of their own had a range of costs from \$.55 to \$2.10. One could process 12,826 for \$.55 while another could process 25,989 books for \$.65.

Of the three using the Cardmaster, a hand duplicator, one was "running a cost study"; the others reported about a \$1.15 and a range of \$1.12 to \$1.50, costs which were not among the lowest. There is no evidence in this small study that the unit cost goes down as the number of items processed increases. Too many districts could not report data kept for this question. However, this idea may be

substantiated for one center if records were kept for a period of several years where the staff was constant, and the factors used were more or less constant. At any rate, the cost per item is lower than if it had been cataloged and processed by each individual librarian in her own library workroom.

The duplicators chosen for the production of cards represented the processes of the hand operated, stencil machine, photography, mimeographed, addressograph, and the offset processes. One center using the Cardmaster ran 9,472 card sets. With an estimated average of five cards to a set that would mean about 47,360 cards. The Multilith, or another type of offset process, was used for a range of 10,534 card sets to 85,000 sets. Where both photography (Xerox) and offset (Multilith) were employed, 93,241 card sets were distributed. This data shows that the offset duplication process was used for fewer numbers of cards than recommended by the report of the Library Technology Projects Catalog Card Reproduction Study completed in February 1963.² This report suggests that where 4,000 to 85,000 cards per year are needed, they can be reproduced cheaper by a full-size stencil duplicator rather than an offset duplicator. Two of the centers duplicating about 52,000 to 69,000 cards (average of five cards to a set) could probably set up a center with less expense by choosing a full-size stencil duplicator rather than an offset duplicator. However, if another office in the district shares the expense and use, it may lower the cost of the larger machine to the center.

Since the centers of this study were organized, two more processes seem worthy of investigation. The cheaper machine selling for about \$359.00 is the Thermofax "Secretary" unit made by the Minnesota Mining and Manufacturing Company. The more expensive in equipment outlay is the Ektalith process, a dye-transfer projection-photocopying process developed by Eastman Kodak. It sells for about \$1,700.00.³ Other equipment used in various centers throughout the United States are listed in Appendix III. The duplicator is the most expensive piece of equipment to be considered, especially if the production of cards will be over 4,000 cards. In fact, the whole process of duplication demands intensive study from the detailed set of policies of cataloging, through the step by step outlining of work for the clerks, the writing of specifications for selection of equipment, the training of the operator, to the final distribution of the card sets. This area of service is the most valuable and the most expensive to operate. If it is poorly planned and operated, the center cannot be effective.

One question of the study asked about the use of data processing in the operation of a center. One of the nineteen, a large district with 142 schools, was using it; another was processing A-V materials with data processing; a third was ordering by IBM. Two districts were "exploring" the possibilities of its effectiveness for their centers. A brief analysis of all the steps in the processing and a brief study of available equipment shows that the keypunch combined

with the Flexo-writer prints the book orders for the jobber; the accounting machine can print sets of catalog cards; the sorter can arrange key punched cards in sequence; the Flexo-writer used again can produce all types of bibliography and records of holdings of libraries. This equipment is extremely expensive and constantly changing. Before districts can make decisions and install it, it is being outmoded and perhaps replaced by the computer which can store thousands of bits of information on a reel of tape. Because of its extreme cost probably only those centers which have the electronic equipment already installed for another part of the school's program can afford to consider its use for centralized processing.

No staff can work at organization and administration very long without having experiences which please and those which annoy. All but one supervisor, who had been in this particular position a very short time, felt free to state the most satisfactory phases of the service. Librarians in the buildings were high in their praise of having more time for professional duties. They were pleased to have all materials ready for circulation and catalog cards ready to file. With clerical work being performed at the center, less clerical assistance was needed in each library. Others were pleased that collections were becoming more uniform in technical aspects for the aid of students and teachers who transfer within the district. Quantity buying is saving both time and money for the district. Several different individual comments were interesting, one wrote, "Books, Books, Books!" Two others were pleased with being able to have centralized processing of all materials. One was happy with use of a Visi-Record for union card file system. Another had the work so organized, a full staff was not necessary the year round.

The supervisors were also free to express the least satisfactory aspects of the service. The major complaint was lack of sufficient staff to process all materials, or to include those for high schools, or to make the books "move fast enough." Several were reporting that the time lapse was too long between ordering and delivering. Many factors could be involved as related to this one, Wilson cards are too slow in coming through; business office procedures were time consuming; number on the staff was too small for the quantity of books to be handled; staff turnover and absenteeism were high. Two centers had a backlog of work which hindered; one reported that added copies and replacements were piling up while new titles were being pushed through. Another found it unsatisfactory that one person was cataloging the books and another the A-V materials. These statements of satisfaction and dissatisfaction are true statements of evaluation. They represent long hours of work and experimentation, and a tireless determination to find the best way to provide sufficient materials for boys and girls.

None of the nineteen school districts in this study reported that commercial cataloging was being purchased or planned for, but a number of other districts in the U. S. are contemplating buying it, at

least on a trial basis. Each company advertising to librarians seems to have somewhat different services and prices to offer. Not only are services available from companies offering this specialty, but also are they offered from a few publishers for their own titles. Since the prices are the same, it would seem the service is being purchased from another company.

Figure III provides information about several companies, including publishers.

Of the thirteen companies listed, only three companies have the cataloging and processing available for any or all titles desired by the librarian. Nine companies provide the service for a selected list of titles. Even the publishers have it for a selected list of their own titles. This situation should be seriously considered by those purchasing the services. Personnel of a company, no matter how efficient, cannot know the needs of all the children to be provided with library service. No well rounded collection could be developed by purchasing from the listed titles of either type of company, the one offering services alone, or the publisher offering his titles and services.

Another situation could arise. If the school district ordered from several publishers offering cataloging and processing services, the systems may not be standardized. Additional clerical work might have to be added to make cards and processing uniform.

Catalog cards seem to come from three major sources, those prepared by the company, those printed by Library of Congress, and those offered by H. W. Wilson and Company. They are provided in various combinations with both printed and prepared ones available. Two companies provide Library of Congress cards alone; they are provided free. Four companies provide catalog cards, but no processing. Perhaps school districts able to employ more clerical than professional personnel could profit by this service.

If a company processes the books, the systems are quite similar. One company did not paste nor did it provide plastic jackets. The chart does not show numbering of books nor stamping with school ownership; several companies would provide this service if requested. Bindings offered by ten companies seem to be provided to suit the librarian.

The costs for these services are as varied as the services. One company includes the cost in the net cost of the book; no separate amount is mentioned. Three companies offer quotations based on requirements of a library. One company, selling only catalog cards, offers them at ten and fifteen cents a set; another advertises them to be free with orders from selected lists. Publishers buying services seem to offer them for seventy cents. Two companies offer a range of prices which depend upon requests of the individual library. For twenty-five cents one company offers a packet including catalog cards, a book card, and an unpasted pocket.

FIGURE III
SOURCES FOR COMMERCIAL CATALOGING AND PROCESSING

Name of Company	Selection	Catalog Cards	Pocket	Book Card	Pro- cessing	Plastic Covers	Binding	Cost
Alnar Book Processing Center	Elem. list Jobber service	Wilson, L. C. prepared	X	X	X	X	Choice	Elem-.70 Quotation
American Library and Educ. Service	2,400 titles	Prepared	X	X	X	X	Durable	Book net
Associated Libraries	Selected titles	Prepared					Reinforced or Prebound	.10
Capitol Library Service	Jobber service	Wilson or L. C.	X	X	X	X		Quotation
Chilton Books Library Department		L. C.						0
Collier-Macmillan Library Service	Selected titles published	Alnar	X	X	X	X	Library edition	.70
Crossley- Van Deusen Company	Service for a jobber	Wilson & L. C. or combination	X	X	X	X	Prebound or Publi- sher	Quotation
Dufour Editions	500 titles	L. C.						0
Follett Publishing Company	240 titles	Prepared (4)	X	X	Not pasted		Library Binding	.25

Gosset and Dunlap	Selected titles	Wilson	X	X	X	X	X	Library Binding	.70
E. M. Hale & Company	1962, 1963 titles	Wilson						Hale	1962--10 1963--15
Harper and Row	Selected titles	Alanar (5)	X	X	X	X	X	Harper-crest	.70
Imperial Book Co.	Selected titles	L. C. or Wilson	X	X	X	X	X	Prebound or Publishers	.85 -1.15
Professional Library Service	Jobber service	Wilson L. C. Prepared	X	X	X	X	X	Prebound or Publishers	1.05-1.65

The school district trying to determine whether it should let a company do its cataloging and processing or should organize a center of its own, should study the services of these companies very carefully. Several factors are to be considered in making a decision. Only new books are serviced by a company. If there are old classroom collections or uncataloged books to be used as a nucleus for a central collection, these books could not be processed: a staff in the district would have to handle those. A staff would also have to keep all central holdings records, and bookkeeping records for the schools. No one should be misled to believe that no professional nor clerical help would be needed if these services would be purchased. When new collections are being organized rapidly, it would be very possible that these services would be very helpful and not too expensive, provided they were purchased from those offering full jobber services. No doubt the number of companies offering these services will continue to grow. They should be observed with diligence, for they may have services which can be especially helpful for technical processes departments.

A number of questions arise to be answered as various school districts become aware of the possibilities of centralized services. What size of area can be served efficiently? The major factors involved are, number of students, budgets, administrative and political boundaries, and geographical areas. Can a state-wide service be effective? The State Department of Education of Georgia provides central cataloging services at five cents a set of cards and central purchasing for schools for all orders involving state funds.⁴ Another question arises, can one processing center offer adequate services for both public libraries and schools? In the Eastern Ohio Library Service Center, nine schools are listed in "Exhibit I, Participating Libraries."⁵ No reference to type of service was given. No doubt there are others with arrangements already established. It would seem wise in areas of the United States where schools and public libraries are small, few, and far apart to consider planning joint technical services.

At the close of this brief study, it is appropriate to recognize related factors which seem to be emerging. One is a rather new type of position which requires a combination of training and experience in cataloging, administrative organization and operation, bookkeeping and accounting, and understanding of school curriculum and organization. Until the center becomes very large, the cataloger is usually the one who supervises the ordering, outlines work and responsibilities of the clerks, keeps payroll information, answers questions from personnel in schools, and may be responsible for some training of clerks and teachers in buildings without librarians. This new position requires the attributes of administrator, cataloger, bookkeeper, and teacher.

Another factor which was evident to just a small degree was that of building a large center with a collection of books to be circulated

to elementary schools in place of central libraries for each school. Children may use the books in the classroom or take them home for reading. With an arrangement of this type, it is difficult to understand how library skills with the card catalog and indexes can be taught effectively. When a collection of books, no matter how large, is moved in and out of the school building or classroom, it is usually not indexed in a method for elementary children to understand and use. For a child to teach himself how to learn continuously, he must have the keys to additional information, the card catalog and indexes.

Still another factor which appears repeatedly is that of selection of books. Librarians are committed to offering the best materials for each student whom he is employed to serve. Will the pressure for duplicate titles be so great that requests for unusual titles be set aside? Can the commercial service be offered for materials for the underprivileged if that service is based upon the most popular titles sold? How are the needs of the intellectually gifted being met if librarians must choose from titles already selected by another? It is possible that administrators and librarians can become so enamored with electronics, speed, quantities, uniform techniques, and unit costs, that the end product of a rich collection of materials for all the needs of children may never appear. No doubt there are other factors which could be pursued. The point here is not to be alarmed by these emerging characteristics, but to be alert to the fact that they are there and to keep in mind that they and new advances will need constant checking for the evaluation of the end product, not the means to get the product.

In summary, administrators and school librarians are concerned about providing well organized materials, both audio-visual and printed, to students in their schools. They are also concerned that preparing these materials takes time which needs to be spent working more directly with students and teachers. In districts where library services are developing, they are concerned about providing these materials and services when there are few trained librarians to employ. The plan developing is that of centralizing the ordering, cataloging, and processing of the materials under the supervision of trained personnel. It seems to include audio-visual as well as printed materials. School districts with both small and large enrollments participate. They buy printed catalog cards where practical and duplicate them where quantities are large enough to warrant. Unit costs for the technical services range from estimates of 55 cents to \$3.00, but they are most difficult to compare because of varying circumstances. Data processing is beginning to be used or its possibilities investigated. Commercial companies and publishers are offering processing services of various types from the inclusion of a card set for selected titles to full processing with jobber services.

Those working to develop these centers and to improve the services are, in general, pleased with being able to allow more time for professional work for the librarians in the buildings, to provide

organized and processed materials for buildings without trained personnel, and to save time and money for the district by central ordering and processing. They are unsatisfied with the length of time it takes to accomplish the tasks with personnel and routines designated. However, in no instance was there a feeling of complacency that a center was through its period of experimentation and that its services were beyond improvement. When such terms and phrases are reported as "exploring," "running a cost study," "difficult to estimate," "have completed an examination of our routines," there is evidence that constant evaluation is underway to improve the services. There is little research for these problems, as recently reported in one of our pieces of professional literature; but there is concern, courageous thinking, and work throughout the United States which may later appear in the form of research for those who have time to write, or those who plan to organize a center for central processing of library materials. Courage and imagination are two attributes most necessary for the organization of a center; courage to identify the problems and to take criticism for the mistakes; imagination to penetrate beneath the reality of facts and to search for creative answers to the problems. These two prerequisites are evident in the patterns for administering the processing of resources for school library materials centers.

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APPENDIX I

QUESTIONNAIRE

CENTRALIZED PROCESSING FOR INSTRUCTIONAL MATERIALS CENTERS, September, 1963

School System _____ Date _____

Supervisor _____

APPENDIX II

CENTERS FROM WHICH DATA WAS RECEIVED FROM QUESTIONNAIRES

CALIFORNIA

Kern County Union High School District
2000 24th Street
Bakersfield, California
E. Ben Evans, Director of Instructional Materials

San Diego City Schools
Education Center
Park Boulevard at El Cajon
San Diego 3, California
R. H. Burgert
Director of Instructional Aids

Tulare County
202 County Civic Center
Visalia, California
Mrs. Helen D. Robbins
Coordinator of Library Services

FLORIDA

Dade County Public Schools
Lindsey Hopkins Building
1410 North East Second Avenue
Miami 32, Florida
Mrs. Betty S. Lunnon
Supervisor Library Services

Brevard County Board of Public Instruction
Instructional Materials Department
1540 Poinsett Drive
Titusville, Florida
H. C. Gluth, Supervisor

ILLINOIS

Community Consolidated Schools District #65
1703 Orrington Avenue
Evanston, Illinois
Mrs. Harriette H. Crummer, Supervisor

Oak Park Public Schools
122 Forest Avenue
Oak Park, Illinois
Elinor Yungmeyer
Consultant Library Services

Peoria Public Schools
1726 Ellis
Peoria, Illinois 61607
E. J. Bambrick, Supervisor
Library Department

INDIANA

Board of Education
Gary, Indiana
Edwin Carmony, Director
Audio-Visual

IOWA

Des Moines Public Schools
1800 Grand Avenue
Des Moines, Iowa 50307
Viola James, Director
Library and Audio-Visual Services
Mrs. Hilda Womack, Cataloger

MARYLAND

Baltimore Public Schools
3 East 25th Street
Baltimore 18, Maryland
M. Bernice Wiese
Director of Library Services

Board of Education of Frederick County
115 East Church Street
Frederick, Maryland
Miss Alice L. Robinson, Supervisor of Libraries and A-V Services

Montgomery County Public Schools
Educational Administrative Center
850 North Washington Street
Rockville, Maryland
James W. Jacobs
Director of Instructional Materials
Edward W. Barth
Manager of Processing Center

MINNESOTA

Hermantown Schools
4190 Ugstad Road
Duluth 11, Minnesota
J. C. Rutherford, Superintendent

NORTH CAROLINA

The Charlotte-Mechlenburg Board of Education
401 East Ninth Street
Charlotte 5, North Carolina
Miss Gertrude Coward
Director of Libraries

Greensboro Public Schools
Greensboro, North Carolina
Leonard L. Johnson, Supervisor
Library Department

OREGON

David Douglas Public Schools
2900 South East 122nd Avenue
Portland 36, Oregon
Mrs. Cleo E. Peck
Supervisor, Instructional Materials Center

Portland Public Schools
P. O. Box 3578
A. K. Trenholme, Director
Department of Instructional Materials
Edward Wiseblook, Supervisor of School Libraries

WASHINGTON

Edmonds School District No. 15
3800 196th South West
Alderwood Manor, Washington 98001
Ruth Allen, Library Coordinator

APPENDIX III

SOURCES FOR DUPLICATING EQUIPMENT

Addressograph-Multigraph
1200 Babbitt Road
Cleveland 17, Ohio

Cardmaster Company
1920 Sunnyside Avenue
Chicago 40, Illinois

Chiang Small Duplicators
53100 Juniper Road
South Bend, Indiana 46637

Davidson Corporation
29 Ryerson Street
Brooklyn 5, New York

A. B. Dick Company
5700 Touhy Avenue
Chicago 31, Illinois

Eastman Kodak
343 State Street
Rochester 4, New York
(Ektalith Process)

Gestetner Corporation
216 Lake Avenue
Yonkers, New York

Harding Milo Company
180 Tempo Building
Monterey Park, California

Minnesota Mining and Manufactur-
ing Company
1000 Bush Avenue
St. Paul 6, Minnesota
(Thermofax "secretary")

Print-o-Matic Company
724 W. Washington Blvd.
Chicago 6, Illinois

Rex-Rotary Distributing Company
387 Fourth Avenue
New York 16, New York

APPENDIX IV

SOURCES FOR COMMERCIAL CATALOGING AND PROCESSING

Alanar Book Processing Center, Incorporated
1609 Memorial Avenue
Williamsport, Pennsylvania

American Library and Educational Service Company (Alesco)
Harristown Road
Glen Rock, New Jersey

Associated Libraries, Incorporated
229-33 North 63rd Street
Philadelphia 39, Pennsylvania

Capital Library Service
18-N Ridge Road
Greenbelt, Maryland 20770

Chilton Books
A Division of Chilton Company
East Washington Square
525 Locust Street
Philadelphia 6, Pennsylvania

Collier-Macmillan Library Service
60 Fifth Avenue
New York 11, New York

Crossley-Van Deusen Company, Incorporated
Marcellus, New York

Dufour Editions
Chester Springs, Pennsylvania

Follett Publishing Company
1010 West Washington Boulevard
Chicago, Illinois 60607

Grosset & Dunlap, Incorporated
distributed through
South-West News Company
2501 West Pennway
Kansas City 8, Missouri

E. M. Hale & Company
Eau Claire, Wisconsin

Harper and Row, Publishers
Evanston, Illinois

Imperial Book Company
501 King Street
Philadelphia 44, Pennsylvania

Professional Library Service
1201 East McFadden Avenue
Santa Ana, California

Designing Facilities for School Library Materials Centers

Sara Krentzman Srygley

Associate Professor, Library School, Florida State University

As libraries were established in a few secondary schools in America at the turn of the century, in all probability those responsible felt that they faced insurmountable problems. These pioneer libraries were placed wherever space could be spared in buildings not planned to accommodate them at all. In retrospect, it seems remarkable that school administrators and librarians of the early 1900's could arrange library equipment and materials as effectively as they often did in the small and unsuitable areas then designated for libraries.

Sixty years later, designing new or renovated quarters for school library services is one of the most complex and challenging problems school library or materials specialists face. The buildings they help to plan represent their concepts of the role of the library in education today, as well as their ability to influence school administrators and architects to accept their ideas. The amount of space allocated for library services, the nature and location of the special areas designated, and specific provisions for the housing and dissemination of the educational media considered legitimate library materials—all these tell a community what the planners believe to be a good school library and what services may be expected from it.

Winston Churchill is often quoted as having said that we shape our buildings, thereafter they shape us. Recognition of the truth of his statement only contributes to the insecurity a thoughtful school librarian must surely feel today.

No qualified school librarian would seriously question that the plan for library or materials services should precede the building. Nor would one seriously question that once a school building is a reality, its physical provisions control to some degree the nature of the educational program it houses or the extent to which a desired program can be implemented. Surely there is agreement today among school librarians that they must work as part of a team to determine the best educational program for a given school situation, to develop a "custom-built" program of library service supporting it, and to design the facilities to make this service possible.

But one can hardly overemphasize the difficulties in planning facilities for an educational program in a state of rapid change. In the United States today there is widespread, continuing, critical evaluation

of educational goals, school organization, classroom procedures, and provisions for guidance and independent pupil study. Professional educators are now giving leadership in encouraging experimentation in these areas. There are also articulate spokesmen representing industry and government, as well as parents and other citizens who support this experimentation or insist that there is too little of it too late.

Increasingly there are evidences of radical changes in elementary and secondary schools. As yet there has not been enough serious professional study of these innovations to indicate their value or to provide a sound basis for predicting any lessening of experimentation. The only characteristic of education that seems certain today is that it is changing, although not yet as rapidly as the society it serves.

It is certain that the school facilities designed and constructed in 1965 will be operating well into the twenty-first century, in most cases. It follows, then, that effective planning for school library services must be geared to a world of change. There must be recognition of things as they are in the educational world and identification of obvious trends which point to general practices in the schools of the future with special relevance for school materials services.

It follows as surely, however, that school facilities built for tomorrow must have the fullest possibilities for adaptability, to accommodate as well as possible changes not now foreseen.

An Educational Facilities Laboratories' report, The Cost of a Schoolhouse,¹ predicts these major characteristics of educational planning that will affect school house construction in the immediate future: (1) small spaces will be multipliable at will and at once; (2) large spaces will be divisible at will and at once; (3) space will be added and subtracted at will; (4) some schools will be convertible and shared; (5) children will learn from machines and teachers; (6) the environment will be dejuvenilized; (7) there will be new forms and surfaces; (8) there will be a more precisely controlled environment; and (9) groups of schools will be built together.

As each of these characteristics is discussed fully in the report, there are many implications for materials services. The needed flexibility in use of space with large or small groups and with individuals supports modular construction in school libraries as has been proved effective in college and public libraries. Placing more responsibility on learners earlier for planning their own programs and giving them more freedom, as well as responsibility and individual help, suggests the necessity for more library space designed for independent study.

The new building materials and architectural forms encourage less permanence in buildings, which should gladden the heart of any librarian who has ever struggled to remodel, working around permanent load-bearing walls or in a situation where expansion seems impossible. Better control of environmental factors, such as temperature, humidity, noise, light, and ventilation, should improve conditions

for the comfort of people as well as for the maintenance of materials in libraries. These are only a few examples of the ways in which general school construction trends may directly affect the planning of school library quarters.

It is revealing to survey current educational literature to identify the significant trends in teaching methods or school organization that suggest necessary changes in school library services and the facilities that house them. While these trends differ somewhat for elementary and secondary school programs, there is a surprising degree of similarity, too.

In a stimulating report of architectural change resulting from educational experimentation in the high schools, the Educational Facilities Laboratories give this vivid explanation of the concerns of modern educators for change: "Worried educators began to feel that the American high school was in danger of becoming a Stanley Steamer heading for a rocket base on a six-lane, computer-controlled expressway. In its own day the Stanley Steamer was an excellent automobile, but it no longer fits the world as the world operates today."²

The recommendations in 1959 of a Commission of the National Association of Secondary School Principals headed by J. Lloyd Trump are too well known to warrant detailed discussion here. It should be noted that these recommendations have received serious consideration nationwide and that they are being implemented to some degree in numerous secondary schools. In any serious discussion of the school of the future the Trump report seems basic.

This report³ advocates a number of changes that require school library support and, in turn, affect the type of facilities that should be planned for materials services. Chiefly these are the organization of large and small groups of pupils for special learning experiences, rather than the inflexible grouping of thirty or thirty-five pupils in a class; a school day in which pupils spend from thirty to forty per cent of their time in independent study; the use of all possible technological advances in educational media in planning instruction; and team teaching, requiring teachers to do a different type of planning and preparation for instruction.

An instructional program implementing these recommendations requires a library planned as a learning laboratory, filled with carefully chosen printed and audiovisual materials in sufficient quantity to meet the varied needs of individuals and groups.

The Educational Facilities Laboratories report, Profiles of Significant Schools: High Schools 1962 suggests that much learning will be accomplished by students involved in independent study. Libraries are defined as resource centers with more books, tapes, films, records, programmed learning, and other media. Independent study space is presented as a need throughout the school. Changes in space and schedules are assumed necessary for students with many needs for materials to use in independent study.

The provision of numerous individual study areas, or carrels, in the library seems warranted, although all such areas need not be in one central place. Such provision in the library does not lessen the need for special areas for both large and small groups of pupils, if one considers the total instructional program.

The Trump plan clearly suggests the need for more space carefully designed for teachers to use as work space in curriculum planning, in evaluation, selection or production of instructional materials, and in independent study or research related to instructional responsibilities. The value of providing some of these areas for faculty use as a part of the library quarters or closely related to them seems obvious.

Team teaching is an innovation affecting elementary as well as secondary schools. A recent report, Schools for Team Teaching,⁴ describes the buildings planned for ten elementary or junior high schools throughout the United States which use team teaching.

In an "Epilogue" which gives general suggestions for such building programs one finds the conclusion that team programs seem to encourage development of a non-graded school organization. It is stated that as students cut across grade lines, there is usually a greater emphasis on self-directed or individual study. With regard to space, this tendency indicates a radical change in the size and scope of the school library, encouraging development of a central instructional resource center.

Here one sees the same needs earlier identified for secondary schools for more individual study space in the library and for more facilities planned for teacher consideration or production of materials. The obvious requirement of a variety of educational media in quantity to challenge individual pupils is as desirable as in the high school. In the schools described, this is particularly true of pupils in the middle or intermediate grades. In some of these experimental schools, the self-contained classroom, which also requires library services, is maintained through the primary grades, with a gradual introduction of team teaching and more independent study in the middle grades.

The standards⁵ for school library programs published by the American Library Association in 1960 seem almost conservative when viewed in relation to the needs for library services implied in current recommendations for school improvement. A careful re-reading of these standards indicates that they are today, as four years ago, a valuable aid in designing school library quarters. They encourage creative, cooperative planning to meet the needs of the school to be served and give much specific help in quantitative analysis of materials, equipment, furnishings, and space.

Yet the school librarians who gasped in 1960 at the ratios of materials, library personnel, and space suggested in these national standards do not seem nearly as shocked today to hear of schools that already far exceed these standards in one way or another. So it

goes, as Frances Henne often predicted! The Melbourne High School Library in Brevard County, Florida, for example, seats sixty per cent of a student body of more than 800. The Oak Ridge Elementary Schools in Tennessee recently reported an average of more than twenty-two books per pupil in their libraries.

There is the continuing necessity for a realistic appraisal of what is required in materials, personnel, or space to provide library services for quality programs of education. The school library specialists who participate in developing plans for remodeling or constructing new library facilities must recognize their responsibility to speak or write in a forceful and knowledgeable fashion about these requirements. They must be able to explain the reasoning back of their recommendations, in language familiar to other educators, and to quote organizations or other specialists known and respected who support their requests. While experience indicates that some compromise is inevitable in planning most school construction, the materials specialist must be sure that compromise affecting library quarters is made only with full knowledge of actual needs for library services and of the results to be expected in limited services if there is limited provision.

Just how should the school materials specialist be involved in planning library facilities? This question was asked recently in conversation with Dr. Harold Cramer, School Plant Planning Consultant in the Florida State Department of Education. He promptly provided a brief, well-written bulletin, Preparation of Educational Specifications,⁽⁶⁾ which his department has prepared as an aid to school personnel in planning or remodeling school buildings.

This bulletin⁽⁶⁾ traces historically the concept of the need for a statement of educational specifications as a basis for planning a functional building. Responsibilities and roles are defined for the Board of Education, the Superintendent, the instructional staff, the architect, the locally designated supervisor of planning, consultants from various sources, and laymen and pupils.

The chief responsibility for writing educational specifications is allocated to the instructional staff, who are most closely related to the program. While it is assumed that specialists on this staff, such as a librarian, will assume responsibility for writing specifications for their areas, it is emphasized that those who will use these service areas should also participate in considering these specifications.

In describing the architect's function, there is a clear statement that he should not be expected to assume responsibilities for educational planning but should advise on matters for which his experience and training qualify him. Dr. Cramer suggested tactfully that neither should school materials specialists assume the responsibility of making scaled drawings of library quarters with placement of equipment and furnishings comparable to those neat little plans in brochures from the equipment firms.

This is assumed to be the architect's function, implementing the educational specifications provided. Dr. Cramer further suggested that professional library schools should teach students the techniques of planning and writing educational specifications and of reading blue-prints, with no concern for trying to make amateur architects out of them.

As to content of specifications, it is recommended that a statement be provided of the philosophy which directs the program, followed by a description of the nature of the program and the activities expected to take place in its operation. Highly desirable is a description of the spaces in the school plant, showing relationships to the functions which they must serve. In relation to these spaces, a detailed statement of needed furniture and equipment for each area should be given with number, size, and function. Schematic diagrams such as circle drawings are considered helpful in showing relationships of areas.

Librarians who are not experienced in planning facilities are concerned with how detailed the information provided should be. The Florida bulletin ⁶ suggests that it be complete enough for the architect to develop an acceptable solution to the school design problem, but not be so specific as to be restrictive as the architect uses his talents and professional training to solve the problems effectively.

Supervisors of materials services at the system or state level often give excellent leadership in planning for new or improved library facilities. They may encourage publications that give special aid in library planning and assist in writing or editing them. They may serve as consultants for individual schools or school systems. In planning in-service education opportunities for the librarians and other educators in the system served, supervisors may encourage some opportunities for workshops, institutes, or visitation programs to encourage better planning for school library facilities. They may help to plan special opportunities for librarians and other educators to meet with architects for their mutual enlightenment. The library education agencies should work hand-in-hand with state and local supervisors in developing such programs.

A new publication ⁷ this fall in the area of planning library facilities is The School Library, Facilities for Independent Study in the Secondary School, written jointly by Ralph E. Ellsworth, Director of Libraries at the University of Colorado, and Hobart D. Wagener, an architect.

If school librarians can get past the introductory chapters without losing either tempers or confidence in the qualifications of the authors, there is much helpful information in the sections that follow. For some reason the point-of-view presented earlier is that developmentally school libraries are far behind college libraries in this country in experimentation, in acceptance as faculty members by the educators they serve, in recognition through increased salaries, in their own understanding of the meaning of the library as a teaching instrument, and even in the development of audio-visual programs.

Hopefully, the authors assume that school librarians may now begin the upward climb, beginning in the mid-sixties at the level at which the college librarians found themselves in the mid-thirties.

Once past this comedy of errors, one finds in the report⁷ some sound recommendations for a modern program of school materials services. These generally seem based on knowledge of technological advances and trends in curriculum development, school organization, and teaching methods. The concept of the school library as a materials center is firmly established and suggestions are made for facilities designed to implement this type program.

Of particular value are the treatment of the controversial issue of centralization or decentralization, the provision of pupil facilities for independent study, the types of facilities needed for local production of materials and the work space needed by the teachers, librarians, and other media specialists.

Decentralization of the school library is opposed on the basis of increased costs for materials and for staff. It is recognized that a compromise between complete decentralization and centralization may be possible and desirable in large schools without economic worries. This conclusion is the same as that reached in the Florida program this fall and released in a mimeographed statement to local school authorities by the School Plant Division of the State Department of Education.

No such professional support can be recommended for the statement by Mr. Ellsworth and Mr. Wagener that in the lower grades the students will not need to go so deeply into sources and that their needs can be met by a generous collection of books and materials in the rooms where they are learning.

This book⁷ is profusely illustrated with photographs or diagrams of school library facilities, and original drawings to show lay-out or design of areas or equipment. The second section, "A Gallery of Prototype Architectural Designs," shows ways to give physical expression to the program of library or materials services earlier described. These designs suggest a variety of solutions to educational problems and are well worth serious study. There is an excellent bibliography at the end of the book suggesting further reading in this subject.

Considering the most recent materials suggesting the school library of the future, recognizing the types of school materials facilities now in operation, and not forgetting that many children are in schools today which do not offer any library service at all, what generalizations can be made concerning the planning of school library facilities?

It seems reasonable to assume that:

(1) The time is approaching when library services will be offered in carefully planned and furnished quarters in most of the elementary and secondary schools in this nation.

- (2) The school library will be a materials center, physically planned for disseminating the various educational media pertinent in the school program and designed to serve as a resource center for curriculum planning, general instructional support, and for teaching the process of free inquiry.
- (3) The library will offer special services to teachers and supervisors, to large or small groups of pupils, and to individuals interested in independent programs of study or of worthwhile enrichment activities.
- (4) The library quarters will be a group of special purpose areas, planned with regard to their function, their use, and their supervision, with a planned relationship of areas, whether in one central place or scattered throughout one or more buildings.
- (5) Possibilities for expansion and for change will be an important consideration in new or remodeled libraries. Operable walls, modular construction, general flexibility of space and construction materials will be considered.
- (6) The changing concept of the role of the library in an educational program emphasizing the need for independent study for a large part of the school day will result in more and better facilities for independent uses of the library. Study carrels and many other small areas may be set apart by shelving or clear glass partitions.
- (7) The newer school library programs will recognize more realistically the necessity for a school library staff, including specialists in the various services and materials of the library. The ratio of professional personnel to pupils and teachers will be sufficient to provide the library services needed and wanted. The size of the staff will affect radically the type and location of quarters desirable for library services, since there will be adequate staff to supervise these quarters located where they are most convenient for those using them.
- (8) As centralized processing at the system level develops and as more processing of library materials is purchased commercially, there will be less need for large work areas for processing at the school center. This will not eliminate the need for work space for receiving and integrating new materials into the collection, and for processing some materials at the school level, but this work space may differ in nature and in size.
- (9) As school materials specialists are more articulate about specific needs for library purposes, better equipment will be designed and made available. The school library market will continue to be one of the most attractive for industry to consider because of the vast number of school libraries developed in every community. This will encourage the development of products especially designed for school library consumption.

(10) School libraries will offer more and varied services to teachers and other staff members, including aid in locating and evaluating materials, literature searching, and help in developing techniques of teaching with the newer educational media. Special provisions of space within the library complex will make this possible, as will adequate provision of library personnel.

(11) Library schools will be more realistic in providing opportunities for pre-service school librarians to learn methods of planning educational facilities. They will encourage and support in-service opportunities for up-dating knowledge in this area and become centers for research and study of the problems in library planning identified in library practice.

(12) America's school libraries will continue to become more humanized, representing in design and in appearance the best of our cultural attainment. They will be planned to encourage children, young people and their teachers to enjoy and to use freely the library's materials and services.

Is this too much to hope for? Perhaps not, when one recognizes that now, in 1963, each of these assumptions can be found in operation in at least one school library somewhere in this country.

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The Elementary Teacher and the Instructional Materials Coordinator Plan Together for Media Integration With Classroom Teaching and Learning

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An instructional materials program is an integral part of a quality educational program. The educational goal of our free society is to provide a quality education for every citizen and an optimum education for each citizen so that all citizens will be functionally literate. In our complex society, to be functionally literate means more than being able to read and to write. It means being able to read, to write, to think, and to act with competence. To think and to act with competence means being capable of translating knowledge into constructive action and rational behavior. It also means being capable of solving the problems encountered today and being capable of solving adequately the problems to be encountered in the future. To develop such competence is the purpose and the goal of education in our democracy. To reach this goal necessitates the availability of knowledge-building and knowledge-extending materials and a planned program for media-usage.

A quality, optimum educational program designed to develop functional literacy requires that learning go beyond the limitations of the textbook and the confines of the classroom. An optimum education requires that learning be individualized. A textbook can generalize, but it can not individualize teaching nor can it individualize learning. Knowledge-building media must be provided to meet the individual student's needs, interests, goals, and abilities. An instructional materials program is recognized today as the logically, economically, and educationally effective and efficient means of providing the materials, the services, and the guidance necessary for the full development and the optimum realization of a quality educational program designed to develop functional literacy.

A materials program of the scope necessary for the implementation of a quality educational program would not be possible in the North Hills schools if the administration had not established a district materials center. Building libraries have not been established in seven of the ten elementary schools because of the limitations of space. This suburban community adjacent to the city of Pittsburgh has experienced a phenomenal pupil population explosion. The pupil enrollment has doubled in the past ten years and increased by

one-third in the past two years with a current enrollment figure of 6,270. A continuous building program which has added a total of 128 new classrooms, with an additional twenty-one rooms currently under construction, has not been able to provide adequate space to accommodate the ever increasing numbers of children. A projected building program for the period 1964 through 1970 will provide two new elementary libraries every year until a total of ten has been established. Unwilling to have the present student body deprived of sufficient quality and quantity of knowledge-building and knowledge-extending materials because of lack of libraries within the buildings, North Hills has developed an instructional materials program to provide a wealth of materials in each building as well as an organized and unified media collection in the district center. The district center, which is located in the administration building, has been organized and has been administered in accordance with the plan recommended in the American Library Association's Standards for School Library Programs.¹ The coordinator ". . . serves as the director of the collections in the center and of the services relating to materials that are carried on within and from the center."² The coordinator serves as consultant for curriculum directors and provides specialized advisory and consultant services about printed and audio-visual materials to the teachers and school librarians. The district center's materials collection includes 6,270 books, 1,540 filmstrips, 395 recordings, 1,500 art and study prints, 900 slides, and an extensive pamphlet collection. The center provides an equipment and machine pool as a reserve when teachers or schools need additional machines. The equipment includes filmstrip projectors and viewers, slide projectors and viewers, phonographs with listening post and earphone attachments, overhead projectors, projection stands and screens, and a Polaroid Electric Eye camera. The center also has a laboratory complete with photo-copy machine, proto-printer, and laminator for making transparencies.

Teacher knowledge of the materials and services available in the district center is provided by a series of printed and personal contacts. Distributed to each teacher is a printed cross media index which lists under 878 unit and topic headings, a total of 6,313 media references. This cumulative index is revised biannually and is kept up to date with an annual supplement. Also, district and building workshops are used to orient teachers to new materials, new machines, and additional services. News bulletins are released from time to time alerting the faculty to acquisitions of general interest. Direct contact with individual teachers is made when new materials pertinent to his subject or personal interest are received in the center.

It is not the availability of materials, however, that gives validity to the claim that an instructional materials program is essential for the implementation of a quality educational program. Filmstrips, slides, recordings, study prints, and transparencies are not

educationally significant until their use is integrated and synchronized with classroom teaching and learning. It is the planned and scientific use of media that releases the knowledge-building and the knowledge-extending power latent in materials. Instructional materials become teaching resources and learning resources only when they vitalize teaching and expedite learning. It is the chief responsibility of the coordinator to see that the materials necessary for meeting curricular needs and individual pupil needs are available and their use integrated and synchronized with classroom instruction.

The integration of instructional media with classroom teaching requires application by the coordinator and the teacher of the technology of programming. Programming is the science of structuring a systematic and comprehensive plan for the use of media to meet the teaching goals and the learning needs of any portion or area of the educational program. Together the teacher and the coordinator program for the use of knowledge-building media. Cooperatively they define the goals to be reached, the concepts to be developed, the needs to be met, the interests to be fostered, the avenues to be explored—the total teaching plan to be implemented. Cooperatively they structure the pattern for media-usage by spelling out in logical, progressive, sequential order when, where, how and what material is to be used. Cooperatively they determine the program for building, extending, reinforcing, unifying, and integrating knowledge by structuring a planned multi-media approach to teaching and to learning.

Programming for the use of instructional materials is of vital significance in the elementary grades. Since these are the formative years, they are indeed the critical years. These are the years when the foundation for functional literacy is laid. The educational experiences of a child during these formative years determine in large measure the child's mental and emotional attitude toward learning itself. If these experiences are positive, they can foster a zest for learning and for achieving. Therefore, it is imperative that materials which will facilitate learning and which will create the desire to learn be provided. Identifying, obtaining, and organizing these materials are the responsibility of the coordinator; the planned and scientific use of the materials is the joint responsibility of the coordinator and the classroom teacher.

Teacher-coordinator planning occurs in a variety of ways and extends from the relatively simple request for several pieces of material to meet a single topic need to a request for multiple teaching resources to facilitate the introduction, the development, and the culmination of a unit. The planning sessions range from a meeting of the coordinator with one teacher to a series of meetings held throughout the school year with an entire faculty engaged in a curriculum study.

Examples of planning sessions and the resulting patterns of media-usage are given here as a means of demonstrating procedure, scope, and value of programming for media integration with classroom teaching.

A typical request for materials to meet a specific teaching need was the basis of a recent conference with a first grade teacher. The teacher had told her children the story of The Cat in the Hat by Dr. Seuss³ and found that they were intrigued with "Little Thing One" and "Little Thing Two," and she was anxious to discover if there were similar stories that could be used in teaching the children to count. She selected three from the group of books provided for her examination. She felt that all three would be excellent for developing the children's ability to listen and to interpret, as well as to count. She decided that the Counting Carnival by Feenie Ziner and Paul Galdone⁴ would be presented first, not only because it was simple in plot and style, but also because it would give the children number sequence from one to twelve. The book she decided to present next was The Goat that Learned to Count by Alf Prøysen,⁵ for she saw in this story not only a device to teach children to count to fifteen but a dramatic means of having them see the necessity of being able to determine just how many passengers there were on a boat that would surely sink if more than fifteen got on board. The third book, Mystery of the Farmer's Three Fives by Margaret Friskey⁶ was selected, first because it was an hilariously funny story sure to appeal to first graders, and second because it would give a new dimension to counting to fifteen, for this story demonstrates that fifteen can be a combination of numbers such as three times five. This planning session, which lasted only thirty minutes, acquainted the teacher with materials which she would use to develop the children's ability to listen, to interpret, and to count, and at the same time gave the children a series of learning experiences which would convince them that learning can be fun.

The same day that the first grade teacher planned for materials to facilitate the teaching of arithmetic, a student teacher came to the center to plan a science unit on conservation. She explained that the unit on conservation as presented in the textbook lacked pupil appeal, and continued by saying, "My greatest need is for materials to create and sustain interest throughout the five weeks we are to spend on this unit." The coordinator, recalling a particularly successful conservation unit that had been taught the year before, told the student of the possibility of using membership in the Junior Forest Rangers Association as a motivating device. When the student teacher saw the book, The True Story of Smokey the Bear by Jane Werner Watson,⁷ she immediately saw the possibilities of using this story as unit motivation, for this story dynamically portrays for the children the devastation that results when a forest fire occurs, gives the safety rules to be followed by friends of Smokey the Fire Prevention Bear, and invites all to become members of the Junior Forest Rangers.

The coordinator showed the student teacher a copy of the conservation pledge and conservation song sheet available upon request from the Forest Service of the United States Department of Agriculture⁸ and also told her that the same department would send a series of fifteen transcriptions which feature Smokey the Bear discussing conservation with outstanding television stars such as Danny Thomas, Richard Boone, Tennessee Ernie Ford, and Jack Benny. The student teacher next listened to a recording of Gene Autry singing, "Smokey the Bear"⁹ and decided to borrow the recording so she could learn the song which would be the theme song for her unit. This planning session oriented the student teacher to materials to satisfy her motivational needs, and also demonstrated for her the value accruing from teacher-coordinator planning.

A fourth grade teacher who was planning a unit on Japan asked if there were materials available for teaching her class the Japanese art of paper folding. Since her children were delighted with any type of craft work, she thought that origami would offer an excellent opportunity to integrate a craft activity with social studies. Fortunately several new books on the Japanese art of paper folding had been added to the collection the past summer, and the teacher found each one easy enough to be used with her nine year old youngsters. When she examined the Origami Storybook by Florence Sakade,¹⁰ she was fascinated by the simplicity of the directions for paper folding designs and was delighted at the integration of storytelling, interpreting Japanese manners and customs, and craft work. She thought that the book, Paper Dolls of Old Japan by Taeko Yamanashi¹¹ with its accompanying paper doll making kit, was a real find. Likewise the exquisitely beautiful Dolls of Japan by Satako Ozawa¹² encouraged her to anticipate interest on the part of the children in making egg-shell dolls and then dressing them in authentic costumes. She borrowed the book so that she could experiment at home and test the directions before the children started asking her, "How do you do it?" This teacher's visit to the center provided her with new materials, new ideas, and new methods which would give greater scope to the teaching activities and greater breadth to the learning activities in a study of Japan.

An experiment in the teaching of reading being conducted in one of the seventeen first grades has required careful and detailed planning by the elementary curriculum director, the teacher, and the coordinator and will require joint planning throughout the school year. This experiment in personalized reading will test the practicality, the advantages, the disadvantages, and the feasibility of teaching reading from library materials rather than from a textbook. At the inception of the program, the teacher briefed the coordinator on the philosophy, the techniques, the material needs, and the overall plan for the program. At this briefing session a tentative pattern of media-usage was developed and a sequence schedule for introducing printed materials, filmstrips, and recordings was determined. It was agreed by

teacher and coordinator that the materials schedule was tentative and that pupil interest, reaction, and progress would ultimately determine what material would be used and in what sequence it would be introduced. An initial collection of two hundred titles was selected and sent to the classroom for an undesignated period of time. The materials collection must be fluid and sufficiently plastic to mold to the individual child's interests, needs, and abilities. A program of such scope will require constant communication among teacher, curriculum director, and materials coordinator. Likewise, it will necessitate the coordinator's participating in classroom use and discussion of materials so that pupil reaction, pupil interest, and need can be judged and materials best suited to meet individual needs can be selected and made available.

Another curriculum development requiring comprehensive materials is a media pilot study being conducted during the current school year by the faculty of the Seville Elementary School. The purpose of the pilot study is to have materials tested, evaluated, and their educational significance determined through teacher observation of pupil use and reaction. On the basis of his own observation, each teacher will recommend for program inclusion those materials which the pilot study reveals as meeting specific pupil needs and specific curriculum needs and will indicate the pattern for the most dynamic use of materials. The teachers will advise on the timeliness of presentation: when in the learning process a piece of material is most effective, in what unit and where in that unit it offers impetus to learning. The educational value of this testing program lies in the availability of materials when those materials are timely, suitable, and appropriate to topic and unit exploration and development. This requires that coordinators be alerted to teaching goals and plans for not only current units but those to be introduced in the future. Constant communication between pilot study teachers and the center makes possible the availability of a wealth of materials in anticipation of class and pupil use. A sixth grade unit on Mexico has just been tested by teacher and pupils. It included 53 books, 43 filmstrips, 193 study prints, 15 recordings, 4 puppets, 8 musical instruments, a chocolate mixer, a gourd bowl, pottery figures and jugs, a serape, a sombrero, huaraches, straw angels, stamps, and money. This wealth of instructional materials is an example of the unusual breadth necessary if adequacy of understanding is to be developed. The pilot study provides the materials for testing and evaluating in one school. The resultant recommended pattern of media-usage will extend this adequacy of understanding to all district schools.

Programming for the integrated and synchronized use of materials by teacher and coordinator provides resources which will widen, deepen, intensify, and individualize learning. "The extent to which many children and young people of today will be creative, informed, knowledgeable, and within their own years, wise, will be shaped by the boundaries of the content of the library resources available within

their schools"¹³--boundaries limited only by the wisdom and will-to-work of teachers and coordinators who realize the importance of structuring a scientific pattern for media-usage.

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Newer Teaching Methods and the Library Program in the Junior High School

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There are so many changes in the schools, and they are coming so fast these days that one is likely to become confused if he tries to keep up and feels condemned if he does not. Any self-respecting librarian will feel that he must know what is going on and try to adjust procedures accordingly, because that is the nature of self-respecting librarians. If one knows what the changes are and why they are happening, he is not likely to feel so confused or condemned, and he is not so likely to be taken in by temporary expedient shifts that have little meaning. His choices will be more selective and his decisions wiser in proportion to his understanding of what he is trying to do and why he is trying to do it. One will derive more satisfaction from his work because he will feel he is functioning adequately in his role. So also will all the other people whose activities are to influence or to be influenced by a properly functioning library. Thus it seems that one of the best things to do is review and assess the pressures that are producing changes in education, examine the changes, and interpret the effects the changes bring. Then we can review and reorganize our basic understandings so that we can correct our directions where they need correction and adapt our procedures to them.

What are the pressures that are causing teaching methods and materials to change? Some changes are a result of the slow, evolutionary improvement that follows trial and error or trial and success. There are other more insistent pressures though, and it will help us to manage them if we put them into groups, the designation of which you will recognize as being borrowed—the outer-directed and the inner-directed pressures. This dichotomy is not distinct but, roughly speaking, one is a push and the other is a pull. The pull is from within, and we can respond to that with pride and hope. We can make good responses to bad pressures and bad responses to good pressures only in proportion to the quality of our understanding and thinking in the basic areas of learning.

One important pressure under which we operate but hear little about and even lose sight of at times is the continual and almost universal pressure caused by the steady rise in the educational level of the adults whose children we are teaching. These people have had

the experience of going through most, if not all, of the school grades, and, thus having been made experts, make evaluations of what we do. On the basis of these evaluations, they make demands. Because of their experience they have a feeling about what is taught and how it is taught, and they can act only in terms of those feelings. Any deviation from what they know cannot be assessed in terms of their experience but in terms of their feelings, and they are likely to feel doubtful of its value until it is shown to them. Many good plans have been held up or stopped in some places by the resistance of these people. Schools are very sensitive, almost allergic, to a little resistance. Recently a school started to up-grade the mathematics program. Parents could no longer do or help do the homework, and there was some resistance to the change. Fortunately, there was material from authoritative and respected sources explaining the need for the changes, and some of this was in the library for those who sought information. Not many used it, but the fact that it was there helped. The same school also tried, in a very limited way, to incorporate what seemed to be some advantages in the linguistics approach to grammar. It was new and different, and there was resistance. The school was not prepared to give the assurance of authoritative and respected persons. There was nothing in the library. The plan was dropped.

There are also some adults in this group who were wise enough to recognize in their schooling the vestigial remains of an older educational plan that was used to meet the needs of another day. They know their time was used in wasteful ways, and they wonder why we have not changed. Since we are too lethargic or indifferent to change, they wonder about our ability or interest in making other changes. They do not exert much pressure. Perhaps they think it is hopeless.

Technology and automation have changed and are changing job opportunities and requirements with increasing velocity. These changes are not geared to a plan but to the exigencies of politics, profits, and progress. There is considerable concern and anxiety about the ability of the schools to produce competency in quality and quantity as fast as it is needed. The demand was so urgent that it was given top priority and there was a considerable rush to meet it. Some people thought the shift to science and mathematics destroyed a desirable balance in education, and there arose counter pressure to insure that the schools did not produce pupils who could function well only in a specified, very limited field. First the schools were rocked one way and then the other. This has been the history of most of the responses to outer-directed pressures. The only way to keep from being pushed too far one way and then being pushed too far the other way is to base our responses on a firm commitment derived from a clear understanding.

There are vocal, vigorous, well-financed and sometimes angry groups that exert pressure on the schools far out of proportion to their numbers. Members of these groups have closed themselves to

change, and they are insistent that this characteristic be extended to everyone else. They assume they are wiser than anyone else and that they have a right, even a duty, to see that everyone conforms to their patterns. Any deviation cannot be tolerated. This is a definite negation of education, and we hope that there are too many who know too much to let such a situation prevail for long, for this pressure has an inhibiting and restrictive effect upon the schools. To withstand it, a librarian must be committed, almost to the point of dedication, to the clear and basic purposes of education and have a sure knowledge of the best ways to achieve them. If the effect of these groups is to push us to clearer definitions and more carefully determined methods, then our responses will be good.

Every few days someone thinks the schools should take some of their already limited time and energy to perform a special task. Speeches are delivered, editorials are written, and committees are formed to ask or even demand that the schools correct some condition that is culturally produced or permitted to develop. Never are we told to leave anything out or undone while we do this extra task. Most of the requests are for worthwhile purposes, are presented by prestige people, and are justified on the grounds that they are community projects or problems and that the schools are a part of the community. We have seen or heard recently that the schools ought to take a day a week to teach morality, time to teach respect for the law, time to teach the relation of smoking to cancer, time to reduce the incidence of venereal disease and delinquency, and so on. Opposition on the grounds that we are already doing these things or that we have other pressing things to do often is interpreted as refusing to cooperate or even that we are against them. These pressures are frequently sudden and emotion laden. It helps if the sponsors can be shown or if the parents can be kept informed that the library has available materials for them or the pupils to use in connection with these problems. It helps if the librarian is alert to these demands and assists the teachers to make the desirable, related materials available. Often the sponsors of these drives confuse telling with teaching, and reading with learning. It helps if the librarian can show them materials that they can recognize as good and that, if our understanding is clear and our methods are good, we are teaching morality, lawfulness, and health. What is more important is that we are teaching how to learn even more about them. If the librarian knows this, then the pressures for the special programs will not disturb him or divert him from the regular performance of his learning responsibility. The librarian knows more than anyone else when the school is not using the materials to discharge adequately the school's obligations in connection with these special problems, and he is a key person in helping to encourage more use made of them.

One of the pressures causing changes in the school that is most urgent in its demands for action and most damaging to self-esteem is the pressure on our conscience. This pressure is created by what

we know pupils are learning and what we know pupils could and should be learning if the schools were functioning as well as we think they could function. Underachievement is seriously obvious in thirty to forty per cent of pupils, and limiting in many others. The distance between the excellence achieved and the excellence achievable can be narrowed to the extent that we can free the urge to full self-realization that is in every individual; also to the extent that the rich and extensive environment that is necessary to the urge toward fulfillment is available. This is an inner-directed pressure, and concern with it and study of its solution have given us an exciting vision of what man might become. What the school would have to be like in order to realize that vision challenges our best thinking and efforts. The challenge already is enlisting more people and attention all the time. At first it was the psychologists, psychiatrists, and other students of human behavior and human nature who had this concept of what man might become and the importance of the process of becoming, and they are agreeing more and more about the achievement of it. Very recently this has begun to take hold of the imagination of people responsible for the schools, and its effect is already noticeable. The prospect of being in on the changes this is going to bring about is thrilling, especially to junior high school people. It is the pupils in junior high school who are most ready to grow and expand, because it is there that they are turning their attention to the future and raising their eyes to new distances. This is the last big opportunity to release that urge to be big. Reflection reveals that to be a contributor and not a deterrent in this new impulse toward full self-realization, one must go deeper into how and why people learn and what directions their learning should take.

There are other pressures working to change the schools, but the above pressure from within and the previously mentioned pressures from without make us feel an urgent necessity to do better what we are already giving our full time and energy to doing. It is doubtful that there is much to be gained through intensification of present practice, and it is also doubtful that such intensification would be the answer. In some instances, we know it would not. It is likely that more insight or a more general dissemination of the insight of the few to the many will reveal better methods and will cause the invention of more effective materials. Many believe this, and it seems likely that any great and lasting changes will come from that direction.

The increasing realization outside the schools of the enormity and importance of education is attracting the attention of many, and they are giving thought to how this newly found importance and newly realized size can be used to personal or financial advantage. The school, and especially the person responsible for deciding, has a difficult job to know which of the suggestions are good and which just look good. The commercial purveyors of the things required by some of the new methods are persistent and have more money to promote

their wares than the schools have to study them. Such, it seems, has been the case of the teaching machines. The soundest basis for making decisions in relation to new materials is again a good understanding of how people learn, and the schools should try to help them learn.

The questions of how people learn and what they should learn are very old problems. We would like to think that the answers have already been found. It would be easy and comfortable if we could assume that the commission that formulated the Seven Cardinal Principles had given us a permanent answer to the question of purpose, but, even though the question is old, the answer must be forever new and must be an answer each finds for himself. We would like to think and often act as if we believed that the people who taught us knew the answer to the question of how people learn. Frequently we teach and choose materials as if we believed that to be so. There has been so much discovered about behavior and learning in the past few years that it is almost a repudiation of responsibility not to try to learn and incorporate the new discoveries in our educational practice.

We have not always recognized the reasons why we want to change education. There is always a dissatisfaction pushing us or a hope pulling us that results in some kind of action. Sometimes in a hurry to alleviate the pain or eliminate the irritation, we have treated the symptom or dissatisfaction rather than the cause, and the cause has worsened. Sometimes in order to reach the promised land of our hopes we have been diverted, led up interesting bypaths. Because our bearings were not clear and fixed, we got lost and confused. Almost always the distance between performance and potential has been an irritation, and sometimes our thinking has led us to hope we could find a way to correct the disparity. Sometimes we have acted as though anything is better than what we are doing at present, and we change. An example of this is the constant revision and reorganization of content and the addition of content to patch a weakness when the weakness is not always in the content. One example is the busyness of curriculum departments in every hamlet, village, and town. The thought occurs that this may be an admission that past efforts have not been satisfactory, but on the other hand, it may be that we have an idea that will prove to unleash the tremendous learning power we feel people have but which has not yet been realized. We should know what we are doing and why we are doing it and not just be changing models—rearranging chrome and designing new headlight assemblies.

One prominent reorganization of content that has many proponents is the core program. It is generally known or known generally what core is. Some of its sponsors feel definitely that it has many more advantages than disadvantages. They believe this so firmly that some of them are intolerant of anyone who thinks otherwise. There are some people who seem to think that in some situations and with some people it is not so good. To them the core is the same as trying to find one needle in a big haystack when what they are doing is

trying to find several needles in smaller haystacks. The core is a vertical organization of the pupils content-day or unit of work, and it does offer enough advantages that some adaptation of it is likely to be with us. It emphasizes purpose more than most traditional content organizations; in fact, it is based on purposes, and it requires more material than conventional organization of content. If core works as planned, the library can meet the needs only if it has a wealth of material, including much of recent production dates. The librarian needs to find some way to help the teacher use the material for learning and not just for being poorly reproduced in notebooks, reports, or projects.

The core teachers are really a team, a vertical team, but there has come into being a horizontal organization of content teachers that has been given the distinction of being called "Team Teachers." Teaming to teach has been done for a long time, and some of us have hoped that the teacher and pupils could team more often for team learning. This wish grew out of the responses some of our parents and pupils have made regarding their team-teaching classes. The concept of team teaching is being more narrowly defined so that now team teaching almost must meet certain specifications to be allowed to use the term. Form rather than purpose is emphasized, and the concept has possibilities that should be explored. Whatever form team teaching may take, it most certainly will call for more material and more pupil help from the librarian in the use of the material. If this approach to teaching fulfills its possibilities, the increase in quantity and quality that will be needed has hardly entered our imagination, and it will require an accessibility that will make most libraries out of date. The thoughts of it are staggering.

Another reorganization of subject matter that is thought by some to be millenium producing is the organization into programs. Sometimes it is presented as programmed learning, but all learning is to a great extent programmed. We learn in terms of what we already know, and when we have achieved a new stage of learning, we are then ready to learn something new and move on to another new stage. Most teaching material is programmed. Hardly anyone would write or publish a book, prepare a syllabus, or even make a teaching outline without going by developmental and sequential steps from what a pupil knows to a new level of learning. The new programmed material is almost a straight line from a known point to a new point in our plan for the goal which we have selected for the pupil. It is almost as if we had put the pupil in blinders to keep him from seeing the interesting diversions that may fill out important meanings or see the opportunities for creativity which are such a necessary part of learning how to learn. There is a pressure in using programs to go ahead and finish the learning while the memory of the last answer is still fresh in the mind. Sometimes pupils seem to be hurrying to get through with a program so that they can get on with the open-ended learning that is so satisfying and so necessary in learning how

to learn. One wonders what a person educated wholly on or with programmed materials will do when he is confronted with a learning situation that has not been programmed. But programmed teaching as recently defined has values that will affect organization and presentation of subject matter. It suggests and offers a method to the teacher with a limited concept of teaching that will eliminate some of the mistakes he would make if left to his own devices. For schools there remains the task of making available the stimulating and extensive learning environment essential to full self-realization. This is going to call for some organization to be used in connection with programmed materials that is as yet unknown as far as I know. The production and packaging of programmed material is so expensive that it is possible that the library will get even a smaller portion of the school dollar for the growth that seems imminent. Programmed material, in the instances I have observed, has about the same attraction and satisfaction as a game of solitaire, which indeed it is. It has its own uses and values and let us use it those ways and keep in mind the full purpose of education.

There are other innovations, inventions, and gimmicks that pressure of one kind or another have produced. Some of the pressures that produced them are not a compliment to the profession, but many of them are the result of someone's best attempt to find a better way of teaching or a better way of providing improved learning opportunities. Good devices properly used will make a poor teacher better and a good teacher great. Books are still the best device and, if used as they should be, the other devices will surely lead to a demand for more books, better books, and more opportunities to use books. Some people are already aware of this and have tried to rearrange the use of time so that pupils could have more of it for the very personal business of learning. Flexible and block programs and ungraded classes and special groupings attempt to do this.

The greatest change and improvement in the schools is going to come as more people generally realize that everyone has within him a deep and persistent drive toward full-realization of his purpose and potential. Really, we have known about this and called it the will to survive, but only recently have the educational implications been pointed out. To approach more closely one's full potential, it is necessary that a facilitating environment conducive to healthy growth in that direction be maintained. That environment must be rich, extensive, and accessible almost to the point of being in the way. Even a pupil whose growth toward full self-realization has been diverted or blocked, may be led, because of his basic urge, by facilitating circumstances, to redirect his growth in the direction it should go. It is within the special province of the librarian and library to provide the facilitating environment, but the responsibility is not theirs alone. This is why libraries are changing to learning materials centers and why the concept of a librarian as just a caretaker of books is no longer acceptable.

The multiplicity of forces from a diversity of directions is changing the schools and will continue to change them. Some of the changes will provide opportunities for libraries to perform more nearly the functions that are the dreams of the best librarians. Some of the changes will present obstacles which will require the best thinking and planning of librarians. The concept of teaching for learning as a continuing open-end process will require many, many more books; the concept of teaching as facilitating healthy growth toward the unique self-realization of each individual will require more books; the demand for vocational competence and high degree of excellence in specialized areas will demand more highly specialized books; the gaps in healthy growth and the dearth of creative experiences caused by two-dimensional content organization will necessitate wider use of books, especially books with a personal appeal; the reorganization of time so that more is given to study and learning on an individual basis will require more books and diversified learning materials; and as teachers become more capable in releasing the urge toward full self-realization, there will be released a force to grow which will require more books. As what is already known about junior high school pupils is incorporated into teaching practice, more books of broader scope and more diversified learning materials will be needed. Anyway one looks at the situation, a library adequate to the demands of the newer ways of teaching will require more books than most of us have imagined.

In this new, vital, and efficient school, by conservative estimate, materials from the learning resources center will be in use by one third or more of the pupils at any time during the day. A comparison with present practice indicates the expansion that seems a certainty. Few or none have faced up to the realities of the implications of what is happening. The financial and housing problems already facing those who must provide libraries for these times have had limited solutions. Most libraries of recent planning are already outmoded and obsolete; many were before they were built. The solutions of the other problems which the newer schools will face if they are to be adequate will be contingent upon the way this financial problem is solved.

To care for the increased quantity of materials of increasing diversity and at the same time provide services to the pupils and teachers will require larger staffs. Larger library staffs have been urged for several years, but the response has been limited. Not only will library staffs have to be larger but their training will have to be adapted to the new requirements of their assignments. There is already a demand for library clerks and no one, as far as I know, is training people especially for that assignment. That, it seems, is a serious and immediate problem that needs the study and attention of those in a position to do something about it. Much of what has to be done in the coming library can be done by persons with less training and at less salary than the certified librarian, but they need some

training and concept of the library program. Any clerk now brought into library work must be trained on the job by the librarian in spare time, and that training is slow and limited. No doubt study will reveal other staff and mechanical organizations or adaptations which will improve and expand the library service.

No library budget that I know is adequate. Direct efforts to change this situation are indicated and attempted in most places. The good library, which is the result of the efforts of a good librarian, will, by indirect methods, effect some improvement in library support. Plans need to be drawn up and put into operation now to show pupils already in the junior high schools the wonderful and satisfying experiences of books properly used. The influence of the library on them should be so powerful and lasting that they will think of learning, problem solving, and discovery in terms of library materials, especially books. As they feel about libraries so will they act, and they have not felt good. That is one reason libraries have such limited support now. More definite and immediate plans to develop library appreciation can be found with a little looking.

The idea that one should go to the library to use library materials is already impossible to implement and will become increasingly so. More and more will library materials have to be taken to the pupils, and the library space, what little there is, will have to be reserved to do those things that can be done only in a library. Only in a library can one practice to individual efficiency the skills of using a library, but more preparation for practice of library skills can be done now with the library—skills teaching aids are already available. Only in a library can one get the feeling of the scope of all the helpful, interesting, and answering materials to be found in books. The wide variety of material challenges one to read and to seek, but the limited variety in a classroom does not have the same impact. The diversity of information in a library provokes discrimination, requires evaluative judgments, and delays hasty conclusions, but a textbook will not do this. The feeling of the creativeness that has gone into the production of every book, revealed by contents, may inspire in one the desire to create. These feelings cannot be achieved in any other place in the school to the extent that they can in the library, and everyone needs the experiences that provoke them.

That the use of library materials must far exceed that which can go on in the library is plainly obvious, and the need of the library for more specialized purposes is also obvious. The faint attempts to broaden the use of the library so that it extends to other parts of a school and to bring into use the assistance of other persons, especially teachers, must grow into a full scale drive, enlisting the ingenuity of everyone who sees the possibilities if we meet the challenge and the consequences if we do not. Extended use of the library means coordination of plans so that requests for the same materials at the same time do not stack. It means a new method of instruction for many teachers so that more of the classroom time is diverted to

learning and less to telling and listening. It means more pupil cooperation because the teacher simply does not have the time for it; pupil responsibility for learning is needed anyway. It specifically means choosing books, pulling them, and conveying them to the classroom, and back. Doing this is really quite simple and will improve with practice.

The special characteristics and needs of junior high school pupils are known by most and knowledge of them is readily available to those who need the information. A library with dimensions, staff, and operational policies adequate for junior high school pupils would be almost adequate for any level of the schools. The level of materials may need to be different but only slightly so because the interests and curiosities of junior high school pupils have no limits. As we more nearly release the full energy of the pupils to learn and to approach more closely their full capacity, and this is being done a little more every day, any dimensions will be too small for some of the pupils. That will be the day!

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Services of the School Library Materials Center in the High School

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When North Central High School in Washington Township, adjacent to Indianapolis, was established in 1956, a statement of its educational philosophy was prepared, and reads as follows: "To give each student an unexcelled opportunity to grow according to his needs, interests, and abilities, in academic achievement, social poise, worthy use of leisure time, vocational preparation, responsible citizenship, and physical development." In accordance with this philosophy, the school library was planned and organized as an instructional materials center where a variety of materials and media would be available to enrich the curriculum, to challenge the students, to provide recreational opportunities, and to facilitate student use of every medium.

During the next seven years, new materials were added continuously to the library, and its services were expanded greatly. However, rapidly increasing school population resulted in overcrowded conditions in the library as well as in the entire school. Consequently, a new seven million dollar building was constructed and opened in September 1963.

The librarians were invited to assist in planning the library in the new building. Visits were made to other libraries, and frequent consultations were held with the architect and school administrators. Early in the planning stage, the decision was made to follow the subject divisional plan for the library, because it was generally agreed that this type of physical arrangement would best suit the needs of students and faculty and be more adaptable to modern methods of teaching. According to Dr. Harold Gores of the Educational Facilities Laboratory, "Educational change has architectural consequences." Careful planning and preparation paid dividends, and now the new library, in full swing, is literally "a librarian's dream."

Composed of fifteen rooms, the library suite is located in the center of the first floor, to the right of the main entrance to the building and adjacent to the teachers' lounge and general offices. In a glass-enclosed lobby are a charging desk, an elongated card catalog four drawers high, filmstrip and slide cabinets, Reader's Guide table, and three sound-proof listening booths. Behind the charging desk is a magazine stack room which provides ample space for

storage of back issues of periodicals. Adjacent to this room are a large, well equipped work room and a librarian's office.

The materials collection is housed in five rooms separated by glass partitions, each room seating from fifty to sixty students. Curricular needs determined the division of materials into separate areas for: social science, pure and applied science, and the humanities. A large browsing room with informal upholstered furniture serves recreational needs by housing fiction, story collections, biography, paperbacks, newspapers, magazines, and recordings. The fifth area, in a central location, is a general reference room where encyclopedias and general reference books are shelved. Vertical files are also in this room. Other facilities which make up the library suite are a classroom, conference room, teachers' reading room adjoining the faculty lounge, audio-visual workroom and office, dark room, and recording room.

So far as possible, the plan has been to provide in each subject area room all of the materials for the subjects included. Periodicals, recordings, reference books, reserves, and dictionaries are in each room; and eventually listening tables will be provided with record players and tape recorders, for individual listening with ear-phones.

Unexcelled and luxurious physical facilities, important as they are, however, do not make a library. The materials and services provided for students and faculty are paramount, and these the librarians attempt to supply to the best of their ability. Books, the chief stock-in-trade of all libraries, are geared to a preponderantly academic, college preparatory curriculum. Numerous adult and college level books are provided for the large number of serious, mature students. Many teachers assume an important role in book selection, particularly in science, social studies, foreign language and English; and are continually on the alert for new and additional library materials to enrich their curricula, to challenge the developing minds, and to inspire students to greater achievement. They regularly check such book selection sources as ALA Booklist, Library Journal, Book Publishing Record, Saturday Review, and the professional journals of their own teaching fields, and make recommendations for purchase. The librarians depend almost entirely upon the teachers of chemistry, physics, mathematics, and foreign language for the selection of materials in these subjects. These teachers attend summer workshops and seminars, and take advanced courses in which they learn of new materials useful in their teaching. Students, likewise, make frequent suggestions and requests for books and periodicals such as The Wall Street Journal, National Observer, and Great Books of the Western World. For the accelerated students, of whom the school has many, and those who participate in the Advanced Placement Program, the librarians have an especially important challenge in providing materials to meet their needs.

For these students, as well as for the average and below average, a variety of materials and media are used. As previously stated, periodicals are provided in each subject area room, and duplicated in the browsing room. Subject cards for the catalog are made, on colored stock, for vertical file material in order to facilitate its use. A special vocational information area is maintained in one room, where all such materials are brought together and are easily accessible. Likewise, one corner of the browsing room is set aside as a College Information Center, containing catalogs, directories, year-books, and books on college guidance. Here also are the sound filmstrips which have been made to give prospective students information about the colleges. A Counselor sound filmstrip projector with ear-phones is provided in the library, as well as in the Guidance Center. Counselors frequently recommend these materials to students. Librarians work closely with counselors and meet with them, on occasion, to keep them informed about new materials.

Other types of materials provided in the library are films, filmstrips, recordings, instructional tapes, dictation discs for shorthand, slides, maps, and pictures. These are all centrally housed and are cataloged (with the use of colored cards to designate type of material).

The Foreign Language Department, perhaps more than any other, uses a variety of materials, most of which are requested by teachers. The Circling the Globe with Speech records in French, Spanish, German, and Russian are used both in the library and in the classrooms. Other materials used are: Latin tapes, colored slides of many countries, colored costume cards, recordings of folk music and literature, pictures, and color prints of foreign art. Language laboratory tapes, films, and filmstrips are also used.

For Social Studies, books, recordings, and filmstrips are correlated with the curriculum. An extensive collection of maps, globes, pictures, histograms, charts, and graphs are used. Many quality paperbacks in Social Studies are requested by teachers. Some of these are the Berkshire Series in European History, Problems in European Civilization, Problems in American Civilization, and Ann Arbor Paperbacks. The new Life History of the United States, with its accompanying records, has been enthusiastically received.

In this school the Mathematics Department makes extensive use of the library. One advanced course has no textbook and depends largely upon library resources for its content. The teacher frequently brings the class to the library for exploration and free and assigned reading. Some of the better students are excused from class to do independent study in the library. Many paperbacks, selected by teachers, are used by this department. Among these are the series: Exploring Mathematics on Your Own; School Mathematics Study Group, Thinking with Mathematics, and Topics in Mathematics.

Recordings for Music History and Appreciation courses are provided, as well as records for personal enjoyment and recreational

listening. For the Art Department, a set of 600 colored slides of great art masterpieces was purchased to be used in Art Appreciation. The Art Department also provides the library with loan exhibit collections from the local Art Institute. These exhibits afford a good opportunity to promote books related to the subjects exhibited.

Chemistry and physics teachers use many books to supplement the text. The PSSC Physics films and Chem. Study Chemistry film series are rented each year and are integrated with the course of study. Plans are being made to tape lectures given to large groups by teachers participating in team teaching, and to have these tapes available in the library for individual study, review, and make-up work by absentees.

The English Department, traditionally one of the largest users of library materials, has requested many paperbacks which will provide multiple copies of the classics, without too much strain on the library budget. Many recordings of poetry and poetic form, Shakespearean plays, American, English and World Literature are used, as well as filmstrips, pictorial literary maps, and pictures. A special service supplied by the library is to send blank tapes to the Purdue University Audio-Visual Center to have copies made of their literary programs broadcast by the university radio station. These tapes are kept in the library and used by English teachers. A recent acquisition is the set of the Encyclopedia Britannica Humanities films, which are integrated with the curriculum in the English Department. To supplement these films, librarians suggest books and other materials.

Team teaching is done extensively in this school and affords an opportunity for the use of a multiplicity of library materials. This type of teaching, particularly in science and mathematics, lends itself especially well to the use of the overhead projector. Many projected materials are made and filed in the library. A full time audio-visual specialist, added to the staff this year, works with teachers in the preparation and use of all types of visuals, graphics, and classroom materials. Part of his time is devoted to teacher-demonstrations and in-service training, working with individuals and groups and in cooperation with department chairmen.

All of the latest types of equipment for this purpose have been purchased for the audio-visual workroom, a part of the instructional materials suite. These include a dry mount press, primary type-writer, Thermofax copier, Projecto-Printer, drawing board, and all types of lettering devices. Facilities are provided for doing any phase of graphic arts and photography, including air brush, high contrast work, and photo sketching. A copy camera, as well as other photographic equipment, including an enlarger, have been purchased, and a dark room is also included in the materials center.

Another service which the library is planning to provide is making copies of pages from books and periodicals by means of an electronic book copier. Also under consideration is the installation of a Docustat

coin operated copying machine which would enable students to make copies of articles in reference and reserve books and periodicals. This would alleviate the pressure involved when teachers assign the same topic or magazine article to an entire class, and would probably discourage the mutilation of library materials.

For several years the school has followed the practice of inviting well known consultants in special fields to visit the school, and to speak to teachers and students. These lectures have been taped and are available in the library.

The head librarian, who has the status of department chairman, attends the principal's weekly meeting with department chairmen, and is thus better able to keep informed about forthcoming activities and events which might involve the library and in which the library might participate. For example, an announcement was made regarding a special day to be designated as "How to Study Day," when each teacher would stress methods of studying his particular subject, as well as better methods of studying in general. The library forthwith prepared a bibliography, which was distributed to all teachers, and utilized a display case in the corridor and a special exhibit in the library to call attention to materials useful on this subject.

Through the cooperation of the Music Department, the Indiana University School of Music has for the past three years brought a series of operas to the school, given after school for the student body and for adults in the evening. For each of these, the library has arranged displays of materials to give students background information to enhance their appreciation of the opera.

Working with the parents' organization is another important phase of the school librarian's work. In this school, the Triangle Club makes a generous donation to the library each year, and the Library Committee cooperates with the library staff in determining how the money is to be spent. Such things as the Harvard Classics, Great Books of the Western World, and duplicate copies of great literary masterpieces have been purchased in this way, as well as extra items of audio-visual equipment, paintings, and art work. Last year the Library Committee took on the project of mounting and laminating pictures for the library. Currently, they are concerned with having a tea and open house to show the new library to the community.

The library, obviously, provides the usual services such as bibliographies, (sometimes done cooperatively by teachers, students, and librarians), routing professional magazines to teachers, lists and notices of new materials, classroom collections, integrated instruction in the use of the library, orientation for new students and teachers, faculty and departmental meetings in the library, conferences with teachers, assistance with film and filmstrip utilization, book talks, circulation of display materials, and even display letters to teachers. Motivated by the desire to offer students every possible opportunity to use the library, the administration has provided for extended library hours after school and in the evening and on Saturday.

A summer library program is also in operation. This extended school library service helps to relieve the pressure of teen-agers' use of the public library.

This school has been most fortunate in having administrators who are library minded, who encourage experimentation, and who are willing to provide the staff, budget, materials, equipment, and physical facilities so necessary for good library service as it contributes to quality education. While the staff is not adequate for all of the services the library attempts to give, and for the rapidly increasing enrollment, the administration is gradually providing additional staff members, having added three since September 1962. There is now a total of three full-time professionals and two clericals. Also, this year a Coordinator of Secondary School Libraries was appointed, and centralized ordering and cataloging are being instituted. As additional librarians are added to the staff, the administration envisions having a subject specialist for each of the subject area rooms. The community is one which desires the very best educational opportunities for its young people, and is willing to pay for them. This situation offers a great challenge to the library staff.

For the head librarian, it has been one of the most rewarding experiences of a lifetime to come from a school with a traditional "book library," where there was complete separation of printed and audio-visual materials, to establish a new library motivated by the instructional materials center concept. Only by experiencing these two widely differing patterns of school library service can one really become fully aware of the limitations of the traditional school library and judge the efficacy of the newer approach to learning through the use of a wide range of media. Unquestionably the materials center concept provides fuller, richer opportunities for learning and teaching, and contributes to the quality education which we are so earnestly striving to give our young people today.

The School Library Becomes a Materials Center: Stages of Development

Cora Paul Bomar

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At this Institute we have been concerned with examining research and practical experience that support the concept of a school library materials center; we have learned of new resources for the school library materials center, and of patterns for organizing and processing these resources. We have spent some time discussing the planning of facilities to house the school library materials center. We have also had presented to us exciting descriptions of school library materials programs that exemplify desirable use of the school library materials center by both teachers and students.

The topic for consideration in this paper, "The School Library Becomes a Materials Center: Stages of Development," is not an easy one to tackle for it is at this point that we are charged with the task of attempting to answer the question, "How does the school library become a materials center?"—or another way of phrasing the topic is, "We are ready and willing, how do we begin?"

I have approached this assignment wondering what could be said that has not already been covered. But, I am happy to have this opportunity to share with you a few elementary beliefs, activities, and programs that may reinforce what you are already doing, or may give you, who are school librarians, the courage to implement plans for the further development of your school library materials center.

In attempting to answer the question ("How do we begin?"), it is essential for the individual school librarian, or the library supervisor, to know what his own philosophy is and what his own point of view is concerning the school library materials services. This has been brought out by other speakers who have mentioned this directly or by inference. Since this is fundamental, I shall assume for a few minutes the role of the individual school librarian, and at the same time I hope I represent all school librarians, when I state my own philosophy which is as follows:

The school library—like the school of which it is a part—exists for one basic purpose: the education of children and youth. This central purpose remains constant and has been so since the first school library was ever established.

The school librarian is a participating member of the school faculty that makes up the team that is charged with providing the best possible education for children and youth in a particular school. This is basic!

The school library materials center concept is an approach to the implementation of the basic purpose of the school—the education of children and youth.

I do not have to substantiate this philosophy for you probably would not be attending this Institute if you were not already sympathetic toward the school library materials center concept as a new approach in making available, within a school, many media of instruction. However, I do often have occasion to interpret this concept to school librarians, administrators, classroom teachers, boards of education, and other governing bodies. In doing this I have found the use of transparencies and slides to be effective in reinforcing my points. For example, one transparency on "What's New?", with three overlays, is very effective. The first overlay lists some new trends in instruction: TEAM TEACHING, LARGE GROUP INSTRUCTION, INDEPENDENT STUDY, ADVANCED PLACEMENT, PROGRAMMED INSTRUCTION, and OFF CAMPUS LEARNING. The other two overlays are made up of a hodge-podge of words depicting services, materials, organization, and facilities needed to support the new trends in instruction. The words appear on the overlays as rays leading to the central theme, "What's New?" These words are: many locations, extended hours, microforms, multi-media, research, study carrels, flexible schedule, faculty space, movable stacks, more materials, A-V coordinator, and continuing education.

As a part of my philosophy I know—accept—and promote these Key Ideas:

The Instructional Materials Concept is here to stay! The old question, "Should we handle audiovisual materials?" has changed to, "How should we handle them?"

Many forces promote the IMC. These forces include changes in curriculum content and teaching methods, and the needs of teachers for assistance in selecting, locating, obtaining, and using varied instructional media.

Each media has special values, and some limitations. Handling all types of instructional materials through one agency—the school library—promotes balance.

Methods must fit purposes. Whatever plan is used in handling instructional media, service is the thing that counts. Whatever is done about selecting, housing, arranging, organizing, processing, and circulating audiovisual materials and equipment must be decided in terms of the needs of the individual school.

Problems must be faced and overcome. The problems arise from inadequacies in budget, staff, facilities, and selection aids.

We know more than we think we do. Basic principles for the selection, organization, and use of library materials apply to audiovisual as well as to printed materials. Machines are getting simpler all the time! They neither bite nor talk back.

We must begin where we are. We have to begin where we are now and work gradually to improve.

We must think big! The opinions and expectations of students, teachers, and administrators concerning the school library depend upon the vision we have of our work.

As I establish within my own mind key ideas relating to the school library materials services, I must necessarily define and delineate these services. This has already been done in many ways at this Institute; however, I invite you to follow my thinking as I define them. I think of the areas of service as circles that intertwine, separate, overlap, contract, and expand according to size of school and available space for facilities. At no time, however, do I envision any one of the services being eliminated. In the one-room library in a very small school many of the circles would overlap for the same space area could be effectively utilized for more than one activity. In the school with a large enrollment the circles would expand and multiply to meet the needs of the large student body and diversified curriculum. The sketch on the following page illustrates this. Many of the circles located in the School Library Materials Center overlap into the classroom for facilities for listening, viewing, and reading and are essential to teaching and learning in the classroom.

The areas of service are translated on an architect's drawing as building plans; however, the arrangement of the space areas must be designed by the architect to meet the needs of the individual school. The school library supervisor and the school librarian's task is to identify areas of service and to interpret to the architect relationship of the various services. Design of facilities is the task of the school architect.

After an identification has been made of the areas of service, the school library materials center has to contribute in promoting the single purpose of the school—namely the education of children and youth, it is then necessary to work together as a part of the faculty team. This might be to:

Study and interpret the need to centralize materials.

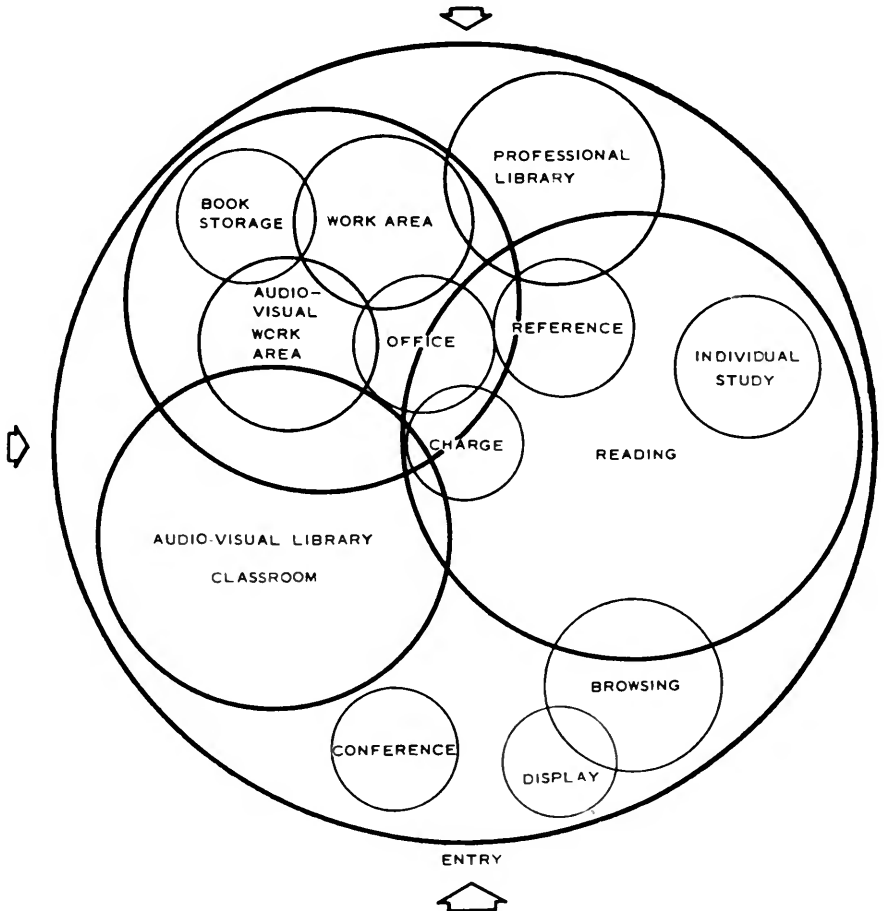
Where are materials now located in the school?

How are these materials organized?

Who administers them?

A first step might be the simple one of taking an inventory. Can you imagine a business, with a similar investment as that found in most schools, not maintaining an inventory? I do not recommend that a school librarian do this on his own; this is a team activity.

After the school knows what it has, it is ready to start bringing the instructional materials together to be organized, indexed, or cataloged. Filmstrips are excellent audio-visual media to begin with for filmstrips require very little housing space and can be cataloged as books are, or can be indexed in a less detailed manner. It may be that most equipment and some instructional materials should never be housed in the center itself, but all instructional materials and equipment should be organized and administered by the center. Usually equipment is located where it is most often used except for "spares" and types used sporadically by several teachers or groups.



The School Library Materials Center

Set up simple and sound distribution or circulation patterns for materials and equipment.

Set up a budget, based on research and statistical data, for centralizing purchases of all materials and equipment.

Assume the role of a specialist in the selection of the various media. This carries with it the responsibility to know selection sources and to have competencies essential to the evaluation of materials.

Begin with what the present library can manage, and the rest will follow.

Point out the values of school library materials services whenever and wherever possible. One excellent method is by providing the level of services that will set a good example.

Remember to use audio-visual materials and equipment as an integral part of the services to students and teachers, within the confines of the library.

This is a big order if the individual school librarian thinks he must do it all alone. The library supervisor has a responsibility to assist whether he be a state, county, or city school library supervisor. Working as a member of the administrative staff he:

1. Interprets functions: to the library and education profession; to governing bodies, including boards of education and legislative groups; to PTA's, Citizens for Better Schools, and other school related groups; to lay groups. The use of visuals and statistical data are two effective techniques to explain.
2. Promotes multi-media concept by including all types of media in subject bibliographies and by incorporating multi-media services in state standards.
3. Develops and implements standards as a part of the team. The supervisor participates in the evaluation of services as related to standards.
4. Publishes, produces, and distributes aids such as bibliographies; guidelines for evaluation, selection, acquisition, organization, and utilization of various media; transparencies, films, filmstrips, and recordings as well as guidelines for servicing equipment. This is opportunity unlimited!
5. Directs in-service programs on school library materials services by such activities as direct instruction, group projects, demonstrations of newer media, credit, and non-credit courses. The library supervisor also serves as a resource specialist to other in-service programs in the state or in the school system. This is opportunity unlimited!

6. Directs and participates in conferences on a multitude of topics directly and indirectly related to the school library materials center concept.

7. Serves as resource specialist to curriculum committees, publication committees, workshops, and conferences.

8. Encourages librarian and other faculty members to visit and observe in action good school library materials center such as the Knapp School Libraries.

9. Assists in the preparation of realistic budget requests to finance school library materials centers.

10. Encourages the establishment of demonstration libraries that administer a full program of materials services. Seeks foundation or other type grant support.

11. Encourages teacher and library education institutions to incorporate the school library materials center concept in their training programs.

12. Encourages schools with quality school library materials centers to participate in teacher and library internship or practice work programs.

13. Recruits qualified staff.

Many of these activities of the library supervisor can be just as easily assumed by the librarian in the individual school.

The school library supervisor does not work alone. He finds ways to work with and to solicit help from other staff members, professional organizations, and governmental agencies with responsibilities for interpreting and promoting the school library materials center concept. Some of these groups have already been identified by other speakers at this Institute. There are, however, three documents that I wish to call to your attention as having had great influences, in my own state, on the development of libraries that are striving to become materials centers. One is Standards for School Library Programs,¹ and the other is the policy statement of the Chief State School Officers, in the Responsibilities of State Departments for School Library Programs.² These two documents were developed by the two groups that have determined to a great extent school library development in the United States. We find The Evaluative Criteria: 1960 Edition,³ and especially its "F Section: Instructional Materials Services—Library and Audio-Visual," another instrument in influencing secondary and junior high school library development.

Experimental programs and special projects are also utilized to accelerate the development of instructional materials services. You are familiar with many such projects and programs. I cite one exciting project—The Shaker Heights, Ohio F.A.E. Project which was

initiated last year. This three-year project, financed by the Fund for the Advancement of Education, involves two elementary schools and has as its main objective the helping of pupils in the fourth, fifth, and sixth grades to become independent users of instructional materials by mastering library and study skills. The libraries in the two schools are Learning Centers with superior book collections, ample collections of filmstrips, teaching tapes, flat pictures, overhead transparencies, facilities for independent study using multi-media, and the creation of semi-separate areas within the room to facilitate carrying on several different activities simultaneously. Another feature of the F.A.E. Project is the availability of a technician who produces transparencies for the overhead projector for both pupils and staff members. Traditional scheduling of library periods has been eliminated; instead, staff members permit and urge children to take advantage of the resources of the Learning Center as the need arises, thus shifting the emphasis from the teaching process to the learning process. It is predicted that results from the Shaker Heights F.A.E. Project will make a significant contribution to the independent use of multi-media by the student within the elementary school library.

In summary, one could state that it is our job to develop libraries that are materials centers and learning resource centers. This rate of development is affected by the following points:

A. Staff time. Sufficient personnel and effective utilization of staff are essential. When the school library materials center moves from a one-man operation to a staff operation, careful consideration should be given to effective staffing patterns that include job classifications which will provide the varied competencies needed to give the desired services. It is in this area that sound recommendations should evolve from the profession.

B. Staff preparation. School librarians need competency in printed materials, audio-visual materials, and instructional methods. Developing such competency calls for broader pre-service preparation and more and better in-service training. In addition, the technician, the subprofessionals and the library clerk need special competencies and training.

C. Technical processes. The individual school library materials center should be free of technical processes to the extent that it is feasible and possible. System-wide and even multi-system processing centers should be encouraged.

D. Selection aids. Evaluative sources to help locate and select audio-visual materials are woefully inadequate; however, the situation will be improved with the publication of the Educational Media Index in 1964.

E. Budget. Granted that present sources are inadequate, the school library should acquire at least a minimum collection in each media and add materials in areas of greatest need and demand.

The profession has the opportunity to exert its energies to the important task of affecting effective ways of making all learning media available to the student at the right time, in the right form, and at the right place. And, as Oliver Wendell Holmes so ably put it, "I find the great thing in this world is not so much where we stand as in which direction we are moving."

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Future Possibilities in the Development of the School Library Materials Center

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Previous papers have presented both philosophical and theoretical aspects of the changes and developments that have been taking place in the school library field. These have been supplemented with considerations given to the practical problems arising from the newer media being used in modern teaching programs and the role of the school library at all levels in servicing the needs of students and teachers who are using successfully these multi-media resources for more effective learning.

To maintain perspective while projecting one's thoughts into the possible future developments of the school library as an Instructional Materials Center is both difficult and perplexing. In a country as vast and complex as ours, where basic patterns of education vary greatly from section to section, and where each area has its own deep seated roots in the past, no single pattern of education or of school library programs emerges clearly. The fifty states have fifty patterns, and within each state there are great variations among the schools of teaching methods, of library service, of the type and amount of teaching materials made available, and of the administrative patterns for servicing book, pamphlet, periodical, audio, and visual resources in a school or in a school system. This complexity, as we know, stems from the fact that our federal constitution delegates the responsibility for educating children and youth to the states, who in turn delegate the responsibility to the citizens of each community. The people alone can decide whether they want to provide quality education with functional school facilities and adequate or superior learning resources, or, whether they want to provide for the bare necessities of teaching as required by state regulations. Leadership, or the lack of it, at the state and local level determines to a great degree what is provided for the children of a state and community. Even within a school district itself, inequalities of school plants, school facilities, teaching staff, and instructional materials may be very apparent to anyone concerned with the problem and willing to take the time to investigate.

Many writers, critics, and students of American education today paint a very gloomy picture of the products of our modern methods of teaching. By reading such accounts one can become easily

discouraged and upset. But in visiting schools throughout the United States, exciting programs of quality education attested by the records of the graduates of these schools can tell another story. Many of these schools are in communities that for years have shown leadership in educational advances. The citizens in these areas have elected school boards who have sought and brought to each community school administrators and teachers who are educators in the real sense of the word, and each community has continually supported the educational needs of the schools to keep them abreast of changing times.

Progress in any field is usually very slow. We often have to look backwards to the past to see clearly what progress has been made, for day to day changes and developments are hard to discern. But we need to stop now and look at the present and see where we are. We need to look for signs of change and of trends pointing toward the future. We need to see if we can find evidence in schools throughout the country that the philosophy, the concepts, and the programs discussed at this Allerton Institute are actualities in some of our schools today.

An extensive study for the United States Office of Education has been undertaken with money from Part B of Title VII of the National Defense Education Act to identify school libraries that function as instructional materials centers. This study does provide evidence of emerging patterns of administration and shows that resources of all types of instructional materials are a part of the school library program and are to be found at all levels of the educational ladder.

A few general facts regarding the Status Study might well be cited at this time. In order to locate elementary, junior, and senior high school libraries that do function as instructional materials centers, information was sought from each of the fifty states through the state, county, city, and town school library supervisors or from the state educational agency if there were no school library supervisors. The study was limited to school libraries identified by library supervisors as those functioning as instructional materials centers and/or to those that are in the beginning stages of such development. The supervisors were asked to star those schools which were considered to have outstanding programs of service and resources which qualified them to be designated as having school libraries which function as instructional materials centers as defined by the 1960 national standards of the American Association of School Librarians.¹ The director of the study visited as many of these school libraries as was possible with time and money available. Where there were no supervisors, it is very possible that many schools have not been identified whose library programs do fit into the limits of the study. Questionnaires were prepared to use in these schools, and some questionnaires were given to the school library supervisor to use in other schools in the system visited that had similar library programs and

resources. A few of the schools visited did not fill out the questionnaire. A total of 229 elementary schools, 88 junior high schools, and 181 senior high schools were a part of the study. These schools are located in twenty-eight states. At least one or more school libraries were located in seven out of the eight regions of the United States listed below and have resources, staff, quarters, equipment, and budget that place them in the first group of school libraries identified by the study. Complete figures will be given in the final study, and many of the tables shown as transparencies at the conference will not be included in this shortened report.

Data relating to the regional picture of library supervisors, library education, and schools participating in the Status Study can be summarized as follows:

- Region 1. New England. 6 states
 - 3 states have state library supervisors
 - 5 states have programs of library education
 - 3 states participated in the U. S. Office of Education Status Study
- Region 2. Mideast. 5 states + Washington, D. C.
 - 5 states have state library supervisors
 - 4 states and Washington, D. C. have programs of library education
 - all states participated in the study
- Region 3. Great Lakes. 5 states
 - 4 states have state library supervisors
 - all states have programs of library education
 - all states participated in the study
- Region 4. Plains States. 7 states
 - 2 states have state library supervisors
 - all states have programs of library education
 - 1 state participated in the study
- Region 5. Southeast. 12 states
 - all states have state library supervisors
 - all states have programs of library education
 - 10 states participated in the study
- Region 6. Southwest. 4 states
 - 2 states have state library supervisors
 - all states have programs of library education
 - 1 state participated in the study
- Region 7. Rocky Mountains. 5 states
 - 2 states have state library supervisors
 - all states have programs of library education
 - no state participated in the study

Region 8. Far West. 6 states

5 states have state library supervisors

5 states have programs of library education

3 states participated in the study

Another breakdown shows that there were twenty-six states that were identified as having 229 elementary school libraries administered as instructional materials centers. Seventy-nine of these schools were visited. These programs range from beginning stages to those school libraries having quarters, resources, equipment, and budget planned specifically for administering the library as a resources center for the school. Virginia, Florida, North Carolina, Indiana, Kentucky, Louisiana, Minnesota, and Washington each have from ten to forty-five such schools identified in the study. At the junior high school level there are twenty-one states with 88 school libraries identified as instructional materials centers. Thirty-four of these libraries were visited and Maryland, Florida, and Virginia each have from thirteen to sixteen such school libraries identified. Twenty-six states have at least 181 high school libraries identified as materials centers. Florida, Illinois, Maryland, North Carolina, and Virginia identify from ten to nineteen such school libraries, and over 105 were visited. These findings give further evidence that the "Instructional Materials Center" concept of the school library program is being implemented in many of our schools throughout the United States.

In visiting the schools, it was possible to observe a few other trends which will be noted in fuller detail in the final study. In all of the schools of this study that might be rated as having outstanding programs of library service, it was obvious that there were school administrators who were cognizant of the role of the school library as a learning center and who were working with their school librarians to integrate the library program and its resources into the educational dynamics of the school. Excellent programs of library service with flexible scheduling, individualized learning activities, and evidence of teacher-librarian planning to make effective use of resources available were also noted in these schools. Quarters planned to make possible the use of the library during evenings, Saturday mornings, and summer vacations were found in various parts of the country. Centralized processing ranging from the cataloging of all types of resources to the cataloging of only books or only audio-visual materials was found in school systems throughout the country. Processing for all schools in the system or county was handled in only a few places. Other systems which are newly providing this service, catalog materials for elementary schools only, for new schools, or for those schools having limited library staff members. All systems with centralized processing had plans to include eventually all schools in the system. A few of the larger

centers have already set up data processing programs for central purchasing and processing and more are in the planning stages.

New schools which are being planned in states such as Florida and North Carolina all include a school library as an essential part of the elementary, junior, or senior high school plant. In Florida, particularly, the library in each school is planned as a resources center with space and facilities for group and individual reading areas, office and workroom areas, and storage space designed to care for all the many types of library resources needed in a school today. Storage for books, vertical file materials, periodicals, films, filmstrips, recordings of tapes or discs, models, charts, realia, and professional materials for teachers are included in the building plans, and approved by the state architect and school library supervisor. Storage of equipment needed for these many learning resources are also planned as an integral part of the quarters of the school. Where the various types of equipment are located will depend on the type of school plant. In a one building, one floor school, in a campus type school, in a school within a school, or in a many storied school, storage locations of equipment will vary. In some plants the library quarters are functionally planned to care for projectors, screens, etc., and in other schools these will be located in each building or in each wing where they can be used more readily. But their location and use are a part of the administration of the library. The amount and type of equipment located in a school may also depend on whether the school system has a District Instructional Materials Center to supplement the resources and equipment located in each school. School plants vary as to the provision made for radio and television studios, preview and video laboratories, dark rooms, materials production area, outdoor reading areas, and a faculty professional library. But all of these areas are found in some of the schools identified in the Status Study. In many states more and more interest is being shown by school boards, schools administrators, and librarians in planning for functional quarters to house and to administer the multi-media resources being added to the school library. From letters and floor plans received since the visits were made to these school systems, it is obvious that many more schools could be identified as instructional materials centers if the study were being started in 1964 rather than being completed in that year. The trend is in the direction of an enlarged scope of library services, of resources, and of quarters for the school library of tomorrow. It is to be hoped that staff and budget will keep pace with these resources and equipment.

More of the schools meet the AASL standards for the school library in respect to holdings of books, periodicals, professional collections, and audio-visual resources, and in respect to quarters, than is true for budget and for staff. Fewer schools meet the standards for staff members than for any other category. Yet if the library program and resources are to be expanded to take care of the needs of increased enrollments and of newer teaching methods then

more attention must be given to providing adequate staff to care for the handling of these resources and services. No other type of library provides so inadequately for staff members as does the school library, yet no library staff works harder than do most school librarians to provide adequate and superior services for patrons. Implementation of this phase of the AASL standards is almost more important than any other aspect, for with adequate staff who have good professional preparation for selecting, processing, and servicing all types of library materials, the school library program of service will move ahead at a far greater speed than is now evident in many of the schools in the country.

If the data presented thus far is an indication of future trends in school library development, then it seems fair to say that the school library of tomorrow will have many of the characteristics of a multimedia center for individual, small group, or large group learning processes. No one pattern of design is more prevalent than another but flexibility of structure, expansion of resources and services, mobility of resources and equipment, and specialized preparation of staff members are more than straws in the wind.

Implications of these developments in the school library field are highly significant for library education. The second part of the Status Study deals with the opportunities available today for library education at the undergraduate and graduate level. Only a few highlights can be cited here. Forty-seven of the fifty states offer in 351 universities either undergraduate or graduate programs of library education or both. Twenty-one states have a total of 36 accredited library schools. With ten additional states having graduate programs ranging from a major to less than a major of graduate library education, there are a total of 86 schools in 31 states and Washington, D. C. offering graduate courses in library science. Approximately 351 universities offer undergraduate library programs. Forty-nine institutions offer less than a minor, 243 offer an undergraduate minor, and 60 offer an undergraduate major. These findings have been taken from college catalogs and may not represent all the programs and especially those that are offered in the summers only. Tables in the Status Study will show where these programs are available and the emphasis given in course offerings to the selection, organization, and preparation of non-print materials as well as the traditional book and print materials offered by library school programs. If catalog descriptions are accurate, then two-thirds or 226 of the programs of library education today do take into account the need for preparing school librarians to administer a school library as a materials center. State requirements for teacher education also reflect the trend in requiring of teachers and school librarians preparation in the handling, evaluating, utilizing, and producing of audio-visual materials and equipment. Thus library education is also changing to meet these needs.

Great interest throughout the country is being shown in workshops, in in-service training programs for school librarians and teachers in the handling and utilization of audio-visual resources available today, and in institutes dealing with the total concept of the instructional materials center. These all give evidence of the need of the profession to reflect on the changes taking place very rapidly in many of our schools. In our school libraries there is a need on the part of school librarians to acquire knowledge and confidence in the securing and handling of newer resources in the audio-visual field, and in the devising of new techniques for old and new services. Library educators, library supervisors, specialists in communication and in media production and programming, curriculum coordinators, and school administrators all need to work to build understanding of the educational needs of our schools today, of the psychology of learning in relation to reading and the newer media of communication and of the expanded role of the school library as a resource center for reading, learning, information, and research. Along with this must go recruitment, research, new experiments, new certification requirements, and experimental programs in the preparation of personnel for the instructional materials center.

The future holds promise for change. The past has proven that school libraries are capable of making changes. This has been shown by the leadership of the schools that have continued to point the way ahead to meet the needs of the institutions they serve. Library education has likewise never been static and is now again in the process of developing programs to meet the challenges of the future. These changes are not to be found in all school libraries nor in all library schools. But interest on the part of the profession is growing, and demands and changes in society itself will be reflected in the changes seen in the schools and library schools of tomorrow. Not only will school libraries at all levels function as instructional materials centers, but district and regional centers will also increase in number to supplement and to enrich the resources and services now available. Leadership, experiments, and research are all needed, and ways must be found to secure public understanding and financial support for a program that helps to bring quality education within the reach of every child and helps to provide for his individual need and capabilities.

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