R E P O R T R E S U M E S

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A STUDY ON STUDYING, A REPORT FROM THE COMMUNITY COLLEGE PLANNING CENTER ON STUDENT STUDY FACILITIES.

STANFORD UNIV., CALIF. SCHOOL PLANNING LAB.

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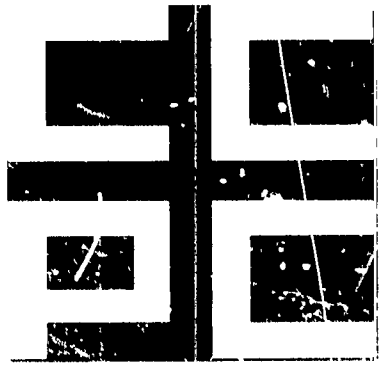
APPROXIMATELY 600 STUDENTS FROM FIVE JUNIOR COLLEGES ANSWERED 100 QUESTIONS CONCERNING WHAT THEY FELT TO BE THE "IDEAL" STUDY FACILITY. ALTHOUGH THE STUDY REVEALED NO REAL CONSENSUS, MOST STUDENTS SEEMED TO PREFER A QUIET, PRIVATE, PLAIN, MODERATELY-SIZED AREA FREE OF TOBACCO SMOKE AND WITH ACCESS TO STUDY MATERIALS. THE SAME STUDENTS INDICATED WHERE THEY STUDY AND WHY THEY STUDY WHERE THEY DO. A DIFFERENT GROUP OF 116 STUDENTS ANSWERED THE SAME TWO QUESTIONS, BUT KEPT A RECORD OF THEIR STUDY HABITS FOR A WEEK TO DOCUMENT THEIR RESPONSES. THE ANSWERS GIVEN BY THE TWO GROUPS WERE SIMILAR. THE VARIETY OF RESPONSES ON ALL QUESTIONNAIRES, HOWEVER, WAS GREAT ENOUGH TO SUGGEST STRONGLY THAT AN "IDEAL" FACILITY WOULD PROVIDE A WIDE VARIETY OF STUDY AREAS. RESULTS OF THE QUESTIONNAIRES WERE RECORDED ON GRAPHS AND TABLES. (AD)

A STUDY ON STUDYING

A Report from the Community College Planning Center on Student Study Facilities



THE COMMUNITY COLLEGE
PLANNING CENTER
SCHOOL PLANNING LABORATORY
SCHOOL OF EDUCATION
STANFORD UNIVERSITY

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THE COMMUNITY COLLEGE PLANNING CENTER was established by Stanford University with a grant from Educational Facilities Laboratories, Inc.

The Center, in recognizing that facilities for community colleges often present special problems, examines existing facilities and generates new design ideas based upon its research and field studies.... This booklet is the result of such research.

What Factors in the Study Environment are Most Important to Students?

What do they consider to be Ideal Study Spaces?

If significant efforts and hard-sought funds are to be expended to provide libraries and study spaces, it is vital that these facilities provide the student with a learning environment that he will both accept and use.

It is the purpose of this report to give some guides to the design and location of student study facilities. These guides are based upon interpretations of needs and preferences as expressed by the students themselves.

INTRODUCTION

In 1964 over 700 students at six California community colleges took part in projects conducted by the Community College Planning Center for the purpose of investigating student study habits.

The colleges in the primary study – Bakersfield College, College of San Mateo, East Los Angeles College, Laney College in Oakland, and Yuba College – provided a cross section of urban, suburban, and rural campuses, situated in communities ranging from 75,000 to 375,000 in population and from 3000 to 15,000 in total enrollments. The school districts concerned varied from 52 to 8000 square miles and, with the exception of one college which was primarily technically and vocationally oriented, were comprehensive in nature, offering transfer, general education, technical-vocational, and adult programs.

The students who took part in this study also represented a wide range of characteristics found among junior college students, being full and part time, school age and adult, single and married, day and evening, transfer and terminal, etc.

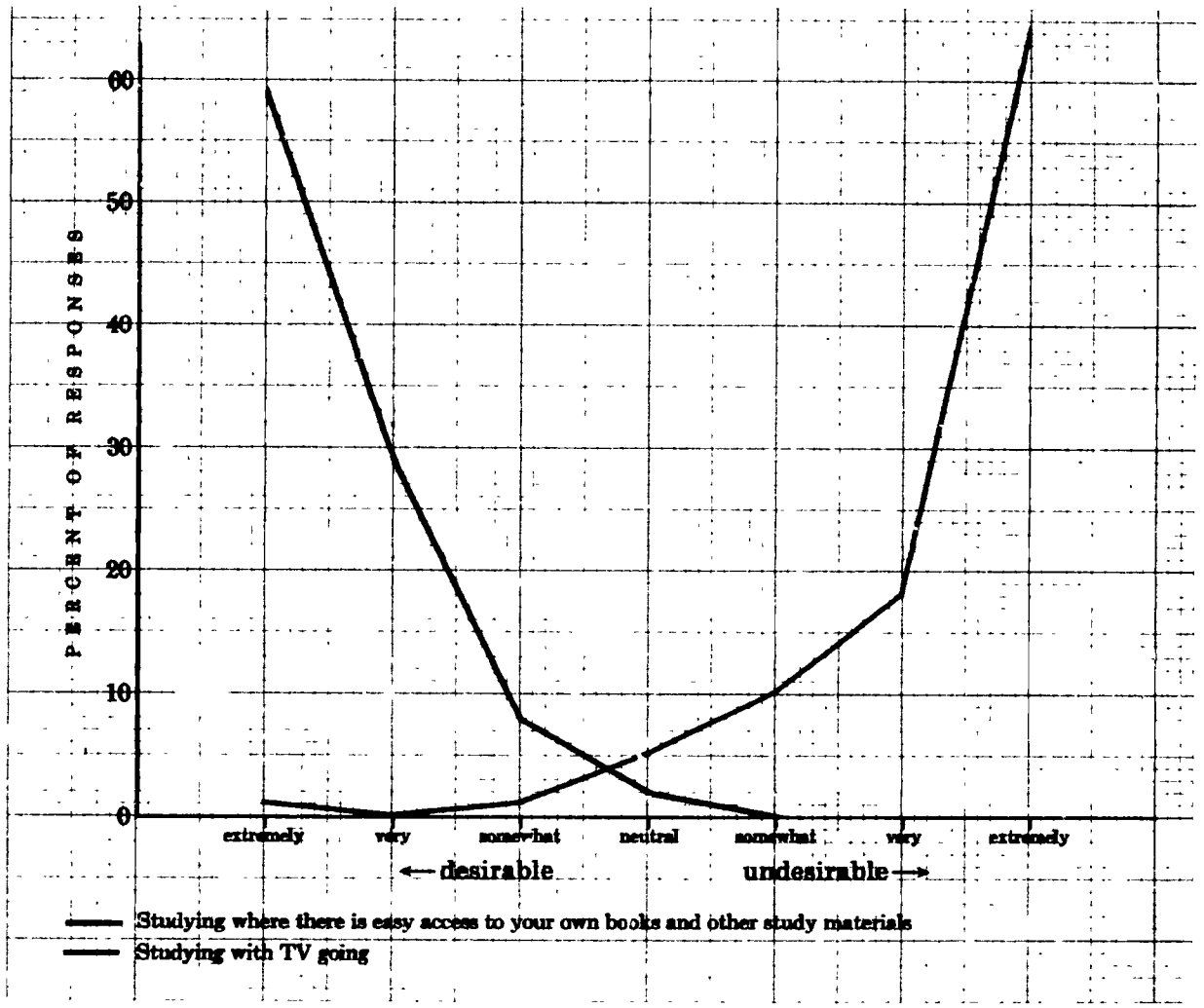
SECTION I of this booklet concerns the responses given by some 600 students from five junior colleges to 100 questions concerning study facilities - page 9

SECTION II compares the study habits of this group with those of a different group of more than 100 junior college students who kept detailed records of their actual study practices - page 31

SECTION III gives suggestions for designing and locating student study facilities based upon the data gathered in these two studies and field work on the part of the staff of the Community College Planning Center - page 41

It would seem reasonable to expect that a serious student would want easy access to his own books and other study materials and that he would not want a television set turned on during his study time.

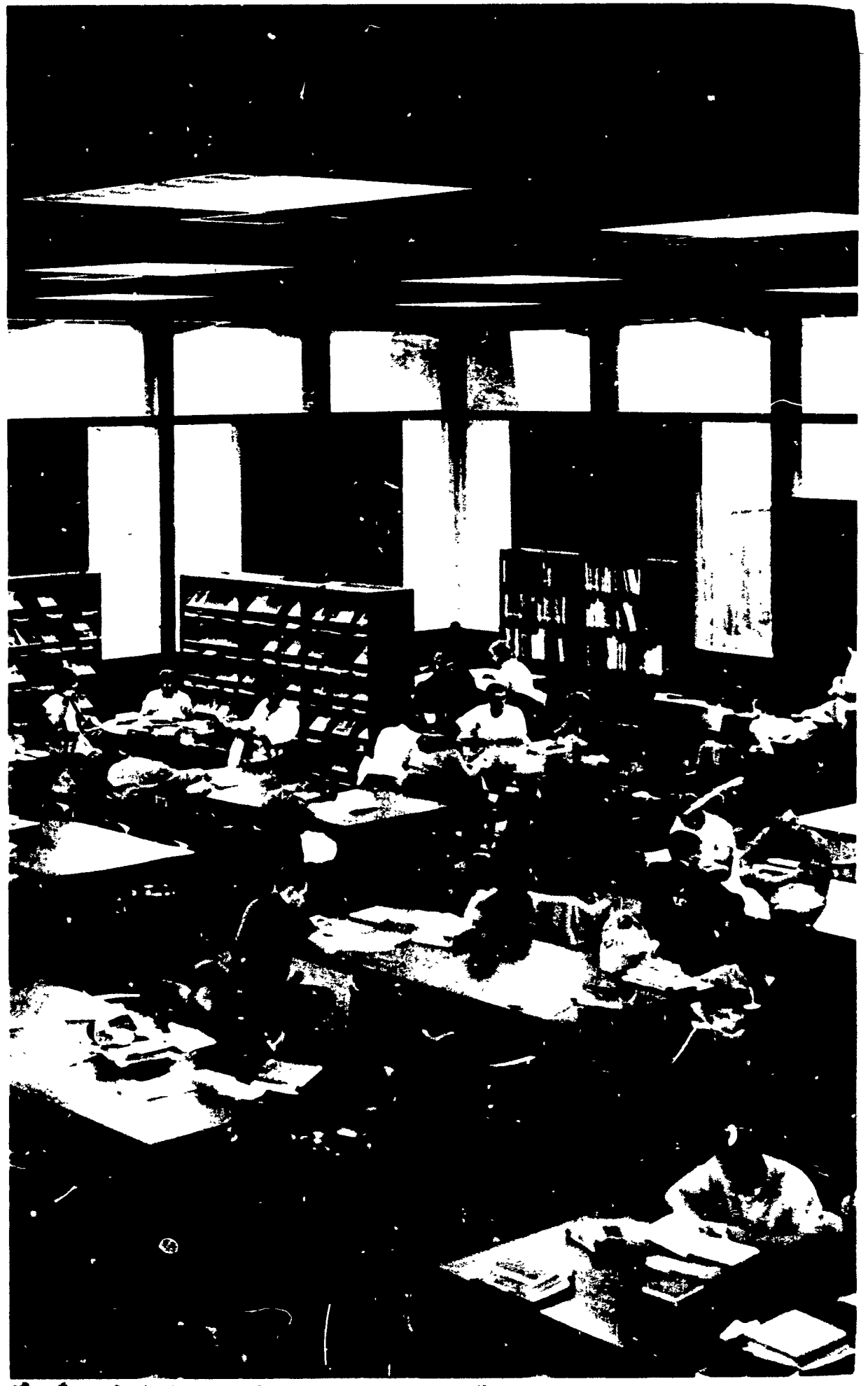
To set the stage for the charts that follow in Section I, let us consider the example of the most extreme cases of positive and negative responses.

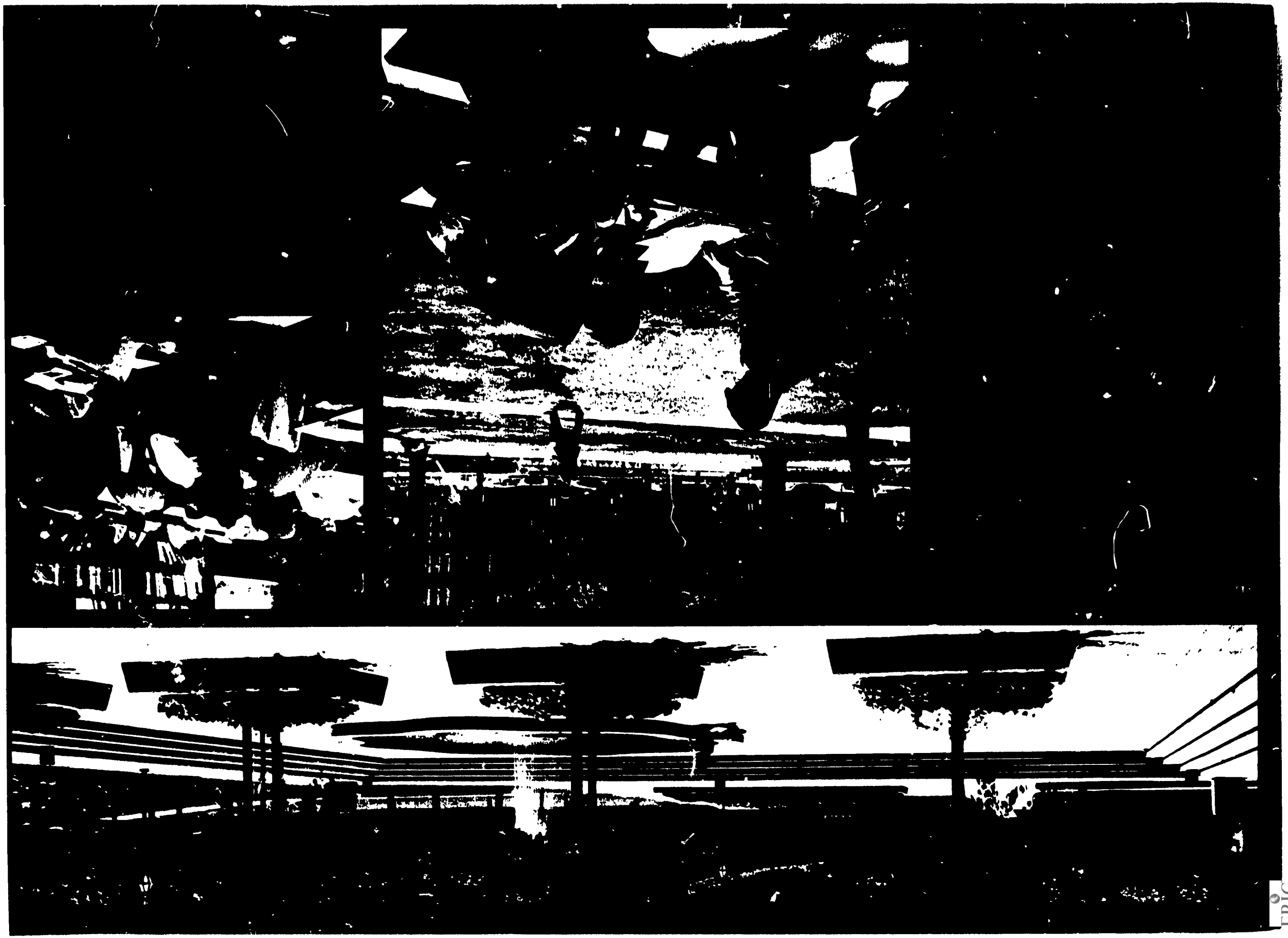


Note: Unless noted otherwise, N for all questions is between 660 and 669.

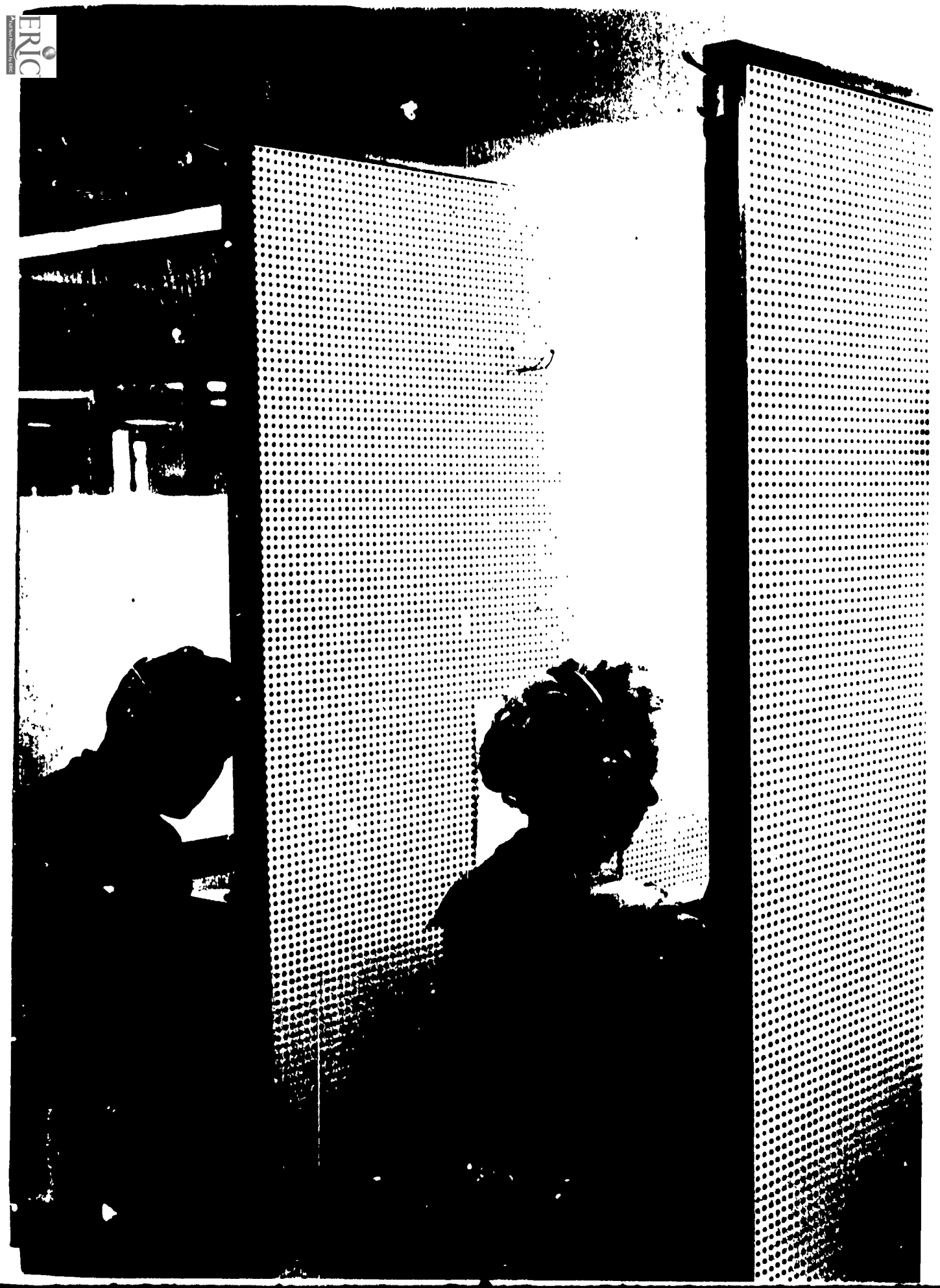
It is significant that while these two questions elicited the extremes of positive and negative response as expected, both exhibited far less than a 100% response in either the "extremely desirable" or "extremely undesirable" categories. This indicates that in succeeding questions a response of 50, 40, or perhaps even 30 percentage points in a highly positive or negative category can be considered a high score and worth special attention.

Graphs shown for the responses to many of the other questions tended to fall into the pattern of the traditional bell-shaped curve with the responses clustered at or near the "neutral" area. While such response patterns indicate that many or even most students were largely unconcerned with the particular study facilities problem investigated in a specific question, it would be a mistake, as we shall see in Section III, to dismiss these largely neutral responses without further consideration.



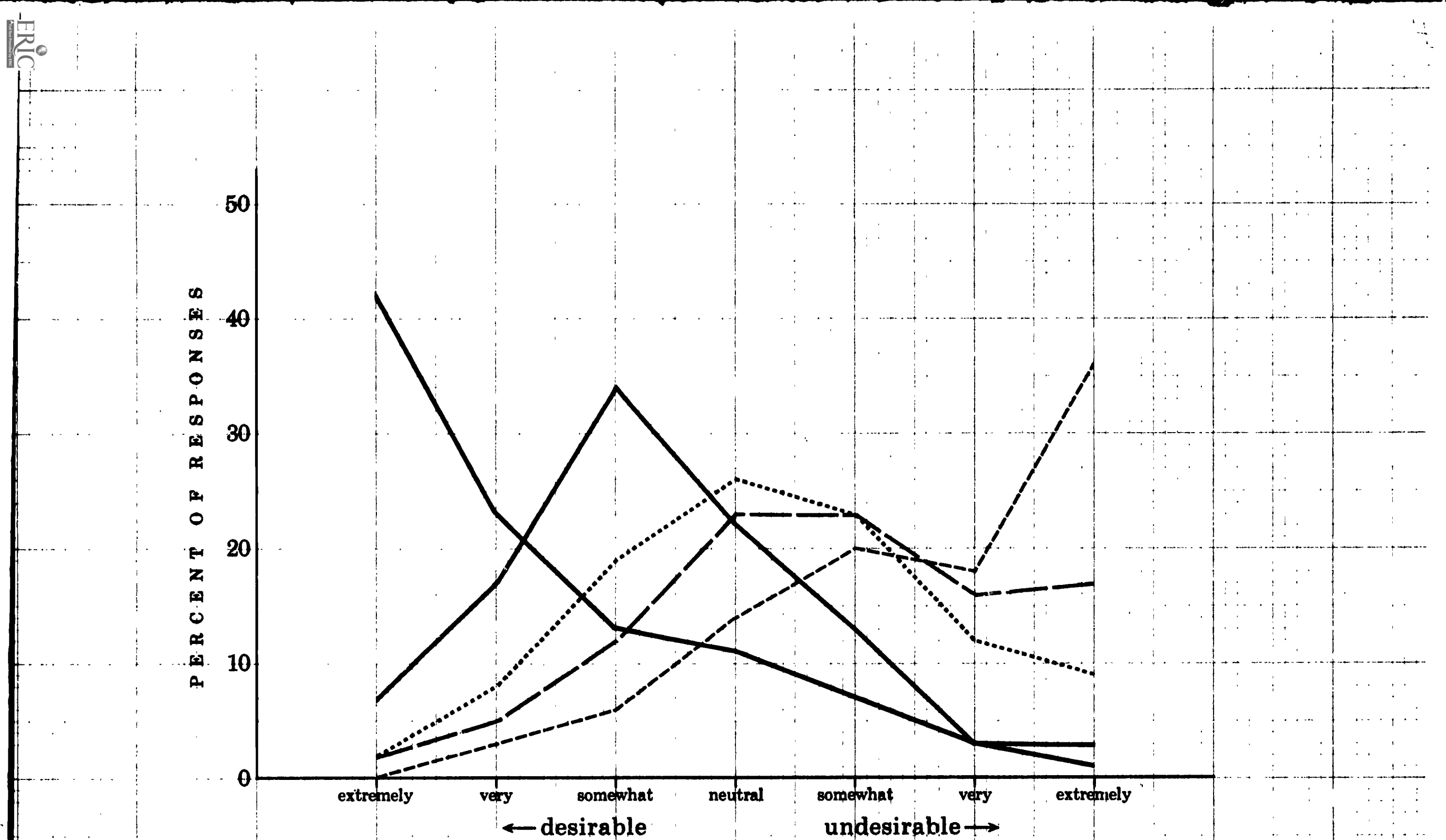


SECTION I



PRIVACY

Several questions compared the students' preference for studying alone vs. studying in the presence of other students. While the responses (charted on the facing page) are not unexpected, the sharp difference between studying alone and studying with even two or three other students is probably meaningful. Note also the definite and regular change from the "desirable" to the "undesirable" response categories as the number of fellow students increases.


PERCENT OF RESPONSES
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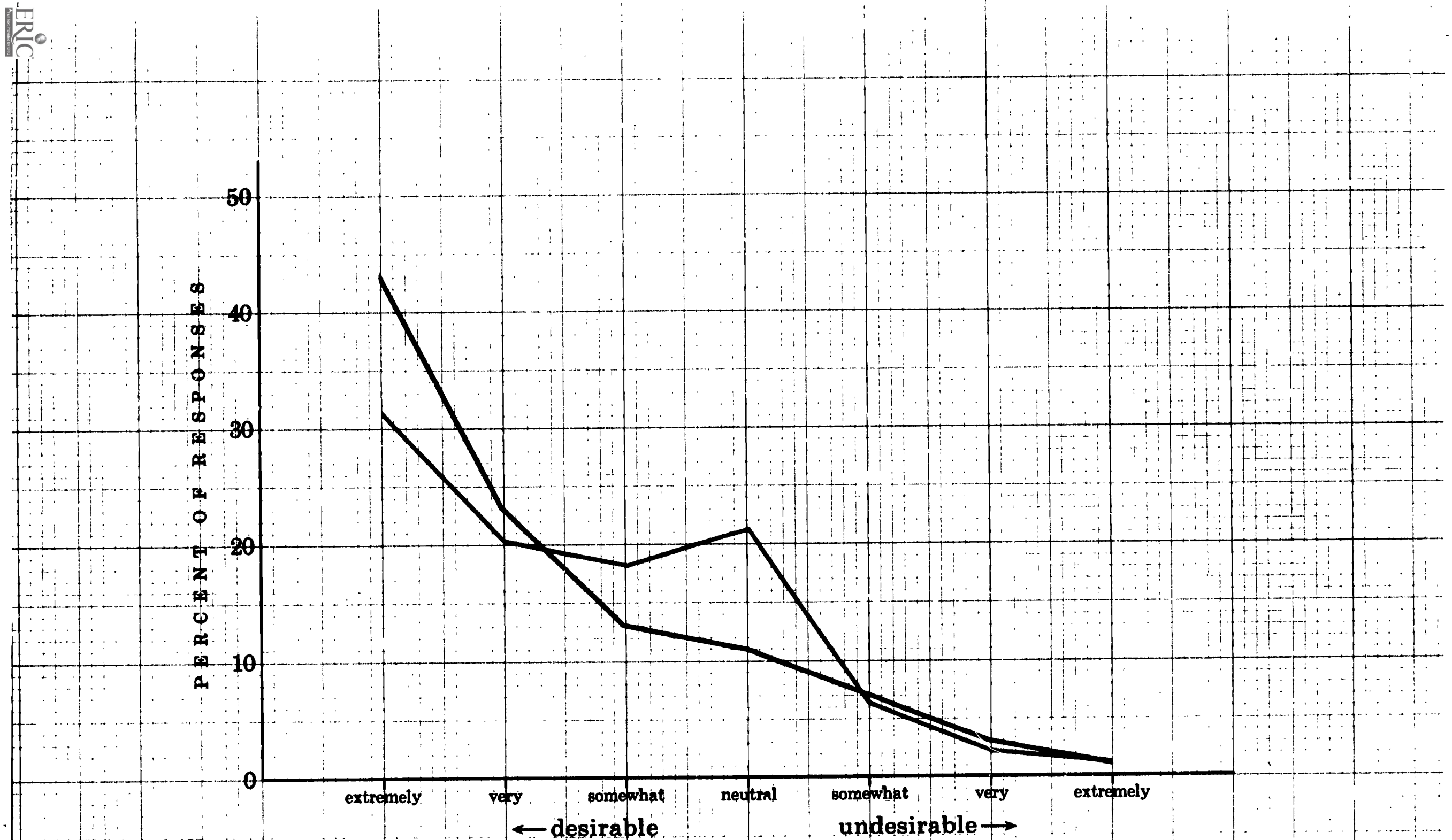
undesirable →
Studying alone
Studying with 2 or 3 other persons also studying
Studying with about 7 other persons also studying
Studying with about 20 other persons also studying
Studying with more than 100 other persons also studying

PRIVACY vs ISOLATION

The students seemed to feel that there is a difference between studying "alone" and studying "in complete privacy." As can be seen from the chart, more students responded in the "extremely desirable" and "very desirable" categories for studying alone than for studying with complete privacy, thus expressing a preference for the former. Although this difference is not dramatically large, it is, nevertheless, noticeable, and in Section III we will have more to say about this difference.


PERCENT OF RESPONSES
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undesirable →
Studying alone
Studying with complete privacy

PRIVACY FOR THE GROUP

While the students expressed a decided preference for studying alone rather than in the presence of other students, they also expressed an almost equally strong desire to have small sound-proof rooms available for group study. In fact, the desire for such group study areas was so pronounced that 75% of the students' responses fell within the "desirable" categories, while only 5% of their responses were in the "undesirable" range.

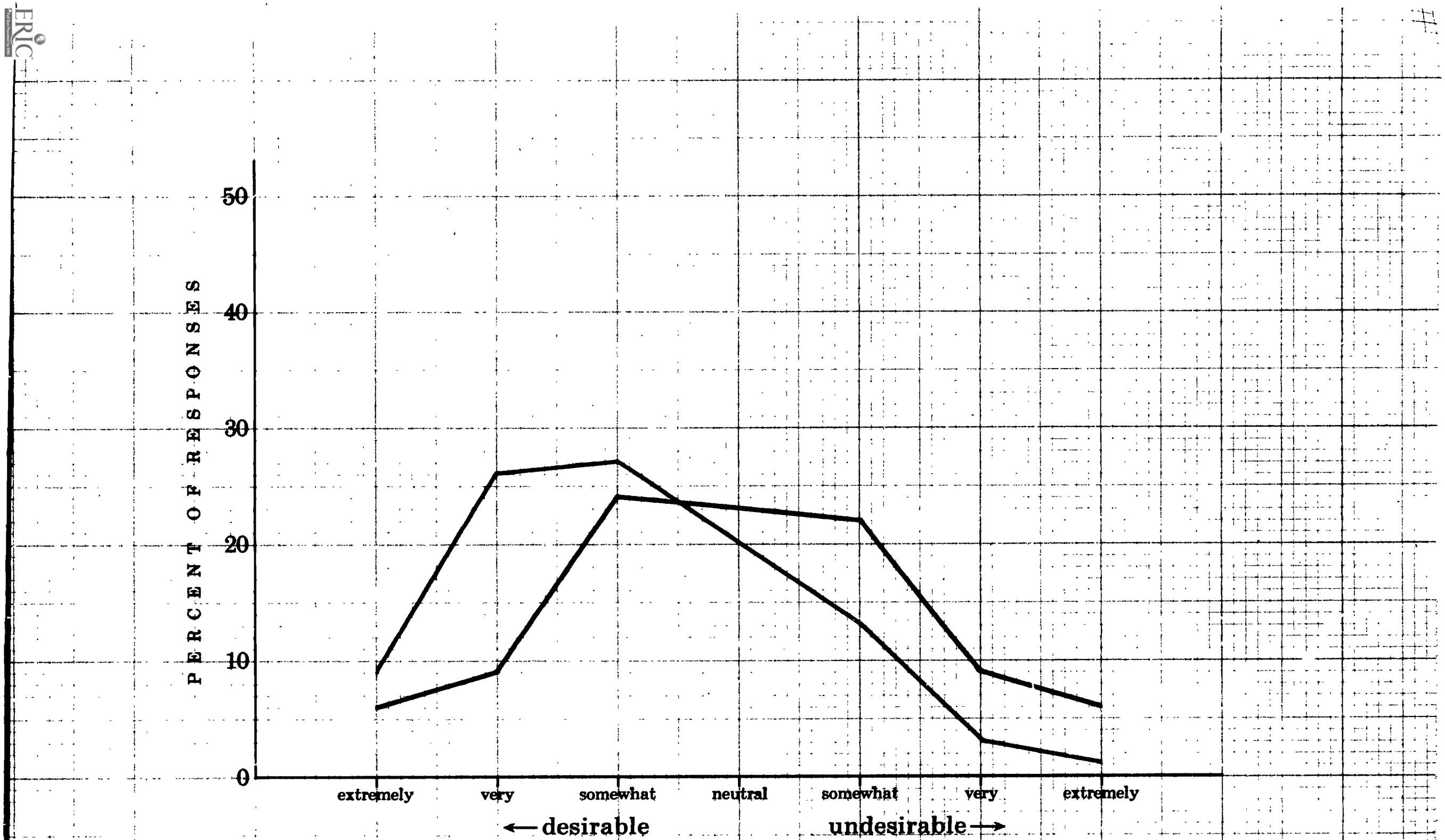
PLAIN OR FANCY?

When study space is planned, how much money and effort should go towards special decor? Not a great deal, it would seem.

In terms of comfort, a few students favored soft chairs over hard, and some preferred study areas in which they could remove their shoes and put their feet on the desks.

But the majority clearly preferred a desk and chair arrangement for studying and they expressed a marked *aversion* to having recreational facilities, areas for relaxation, snack bars, telephones, and their friends near them while they studied.

And while they were not overly concerned as to whether their study area should be elaborate or plain, they tended, as the chart shows, to choose the latter.


PERCENT OF RESPONSES
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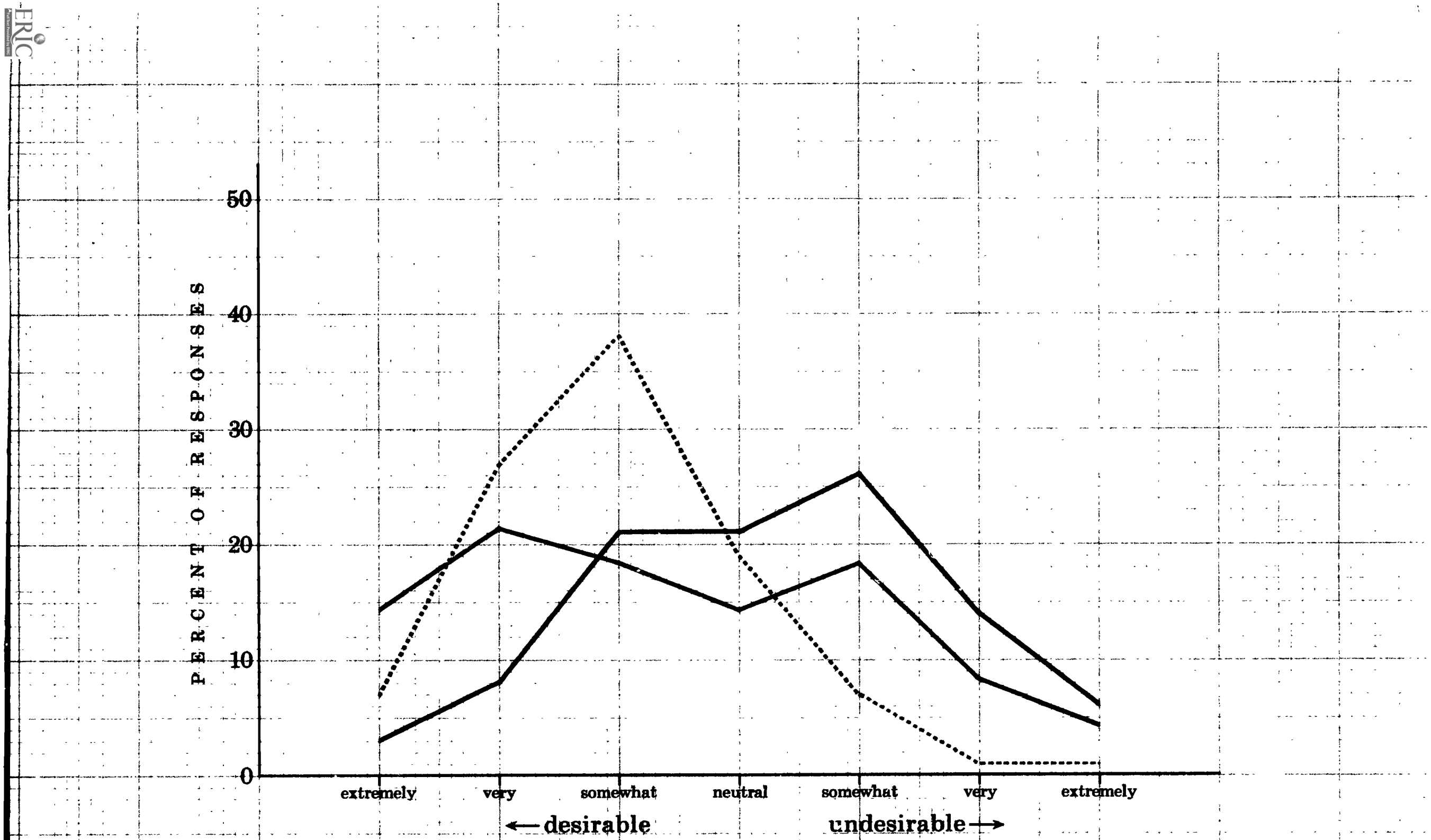
undesirable →
Studying in a place with elaborate interior decoration (upholstered furniture, rugs, paintings, art objects, draperies, planned colors, etc.)
Studying in a place with plain, office-like interior

HOW LARGE A STUDY AREA?

As might be expected, the students generally expressed a preference for small as against large study areas. But in light of the current trend away from the large reading room, it seems surprising that this preference was not more strongly expressed.

Note that in the accompanying chart the preferences shown for study spaces of various sizes do not appear as a trend of increasing student preference from large to small. In fact, in the "very desirable" and "somewhat desirable" categories more students expressed a preference for moderately large study rooms than for small study areas.

Because of the current interest in study carrels among college planners this question was given particular study and is discussed in Section III.


PERCENT OF RESPONSES
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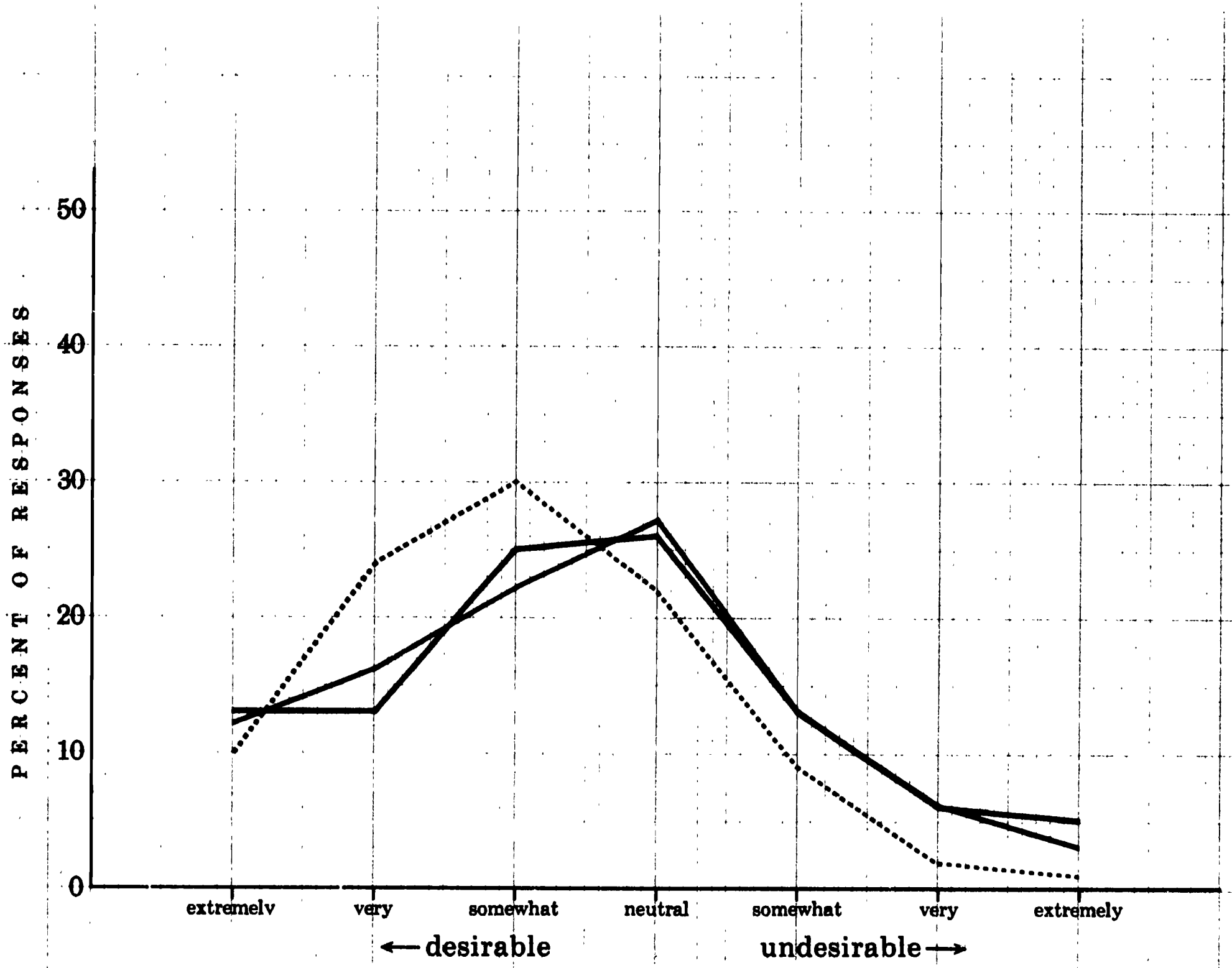
undesirable →
Studying in a very large space, e.g., main reading room in library, dining hall, or auditorium
Studying in moderately large space, e.g., one the size of a small classroom or living room
Studying in small space, e.g., one the size of small bedroom or carrel (cubicle with desk and bookshelf)

DO YOU WANT TO STUDY IN A CARREL?

While there was a trend toward the "desirable" as opposed to the "undesirable" categories in the students' responses to this question, this trend was certainly not pronounced.

Four of the junior colleges covered by this study had no carrel space, while the fifth had an equivalent of one carrel space for each 375 students. While the students at the latter college could hardly have done much of their studying in a carrel, their responses were plotted separately, for comparative purposes, from those who had had no access to carrels. The results (opposite page) are quite similar for the two groups and do not show a heavy positive response for *either* group.

For additional purposes of comparison, the responses concerning the desirability of studying on campus are also shown. As may be seen, there seems to be a number of students who find it desirable to study on campus, but not in a private carrel. Carrels will be discussed further in Section III.



Working in a private carrel (a cubicle with desk and bookshelf) in the library

——— 264 students on a campus with some carrel space

——— 405 students on campuses without carrel space

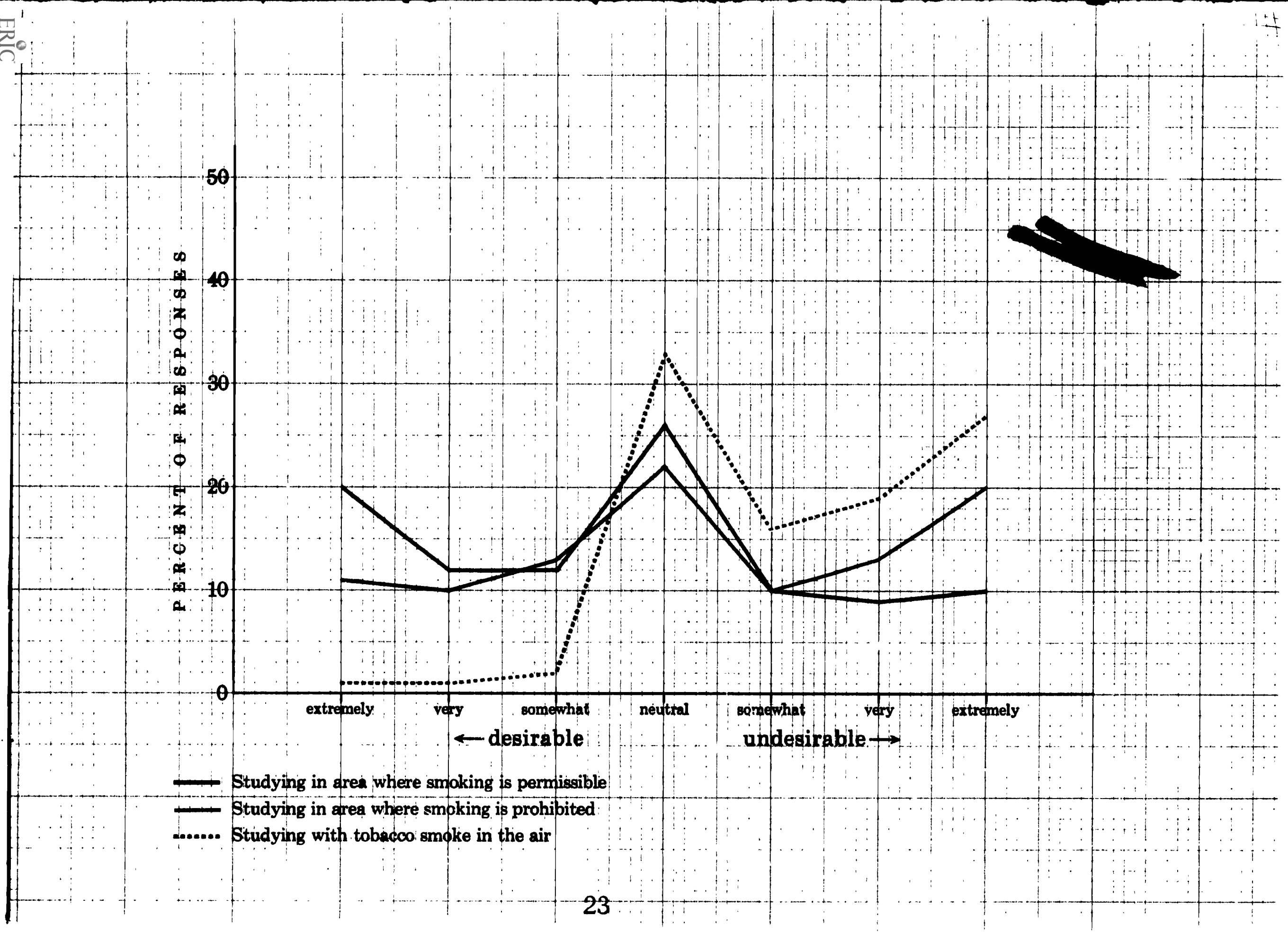
····· Studying on campus

SMOKING

Judging from the responses to the first two questions on smoking (opposite page), it would appear that while many students are unconcerned with smoking, there are a number who have a strong desire to smoke while studying and an almost equal number who do not want smoking permitted. (All three of these student preference groups are evident in the accompanying chart. Note the upturn at each end and at the middle in response to the first two questions.)

There seems to be no doubt about the students' opinion of tobacco smoke in the air. Responses to this question on the part of smokers and nonsmokers alike ranged from neutral to strongly negative.

Evidently, the ideal study area would not only provide separate areas for smokers and nonsmokers; it would also incorporate an adequate ventilation system throughout.


PERCENT OF RESPONSES
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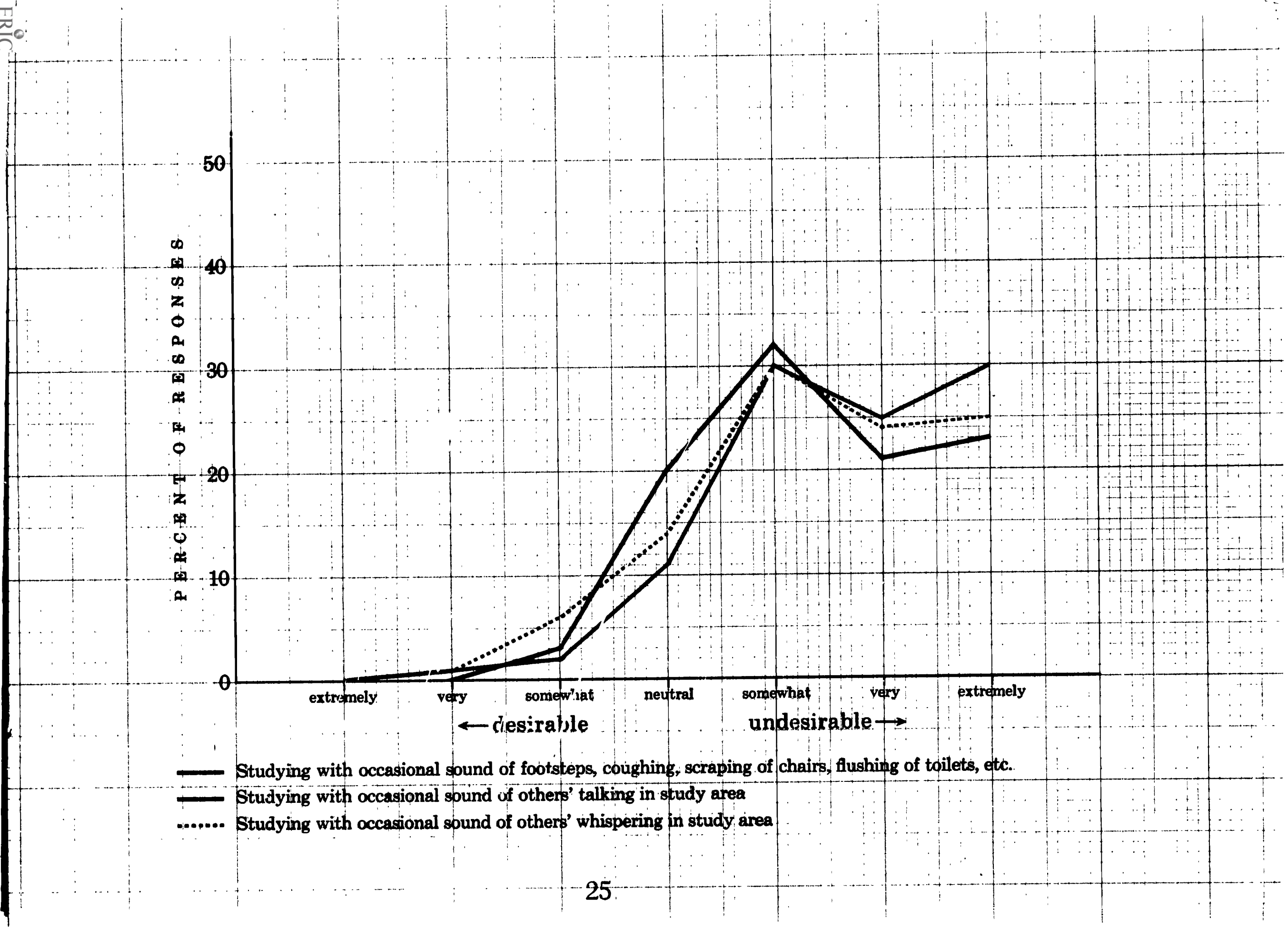
undesirable →
Studying in area where smoking is permissible
Studying in area where smoking is prohibited
Studying with tobacco smoke in the air

NOISE

A number of questions dealt with extraneous sounds which might confront the studying student (autos, background noises, phonographs, etc.). Not surprisingly, there was a strong tendency to rate all extraneous sounds as undesirable.

Three questions (opposite page) concerning the noise factor were of special interest since they represented "library" noises which are either infrequently heard or generally softer than those mentioned above. The students, however, responded to these with practically the same degree of negative emphasis they assigned to harsher or more constant sounds.

The responses to all three of the questions on the page opposite would seem to point most definitely toward sound-deadening equipment such as carpeting and acoustical ceilings, while the latter two would indicate that the "Silence" signs in the library should be strictly enforced.


PERCENT OF RESPONSES
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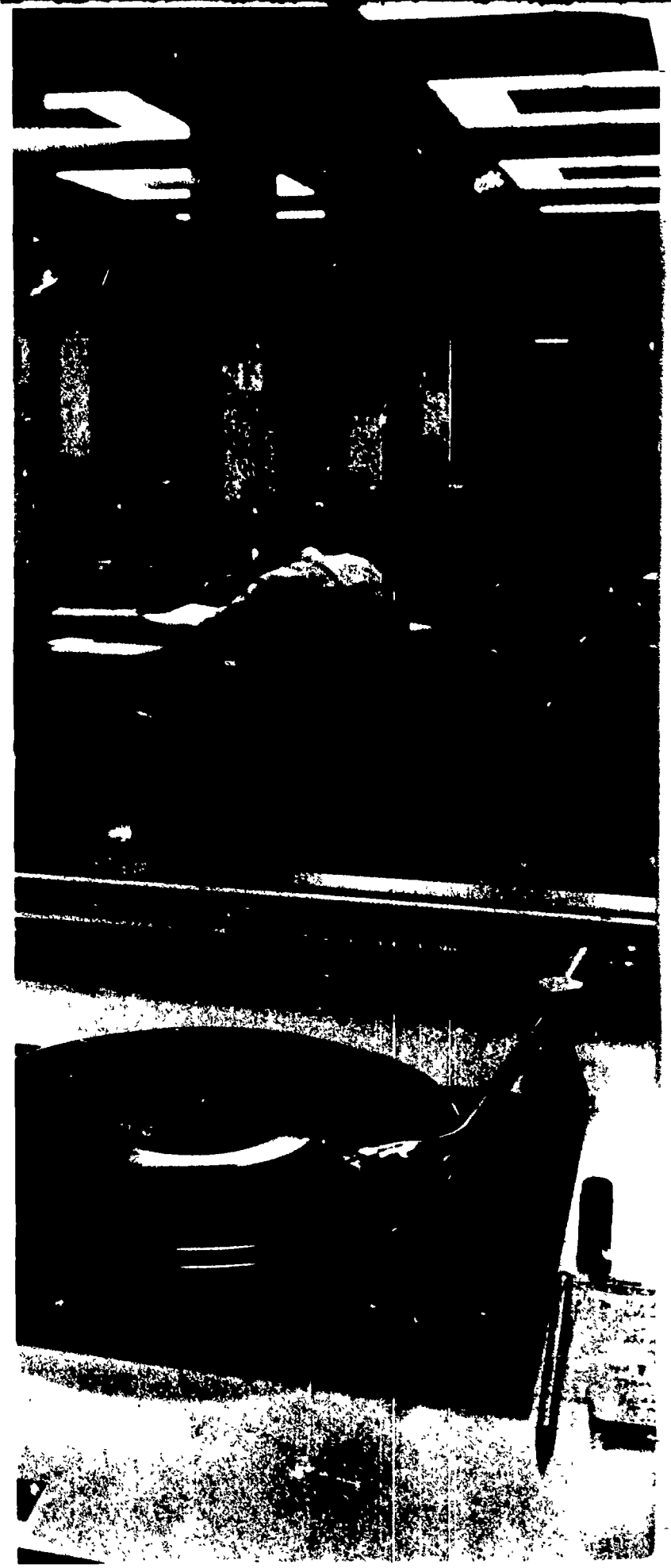
undesirable →
Studying with occasional sound of footsteps, coughing, scraping of chairs, flushing of toilets, etc.
Studying with occasional sound of others' talking in study area
Studying with occasional sound of others' whispering in study area

ACCESSIBILITY TO EDUCATIONAL ACTIVITIES AND AIDS

As indicated earlier, students generally preferred to study away from snack bars, recreation areas, telephones, etc. A number of other questions in the study dealt with whether or not various educational activities and aids ought to be located near study areas.

Although there was a slight tendency for the students to choose the "desirable" categories regarding questions *two, five,* and *seven* on the opposite page, the responses to all eight of these questions generally exhibited the bell-shaped curve pattern indicating general lack of interest or concern on the students' part.

1. Studying in or near the periodical section of the library
2. Studying in or near the reserve book section of the library
3. Studying among the open stacks in the library
4. Studying in a space convenient to the visual (film, displays, pictures, models, etc.) materials section of the library
5. Studying in a space convenient to the audio (tapes, records) materials section of the library
6. Studying where there is easy access to laboratory and shops
7. Studying in a library with open stacks
8. Studying in a library with closed stacks



NEAR WHAT?

There were three questions concerned with "accessibility" which elicited very positive responses. The results, which are shown on the opposite page, deserve some qualification.

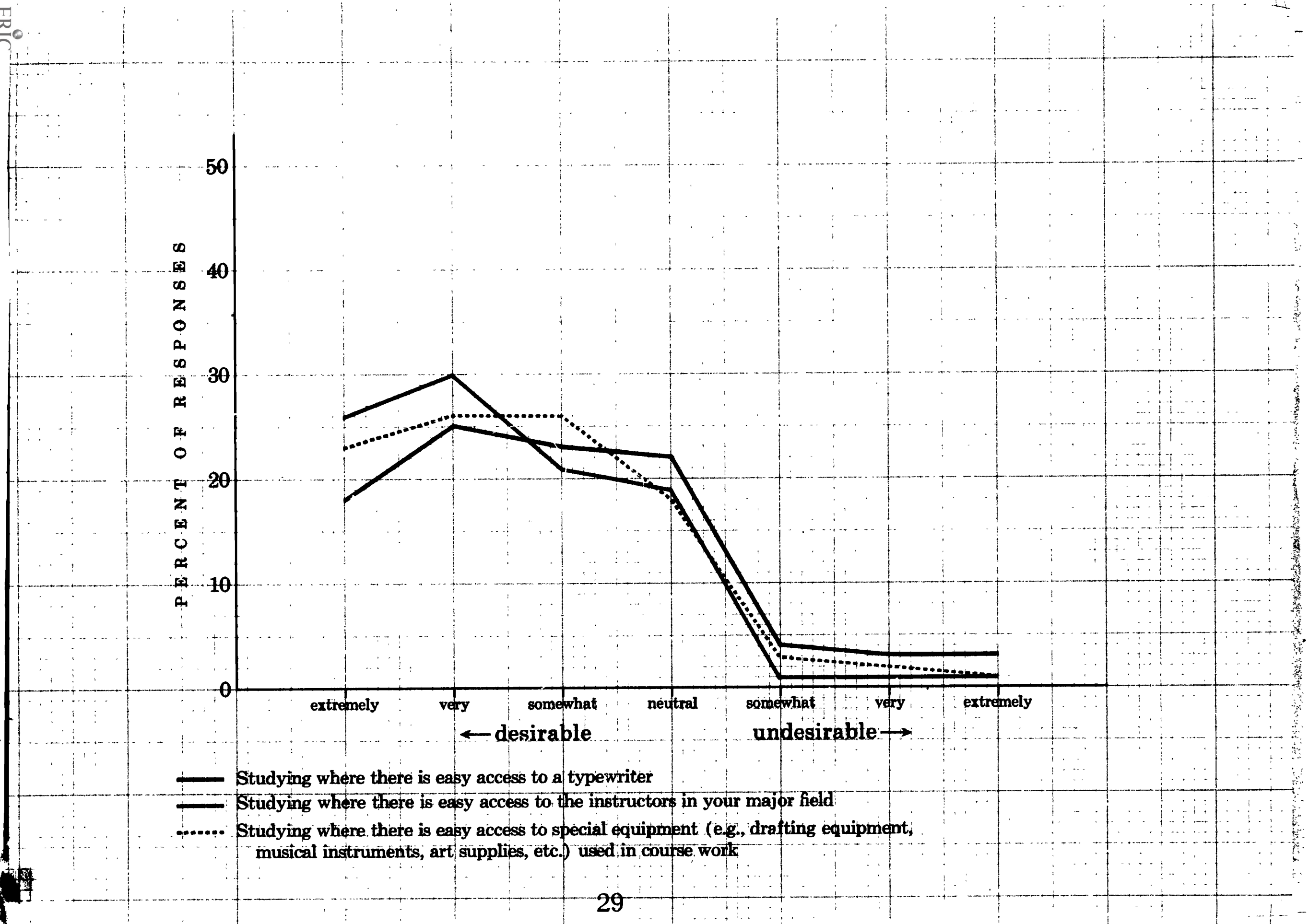
1. Access to typewriters

   While the students expressed a strong desire to have typewriters available (there were very few college-owned typewriters, or typing spaces at the colleges studied), they also wanted the typewriters located in restricted areas so that they would not interfere with quiet study.

2. Studying where there is easy access to instructors in one's major field.

3. Studying where there is easy access to special equipment (e.g., drafting equipment, musical instruments, art supplies, etc.).

Clearly, students generally want contact with their instructors and prefer to study in the familiar surroundings of their "home-base" classrooms, labs, practice rooms, etc. There seems to be a clear implication that study space should not be concentrated entirely in the library but should be available throughout campus.


PERCENT OF RESPONSES
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Studying where there is easy access to a typewriter
Studying where there is easy access to the instructors in your major field
Studying where there is easy access to special equipment (e.g., drafting equipment, musical instruments, art supplies, etc.) used in course work

SECTION II

WHERE DO YOU STUDY NOW?

In addition to the questions dealing with their study preferences, the students were asked these two questions:

1. Where do you do most of your studying now?

2. Why do you study there rather than somewhere else?

The responses to the first question are shown on the opposite page and to the second on page 34.

PRIMARY STUDY LOCATION	NUMBER OF RESPONSES	PERCENTAGE OF RESPONSES
Home	448	80.7
College library	54	9.7
Classroom and/or campus	20	3.6
Car	3	0.5
Other	30	5.4

CONDITION OR DECIDING FACTOR	NUMBER OF RESPONSES	PERCENTAGE OF RESPONSES
Quiet	208	16.8
Access to educational aids	143	11.5
Alone	138	11.1
Convenient	102	8.2
Lighting	86	6.9
Furnishings, general	80	6.5
Large writing surface	65	5.2
Best place available	49	4.0
Comfortable	47	3.8
Relaxing	43	3.5
Refreshments	36	2.9
Personal needs/objects	35	2.8
Soft chair	28	2.3
With others	26	2.1
Soft music	26	2.1
Temperature	25	2.0
Study atmosphere	25	2.0
Able to smoke	21	1.7
Hard chair	13	1.0
Window	13	1.0
Background noise	12	1.0
Small room	8	0.6
Large room	6	0.5
Recreation	1	0.1
Television	1	0.1
Wall coloring	1	0.1
Facing blank wall	1	0.1

WHY DO YOU STUDY THERE?

The length and composition of the answers to the second question indicate a factor not readily apparent from earlier questions – the great variety of conditions which students find desirable for studying. Notice that even the highest ranking item, "Quiet," received only 16.8% of the total responses and that some of the items are in disagreement. This does not mean that the data are unreliable, rather it definitely suggests that students differ in their opinions of what constitutes desirable qualities in a study environment.

The implication is also clear that in order to provide the optimum in study environments, planners should think in terms of variety of study space sizes, location, furnishings, lighting, window placement, proximity to other campus facilities, etc.

THE STUDY LOG

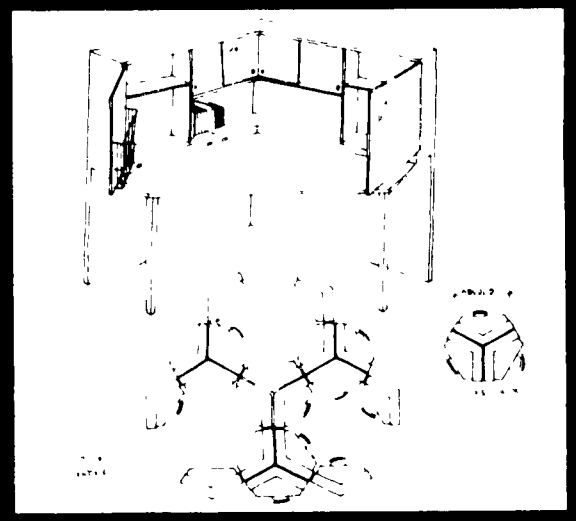
To supplement the responses to questions asked in the study, 116 additional students at a junior college not previously studied were asked to keep a careful log of their study and nonstudy activities for an entire week. Note that although there are some changes in the individual percentages, there is a basic similarity between the two groups.

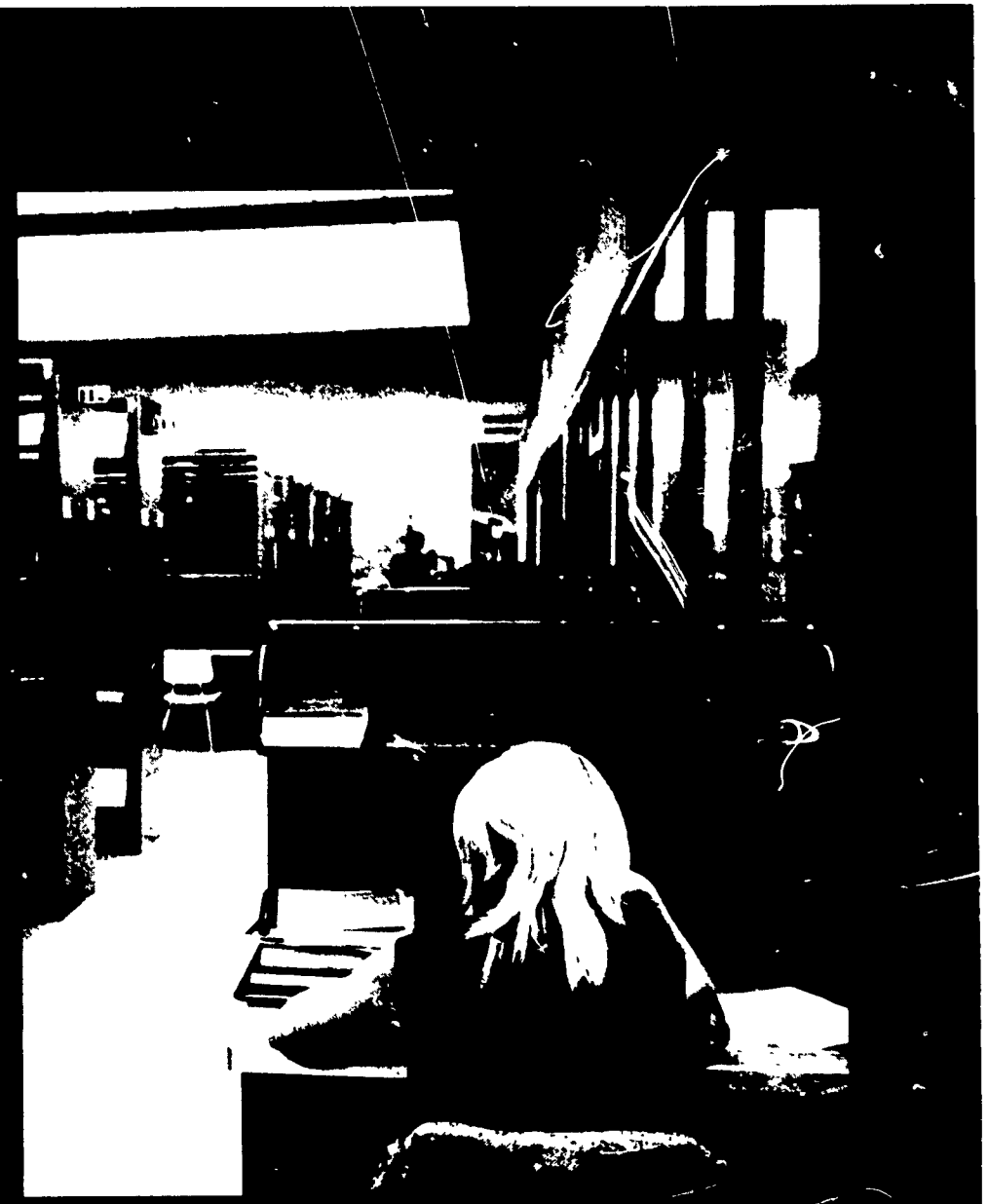
PRIMARY STUDY LOCATION	PERCENTAGE OF RESPONSES	
	STUDENTS IN FIRST STUDY	STUDENTS IN SECOND STUDY
Home	80.7	72.6
College library	9.7	10.6
Classroom and/or campus	3.6	7.1
Car	0.5	6.2
Other	5.4	3.5

The responses by the 116 students who kept time logs to the question "Why do you study there rather than somewhere else?" are arrayed on the facing page.

These students came from a different campus than those in the first study and were presumably more aware of their own study habits and preferences after keeping a study log for one week. It is notable, therefore, that their responses are quite similar in variety and placement of items to those of the students in the first study (see page 34). Naturally, since there were five times as many students in the first study, it is reasonable that they would give a greater variety of responses and that the placement of specific items might vary. But the basic importance of variety in study facilities is nevertheless supported by the responses of this second group of students.

CONDITION OR DECIDING FACTOR	NUMBER OF RESPONSES	PERCENTAGE OF RESPONSES
Quiet	73	27.7
Alone	47	17.8
Furnishings	35	13.3
Background music	22	8.3
Convenience	21	8.0
Personal needs/objects	17	6.4
Educational aids	16	6.1
Lighting	12	4.5
Condition of air	8	3.0
With others	5	1.9
Activities of others	4	1.5
Size of room	2	0.8
Specialized study space	2	0.8

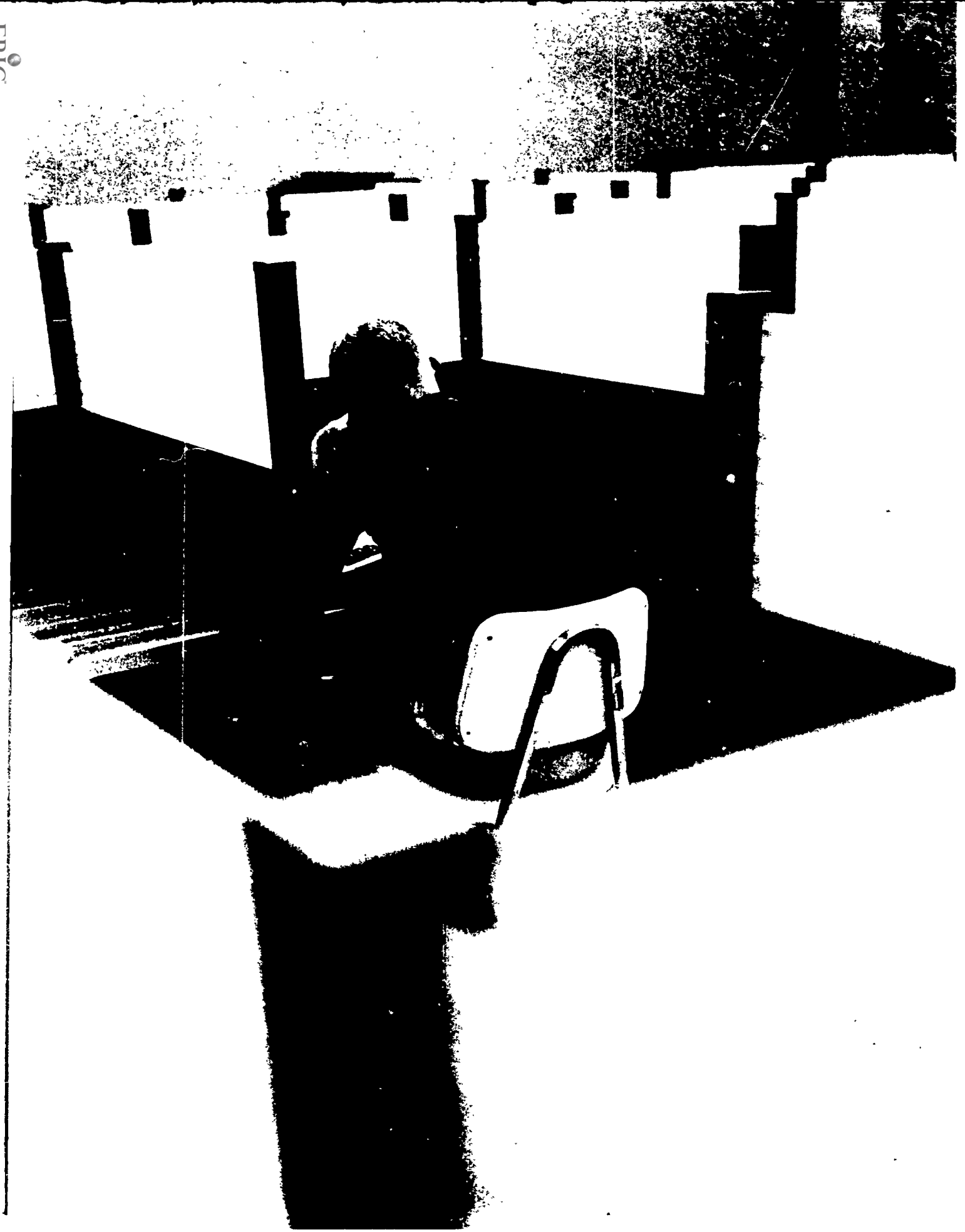




SECTION III

STUDY SPACE VARIATION

It is highly desirable that there be variety in the types and placement of study spaces on campus. Students do not respond all with one voice but rather as individuals with differing beliefs and desires. Even when student responses tended toward the neutral or "don't care" areas, some students still responded in the highly negative categories for highly positive questions and vice versa. This indicates that while a college planner should not try to tailor study facilities to each student's passing fancy, he would do well to consider a variety of study space sizes, types of furnishings, locations, etc. Rather than merely catering to student whims, such planning would take practical account of major differences in student interests and abilities.



Some study areas, for example, might be equipped with desks and straight backed chairs, while others might have more informal, lounging furniture. A relatively large study hall might be retained as one way to accommodate a large number of students economically and it might logically be augmented by a number of individual and small group study areas. Similarly, it would be desirable to have some areas in which smoking would be strictly prohibited and other (well ventilated) spaces in which smoking would be allowed.

Finally, we have noted that some students prefer to study "alone" but not necessarily "in complete privacy." While further study from a psychological or sociological standpoint may shed more light on this phenomenon, it is clear that planners should take it into account in designing study facilities.

STUDY SPACE LOCATION

Two factors emerge under this heading – the proximity of study spaces to other facilities and the location of study areas on the campus.

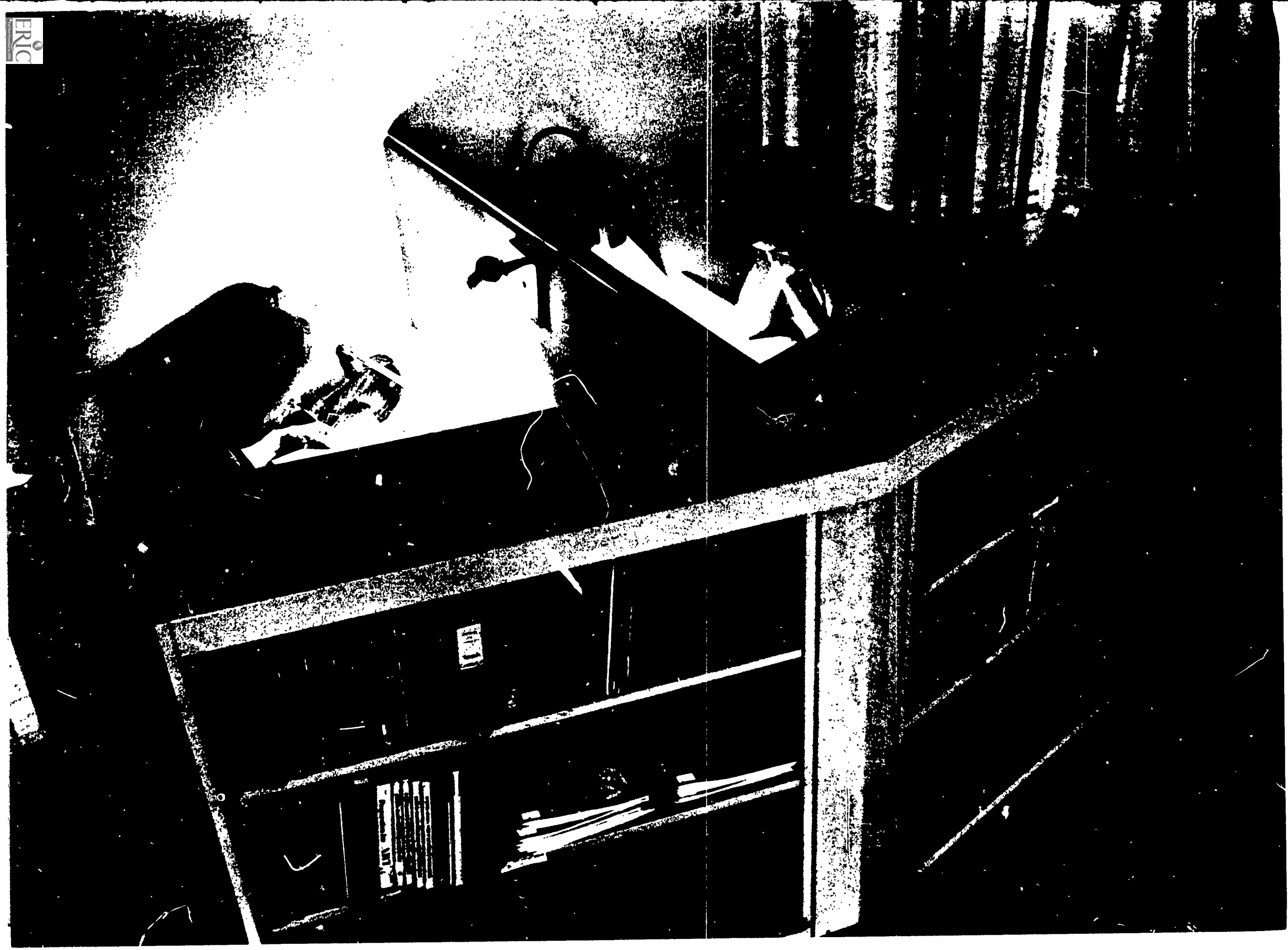
As to the first point, the students in this study did *not* wish to study in the immediate vicinity of snack bars, telephones, or their friends; in short, they wished to restrict study areas to studying and to exclude socializing, eating, and relaxing.

This gives the campus planner a guide as to what *not* to place in the study area, and also some indication of what facilities students do wish to have near at hand.

There is an obvious desire to have typewriters, or at least adequate typing spaces, in soundproof sections of the study areas. A more profound point is that students want to study near instructors in their major field and near the special equipment used in that field. This suggests that study spaces might well be distributed among the various instructional areas rather than concentrated in a single facility such as the library.

The sounds of a bassoon running the scales might literally be music to the ears of a studying music student and the smells of various chemical reactions might be not only bearable but even pleasant to the chemistry major. But just as we might not expect the musician to be comfortable in the presence of "nauseous" chemical fumes or the chemist to be able to concentrate on his formulae with a student musician "wheezing" through his scales in the background, we might also question the wisdom of asking both chemist and musician to leave their instructional areas and to study in an odor-free and tomb-quiet library. While such a facility might be the best compromise between the chemistry lab and the practice room, it may not necessarily be the best solution for all students.

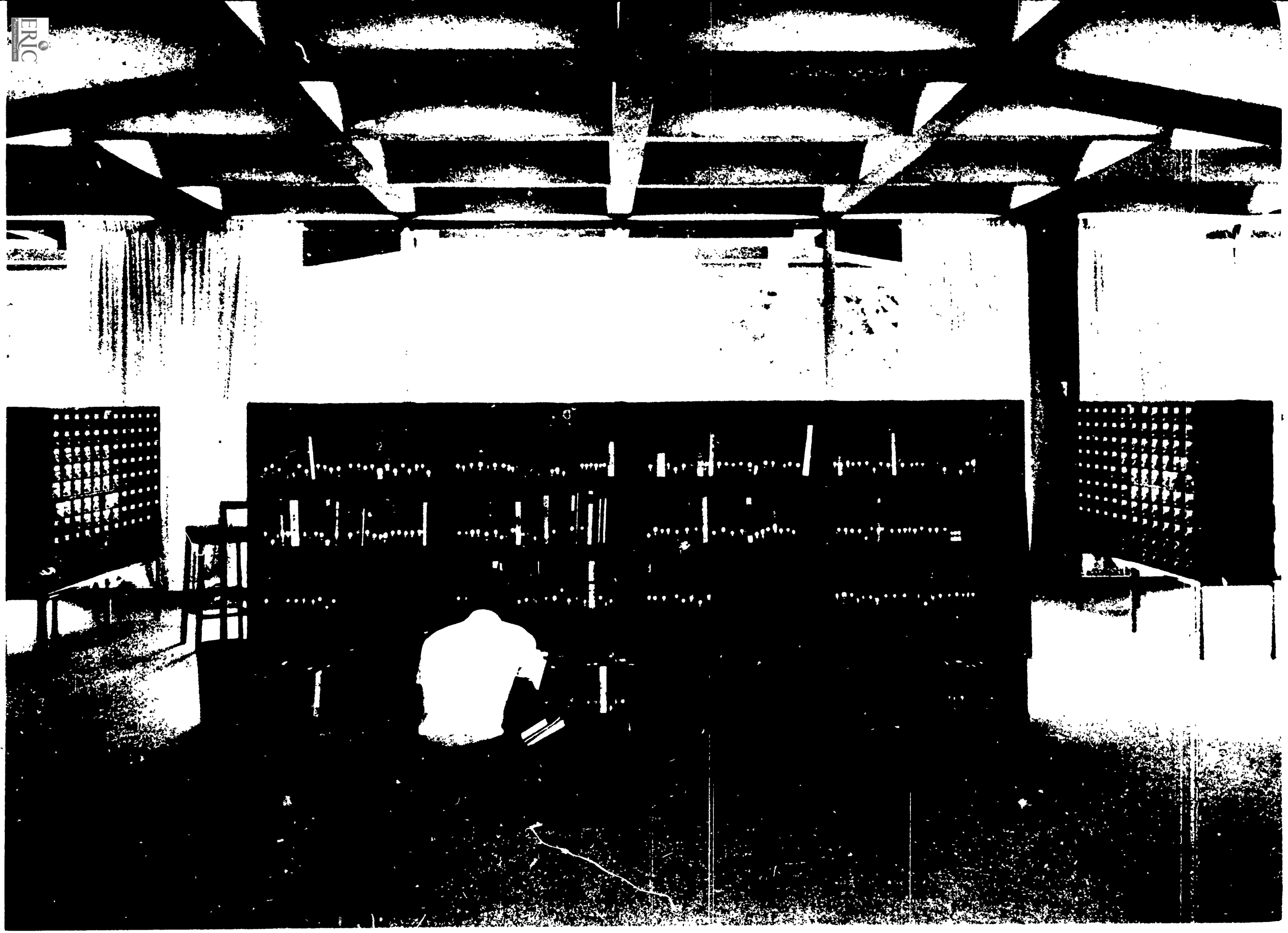
A creative campus planner will see in these circumstances a challenge to his ingenuity in planning. In existing facilities he will seek out nooks and crannies across campus that might become, with the addition of adequate lighting and a minimum amount of furniture, quite desirable study areas.



QUIET AND PRIVACY IN STUDY SPACES

Students appear to strongly favor a study area free of all extraneous noise. And while other studies have shown that the steady hum of a ventilator or air-conditioner may produce a beneficial "masking" effect for other sounds, still, the small, random "library" sounds are definitely distracting. Even the most careful supervision of study spaces, strict observation of "Silence" signs, and a masking noise may not completely overcome these random sounds.

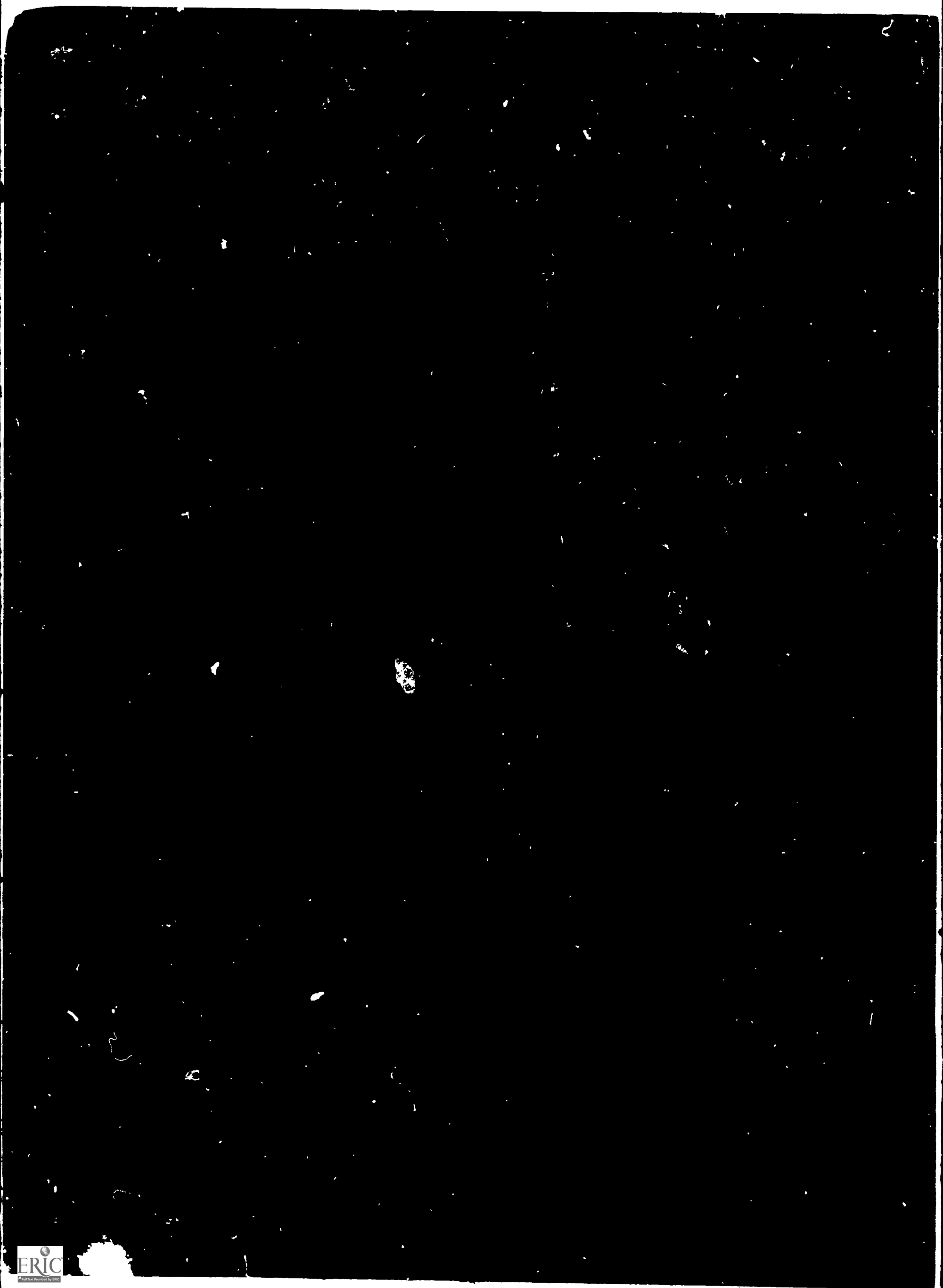
Although conventional sound deadening equipment offers a partial solution to this problem, it is important to point out that a large majority of library sounds, such as shuffling feet and scraping chairs, are produced at floor level and can best be muffled at their source.



This suggests the use of carpeting in the study space. Interestingly enough, recent studies have shown that carpeting can be highly competitive in cost, over a period of years, with more traditional floor coverings and that it offers the additional advantages of warmth, sound absorbtion, and even emergency overflow seating area.

Regarding privacy, students did not seem to show a strong desire to study in private carrels. Because of the current interest among librarians and campus planners in such individual study facilities, the Community College Planning Center conducted a field survey at several community colleges, including some that had been a part of the original study and some that had not. The results of this field work strongly indicate that in answering the question regarding privacy in the original study, the students were not giving "don't care" so much as "don't know" responses. For the most part, these students had neither access to nor knowledge of carrels.

The field study helped to point up the fact that most students who were aware of the presence of carrels and had used both carrels and traditional study facilities were highly in favor of the carrels. This was dramatically illustrated at one junior college in which the students faced the not unusual problems of crowded classrooms and study facilities. In this instance, the students demonstrated their preference for the carrels by quickly filling any vacancies in these facilities while passing over available spaces in the more traditional table-and-chair facilities. What makes this all the more significant is that while both the carrel and the table-and-chair facilities were practically identical in terms of comfort, lighting, accessibility to library books, etc., the carrels were actually in a much noisier location within the general traffic flow. Furthermore, the librarian at this college reported that several students had asked where they might purchase carrels for use in their own homes.



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