

## STUDY HABITS OF FAILING FRESHMEN

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### THE PROBLEM

Many quantitative analyses have been reported which dealt with the number of failing students, the amount of time students spend in studying, as correlated with the success of studying, or grades, and other such factors. There have been fewer studies dealing with the qualitative analyses of the academic activity of college students. Recent discussions by prominent educators have brought to light much quantitative data regarding the study habits of college students. These discussions have concluded that there is no relationship between the amount of time spent in study and the quality of accomplishment. In other words, students who spend the largest amount of time studying frequently learn least. Such discussions concluded at this point without considering the qualitative aspects of the study habits of college students. It seems obvious from the conclusion reached that academic success depends as much upon the quality as upon the quantity of study.

The following pages present a discussion of the qualitative characteristics of the study habits of 94 students who were freshmen during the session of 1931-32 at the Mississippi State College for Women. These 94 students were reported by their teachers, at the conclusion of the first mid-semester, the first semester, or the second mid-semester, as having less than a passing average in one or more subjects. Each of these 94 failing students was interviewed one or more times, were given reading tests, and their study habits were surveyed with the use of a mimeographed schedule. The validity of the information regarding the study habits of this group of failing students depends upon the honesty of the students concerned. The following directions were placed on the first page of the survey of study habits:

"In the following pages you will find a series of questions dealing with study habits. You are asked to answer each question in such a way that the Division of Educational Research<sup>1</sup> will be able to get from your answer a complete description of the way in which you study.

"The sole purpose of this survey is to discover the inefficient habits of study, if any, which you are now using that probably contribute something to the unsatisfactory status of your academic work at the present time.

"When you have answered all the questions asked about your study habits, you will be informed of any difficulty that you may now be experiencing due to study difficulties. Recommendations will be made to you indicating ways of avoiding these difficulties that, if put in practice, will do much toward removing the difficulties indicated.

"Remember that the sole purpose of this survey is to help you. For that reason, ANSWER EACH QUESTION AS TRUTHFULLY AS YOU CAN. To cover up your true habits of study makes it impossible for this office to aid you along these lines.

"The privacy of your name and your answers will be strictly respected."

In addition to securing the above-mentioned information from the students, the teachers under whom the students made failing grades were asked to give their opinions regarding the factors that probably contributed to the unsatisfactory work of the student.

It is the purpose of this discussion to present an analysis of the data secured from the sources mentioned and to suggest opportunities that will perhaps enable the adviser and the student to eliminate at least some of the factors that are thought to have caused unsatisfactory work.

#### THE DATA

*Characteristics of Failing Students.* The 94 failing students of the session 1931-32 are, as a group, somewhat inferior in intelligence and in information acquired in high school to the entire freshman class and to the freshmen who did not make failing grades in any subject. The class as a whole is somewhat inferior to the members of the class that did not

<sup>1</sup> The writer was Director of Educational Research at the time this information was collected.

make any failing grades during the session. This is shown in Table I which shows the percentile ranks of the intelligence quotients of the failing students, the entire class, and non-failing students. Table II presents the same data regarding the students' knowledge of English grammar, as meas-

TABLE I  
PERCENTILE RANKS OF I.Q.'s DERIVED FROM OTIS  
INTELLIGENCE TEST

PERCENTILE RANKS	FAILING STUDENTS	ENTIRE CLASS	NON-FAILING STUDENTS
100	119	124	124
95	113	118	119
90	111	117	118
85	109	115	117
80	108	113	116
75	107	112	115
70	106	111	114
65	104	110	113
60	103	109	112
55	102	108	111
50	101	107	110
45	99	106	109
40	98	104	108
35	97	103	107
30	96	102	106
25	95	100	105
20	93	99	104
15	92	96	102
10	90	94	101
5	87	91	100
0	80	80	90
S.D.	7.75	8.05	7.4
Number of students	94	236	142

ured by the Cross Test. Table III presents information for the three groups coming from the Markham Vocabulary Test. Table IV presents the results of the American Council History Test.

An analysis of Tables I to IV brings out three facts:

1. The scores made by failing students entitling them to a given percentile rank, are in each test, inferior to the score made by the entire class entitling them to the same percentile rank. Furthermore, the scores made by these stu-

dents are inferior to those made by the non-failing students entitling them to the same percentile rank. Table I, for instance, shows that the 50th percentile rank for failing students represents an I. Q. of 101; for the entire class it represents an I. Q. of 107; and for the non-failing students it represents an I. Q. of 110.

TABLE II  
PERCENTILE RANKS IN CROSS GRAMMAR TEST

PERCENTILE RANKS	FAILING STUDENTS	ENTIRE CLASS	NON-FAILING STUDENTS
100	169	174	174
95	158	166	168
90	151	163	165
85	147	160	163
80	144	157	161
75	142	154	159
70	140	151	157
65	137	149	155
60	134	147	153
55	132	144	151
50	130	142	149
45	128	140	147
40	126	138	146
35	125	135	144
30	124	132	142
25	122	128	140
20	120	126	137
15	113	123	134
10	107	118	127
5	101	107	121
0	95	95	100
S.D.	15.90	16.75	14.35
Number of students	94	236	142

2. The standard deviation is generally conceded to be the most useful measure of dispersion in dealing with groups of data. The standard deviation is computed for the three groups of students in each table and appears as next to the last line of each table. A measure of dispersion in data of this type is a good measure of homogeneity or heterogeneity of the groups involved. A study of Tables I to IV will show that the standard deviation is smaller for non-

failing students than for failing students, and, with one exception (American History) it is smaller for each of these than for the entire class. The sizes of these standard deviations indicate relative homogeneity of the groups. The standard deviation of failing students is second in size, indicating that they are less homogeneous, and the standard

TABLE III  
PERCENTILE RANKS IN VOCABULARY TEST

PERCENTILE RANKS	FAILING STUDENTS	ENTIRE CLASS	NON-FAILING STUDENTS
100	104	139	139
95	98	108	110
90	93	103	107
85	91	100	104
80	87	97	101
75	84	95	98
70	81	93	97
65	79	90	95
60	77	88	94
55	75	86	92
50	73	84	90
45	71	82	88
40	70	80	86
35	68	76	85
30	66	74	83
25	65	71	81
20	61	68	78
15	54	65	73
10	49	60	69
5	44	51	62
0	35	35	55
S.D.	15.5	17.80	14.75
Number of students	94	236	142

deviation for the entire class is the largest of the three, indicating that the entire class is more heterogeneous than the two smaller groups. Table I, for instance, shows that the standard deviation of the I. Q. of the entire class is 8.05; whereas the standard deviation of the failing students is 7.75, and of the non-failing students, 7.4. This coupled with the percentile ranking means that insofar as intelligence alone is concerned the non-failing students have a higher

average than the other groups. The failing students with a standard deviation of 7.75 rank second in homogeneity, and the entire class is more heterogeneous insofar as intelligence is concerned than the two smaller groups in question. This same line of reasoning may be applied to Tables II, III, and IV.

TABLE IV  
PERCENTILE RANKS IN AMERICAN HISTORY TEST

PERCENTILE RANKS	FAILING STUDENTS	ENTIRE CLASS	NON-FAILING STUDENTS
100	89	114	114
95	68	86	89
90	61	75	83
85	54	69	76
80	52	65	71
75	50	62	67
70	47	57	65
65	44	56	62
60	42	53	60
55	39	50	58
50	38	48	56
45	36	45	53
40	35	43	50
35	33	41	48
30	30	39	45
25	28	36	43
20	25	32	41
15	21	28	37
10	17	24	29
5	11	20	24
0	5	5	20
S.D.	10.75	20.10	14.75
Number of students	94	236	142

3. Some failing students undoubtedly have the native ability and the high school training to do acceptable college work. Table I, for instance, shows that one student who has an I. Q. of 119 was failing at one of the times considered in this study. An I. Q. of 119 is undoubtedly sufficient for the successful performance of college work. Tables II, III, and IV indicate that there is a large number of students with sufficient high school training, as measured by the tests in questions, to do acceptable college work.

TABLE V  
INSTRUCTORS' OPINIONS REGARDING CAUSES OF FAILURE IN FRESHMAN CLASS OF 1931-32

RANK	CAUSE OF FAILURE	FREQUENCY
1	Insufficient industry shown by student.....	56
2	Student uses an inferior technique of studying.....	50
3	Insufficient high school preparation (quantity).....	43
4	Student possesses apparent inability to read understandingly.....	39
5	Intellectual immaturity.....	35
6.5	Excitable when working under pressure.....	31
6.5	Student has difficulty in taking notes on class lectures or other materials given out in the class room, making it appear that she does not profit from the general exercises of the class.....	31
8	Course too advanced for student's present academic level.....	23
9	Student seems unable to interpret scientific data correctly.....	18
10	Failure to pay attention in class.....	16
11.5	Student's previous high school training (Quality) hinders rather than helps in present academic situation.....	13
11.5	Class room inefficiency due to undue haste in laboratory work, written exercises, etc.....	13
13	Student possesses an apparent difficulty in keeping a notebook on outside reading, laboratory work, etc.....	12
14.5	Student seems unable to manipulate laboratory apparatus.....	11
14.5	Student seems unable correctly to observe laboratory materials and reactions.....	11
16	Student has difficulty in recording observations and experimental data correctly.....	10
17.5	Student possesses an indifferent, don't care attitude toward class work.....	8
17.5	Student seems worried over personal problems (finance, social problems, etc.), which may affect class work.....	8
20	Harmful influence of associates—that is, friends who do not offer the student any incentive for successful work.....	7
20	Physical condition of the student as shown by illness causing absences.....	7
20	Student fails to hand in assigned work on time.....	7
22	Excess absences from class.....	5
23.5	Disciplinary difficulties in class.....	2
23.5	Student engages in too many activities, which do not further academic standing.....	2

These students who have the native ability and the educational background to do successful college work, but who fail one or more subjects, constitute the most serious problem in educational guidance. They can be spared the embarrassment of failing and the waste of time and money if they can be properly motivated. The work of the guidance counselor in dealing with this group of students is primarily a problem of motivation. They are good college material and can become successful college students if their advisers can get them to work. Their work must be done efficiently if maximum results be obtained.

*Teachers' Opinions Regarding Failing Students.* Each teacher who reported a failing grade for a member of this group of 94 freshman students was asked to give her opinion regarding the probable cause of the student's failure. These opinions have been summarized and are presented in Table V. In summarizing instructors' opinions, each probable cause of a student's failure was counted only once for a given student. If, for instance, a student received a failing grade under two teachers, and they both reported the same cause of failure, this cause was counted only once.

An analysis of the probable cause of student failures, as reported by the teachers of the failing students, will indicate that many of these causes can be eradicated, and many of these students will, then, perhaps, be able to do successful college work. Some of the causes of failure reported by the teacher can be eradicated in the class room if the teacher can give a small amount of time to such general problems as how the student should keep her notebook on class discussion, on outside readings, on laboratory work, etc. This type of guidance can be accomplished best by the classroom teacher rather than the freshman adviser. It is generally believed that the first few days of each semester, when used in orientation lectures, introducing the students to the type of work they are to do, how they can best do it, and the standards their work will be judged by, will help many students. The adviser can be of service in remedying the most

frequently mentioned cause of difficulty, "Insufficient industry shown by student."

*Study Habits of Failing Students.* This report does not contain any evidence regarding the study habits of successful college students. If this information were available it would be possible to compare the study habits of successful college students with the study habits of unsuccessful college students. Some recent investigations in study habits have concluded that the better college students frequently do not observe the best procedure in studying. It may possibly be said of this group that they succeed in spite of poor study habits. It stands to reason, however, that students who are unsuccessful should observe certain well-established principles of efficient study.

The following summary presents in the order of importance, as determined by the frequency of mention, certain specified study difficulties noted in the study habits of the failing students, which, if remedied, will, in all probability, be of benefit to the students in removing their academic difficulties. All of the difficulties mentioned were found in at least ten per cent of the 94 students considered in this report. Some of these difficulties were discovered in the study habits of half of the group.

1. Failure to observe a time schedule. These students do not have any particular time for studying each day, nor when they sit down to study a given subject do they allow themselves a given amount of time for the completion of the work. It is highly probable that unsuccessful students using this procedure find that so many other things make demands on their time that they do not get to study as much as they should.

2. Failure to use the proper technique in reading an assigned lesson. These students characteristically devote their first reading to a mastery of details and the second reading to getting a general outline of the material discussed. The better student, as a rule, reverses this procedure and lets the first reading be concerned with the outline and the second

reading with details. This criticism does not consider the rate or comprehension of reading, for that will be discussed later, but deals with the use of reading as a tool in studying.

3. Failure to review at short intervals the larger essentials of the material covered to date in the subject failed.

4. Failure to spend two or three minutes before the formal recitation hour in recalling the material learned while studying.

5. Poor physical conditions and surroundings while studying, including environmental conditions, posture, noise from roommates, etc. This is frequently associated with the student's failure to start studying immediately after placing herself in the proper place for studying—for example, a student goes to her room, sits at her desk, picks up a book, and, instead of beginning work immediately, postpones it some ten or fifteen minutes day dreaming, chatting with a roommate, or doing something else entirely unrelated to studying.

6. Failure to take notes in class on lectures, laboratory work, in organized form, or to organize them after class.

7. Failure or inability of the student to concentrate. As the student studies her attention wanders back and forth between the material being studied and other things. This is usually accompanied by the student's failure to begin again the study process when she discovers her attention has wandered.

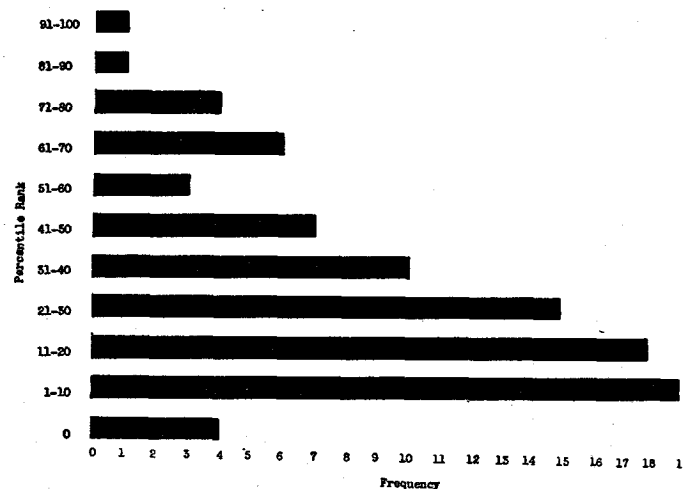
8. Failure to inform their teachers of class room difficulties and request their aid.

9. Failure, when they begin work in preparation of a given lesson, to know exactly what they are expected to learn from this material. This difficulty frequently may be avoided if the teacher will spend more time in making assignments in order to be sure that each student knows exactly what is to be accomplished in the preparation of a given lesson.

10. Failure, after they have completed their study of a particular assignment, to organize this material in a coherent form through the use of an outline or by thinking over the material in order to arrange it in orderly sequence in their minds even though an outline is not used.

11. Failure to relax for a minute or so every forty-five minutes or an hour when working under pressure. The muscles of the eye become fatigued and the body becomes cramped from remaining in one position and the student frequently becomes fatigued physically but thinks she is mentally fatigued and unable to go on.

*Reading Difficulties of Failing Freshmen.* The preceding unit of the discussion referred among other things to a stu-



1. Reading Scores of 88 Failing Students in Whipple's High School and College Reading Test.

dent's proper use of reading as a tool in acquiring information, and it was pointed out that many students who are good readers, mechanically speaking, make poor use of their reading ability. In collecting information regarding the reading ability of failing students use was made of Whipple's High School and College Reading Test, which is generally conceded to give an acceptable measure of a student's ability in this field. Scores coming from Whipple's reading test are interpreted by means of the percentile rank. Students having a percentile rank of 20 or less are such poor readers that they will have difficulty in acquiring a college

education. Figure I shows that 41 of the failing students were such poor readers that they would experience difficulty in pursuing their college studies. This is almost half of the total group of failing freshmen. Figure I also indicates that slightly more than half of the failing students possess reading ability to do successful college work. As was said in consideration of Tables I to IV, the primary problem with this group is one of motivation or getting them to make use of the abilities at their disposal. Many of the students, whose reading ability at the first of the year was distinctly inferior, could have been shown and were shown how to improve their reading. In dealing with individual students, however, it is virtually impossible to have time enough to render the most service possible to each student.

*Elimination of Failing Students.* It is extremely difficult during financial depressions to hazard a guess regarding the effect of money matters upon a student's return to college. If one can assume that financial problems weigh heavily in general upon the parents of all freshmen of the 1931-32 session, it becomes obvious that a failure takes its toll in the elimination of college students. Fifty-one per cent of the failing freshmen of 1931-32 are not on the campus this year. Thirty-five per cent of the entire freshman class of 1931-32 are not on the campus this year, and twenty-five per cent of the freshman class of 1931-32, who did not fail any subjects, were eliminated. In other words, a smaller percentage of successful college students are eliminated even during times of depression than of the unsuccessful students during the same period. If legitimate means of improving a student's reading ability, study habits, motivation, and other factors that will make successful students of the failing group can be found, it is entirely probable that there will be a smaller percentage of students eliminated between the freshman and sophomore years.

#### SUMMARY AND CONCLUSIONS

This study has presented a partial analysis of the characteristics of 94 students, members of the freshman class of 1931-32, who were reported as failing in one or more sub-

jects at the end of the first mid-semester, the first semester, or the second mid-semester. This group of failing students, on the average, possesses less native endowment and left high school with poorer preparation than did the entire freshman class of 1931-32. The group of students in the freshman class of 1931-32 that did not fail any subjects at the three specified times is superior both to the class as a whole and to the group of failing students. There is serious overlapping between the characteristics of the failing students and of the successful students. Many failing students possess native ability and received sufficient training in high school to enable them to become successful college students. It would seem that this group of students may be saved the embarrassment and cost of failure if they can be properly motivated. One of the most important contributions that a faculty adviser can make to his or her group is that of motivation.

The preceding pages also presented evidence showing that approximately one-half of the failing freshmen considered in this group have not sufficient command of the reading process to do acceptable college work.

Additional data were presented showing the most common difficulties noted in the study habits of failing students. There is a wealth of data available in the library at the present time that will enable one to help students avoid these difficulties. It is believed that freshman faculty advisers can, without lecturing or "preaching" to the members of their group, keep these common difficulties in mind and make incidental suggestions from time to time that will help their students build up good study habits.

This study also presented evidence that fifty-one per cent of the failing freshmen of 1931-32 did not return to the campus this year (1932-33) whereas only twenty-five per cent of the successful students failed to return. This information regarding elimination constitutes sufficient evidence to justify the entire administrative and instructional staff in making use of any legitimate device that may enable the group of unsuccessful students to be materially reduced in size.