The Young Student and the Scientific Library

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Certain phenomena are having no little effect on our way of life today. We are in the midst of a population explosion and a spontaneous relocation of our population, and science and technology are making tremendous strides forward. We know that the advancement of our civilization depends upon the use to which we put our present knowledge and the knowledge still to be learned—sociological, technological, and cultural. With this in mind society is taking a long look at its educational institutions. In doing so, we find that our libraries are facing challenges they have never been called upon before to face (1). This paper confines itself to a discussion of one of these challenges, namely, that of the dilemma created by the arrival in the scientific library of the young student.*

For the most part those students who come to the scientific library have fine minds, a thirst for knowledge, a plan for the future, and a desire to use their leisure time for serious study so that they can be a contributing part of advancing civilization. They are inexperienced, but impressionable and beautifully malleable. Their initiation into the wonders of science through the scientific library may be the turning point of their lives. Are they welcomed or are they turned away? If they stay, are they guided and stimulated, or do they flounder and become discouraged? These students come to the scientific library for help with full expectation that help will be forthcoming and is their due. They look upon the special library as an extension of their public library service. All libraries are grist for their mill. They come, too often not having exhausted their school and public library resources and inadequately trained in the use of any library. Are they a problem? Isn't it rather that the arrival of these students creates problems, and that this situation is the fault of the adults upon whom they depend for their training? I know that many science libraries receive the same sort of requests that arrive at the New York Academy of Medicine Library by the dozens. For instance: "I am working on a project for school.

* The term "young student" throughout this paper will refer to the junior high, senior high, and college student as a single category unless it is specifically stated otherwise.
Please send me all the information you have. Please send it by Friday." Or: "I am writing a paper on cancer. Please send me all the material you have.” Surely their teachers have failed them in making assignments which bring forth such requests. These students need guidance in organizing their thinking, and they need to be taught to make efficient use of their school and public libraries first. This sort of guidance must come primarily from the parent, the teacher, and the school and public librarian. Rider said in 1944 that “the users of research material are on a different intellectual level from all other library users, they require a quite different sort of library service, a service developed from a quite different library methodology. The cataloging that is best for callow undergraduates is not at all the best for full professors. . . .” (2). This was possibly true in 1944. Today our research picture has changed. Dr. Charles F. Gosnell, Director, New York University Libraries, said at a recent meeting of the New York Regional Group of the Medical Library Association (November 3, 1962) that the ideal of library service to him means “any book in any hand at any time” and went on to define the book as recorded knowledge, be it in the form of tape, disk, drum, or punched card or in traditional form. He recommended that the library leave the corner grocery store pattern of distribution and enter into the supermarket level.

As regards the young student, how can this be accomplished? Recent articles in the library literature discuss student use in some detail and primarily with public and university libraries in mind (3–13). Interestingly enough, the emphasis is not on the problem the students' use represents, but rather on the challenge it presents, and the librarians speak optimistically of working out ways of being of assistance. Learned mentions the difficulty librarians have of escaping infection with the missionary spirit (14). Here, then, is a ready made outlet for this missionary spirit. As librarians, we are bound to be drawn to these students, even though, suddenly descending upon us as they do, they can create chaos and despair in our libraries. If we agree that these students are a challenge, we must face the fact that inescapable problems arise in providing library service for them; problems not easily foreseen by the science library twenty or thirty years ago when plans might have been gradually formulating to absorb effectively this influx. We can transfer the responsibility for the present situation to the school and public libraries. But these librarians, too, had difficulty some years ago in foreseeing this situation and would have had even more difficulty convincing their trustees, library committees, and the taxpayer that they should prepare for a tremendous scientific breakthrough and population explosion which would almost overnight create a desperate need for more and better scientific materials in libraries. The science librarian will need to accept a share of the burden and join with the parent
and teacher and the school and public librarian in planning programs which will train the student to make the best use of the library resources available to him and in planning cooperative use of library facilities.

Is the young student really using the scientific library to an extent that we need be concerned about? Student use would seem to be widespread, if we may judge from the comments on questionnaires sent out to medical school libraries, medical society libraries, medical research libraries, and some commercial libraries in the health field. Of the 130 questionnaires sent out, 120 were returned. A study of the responses was most interesting. In answer to the question as to whether young students were permitted to use their library facilities several librarians indicated that they were almost never asked for service by students. One librarian explained this by saying that her library is high on a hill, away from the center of town and with no school nearby. Only five of the librarians said that they did not give service to students. All of the other libraries consulted give service to the young student to varying degrees and with varying restrictions. You may not be surprised to hear that many of these librarians mentioned that this student use taxed their facilities—their collection, their seating capacity, their staff's energy. You may be heartened to know that many of these librarians expressed interest in these students. Their explanations queried: "We would like to help more, but what can we do? Our own people, of course, must be served first."

It was interesting to learn how these students discovered the science libraries in their communities. The following sources of referral were listed in answer to the second inquiry of the questionnaire: teachers, public librarians, school librarians, physicians, parents, union catalogs, local health personnel, word of mouth from other students, science club recruitment tours, and newspaper publicity.

The third question asked for information on restrictions imposed on student use. There were only two libraries which imposed no special restrictions on the young students using the library, treating them as they would any other reader. The most common restriction imposed was that the material be read in the library. Some few permitted high school and college students to borrow materials on their own signature. Two libraries reported that they required a deposit from the student to be returned to him when the material was returned to the library. Many of the libraries reported that they require a letter from a physician whom the student knows personally or from his school librarian or another school instructor in order for the student to use the library at all. Wesley Draper, Librarian, Academy of Medicine of Brooklyn Library, at one time required a letter, but this is often difficult for the student to get when in need of library resources and the student does not always know of the requirements until
he arrives at the library. So "in order not to disappoint the students and feeling that it is far better that they have accurate up to date medical information from a medical library rather than securing their knowledge from advertising or television," in recent years this library has not required such a letter. Other restrictions mentioned in relation to young students are that they do not have access to the stacks even when the stacks are otherwise open to the regularly served readers and that they must not use the library as a study hall, bringing their own textbooks with them. Mention is made that interlibrary loans are available to college students, but rarely granted for high school and junior high school use (photocopies may be had instead).

Tours for school classes are sometimes conducted by various of the libraries questioned, and on these tours the arrangement and use of the library are explained to the students. Otherwise, only informal guidance in the use of the library is given to the junior and senior high school student, while the college student occasionally receives formal training. Most of the librarians confine their assistance to individual requests for help as needed. Robert T. Divett, at that time Librarian of the Library of Medical Sciences of the University of Utah, mentioned that his University Librarian had given formal training experimentally to junior and senior high school students and that the policy of all the university libraries there had always been to be courteous to nonuniversity people in allowing them use of the materials in the library. He mentioned also that a grant had been requested which, if approved, would enable the medical school library to expand service to these users, including, the inference was, the young student.

Attitudes and policies are changing in relation to these students. Some of the librarians commented that they have recently had to be much more severe in restricting the use of their libraries by students. They mention crowded facilities, lack of sufficient staff to assist the student, the difficulty in supervising sufficiently to avoid lost and mutilated materials, and the general air of confusion an energetic younger student can generate in a library. A majority of the responses on this point either stated or seemed to imply that librarians regret turning students away unsatisfied. Their budget problem is very real, their space and staff limitations are very real. They are not sure how urgent the need of the student is or whether he can assimilate the materials they can give him, but they would like to be able to give him the benefit of the doubt and extend more help to the serious student. Many say they always try to help as much as possible; some prepare a mimeographed or printed manual which is available. Summer grants given by foundations, etc., for summer science study have increased in several areas the use of library facilities in both medical schools and med-
ical societies, and science fairs also stimulate much use of medical libraries. M. Irene Jones, Librarian, Mooney Memorial Library, University of Tennessee, says: "Science Fairs are a real problem, for the high school students select topics in medical science far beyond their ability. Instructors do not seem to have any idea where the line for investigation should be drawn. Probably any restriction might be considered 'stifling' to the potentials of a prospective scientist but it does pose a problem for the conscientious reference librarian." Another interesting answer to the question of a change of policy toward the undergraduate student comes from Jean Hill, Librarian, Buncombe County Medical Society Library, Asheville, North Carolina. Mrs. Hill says: "Decidedly! Sometimes we are amazed by the subject matter and approach of these students, since they, in keeping with general public trends, seem so much better acquainted with medicine and related matters, than was the case a few years ago." This is one of the libraries open to all without restrictions; Mrs. Hill calls it their open-door policy, since there are so few other library resources available to the students in their mountain community. The Librarian here and her Board of Directors are very much interested in this problem of student use, so much so, as Mrs. Hill says, that the Directors and she took the initiative and this year sent a letter to the high school principals, science teachers, and counselors in "our section of the state explaining what services are available, what type of materials are on hand, and in what ways we might be of service." The librarians, she continues, "contact us quite often in these situations and we work closely together. Why? Because there does generally appear to be quite a gap between where they stop and where we take over, and, as a result, we are building up our basic science section. The provision of accurate and up to date information is of course of primary importance, but these situations also provide an excellent opportunity for an interested medical librarian to do a little recruitment for medical and para-medical careers."

A section for general comments included on the questionnaire brought forth expressions of problems, some similar to those so clearly stated in certain of the articles in the library literature on general student use already cited, such as that the library was in danger of being used for dates, for study hall, for "spoon-feeding," and as a way out for the teacher who sends the student improperly prepared. For the most part, the medical librarian is aware of the problems and is either prepared or preparing to cope with them. Marjorie Weber of the Spokane Medical Library suggests that students are poorly oriented and that the teachers should be our first approach. The Rhode Island Medical Society Librarian, Helen M. DeJong, feels that giving special attention to student readers is a good thing for public relations and that their policy of welcoming students has re-
sulted in greatly increased student use. Miss Irene Graham of the Mississippi Medical Center expresses the feeling of some when she comments: "We feel our library should do an excellent job for the people for whom it was established. We do not want to discourage honest endeavor for knowledge from high schools or colleges; but feel that they need to walk before they can run. If they must have materials we cooperate with their libraries." Hers is one of the libraries denying student use directly, preferring to provide assistance through interlibrary loan.

Emma C. Gergely, Librarian of the Institute of Microbiology of Rutgers University, comments in detail concerning their high school use problem. This became particularly acute after their new main library building was opened in 1956, so much so that the Librarian of the University eventually found it necessary to send letters to the principals of the high schools in the immediate area stating that the University Library "did not have the facilities to accommodate high school students and urged that such students use the public and school libraries...." This library receives mail inquiries from high school students from all over the United States. Miss Gergely feels that their biology teachers have usually referred the students to their Institute. "This," she says, "places us in a rather awkward position. We certainly do not wish to discourage anyone with a genuine interest in science. On the other hand, the material in our collection is so specialized and technical that it is above the comprehension level of most of these high school students.... We realize that some communities lack satisfactory library facilities, but we do not feel that it is our function to provide library materials for high school students in all parts of the United States." All such letters are acknowledged by this library, and "if the student's address is a small isolated community obviously lacking library facilities, two or three works that are still in print are cited as applicable to the student's project." An attempt is made to encourage the student to maintain and develop his interest in science.

Of the many other interesting comments received, let me mention a few more briefly: Dr. Dean-Throckmorton of the Iowa State Medical Library points out that they must make their facilities available to every citizen of the State and that the science fairs contribute greatly to their student use. At the Robert Packer Hospital–Guthrie Clinic Library, Sayre, Pennsylvania, letters are sent out to the local schools asking teachers to call ahead concerning assignments, but so far little cooperation is noticeable. At the Falk Library of the University of Pittsburgh young students use the library extensively for two or three weeks during the summer because of a National Science Foundation grant given one of the University professors to work with superior high school students on medical and biological subjects. There is a summer program for gifted high school students
also at the M. D. Anderson Hospital and Tumor Institute, Houston, Texas, and at the Roswell Park Memorial Institute, Buffalo, New York, both programs requiring extensive library use.

There are many such programs. My attention was called to the master's thesis of Helen Dorothy Simpson, entitled *The Use of University Library Materials by a Selected Group of Junior High School Students, University of Utah, 1959*. I have been unable to examine this thesis, but have been told that it indicated an exceptional development of junior high school students when they were allowed to use the facilities of the University libraries, including the medical library. A report published in 1962 describes a summer science program for secondary school students with high ability held for the past fourteen years at Jackson Memorial Laboratory and Worcester Foundation for Experimental Biology (15). The use of the library by the students was unfortunately not emphasized in the evaluation of the program. Another project is the summer program in biochemistry for high school students, Clark Science Center, Loomis School, Windsor, Connecticut (16). The Hunt Library of the Hartford County Medical Association allows these students access to the Library for special research problems and for specific references. The Hartford Hospital Medical Library has also been made available to special students in this program when they are introduced by the instructors.

The New York Academy of Medicine Library, as mentioned earlier in this paper, receives many letters from students. A form letter has been devised which is sent to each of these students explaining that the library does not have materials for free distribution and which includes names and addresses of organizations which do distribute materials on the subjects of their interest. Gertrude L. Annan, Librarian, feels very keenly the importance of encouraging and assisting the young student as much as possible. Students wishing to receive stack service in our library are asked to bring with them a letter from their school librarian stating that the material needed is not in their school library. It is felt that this requirement will cause them to evaluate their need carefully and will result in their making more intelligent use of their school and public library facilities. Should their visit be their first, they are welcomed and given stack service, and an attempt is made to orient them to the use of our library and to an understanding of the nature of its collection.

For the past three summers the New York Academy of Medicine Library has played host to the students of the Waldemar Medical Research Institute Summer Student Program, which is sponsored by a grant from the National Science Foundation. Approximately forty students and teachers spend an entire day each week during July and August doing work of a remarkably serious nature. At the beginning of their use of the library
these students receive an orientation lecture which introduces them to the major indexing tools in medicine and to the catalog. We have been most impressed with this group of students. After the first several hours of general confusion at the catalog and at the indexes, they settle down and work seriously and quietly. Each student is required to prepare a paper complete with bibliography on the subject investigated. The titles of their reports presented at the end of the program indicate the depth of their inquiries. For example: “Exfoliative Cytology and Its Use in Detection of Cancer of the Respiratory Tract” (Dorothy Setian, Garden City Senior High School); “Messenger RNA and Its Role in Protein Synthesis” (Kenneth LaSala, Farmingdale Senior High School); “The Biochemistry of Blood in Schizophrenia” (Susan Kemelhor, Roslyn High School); “How Does a Nerve Propagate a Signal?” (Dan Umanoff, South Side Senior High School); “Melanin—the Mechanism of Its Formation and Its Role in the Individual” (Robert Schehr, Great Neck South Senior High School). A student group of this size can and does add greatly to the harassment of our reference and circulation staff. Yet at the end of the summer the staff never fail to comment on the earnestness of these students. They feel that the students have profited by the use of our library, and they are happy to have been able to help them.

That the problem of young students’ use of libraries is becoming more and more apparent is shown by the fact that the Wilson Library Bulletin devoted a major portion of its issue for November 1962 to a series of articles on “Students in the Public Library.” This series is preceded by an explanation by the Bulletin editor, from which I quote: “The article was planned and announced as a ‘Guide to school/public library relations.’ But a ‘guide’ implies that answers have been found. After studying the 1800 completed questionnaires received the authors were forced to the conclusion that answers to the student use problem have not been found. They believe that no final solution is possible until parents and educators have recognized the problem for what it is—a real and present threat to the progress of learning in the United States. They believe, in short, that the heart of the problem is that it has not been recognized by those in a position to solve it. Therefore, while many suggestions for improving the situation are offered to librarians in this article, its primary purpose is to show that a problem exists which is serious and urgent, and which is an educational problem as well as a library problem.”

It is especially important that in every community some medical library offer its facilities to the young student. These are our scientists of the future, and it is imperative that they have encouragement and access to the authoritative literature. The answers to my questionnaire show clearly that in some areas these students have no place to turn, but that most
librarians are aware of the problem and want to do something about it. It will be necessary for medical librarians to take the initiative both in deciding which library in an area will assume this responsibility and in meeting with school and public librarians. School librarians must take the responsibility for advising teachers of the services available to their students and the restrictions necessary in the use of the local medical library. Most importantly, school librarians and teachers must be the ones who carefully evaluate the needs and capabilities of their students. This screening process must take place in the school, not in the medical libraries. The school librarians, too, must work closely with teachers in orienting them to a better understanding of library research. The student who goes to a medical library or writes to a medical library requesting "all the material on cancer" does not understand even the basic requirements for the preparation of reports. And when the student writes, "I am working on a project for school—please send me some information," the lack of basic training becomes glaringly evident and indicates a lack of understanding on the part of the teacher making such assignments. These are not occasional letters; they come in floods. Nor are these from the students who are qualified to use the scientific library facilities of the community. Our real concern is, of course, for the latter, for the well oriented and highly motivated students, especially those in the secondary grades, since college libraries make increasing efforts to take care of their own. 

The government—national, state, and local—universities and colleges, foundations, and private organizations are concerning themselves more and more with the pressing needs of education today, but library problems contingent upon these needs are slow to be recognized. Perhaps regional groups of the Medical Library Association meeting with school and public librarians in their areas could bring this problem to the forefront and by intensive action and a coordination of activities find ways to allay this critical situation.

REFERENCES