USE OF THE FRESHMAN-SOPHOMORE LIBRARY BY GENERAL COLLEGE STUDENTS.
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AT THE UNIVERSITY OF MINNESOTA, THE GENERAL COLLEGE OFFERS A 2-YEAR PROGRAM OF GENERAL EDUCATION TO ANY GRADUATE OF AN ACCREDITED MINNESOTA HIGH SCHOOL. GENERAL COLLEGE STUDENTS, LIKE OTHER LOWER DIVISION STUDENTS, HAVE ACCESS TO THE UNIVERSITY'S FRESHMAN-SOPHOMORE LIBRARY, CONSIDERED TO BE SUPERIOR TO THE TYPICAL JUNIOR COLLEGE LIBRARY. A STUDY OF CIRCULATION RECORDS IN 1964-65 LED TO THESE CONCLUSIONS ABOUT THE GENERAL COLLEGE STUDENTS-(1) A STUDENT'S REGISTRATION IN ONE QUARTER IN A COURSE WITH SUBSTANTIAL LIBRARY REFERRAL HAD NO EFFECT ON HIS LIBRARY USE OR COURSE GRADE IN THE FOLLOWING QUARTER, (2) STUDENTS WHO MADE USE OF THE LIBRARY FOR A PARTICULAR COURSE EARNED SIGNIFICANTLY HIGHER GRADES THAN THOSE WHO DID NOT USE THE LIBRARY, AND (3) THE SEX OF THE STUDENTS HAD LITTLE EFFECT ON EITHER COURSE GRADE OR LIBRARY USE. THIS DOCUMENT IS VOLUME 3, NUMBER 4 OF "THE GENERAL COLLEGE STUDIES," 1966-1967. (W0)
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USE OF THE FRESHMAN-SOPHOMORE LIBRARY
BY GENERAL COLLEGE STUDENTS

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As members of an experimenting college, General College students have learned to accept as routine the fact that they are likely in any course, or in any phase of their activities, to become the object of study. Many investigators who have studied some aspect of the General College were once graduate students at the University of Minnesota; many have subsequently acquired advanced degrees on the basis of their research. Often it is the case that two useful objects are achieved: the research illuminates some area of college activity, and, at the same time, the resulting study fulfills the dissertation requirement for a faculty member's advanced degree. Such is the case with the material comprising this issue of The General College Studies, Professor Long's 1966 M.A. thesis.

The investigation presented here, aside from its intrinsic value, illustrates some of the advantages the General College offers the potential researcher. Working within the structure of a two-year college, Professor Long still was able to call upon the resources of a major university library, and, in the analysis of his data, he had a university computer system at his disposal. Even if, as he suggests, his findings "may have limited applicability to other colleges," the editors feel confident his study will be of interest because of the techniques it employs.

Some of Professor Long's supporting material has necessarily been omitted from this report. Readers interested in bibliographical and statistical data are referred to the full study which is in the thesis collection of the University of Minnesota Walter Library.
The chief purpose of any college library is to support the instructional program of the college. Of course, college faculties give this purpose many interpretations. Some members of a faculty insist that students make maximum use of the library's resources; at the other extreme, some faculty members hardly acknowledge that a library exists on their campus. Non-use of the college library may be the result of various factors: sometimes it is because of the kind of course a faculty member teaches; often it is because of the adequacy of a text or the availability of inexpensive paperback books; sometimes it is because of an instructor's lack of acquaintance with the library. Obviously, the philosophy and purpose of the college will determine the philosophy and purpose of the library. One college may promote the goal of independent study for all students, in which case the library becomes the chief source for study materials; another may encourage the acquisition of lifelong reading habits, and the library may be promoted as the main source of reading matter; still another college may offer a program in which the library is expected to contribute little or nothing. College library facilities also vary greatly, and the use of the library may be dictated more by what is available then by what is desired. Because of these various factors, the results of a study of library use undertaken in a particular college may have limited applicability to other colleges, or even to different courses within the same institution. Nevertheless, the defining of a problem in library use (or non-use) and the procedures used to study it may
have wider application.

Interest in this study stems from a concern about the use of a library by students registered in a two-year college on a major university campus. Library literature indicates generally inadequate facilities in junior colleges, little emphasis on the library by instructors, and little use of the library by junior college students. It is the purpose of this investigation to test some hypotheses about student use of the library in a setting where special facilities are provided, where faculty is reminded of the library's resources each term, each term, and where students in some courses are known to make more recorded use of the library than do those in other courses.

The first hypothesis is that students in some courses will make more use of the library if they were registered the previous quarter in a course in which some reference to library materials was made. The second major hypothesis is that students who make greater use of the library for a particular course will achieve higher grades in that course. Because the literature indicates sex differences in library use, a third hypothesis that women will use the library more frequently than men was also made, but a decision to analyze this hypothesis was made conditional on the number of men and women in the courses under study. These hypotheses were tested in the General College of the University of Minnesota by noting differences among students in those courses selected for study in use of the Freshman-Sophomore Library and in achievement in the particular course.

The General College is a two-year college open to any graduate of an accredited high school in the State of Minnesota. It offers
a program of general education in which the attempt is made to adapt the program to the individual needs and interests of the student. Many of its students are not admissible to other colleges because of a low probability of success in a four-year program. Many of them are undecided about educational-vocational goals, and choose the college for the excellent counseling and advising that are cornerstones of its educational philosophy. Many students see it as a means of access to higher education which might otherwise have been denied them. The General College has no required courses, although many students planning continuation in college beyond two years do include coursework which fits the requirements of other colleges. A student is awarded the Associate in Arts degree only after successfully completing 90 quarter credits and demonstrating a satisfactory level of proficiency on a comprehensive examination covering the areas of instruction in the college.

The Freshman-Sophomore Library of the University of Minnesota was established to give the first and second year undergraduate on the campus better library service and greater access to library facilities, particularly as they were needed for coursework. The book stock is based largely on recommendations of faculty who teach the freshmen and sophomore courses, augmented by alert librarians who attempt to fill in the areas where gaps exist. A small reference collection is available. An attempt is made to keep reserve titles to a minimum, and to encourage faculty to promote the open shelf accessibility of most of the materials. The library provides a direct first level of service in supporting the instructional programs of the undergraduate colleges on campus.
The specific focus of this study, therefore, is on student use of the Freshmen-Sophomore Library in connection with a few selected courses in the General College of the University of Minnesota.

During Fall Quarter, 1964, book check-out slips and reserve book cards were collected in the Freshman-Sophomore Library. Titles of books which were checked out by General College students were recorded, and a tabulation was made of the number of times each book was used. Instructor's book lists for reserve or supplementary reading submitted to the library for Fall, 1964, were checked against the recorded list of titles. From the records, it was found that three courses, GC 3A, Home Life, Marriage, and Family Living; GC 38A, Geography; and GC 400, Problems of Contemporary Society, had the highest instructor referral and student use among all the courses taught. Syllabi and student assignment sheets for these courses were checked for additional evidence that referral to library resources was made often. As a guard against biasing influences during the collection of data Winter Quarter, 1965, instructors whose courses were involved were not informed of the study. Two courses which showed very high student use during Fall Quarter were not included in the study because in each case the library source consisted of one title placed on reserve.

Duplicate book check-out slips were made available for this study by the Freshman-Sophomore Library librarian. Reserve book check-out cards were saved by the library staff as each card was filled. At the end of Winter Quarter a check was made of all book cards remaining in the reserve books of the courses under
study. Each of these two sources of data, the book check-out slips for overnight books, and the reserve book cards indicating two-hour use within the library, included the name of the borrower, the college in which the student was registered, and the date.

Names of students on the class list for four sections of GC 3A, two sections of GC 38A, and one section of GC 40 were checked against the Fall Quarter roster of General College students. Only those students who had had no previous college work were included in the study. For each of the freshmen in these courses, the following information from the library cards and slips was recorded: the number of times overnight books were checked out for the course in January and in the Winter quarter; and the number of times reserve books were checked out during January and during the Winter quarter. The data for the seven sections were kept separate until the descriptive statistics of course grades, Fall quarter achievement, and Comprehensive Examination scores had been tabulated. From the distribution of course grades and because two instructors were involved, it was decided to study the four sections of GC 3A as two courses. Sections 1 and 3 were taught by one instructor; the designation GC 3A13 will identify this course. Sections 2 and 4, taught by another instructor, will be identified as GC 3A24. Both sections of GC 38A, taught by the same instructor, were considered as one course. There was only one section of GC 40. Students in these four courses became the subjects of the investigation.

The control for achievement in this study is the student's Fall quarter grade average, called the Numeric Point Average (NPA). Grades in the General College are distributed on an 11 point scale
in each class. For recording purposes, letter grades are attached and identify the numerics 10 and 11 as "A", 8 and 9 as "B", 5, 6, and 7 as "C", 3 and 4 as "D", and 1 or 2 as Fail. A course grade of 7 would represent a high average grade.

The control for ability in this study is the General College Comprehensive Examination. It is a test of some 200 items covering the major areas of instruction in the college; it is used primarily as a degree requirement. It also has proved to be a valuable diagnostic tool for the General College population in predicting achievement, probation, and attrition of students.

The data collected for this study was punched on IBM cards to facilitate analysis. A Control Data 1604 Computer in the Numerical Analysis Center of the University of Minnesota was used. The hypotheses were then tested using the analysis of variance technique for which a standard computer program, identified as UMSTAT 61, was available in the Center.

Two major hypotheses were tested. The first was that freshmen in the courses studied would make greater use of the library if they had been registered in a course the previous quarter in which some reference to library reading was made. The second was that freshmen who make greater use of the library in a particular course will achieve the higher grades in that course. A third hypothesis, that women make more use of the library than men, was made possible when it was found that there were enough of each sex in one of the classes to warrant an analysis of sex differences.
The data collected about each student to test these hypotheses included the Fall quarter grade average, the Comprehensive Examination score, registration or no registration in a library referral course Fall quarter, the course grade in the Winter quarter course under study, and the several measures of recorded use of the library.

For statistical analysis, the hypotheses are restated in null form, and the results are discussed in terms of the differences noted. The first hypothesis is that, when student achievement or ability is controlled, there is no difference on measures of course achievement and library book use in a course which makes much reference to the library, between freshmen who were registered the previous quarter in at least one course in which some reference to the library was made and freshmen who were not registered in any such course the previous quarter. No significant differences in Winter quarter course grades or any of the measures of library use were found between these two groups of students in any of the courses when the control variable was the students' Fall quarter grade averages. The hypothesis of no difference between the two groups was accepted, and the conclusion was that registration in a referral course during one quarter had no effect on the course grade or library use in a course the following quarter which made much referral to the library.

When the control variable was the students' Comprehensive Examination scores as a measure of ability, no significant differences in Winter quarter course grades or any of the measures of library use were found between freshmen who had taken a referral
course Fall quarter and those who had not. The hypothesis of no
difference between the two groups was accepted, and the conclusion
again was that registration in a referral course the previous
quarter had no effect on course grade or library use the following
quarter.

The first major hypothesis in null form was therefore not
rejected, and the conclusion was that freshmen who register in a Fall
quarter course which makes some reference to the library and those
who do not take such a course earn approximately the same course
grades and make the same library use in a course which makes much
referral to the library the following quarter.

The second hypothesis was that, when student achievement or
ability is controlled, there is no difference in course grade between
freshmen who make some use of the library related to the course and
those who make no use of the library. In three of the courses,
students were classified on the basis of use or no-use of library
books, and a significant difference in course grade was found in
one of the courses between these two groups when the control variable
was Fall quarter grade average. However, the table of means showed
the difference in the average mean grades to be about the same for
all three courses, and it was possible that the size of the sample
limited the finding of significant differences. When the control
variable was tested ability, a significant difference in two of the
courses was found, and again the table of means shows a similar
spread in the mean grades for all three courses. In one of the
courses students were separated into three groups: one group made
no use of the library; another included those students who checked
out one or two books; and a third group included those who checked out three or more books each during the quarter. Here significant differences in course grades among the three groups were found when either achievement or ability was controlled.

The second major hypothesis (in null form) was therefore rejected, and the conclusion was that students who make use of the library for a particular course earn significantly higher grades than those who do not make use of the library.

A third hypothesis was that there is no difference in measures of course achievement and library use between freshmen men and women when achievement or ability is controlled. While no significant differences between the sexes were found, it was interesting to note that women made greater use of the library than men, but men earned higher grades than women in the course studied. The third hypothesis was therefore not rejected, and the conclusion was that the sex of students had little effect on course grade or library use.

The general implication from this study is that in a particular course in which an instructor encourages library use, students who make the greater use of the library are rewarded by receiving the higher grades. Registration in courses which make reference to the library has no effect on grade or library use in a course which makes much reference to the library the following quarter.

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