A SCHOOL LIBRARY MEDIA RESEARCH PROGRAM FOR TODAY AND TOMORROW: WHAT, WHY, HOW

An examination of the basic components of research as they apply to the school library media field.

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For forty years, the school library media concept has been blooming and developing in education. During this growing period, school librarians, audiovisual directors, and, more recently, school library media specialists have been carving out a position in the school that has been labeled the "heart of education."

If all the school library media specialists from the 85,000 public schools in the United States were to assemble, they would fill the largest football stadium to overflowing. What a meeting that would be! Of course, they would be a heterogeneous group, but all would be engaged in a common goal of becoming an indispensable element in the educational process. For the purposes of this article, let us assume that school librarians, audiovisual directors, and school library media specialists are united in a single discipline, which will be referred to as the "field" or "profession" throughout this article. A further assumption is that this united profession has a desire to build a strong knowledge base, which will help to create theories, clarify practices, and solve the problems that confront all library media specialists in times of economic stress or times of plenty.

If this united profession is to build a strong knowledge base, then there must be a strong and coordinated program of research. A research program that will be a credit to the profession must have three important components that operate simultaneously and in tandem. The three components are:

1. conducting research
2. synthesizing and evaluating research efforts
3. disseminating research results.[1]

The purpose of this article is to explore these components to show how each should work and to give some proposals to the profession on how each component could be improved.

CONDUCTING RESEARCH

There are three types of research that professionals can conduct: basic, applied, and locally based research (often called action research). The differences among these are im-

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portant for professionals to understand since the results of efforts to resolve the problems of the field will be determined by how well the principles of each of the three types are applied.

Basic Research. F. N. Kerlinger, the noted researcher, equates basic research with the term *scientific research* or, in his view, theoretical research. He states, "The basic purpose of scientific research is theory . . . to understand and explain phenomena. . . . A theory presents a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena."[2] An example of basic research from science would be the flight of *Voyager II*, which made so many new discoveries about Saturn's rings and overturned many previous theories based on the measurements of more primitive space-detection instruments. An example that would have an impact on the library media profession is the basic research on the right and left side of the brain by Sperry, Hubel, and Wiesel.[3] As the details of brain development and how the brain processes information are understood, educators can then be much wiser in tailoring educational strategies to take advantage of the brain's innate capacity. No matter what seems true from the practical world of experience, it is always possible that a basic or scientific research finding can change the entire outlook. That type of change should be expected.

The basic research that is drawn most heavily upon in library science and educational technology is that done by other disciplines such as psychology and sociology. An example of some basic research in the library media field is the study of information structure, transfer, and behavior.

Applied Research. A second type of research is that which tries to solve practical problems in the real world. In the *Voyager II* example, scientists would try to discover which type of sensing device would be the best to put on board the rocket so that the most accurate information would be received back on Earth. In education, one might wish to know which is the best way to get library media specialists involved in instructional development. Here, the researcher is probing a problem very carefully to discover something of relevance and usefulness, i.e., a cure for cancer or a cure for vandalism in the library media center.

Locally Based Research. The third type of research is locally based research or *action research*, as it was named by its founder, Stephen M. Corey.[4] Locally based research attacks real problems in specific situations. This type of research is done by a practitioner who is seeking better information upon which to make decisions or changes in program. For example, does my style of booktalking have an impact on what students read?

Purists like Kerlinger believe that only basic research has the potential for solving problems. He argues that applied research is not scientific and that locally based research is worthless.[5] On the other hand, many other scholars disagree. For example, Baumrind says, "The ultimate criterion for evaluating behavioral science research must be its social relevance and usefulness."[6] Shaver disagrees with Kerlinger, saying that applied research can be very scientific.[7] He points out that scientific research is not conducted using a single method as many suppose, nor is it just a fancy statistical technique.

While it may be true that basic research can help one leapfrog over present and past mistakes, there is no sense in waiting for a great discovery to occur. In fact, Davis points out that it is an error to think that basic research must precede applied research.[8] The converse is often true! It would seem that professionals and researchers ought to concentrate on improving present practices whenever possible but also keep one eye out for advances in basic research and accept change as the need arises without weeping and wailing. In planning research strategies and directions as library media professionals, it is good to watch other professions to see how they are developing their expertise. This does not mean adopting every new direction or finding discovered, but combining the best of this field's expertise with the expertise of other researchers to the best advantage.

It is very instructive to spend an hour or so with a scholar from another field asking questions about the progress of research in their field and what methodologies are currently showing promise. It is also informative to locate a few state-of-the-art studies from other fields. One may understand little about the substance of the article but the introductory and concluding statements often give clues concerning the successes and concerns of that profession and will often point to

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trends in their research methodologies.

Some examples of useful trends from other fields include:

1. There seems to be a trend in the natural sciences toward more interdisciplinary research, i.e., scientists recognize that researchers can become too specialized and that teamwork with colleagues in collateral fields often produces much fruit.[9]
2. In business there seems to be a trend to study many variables at once.[10] This recognizes that certain outcomes may have a number of causes and all of those causes need to be studied as a group.
3. Replication or repeating a research study in various situations, which is such a vital part of scientific research, is gaining more acceptance in the social sciences.[11]
4. There continue to be new techniques of research developed that are worth watching; for example, the meta-analysis technique developed by Glass.[12] These techniques are not always coming from the sciences.

While keeping one eye out for research developments in other disciplines, one needs to keep a close watch on research in education. Sometimes, what is needed is there; at other times it is not. For example, trends or fads in education such as free schools, alternative schools, team teaching, open schools, and other configurations have sprung up without the benefit of evaluation research.[13] Library media specialists have been pressed to adapt to these changes without concrete direction from research theory.

Proposals for Conducting Future Research

1. A research institute similar to the Rand Corporation is needed as a leader in school library media research. Such an institute or research bureau would sponsor a think tank of scholars who would analyze, engage in, and disseminate research findings. Research funds would come from the federal, local, and state governments, from foundations, and from earned fees. To keep costs reasonable, the institute would not need to assemble a large number of scholars in a single location. Part-time scholars would be employed and communication would occur through an online system of microcomputers.
2. Research prizes should be given from national and state professional library media organizations to stimulate competition to do research.
3. Within the national organization a research endowment fund could be developed. Interest on the fund would sponsor deserving research proposals. Sources of funds for the endowment might come from a one-dollar increase in dues for every association member for ten years, corporate and foundation donations, profits from research-related publications of the national association, and fund drives.
4. In order to encourage greater research competency in the field, seminars for serious research scholars could be scheduled via teleconference and microcomputer networks like those used by the delegates to the White House Conference on Libraries and Information Services. Research forums aimed at researchers should be held in addition to the American Association of School Librarians (AASL) Research Committee's annual forum aimed at practitioners. These seminars and forum programs could feature researchers from other fields as well as the library media area who would present new methodologies and elucidate old ones that hold promise for library media research.

The premises upon which library media programs are built should be constantly reexamined. Looking at old problems in completely new ways is a must. For example, new ways are needed for looking at budgets (not *X* dollars per student), collections (not *X* number of items per student), and staffing patterns (not *X* professionals per *X* number of students). Theoretical ad-

vancements in these areas would be tested, evaluated, and demonstrated and then incorporated into national guidelines. A careful analysis of the most successful library media centers must be done to probe the antecedents of their success. This would provide us much better defined stages of development for national guidelines. For example, instead of focusing on a single model of a library media center program, there could be three or four models that matched various curricular approaches acceptable to local communities. Library media specialists who have been able to overcome seemingly insurmountable odds to deliver effective library media center programs could be studied. This might lead to a library media version of Gail Sheehy's *Pathfinders*.[14] Longitudinal studies of children are needed to probe their media utilization patterns under different library media center program structures. Teaching styles should be examined to discover effective ways to deliver services, whether the teacher is a lecturer or media freak; e.g., a researched list of thirty-five ways to help make a habitual lecturer a more effective lecturer through library media center services. Much more work is needed in looking at what curriculum if any should be taught to students in scheduled library skills instruction. Is a library skills curriculum really a "fourth R" as claimed by Dickinson?[15] What skills do our young people need in the total information society? Would time be better spent in becoming critical users of information and media rather than learning search strategies? What are the best ways to humanize educational technology so that educators really get the most bang for the buck rather than mesmerized baby-sitting?

6. Researchers need to take into consideration the ideas of futurists such as Toffler,[16] Fuller,[17] and other persons who are exploring the information society.[18] The library media center needs to be designed for the future where the bulk of the collection is retrieved as needed from online sources via satellite dishes at each school.
7. It must be remembered that the doctoral students of today are the researchers of tomorrow.[19] They should be required to be better educated in research methods than are the present library media educators.
8. There needs to be an organized effort to teach, advise, collect, and disseminate locally based research projects done by building-level library media specialists. This effort could be started by having volunteers check a box on their AASL or Association for Educational Communications and Technology (AECT) membership dues form. The product would be a list of persons able and willing to help in a research effort. A list of proposed research projects could then be sent out to the volunteer corps with the requirements for selection listed (for example, this study needs a full-time professional plus at least one full-time equivalent (FTE) clerical). Practitioners could elect to do a study that would be beneficial to themselves as well as researchers. Data from these exploratory studies would then feed into larger and more formal studies using random sampling.
9. Several national research agendas have been published recently including one for education[20] and one for evaluation.[21] Currently, a research agenda for library and information science is being formulated and will be published by Cuadra Associates.[22] The purpose of these agendas is to give direction to research programs and to provide funding agencies with a priority list. School library media specialists will need to examine the library agenda closely. Will it meet their needs of the 1980s? It must be recognized that no one else is going to do research for us. It is our responsibility.

SYNTHESIZING AND EVALUATING RESEARCH

Fortunately, there have been a number of reviews of research and state-of-the-art studies in school librarianship, educational technology, and in children's/young adult literature services. A preliminary checklist of the review articles in these fields has been compiled for comparative purposes (see Table 1).

A comparison of the table shows that three

TABLE 1

PRELIMINARY CHECKLIST OF STATE-OF-THE-ART ARTICLES IN SCHOOL LIBRARIES, CHILDREN'S AND YOUNG ADULT LITERATURE, AND EDUCATIONAL TECHNOLOGY

Type	School Libraries & Children's Literature	Educational Technology
General Overviews	*School libraries* Lowrie 1968, Aaron 1972, Freeman 1976, Barron, 1977, Aaron 1982 *Children's Literature,* Lukenbill 1972, Monson & Peltola 1976, Lukenbill 1977, Lukenbill & Adams 1981	Lumsdaine 1963, Torkelson 1968, Twyford 1969, Ticton 1971, Levie and Dickie 1973, Wilkinson 1980
Regular Reviews Covering Diverse Topics in the Field		Allen 1956, Wendt & Butts 1962, Meierhenry 1974, Meierhenry 1978, Clark and Angert 1979, Meierhenry 1980, Meierhenry 1981, see also *AVCR* and *ECTJ* annual review articles 1972–
Topical Surveys	*Elementary LMCs* Gaver 1962, Gaver 1964, Gaver 1969, Gallivan 1974 *Instructional Development* Grazier 1979	*Media Design and Selection* Saettler 1968, Allen 1974, Allen 1975, Flemming and Levie 1978 *Media Effectiveness* Moldstad 1974, Jamison 1974, Simonson 1979, Simonson 1980, Simonson 1980 *Facilities* McVey 1974 *Film* Hoban & Van Ormer 1950, May & Lumsdaine 1958, Hoban 1971, Fielding 1974, Wagner 1978 *Programmed Instruction* Lumsdaine & Glaser 1960 *Media and Sound* Seidman 1981 *Television* Reid & MacLennon 1967, Chu & Schramm 1967, Comstock 1978 *Media and Learner Variables* Travers 1967, Briggs 1968, Wisgerber 1973, Simonson 1980 *Instructional Development* Gustafson 1973 *Visual Literacy & Vision Instruction* Fransecky 1973, Cochran 1980, Cohen 1981 *Pictures* Duchastel 1980, Clark 1980, Brody 1981 *Cognitive Style and Physical Attributes* Ausburn 1978, Hellige 1980 *Communication* Hill 1978 *Computers in Education* Hall 1978
istings/Analyses of Doctoral Dissertations	*SMQ* Research Column, *Journal of Education for Librarianship* listing, *Top of the News*, *Phaedrus*	Moldstad 1958, Moldstad 1959, Moldstad 1961, Anderton 1970, Moldstad 1974, Kittross 1978, Huang 1980, also *AVCR* and *ECTJ* research abstracts

OTE: See Appendix 1 for table bibliography.

names predominate the review literature of school librarianship and children's services: namely, Shirley Aaron, Mary Gaver, and Bernard Lukenbill. Review literature in educational technology is much more extensive. Gaps in the review literature of school librarianship include annual reviews and topical state-of-the-art studies.

Proposals for Synthesizing Research

1. If there is to be a systematic review of the literature then the *School Library Media Quarterly (SLMQ)* editor should commission articles to be written rather than hope that some scholar will submit an unsolicited piece.
2. Topics for review articles do present a problem when research patterns in school librarianship appear to be a crazy-quilt design with little apparent connection between many of the studies, but there are enough good topics available to get a start. These articles might, in and of themselves, generate interest in a more patterned approach to research by our doctoral and postdoctoral researchers.
3. The AASL Research Committee might help by commissioning one forum presenter a year in advance to do a review of the literature on a topic of the committee's choosing.
4. A foundation or corporation might be approached to sponsor a synthesis study each year with appropriate recognition by AASL and AECT equal to that given to other awards.
5. If AASL Research Forum topics were announced a year in advance, practitioners could be invited to conduct locally based research on an announced topic. Directions could be sent to volunteers, and telephone consultation from a research adviser would be available as needed. Short reports from each of the practitioners would be summarized by the year-long adviser at the forum. In addition, the summation of such studies could be the exploratory work for a much larger formal study.
6. One or more publishers including AASL might instigate a research series of review articles. If the articles were written for the practitioner as well as the scholar, they would probably generate enough sales to make them profitable.

THE DISSEMINATION OF RESEARCH

One of the assumptions of a research-based society is that research findings, once generated, will be communicated to those who will benefit from those findings. The dilemma, as Bain and Groseclose have indicated, is effective dissemination: "There appears to be much excellent research that never finds its way into America's classrooms [school library media centers] at a time when the majority of classroom teachers [school library media specialists] are honestly seeking assistance."[23]

In the scientific world there are three main communication channels: (1) the formal research report, (2) the formal research paper read at a conference, and (3) the invisible college. Formal research reports in the scientific world most often take the form of journal articles. If a medical scholar wants to gain notoriety, then that person would try to be the first to publish in a notable journal, such as the *New England Journal of Medicine*, and hope that CBS would pick it up for their evening news. The competition to be first is pictured vividly by James D. Watson in the book *Double Helix* when he describes the race between himself and Linus Pauling to probe the mysteries of the DNA molecule and get it into print.[24] This competition sometimes leads to dishonesty and scandals within a research laboratory, when someone sets ethics aside in search of recognition. For example, recently a doctoral student at a prestigious university misrepresented a number of cancer studies and findings.[25]

In the scientific community, published research articles or scholarly papers presented at conferences are abstracted and/or indexed for the benefit of colleagues and practitioners. This indexing is an important key to progress. In chemistry, for example, a chemist will probe *Chemical Abstracts* and current contents journals continuously for developments in research methodology and also for the findings of interesting experiments. Hitting upon a study of particular interest, a chemist might immediately try to duplicate or "replicate" the published study to ascertain whether the methodology or the findings will contribute to further studies.

The third vehicle of communication, the

invisible college, is an informal network of colleagues using the telephone or the bar at national conventions as the communication channel, i.e., if one wants to find out what is going on, call an expert.

These three channels of communication are vital to the scientific community, as they build upon past research to advance the field as a whole. In the library media field, the need to communicate research findings among specialists is just as critical as in the scientific world. There may not be a need to communicate exactly as scientists do, but the channels must be as well known as theirs are.

CURRENT COMMUNICATION CHANNELS IN LIBRARY MEDIA AND EDUCATIONAL TECHNOLOGY

The current communication channels used in library media and educational technology are similar to those used in the scientific world but are more diffuse. These channels include:

1. The scholarly research report. Doctoral dissertations and other reports of research become available to the field through University Microfilms, ERIC, or perhaps as a monograph published by a sponsoring library or governmental agency. Access to these documents comes through *Dissertation Abstracts International*, *Research in Education (RIE)*, *Library and Information Science Abstracts (LISA)*, *Library Literature*, *CIJE*, or *Education Index*. All of these except *Library Literature* and *Education Index* are available for computer searching online.
2. The formal research article. A dissertation or lengthy research report is often condensed and edited for publication in a research journal. This article, which succinctly presents the hypotheses, the methodology, the data analysis, and conclusion, is most often couched in research language—the research colleague being the target audience. These articles appear in the research journals of the field such as *School Library Media Quarterly*, *Educational Communication and Technology Journal (ECTJ)*, *Top of the News*, and occasionally in other scholarly educational journals.
3. The popularized research article. A researcher may be asked to tone down the research jargon and speak about a research study directly to the practitioner. These nontechnical reports can appear in journals read by many practitioners such as *School Library Journal* and *Instructional Innovator*. School library media specialists also find articles from other fields regularly in journals like *English Journal*, *Arithmetic Teacher*, and *The American Biology Teacher*, among others.
4. The research column. A number of periodicals have a regular research column where brief reviews, news, and sources are listed. For example, Shirley Aaron writes the research column for *School Library Media Quarterly*. Columns written by the staff of the ERIC clearinghouse are also commonplace in a number of educational journals.
5. The research forum. ALA, AASL, Young Adult Services Division (YASD), Association for Library Service to Children (ALSC), and AECT all sponsor research forums at their national conferences. These forums provide for succinct descriptions of research projects by the researcher followed by audience participation through discussion, critical comments, and questions.
6. The survey of research or state of the art. A number of researchers try to probe the field systematically to glean trends, summarize findings, and look into the future. These products, such as Aaron and Barron (see Table 1), have already been cited in this article. They usually appear in the research journals of the field and are occasionally published as monographs. Another very valuable article is a report from another field. For example, Gagne has written an excellent article in which he summarizes research from educational psy-

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chology that would be of interest to the library media researcher.[26] These interdisciplinary articles would be invaluable to those in the field who are not schooled in educational psychology, medicine, communication, sociology, or any number of related fields.

Do We Really Communicate?

Access to the body of research in the field has improved immensely over the years, yet much improvement is needed. Those who search ERIC or *Dissertation Abstracts* regularly can give a number of criticisms of these tools, wishing that the quality of indexing would improve and that indexing terms would be more precise, so that an online search would not retrieve so many irrelevant articles. Assembling a collection of dissertations in the library media area is costly as is online searching of any of the databases. Thus, healthy research budgets are a prerequisite for those needing to keep current.

Without doing a research study, it is probably safe to say that like other fields in education and the social sciences, the practitioner in the field has very little access to or seldom even reads the formal research materials available.[27] This situation is likely to continue in the foreseeable future no matter what progress is made in the accessibility of ERIC and other research databases via online computer. If efforts to improve the access to the formal research literature for the researcher in the profession are successful, then that is probably all that can be realistically expected.

Researchers must keep in mind that adoption of research findings by practitioners is not automatic.[28] One cannot assume that because a research report has been published in a research journal that its findings will become part of even a few library media programs around the country. From formal surveys, we already know that practitioners say that research reports are too theoretical—too general.[29] They want to be able to understand the results of the study which can help their situation. We also know that practitioners are most swayed by research findings when they have been participants in a study and not just readers of a research report.[30] And, when we think that the majority of school library media specialists do not subscribe to any of the research journals in the field, then it is unlikely that they will be affected by these articles unless they happen to be taking some formal course work at a university or doing some type of in-service training or are regularly attending the research forums of the conventions they attend.

The Types of Channels We Should Look For

If the profession is to receive maximum benefit from the research done in this field and in allied fields, then a system of communicating in a wide variety of formats, channels, and techniques needs to be worked out. If any profession can succeed at this task, we should, since we are closer to the stream of information than anyone else. What can be done?

Use Technological Channels. When a good-sized group of library media centers have a microcomputer and a telephone hookup, there will be a marvelous network that can be used not only to disseminate research information but also to gather research data. AASL and AECT might think of cooperating with a network like The Source or CompuServe to provide both research and practical information to practitioners. Using the electronic-mail feature, questionnaires could be distributed and answered via the telephone lines. Research seminars could be held with a combination of amplified telephone and electronic mail. ERIC is now experimenting with microcomputers to determine if subsets of their database could be made available very inexpensively to individual school buildings either by telephone hookup or by some type of subscription service to 5¼-inch discs that would be mailed out.

Improve the Channel of Journal Articles. It is important to maintain the scholarly research being published in *School Library Media Quarterly* and *ECTJ*, including single research reports, review articles, and state-of-the-art studies; but this channel will need to be expanded. Every journal in the field should be encouraged to have a research editor on its staff. This includes local, state, regional, and national association journals, plus commercial journals like *School Library Journal*.

What would they publish? Let us try to think in terms other than the serious article or the research report for a moment (although these types of articles should never be automatically excluded from any journal). There are all kinds of different ways to communi-

cate research findings without resorting to a formal treatise. The collection of writing models elsewhere in this issue is only a beginning of types that could be employed. The following list is just a start—the reader, the writer, and the journal editor can add others.

1. The blurb. Most journals have small areas of white space to fill. These could be used to give a one-sentence tip, a short paragraph, a note, or a piece of information about a research finding, a trend, a methodology, or piece of research news. Eye-catching formats and plain language would be the key here. Without fail, each note or blurb would be accompanied by a citation or name and address for further information.
2. The "Ann Landers" column. A column giving a problem from a practitioner and response from research and/or expert judgment would be a welcome addition to a number of state and national journals. Certainly every state would have a library media "Ann Landers" who would be good at doing a column either at regular or irregular intervals. An example in a similar format is the *American Libraries*' "Action Exchange."[31]
3. The cartoon or photograph. A piece of research information can often be communicated very well in one or several cartoons or as a photo-essay. The situation, a short blurb plus a citation, could not only fill white space in journals as needed but could communicate very effectively.
4. New formats for serious reports. Researchers, as Yates suggests, might "take time off, so to speak, from their strictly professional activities (which include the preparation of reports written in the kind of code that is intelligible only to their colleagues) and endeavor to communicate with the world at large."[32] Summaries could be written in practitioner language with margin notes for quick survey and clearly written abstracts. These would allow the reader to capture the kernel of the research in less than sixty seconds and would lead to more in-depth probes as interest was stimulated.
5. Fiction, poetry, drama, and humor (including jokes and riddles). Brief and creative literary pieces can both entertain and inform at the same time by including both a morsel from a research study and also the citation.
6. Popularized pieces. Journals could carry puzzles and IQ tests (research IQ, and *Guinness Book of World Records*–type reports).

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Communicate at Conferences. The AASL research forums at the national conferences have always been well attended. They have succeeded because each researcher had a maximum of twenty minutes to deliver a summary of a study and to answer questions from the audience. State associations might duplicate this format and try many other ideas. For example, the poster parade that Fred Peterson has organized for the 1982 ALA Annual Conference in Philadelphia could be successful in any group gathering. The researcher would have a small area to post charts and pictures that communicate the purpose, methodology, and the results of a study and would stand by the product to answer questions for interested persons in an exhibit area. Casual research tables with topical signs could be set up with the audience rotating to the various tables every fifteen minutes. "Lucy" psychiatric clinics could be set up where a practitioner could bring a problem, and a researcher could help the person design a locally based research study. A reference and referral service could be set up to answer questions and direct persons to resources.

Improve Formal Instruction. Library media educators and in-service leaders should constantly try to include findings of research and discussions of the methodology used in their presentations. The expectation that research has, does, and will continue to contribute to the field is one that repeatedly needs to be built into the information a student receives. Practice in becoming a critical consumer of research is always an appropri-

ate part of a topical or issue-oriented presentation.

Use Channels That Require Participant Feedback. Practitioners need to give their responses to the research studies they read or hear. Perhaps some responses from the field could be printed after a research report. Researchers and practitioners can benefit greatly as they interact, exchange viewpoints, criticize, praise, and rebut.

Use Professional Association Publication Efforts More Extensively. AASL has already published short monographs, pamphlets, position papers, bibliographies, checklists, etc., on topics of interest to the profession. Reports of research should be oft-published items. A model is the very popular series published by NEA entitled "What Research Says to the Teacher."[33]

Deciding What Is Worthy of Communicating

Not everything done in the name of research is worth communicating. In fact, to announce a finding that is inaccurate or misleading can do a great deal of damage. How can one be sure that only the best is accepted for communication and that the poor and mediocre are rejected? It would be helpful to have a more systematic review of the research in the field by a research institute as suggested earlier, but without that we will have to rely on the marketplace of ideas to judge the worthiness of results.[34]

There are a number of ways to get the best research to the attention of the field. Editors, conference chairpersons, indexers, publishers, and regional clearinghouses must always keep the user or practitioner in mind. Practitioners have the right to demand that the line of argument used in research studies is both logical and reasonable.[35] We can expect the audience of research studies in any communication mode to administer the truth test to ask whether the research is trustworthy. Practitioners will want to know if appropriate and scientific procedures were used in the study, and the findings will most certainly be compared with personal experience, knowledge, and values. Practitioners are also likely to administer a utility test—asking whether a research finding has practical value.[36] If the research challenges a current philosophy, program, or practice, it must offer a practical alternative. In addition, the research will be probed for ways to make changes in current practice where change is feasible.

Editors and other communication persons will want to develop a second sense and feeling for what should be communicated and what should not. There are many research findings of minimal interest to practitioners. These should be reserved for communication to the appropriate audience.

In a number of professional journals there is a system of refereeing of proposed articles to choose the best for actual publication. This process involves sending the article to several reviewers who are themselves researchers. These reviewers do not know the name of the researcher to help guard against favoritism. This technique could be used more widely whether the item to be evaluated is a formal paper or a popularized piece of any kind.

Deciding what does or does not get published requires a person or persons who have their heads in the clouds of research procedure but have their feet planted in the world of practice. Certainly there are now enough sophisticated practitioners of this caliber in every state and association who would be anxious and willing to advise any journal editor, conference chairperson, or university professor on these matters.

The objective in all this is to take the honeycomb of research work and strain out the wax to leave that pure, amber, and sweet substance that is palatable to the taste and ever so useful.

How Should We Communicate Research Studies and Findings?

Having the skill to conduct a formal or locally based research study and the ability to communicate the findings of that research are not always the qualities of a single individual. But from many years of publishing, there are a number of tips for the communicator.

For writing a formal research report, there is much help available.[37] Innovative ways of communicating present their own problems —particularly if the audience of the communication is a practitioner. Here are a few guidelines for communicating research in any format:[38]

1. Use simple and straightforward language. It would be good to review any of the advice of Edwin Newman[39] so that you remember to avoid words like

pre-planning, *facilitation*, or *impacting*. Remember that flowery language is less and less appreciated in an information-overloaded world. If a technical phrase like "significant at the .01 level" is necessary, use it, but don't abuse it.

2. Be brief. Please.
3. Use an attractive format. See if a reader can skip down easily through the prose or other communication to glean the key points and to dwell on important points if so desired. Headings and subheadings are important.
4. Remember that critical and harsh statements may turn off the reader. One can be convincing without being devastating.
5. Use different communication channels to deliver your report. You can write an official report, a formal journal article, a popularized brief, and many other short glimpses of your work.

T. Harrell Allen, the respected communication researcher, also reminds us that, in communicating what may be a complex study, researchers and practitioners often use different structures of thinking.[40] The challenge is to structure the communication in such a way that practitioners can store it in the mind and then fill the structure with content. In a forum, for example, a researcher may use a transparency to show the framework and structure of a study. If the visual is succinct, the audience can grasp the wholeness of the methodology and the content, leaving the bulk of the presentation time available for findings, tips for the practitioner, and emphasis on the most important points. Presenters might be warned in advance that a trapdoor has been built beneath the podium and certain observers in the audience can press the ejection button if the transparency cannot be read and understood or the researcher succumbs to the urge to read detailed hypotheses, relate detailed methodological problems, or expound on statistical manipulations.

Practitioners should also be looked at to write up the results of research studies done by others. This suggestion may alarm many researchers who are certain that only they can communicate the steps of their study. Yates has suggested that the perfect communicator of research may be the person who spent some years as a teacher, trained to do research, spent several years doing research, but now is doing something else.[41]

SUMMARY

This article has explored three aspects of a research program for the library media profession: conducting research, synthesizing and evaluating research efforts, and disseminating research results. Proposals were made for each of these aspects and are listed at the end of each section.

A viable research program for the profession is no easy task to accomplish. It will require continued leadership from AASL and AECT officers and boards, leadership from association research committees, development and dedication of qualified researchers, and input from building- and district-level library media specialists. A research program is a continuing effort, and there will always be discouragement along the way. At times it will appear that ten years of effort have been wasted by pursuing a wrong path. The tragedy will not be that we have tried and failed. It will be that we give up trying. As Michael Scriven has said, "It is an obligation to bang one's head against walls because it is well known that walls give way before the banging of a thousand heads."[42]

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APPENDIX 1
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