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ABSTRACT

Despite the recent interest in studying American education and remedying its problems, school libraries and media centers have been neglected in analyses of educational assessment and as instruments for educational improvement. Although statistics have been gathered on the number of books owned, information is also needed about the collection's currency, value, and utilization. Information should also be collected about the non-print materials, and students' use of databases and computers. Reliable and consistent methods are not commonly used for counting resources and personnel in school libraries, nor are current technologies used. Harvard University's Gutman Library has been collecting information on the use of microcomputers in 10,000 educational institutions. The data reported have not been reliable, particularly concerning the use of copyrighted software which has been copied by schools. As computer use increases in the school curricula, better ways to collect data on their use are needed. The advent of telecommunications as part of a formal education will also affect data collection methods and needs. (GDC)

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A HOUSE OF BRICKS

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I told them a thousand times if I told them once: Stop fooling around, I said, with straw and sticks; They won't hold up; you'r' taking an awful chance. Brick is the stuff to build with, solid bricks. You want to be impractical, go ahead. But just remember, I told them; wait and see. You're making a big mistake. Awright, I said, But when the wolf comes, don't come running to me.

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The funny thing is, they didn't. There they sat, One in his crummy yellow shack, and one Under his roof of twigs, and the wolf ata Them, hair and hide. Well, what is done is done. But I'd been willing to help them, all along, If only they'd once admitted they were wrong. (Hay, The Builders, 1961)

Sixteen comprehensive reports on schooling in America have recently appeared, detailing the present woeful state of affairs, and offering a variety of solutions for falling test scores, increased functional illiteracy, poor teaching, undisciplined and disinterested children, inadequate leadership, and an incoherent smorgasbord of curricular Each researcher or team offers to build a new "house of bricks," offering more rigid, inflexible structures and strictures, "perks and punishments," most assuming as a given that the nineteenth century factory model of schooling will continue to survive unchanged.

Where is the library/media center in all of this paper blizzard of fresh ideas? When the indicators are that some 23 million adults are functionally illiterate, and that 13% of all 17 year olds in the United States are functionally illiterate (National Commission on Educational Excellence, A Nation at Risk, 1983) do any research organizations recognize the traditional role of libraries in stemming an avalanche of illiterati? Is there even a whisper hidden in the clamor of voices that says, "What about school libraries?" 2

Did a single researcher follow the students through their daily routines into the place that I normally regard as the information "soul" of every school, where learning activities and materials meet inquisitive minds in frenetic or leisurely embrace? The silence is almost total. Other than a single study that measured library space and amount spent on collections, relating these factors negatively to child development (Bloch, Effective Schools, 1983), not one analysis attended to libraries or media centers as part of educational assessment or as an instrument for educational improvement.

How did it happen? The star that rose so swiftly and shone so brightly, is wavering precipitously, in danger of obliteration. On every level, local, state, and particularly federal - at the same time as computers and computer literacy programs have captured the public in a panacea of purchase - library and media programs have lost the support of the power brokers and the general public. At the same moment that the possibilities of an information era are titillating imaginations, few have jiggled their minds sufficiently to realize that information storage and retrieval has always been intrinsic to libraries. Instead of selecting media specialists as superintendents and assistant superintendents for curriculum (they have both administrative and curriculum skills) their positions are being downgraded, while athletic directors or vocational education administrators continue a steady ascent to the top positions in educational administration. The enormity of changing a public image, so firmly ingrained even by librarians and media personnel themselves, in a world where access to information is truly the new power base, boggles the imagination.

That is not to say that NCES has neglected the gathering of statistics about the community of libraries - school, public, and academic. Numbers of



volumes are reported annually by organizations and reported in the Digest of Education Statistics. This information is of limited value without knowledge of currency or research value, without any correspondence to the curriculum, without information about a range of materials - visual, oral, tactile, and their relatedness. A small independent school in New Hampshire proudly boasts of 10,000 volumes. Close examination revealed (Miller, unpublished report, 1984) that the volumes were primarily donations from well-wishers, and a spot-check of the shelves showed no use by students of the entire collection. In the decade that lies ahead access to information resources will be of far greater concern than quantities of bound volumes. When third grade children, particularly in middle-class communities, can do encyclopedia research via modem there must be a corollary use considered in statistics gathering. How many databases are being accessed by elementary/secondary/college/vocational students? How are the resources organized for maximum efficiency? What are the delivery systems? What are the programs in institutions to train teachers and students about the use and limits of the avalanche of information, soon to be available with a few strokes of the fingertips? How often can children access these information resources? Is it once a week for fifteen minutes in a weekly library trip. Recent information about computers (Becker, School Use of Microcomputers, 1984) indicates that the average student can use a microcomputer for 15 minutes per week. The use of the library in many schools, elementary and secondary, is also severely restricted, not for equipment or space but by structural limitations of school organization. Even counting numbers of things like books or filmstrips poses definitional problems (volumes or titles? purchased or acquired through grants and donations? useful or worthless?) The difficulties in keeping track of



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information about students is compounded when discussing the resources for learning. Definitional problems and lack of specificity plague ESEA Title III Offices in State Departments of Education, responsible for record gathering. Limited staffs, unable to undertake spot-checking, and schools with conflicting interests in determining future formula allocations have much to lose in making accurate reports. Secondary reporting sources compound the effects of inaccuracies and self-interest.

Methodology for both counting and reporting of information does not use current technologies. Sometime during the next decade it will become apparent that it is feasible to have the local organization report by modem into a clearly defined, standardized set of categories, updated regularly at the primary source. Unless such data become removed from identifiable funding decisions, reliability will continue to be suspect. Even the Harvard Annual Report by the University Librarian has much difficulty with the statistical aspects. Other than the accumulation of computerized data, a creative tour de force would best describe the individual faculty library reports. Each librarian is well aware of the effect of straying beyond prescribed limits. With regard to school instructional materials, their dating, relevancy, and use are more important data for researchers than present statistics.

NCES also publishes information about numbers of professional library/media personnel. Once again definitions and specificity are the issues. What is a library facility? Today, in the same way as grade and age groupings are difficult with disparate school organizational groupings, so too are libraries, media centers, instructional material facilities, teacher centers, television studios, computer operations or labs, equipment storage facilities, materials warehouses all loosely joined together without any coherent or comprehensive definition. People who operate any of



these facilities might be listed as media professionals for statistical purposes. When operations are expanded by schools to encompass the whole range of information access and retrieval, then a new nomenclature will replace the jumble that presently exists. If a distributed form of education begins to replace traditional class structure, and ancilliary organizations (i.e., museums, public libraries, homes) become primary learning sites, data gathering can be built into remote learning systems, with information available about student, teacher, and type of program.

For the past several years Gutman Library, Harvard Graduate School of Education, funded by a federal program, has been collecting information from 10,000 educational institutions about their use of microcom uters. The data are being mounted on Compuserve, a large national information utility. As schools begin to report numbers of microcomputers, conflicting information comes from individual schools and central administrative offices. Much of this equipment did not come from traditional budget sources. There are few accurate records. The lack of reliability is apparent in all data gathering around microcomputers by NCES, Market Data Retrieval, Gutman Library of Harvard Graduate School of Education, whether in the areas of hardware, software, or use of the computer. The limited knowledge acquired by central information sources leaves researchers wallowing in fuzzy figures and amorphous analytics. In a phenomenon, somewhat akin to the purchase of television receivers, that began as a bottom up movement, and was profoundly influenced by parents and the outside media, more substantive statistics would be available from equipment manufacturers and software producers. Flagrant violation of copyright by individual schools with regard to copying software will preclude any possible estimation of the numbers or types of instructional computer programs used in the nation's schools or homes. Even



these constraints are negligible when compared to the lack of information by teachers about the kinds of computer use that engage their students. The submerged nature of the culture and the lack of instructional experience result in compilation of formalized programs by designated computer instructors. Research from the Harvard data base followed by visits to selected school systems reveal a standardized progression of computer use (Miller, A National Perspective-Microcomputers and Schools, unpublished speech, 1985).

Increasingly during the coming decade schools will begin to incorporate large-scale computerized curriculum systems on networked systems, supported by individual lap computers and enrichment or remedial materials to be used in the classroom or the home. These large systems will incorporate individualized information about each student as well as composite data. Now is the time for NCES to begin working cooperatively with schools in preparing meaningful data about student progress with new learning tools. Where are students using computers? Is there one computer in the classroom, a computer lab, take home computers, preparation of parents as well as teachers? Are teachers trained and involved in the planning process? Are the computers part of the regular curriculum or relegated to outside computer courses? How are they being used? What is the relationship to the reading or mathematics program? Are there supplemental materials? There is a need for contextual information. What applications programs will be part of the new curriculum? Data about the efficacy of technology has been of little apparent utility when the concentration is the equipment rather than the software or the usage.

As schools and universities concern themselves with access to computerization and wiring their buildings, much is taking place beyond the formal walls that will have a profound influence upon the future of



education. The advent of telecommunications as part of a formal educational process is already in place in such institutions as Nova University, New York Institute of Technology, and New Jersey Institute of Technology. A kind of extended correspondence program or new form of bussing of information rather than students takes place nightly, with students involved in serious doctoral study. They sit in Arizona or Fort Lauderdale, studying and learning together. They are diverse ages, learning from home or place of business. They are part of a new world where jobs are not forever, and the need for new skills extends far beyond the traditional college cohort. Soon they will be joined by networks of gifted children in visionary projects out of Johns Hopkins or Pouch F, Alaska.

There are profound implications here for those who are planning the statistics gathering for the nation. These students involved in remote learning programs will extend the complexity of data gathering both generically and geographically. New schools will arise to be credentialled and incorporated into the network of independent or public institutions. Traditional organizations, with declining demographics, will seek students in corporations, among alumni, and in community groups. Home learning, already increasing nationally, will reach out to the preschool and the handicapped and the aged. New programs for delinquent youth and adolescent pregnant mothers are taking place outside the classroom or professional teaching faculty. Already the Reference staff at Gutman Library is reporting increased call, from doctoral students, for statistics on nontraditional learne. a a: ' new technologies in the learning process. They want data on these populations, their ages, spending patterns, and educational backgrounds. They want to know more about changing careers and the need for increased schooling. They want better indexing and referencing



of all information presently available. They want better use of current technologies in standard reporting.

As NCES begins its approach to the 21st century, the use of CD Rom disks for reporting of text information will play a part in the ability of research organizations and schools to more easily access and manipulate the mass of statistical data being collected. The organization and standardization of databases has begun to be of interest to multi-national corporations as they look to decision making based upon statistical analysis and examination of historical precedent. The same opportunities are available to organizations within the educational world if there is a real impetus for change, or if the whole search for educational excellence is not a charade or "a dance of legitimacy" (Deal, 1984).

The Public Library has a proud history in this country. It served to educate thousands of immigrants, and brought the culture of a new land and its language to peoples desperate for acculturation. Today the country still has great need for data, for information, and for knowledge. There are new sources. There are new possibilities. There are new methods for information transfer and retrieval. The library in school, university, corporation, and the community will continue to play an essential role. It will be the foundation for a new "house of bricks."

Inabeth Miller Librarian to the Faculty of Education Harvard Graduate School of Education June 15, 1985



NOTES

- 1. Sara Kenderson Hay, "The Builders," in <u>Reflections on a Gift of Watermelon Pickle.</u> and <u>Other Modern Yerse</u>. Stephen Dunning, et al, editors. (New York: Lothrop, Lee & Shepard Co., 1967).
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- 3. Alan W. Block, <u>Effective Schools: A Summary of Research</u>. (Arlington: Educational Research Service, Inc., 1983): 8-9.
- 4. W. Vance Grant and Thomas D. Snyder, <u>Digest of Education Statistics 1983-1984</u>. (Washington, D.C.: National Center for Education Statistics, 1985).
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- 10. <u>National Database in Interactive Technologies</u>. (Cambridge: Gutman Library, Harvard Graduate School of Education, 1985). Online directory.
- 11. Inabeth Miller, <u>Microcomputers and Schools-a National Perspective</u>, speech to National Diffusion Network, March, 1985.
- 12. Terrence Deal, conversation with Inabeth Miller, May 1984,

