ABSTRACT OF THESIS

THE EFFECT OF RESIDENCE IN COLLEGE OPERATED DORMITORIES UPON ACADEMIC ACHIEVEMENT OF FRESHMAN MEN

Submitted by

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In partial fulfillment of the requirements

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Colorado

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ABSTRACT

Following the conclusion of World War II, colleges and universities over the United States were deluged with students. This influx was the result of not only returning service personnel but also the matriculation of many people just graduated from high school. One of the major problems evolving from this enormous increase in enrollment was that of student housing.

Administrators at Colorado Agricultural and Mechanical College, when confronted with the largest student body ever enrolled at the institution, attempted to alleviate the housing situation by constructing a dormitory to accommodate 281 men. Braiden Hall was first opened for use by freshman men during the fall quarter 1948, and an effort was made to facilitate their adjustment to college and their scholastic success through the placement of student counselors in the dormitory to assist them.

One of the first questions to arise was, "What effect does residence in Braiden Hall have upon scholarship?" This study was made with the view of answering this question and the hope that the results would be of value in the formulation of policies and plans for the future development of housing for students.

The problem of this study is, What effect does residence in college operated dormitories have upon the academic achievement of freshman men at Colorado Agricultural and Mechanical College?

Analysis of the problem.--1. What is the difference between freshman men residing in college operated dormitories and freshman men residing in off-campus housing in terms of time spent in study outside of class?

2. What is the difference between the two groups in terms of satisfaction with study conditions?

3. What is the difference between the two groups in terms of participation in campus activities?

4. What is the difference between the two groups in terms of outside employment?

5. What is the relative academic achievement of freshman men residing in college operated dormitories compared with that of freshman men residing in off-campus housing?

To determine the effect of residence in college operated dormitories upon the academic achievement of freshman men, data were studied on 100 single, first-quarter freshman men residing in Braiden Hall and 100 single, first-quarter freshman men residing in off-campus housing while attending Colorado Agricultural and Mechanical College during the fall quarter, 1948.

Data-collecting devices

Data concerning the sample were collected from four sources. Records in the office of the Registrar were used to determine fall-quarter scholastic achievement as indicated by letter grades, addresses of the students constituting the sample, and their status with reference to service in the armed forces. Records in the Office of Student Affairs provided necessary data regarding percentile scores made on the American Council on Education Psychological Examination, and age of the students constituting the sample. Testing Bureau records revealed the total number of students taking entrance examinations for the fall term, 1948. The personal interview form was used to collect data in the following areas:

1. Time spent in study out of class.

2. Satisfaction with study conditions.

3. Participation in campus activities.

4. Hours employed.

In order to facilitate analysis and comparison of academic achievement, it was necessary to convert the letter grades as recorded in the office of the Registrar to grade-point average. The following method was used to accomplish this:

1. Numerical weights were assigned each letter grade as follows:

A = 4	E = 0
B = 3	WF = 0 (Withdrawal failing)
C = 2	WP = (Withdrawal passing) disregarded
D = 1	
F = 0	

2. By using the above numerical weights, grade-point average was determined for each student included in the sample by dividing the total quality points earned by the total number of credit hours for which he was enrolled.

In order to assure clarity and consistency of the interview form, a tentative form was constructed and administered to the students taking Education 226, Seminar in Research, and a number of others who visited the Office of Veterans Affairs. With their assistance, the interview form was altered so that it was simple to complete.

The final interview form was administered by the writer with the assistance of dormitory counselors to 189 of the 200

students included in the sample, or 94.5 per cent. These students were enrolled at Colorado Agricultural and Mechanical College at the time of this study. The remaining 11, or 5.5 per cent, had withdrawn from school and were mailed copies of the interview form accompanied by a personal letter expressing the purpose of the study, instructions for completion of the form, and the appreciation of the author for their cooperation in completing and returning the form.

The total number of interview forms completed was 191, or 95.5 per cent of the 200 students contacted.

Sample

Upon investigation of registration cards in the office of the Registrar, it was found that 273 freshman men were residing in Braiden Hall during the fall quarter, 1948. Of this group, a sample of 100 students was selected as the experimental group for this study. Names were selected at random from an alphabetical list of Braiden Hall residents.

After selection of the experimental group, records in the Office of Student Affairs were used to determine the age to the nearest birthday of each student in the sample and their percentile scores on the American Council on Education Psychological Examination. Records in the office of the Registrar were checked to insure that all students in the experimental group were non-veterans.

In order to ascertain the effect of residence in a college operated dormitory upon academic achievement, it was determined necessary to select a control group composed of freshman men residing in off-campus housing so that a comparison

of their academic achievement could be made with that of the students residing in Braiden Hall. To insure that the two groups making up the sample were commensurate with respect to potential academic achievement, it was necessary to equate them according to age, American Council on Education Psychological Examination percentile test scores, sex, and lack of military service.

Investigation of the Testing Bureau records revealed that 1,224 students had taken entrance tests for the fall term, 1948. Freshman men from this group who were not residing in Braiden Hall or at home with their parents, as indicated by records in the office of the Registrar, were matched with Braiden Hall residents in the experimental group according to age and percentile test score on the American Council on Education Psychological Examination. Whenever possible, the author matched students of the same age who had attained the same percentile score on the American Council on Education Psychological Examination. When this was impossible, he attempted to match students with no more than one years difference in age, or one percentile point difference in the American Council on Education Psychological Examination test score. In no case did the age vary more than one year, nor the American Council on Education Psychological Examination test score more than two percentile points. Records in the office of the Registrar were checked to insure that all students in the control group were men with no military experience.

Statistical procedures

The critical ratio, *t*, was used to determine the significance of the difference between two statistics. A

critical ratio is the ratio a statistic has to its standard error and can be considered to be significantly greater than zero if its value is equal to or greater than 2. This device was used to determine the significance between two uncorrelated means, between two uncorrelated standard deviations, and between two percentages.

Significant findings

The results of this study reveal that, at present, residents of the college operated dormitory for men at Colorado Agricultural and Mechanical College differ significantly from off-campus residents in three areas:

1. Residents of the college operated dormitory are more dissatisfied with study conditions in their rooms than the off-campus residents.

2. Residents of the college operated dormitory participate more in campus activities than do off-campus residents.

3. Residents of the college operated dormitory are not engaged in as much part-time work as the off-campus residents.

Areas in which this study revealed no significant difference between residents of the college operated dormitory for men at Colorado Agricultural and Mechanical College and off-campus residents are:

1. Time spent in study outside of class.

2. Academic achievement.

Even though residents of the college operated dormitory achieved a slightly higher grade point average than the

off-campus residents, the difference was not found to be significant and it cannot, therefore, be said that residence in a college operated dormitory affects academic achievement to a greater or lesser degree than residence in off-campus housing.

Recommendations

1. In view of the results of this study, it seems desirable to give consideration to the possibility of reducing the number of residents in Braiden Hall.

2. Since certain older students are at present employed as counselors in Braiden Hall, it might be profitable to evaluate the organization of their counseling system with the view to providing additional assistance to those freshmen having difficulty.

Suggestions for further study

Future studies should be made on the following questions:

1. What are the conditions and personality factors that make for compatibility of roommates?

2. What is the effect of residence in a college operated dormitory upon the academic achievement of freshman girls at Colorado Agricultural and Mechanical College?

3. What is the comparative effect of various types of employment upon the academic achievement of college students?

4. What are the criteria used by students in the evaluation of rooming conditions?

5. If the conditions causing dissatisfaction in Braiden Hall are corrected, it is suggested that this study be repeated.

T H E S I S

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COLORADO AGRICULTURAL AND MECHANICAL COLLEGE

June 1 1949

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY SUPERVISION BY KENNETH L. McAFERTY

ENTITLED THE EFFECT OF RESIDENCE IN COLLEGE OPERATED DORMITORIES UPON ACADEMIC ACHIEVEMENT OF FRESHMAN MEN

BE ACCEPTED AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

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Chapter I

INTRODUCTION

Following the conclusion of World War II, colleges and universities over the United States were deluged with students. This influx was the result of not only returning service personnel but also the matriculation of many people just graduated from high school. One of the major problems evolving from this enormous increase in enrollment was that of student housing.

The American Council on Education (1), 1945, after completing a study on student personnel work in the postwar college, explained that the satisfactory housing of students was of paramount importance if the educational program of these thousands of students was to be carried out successfully. The following statements were made in this report:

> Colleges and universities now recognize that living quarters for students must be considered a part of the educational program and facilities. (1:71)

> It must be admitted that in most institutions, the use of student housing as a positive educational service has not yet been fully realized. (1:71)

Administrators at Colorado Agricultural and Mechanical College, when confronted with the largest

student body ever enrolled at the institution, attempted to alleviate the housing situation by constructing a dormitory to accommodate 281 men. Braiden Hall was first opened for use by freshman men during the fall quarter 1948, and an effort was made to facilitate their adjustment to college, and their scholastic success through the placement of student counselors in the dormitory to assist them.

A number of studies have been made at various institutions to determine the effect of residence in college operated dormitories upon academic achievement. The results of these studies are not in agreement and it is, therefore, the opinion of this writer that a study should be made to determine the effect of residence in college operated dormitories upon the academic achievement of freshman men at Colorado Agricultural and Mechanical College.

It is hoped that the results of this study will be of value in the formulation of policies and plans for the future development of housing for students not only at Colorado Agricultural and Mechanical College but at other institutions as well.

The problem

The problem of this study is, What effect does residence in college operated dormitories have upon the academic achievement of freshman men at Colorado Agri-

cultural and Mechanical College?

Analysis of the problem.--1. What is the difference between freshman men residing in college operated dormitories and freshman men residing in off-campus housing in terms of time spent in study outside of class?

2. What is the difference between the two groups in terms of satisfaction with study conditions?

3. What is the difference between the two groups in terms of participation in campus activities?

4. What is the difference between the two groups in terms of outside employment?

5. What is the relative academic achievement of freshman men residing in college operated dormitories compared with that of freshman men residing in off-campus housing?

Delimitation.--This study will be confined to two matched groups of 100 students each who were enrolled at Colorado Agricultural and Mechanical College during the fall quarter of the school year 1948-49. One hundred of these were first quarter freshman men residing at Braiden Hall. The other group of 100 was composed of first quarter freshman men residing in off-campus housing.

Chapter II

REVIEW OF LITERATURE

As previously mentioned, a number of studies have been completed on housing and academic achievement resulting in findings which are not in agreement. Not only will these studies be included in the Review of Literature, but also material concerning other factors which affect academic achievement.

The literature concerning this problem is grouped as follows:

1. Study conditions and academic achievement.
2. Participation in campus activities and academic achievement.
3. Employment and academic achievement.
4. Housing and academic achievement.
5. Intelligence and academic achievement.
6. Age and academic achievement.
7. First-quarter grades and academic achievement.

Study conditions and academic achievement

There appears to be general agreement among educators that study conditions play an important part

in the academic achievement of most college students. Since this is a factor to be considered when comparing two groups as to academic achievement, several studies concerning this problem are included.

Strang (22), 1928, in an attempt to help failing freshmen at Columbia University found, among other things, that an inadequate study environment was a factor contributing greatly to academic failure.

Bird (3), 1931, in a study at the University of Minnesota of 115 first-quarter freshmen and 56 second-quarter freshmen enrolled in "how to study" classes, found that 82 per cent reported they had difficulty in studying because of conditions which prohibited concentration and 33 per cent could not study because of interruptions by other persons.

Williamson (27), 1939, stated that ineffective study may result in distorted educational perspective and low academic achievement.

The American Council on Education (1), 1945, after completing a study on student personnel work in the post-war college made the following statement:

> Colleges and universities now recognize that living quarters for students must be considered a part of the educational program and facilities. Comfortable, attractive living arrangements with nicely served, well-balanced meals aid student morale, as well as protect student health. (1:71)

Summary and implications.--Educators generally agree that a comfortable, attractive and pleasant study

environment which offers the student ample uninterrupted time for study plays an important part in successful academic achievement.

Participation in campus activities and academic achievement

Morale, as a factor affecting academic achievement, seems to be generally accepted in the fields of education and psychology. In most cases, other factors being equal, students in college who possess high morale achieve a higher degree of academic success than those students with low morale.

Gardner and Pierce (10), 1929, and Williamson (27), 1939, presented data which indicated that many students, in making the transition from high school to college, achieve less in college, often because of the loss of confidence which they had when in secondary school. They often find themselves left out of extracurricular activities in college, dissatisfied, and consequently poorly motivated.

According to Hamrin and Erickson (13), 1939, the so-called extracurricular activities frequently complement the more formal curricular subjects, serve to enrich and stabilize the pupil's development, and encourage school spirit.

Williamson (27), 1939, made the following statements regarding motivation and morale:

> The intensity of a student's efforts to achieve success in school is an indication of the intensity of his scholastic motivation. Motivation is closely associated with morale. (27:348)

The National Conference on Higher Education (18), 1947, reported that a properly administered extracurricular activity program can do much toward developing and maintaining student morale and school spirit.

Summary and implications.--It is generally agreed that participation in well organized campus activities, often referred to as extracurricular activities, is important to the adjustment and general morale of the student. These factors play an important part in successful academic achievement.

Employment and academic achievement

Part-time employment while attending college is often considered detrimental to high academic achievement. Many students who have met with scholastic difficulty are prone to attribute their poor scholarship to the fact that they were employed while attending school. Numerous studies have been completed concerning the academic success of employed students. Several findings are included to show that part-time employment is not generally detrimental to the academic success of students.

Williamson (26), 1937, compared the academic achievement of 94 freshmen National Youth Administration workers with an equated group of non-employed students and

found that the employed students achieved a grade average slightly higher than the non-employed students.

Clark (5), 1938, in a study of two equated groups of college students found that those who were employed part-time made slightly higher grade averages than those who were not employed.

Baker (3), 1941, made a study of the average total work load of students making certain grades as compared with the work load of students making different grades. He found that there was no great difference in the amount of work carried. The coefficient of correlation for the relationship between total load and grade average was only .099.

Hotchkiss (14), 1948, compared the academic achievement of two matched groups of married and non-married veteran students. He found that outside employment had little, if any, relationship to college marks as evidenced by the fact that married students achieved higher college marks than single students, even though data revealed that they were employed to a slightly greater degree than single students.

Summary and implications.--Numerous studies show that part-time employment has little, if any, effect upon academic achievement. Working students achieve about the same, or slightly better, grades than do non-working students.

Housing and academic achievement

Numerous studies have been made in the field of education concerning the relationship between housing and academic achievement. These studies are included herewith to show that there is not general agreement among educators as to the effect of housing conditions with relationship to academic success and that there is need for further study in this field.

Butts (4), 1937, studied the comparative academic achievement of students residing in organized houses with students residing in private homes at the University of Wisconsin. He reported:

> Organized houses offer a higher percentage of room necessities than the unorganized houses, suggesting that the organized house, with the housing of students as its primary concern, in practice actually does minister to the specific needs of students better than the private dwelling which must serve the interests of the owner as well as the student. (4:29)

In the same study, Butts also found that the scholastic average of students residing in organized dormitories (1.596) was higher than that of students living in rooming houses (1.494) and at home in Madison (1.565). He stated that it was desirable for a person to have one roommate, but to have more than one was worse than having none.

Elliot (8), 1937, in a study at Louisiana State

University found that students living on the campus received higher grades than those not living on the campus.

Ludeman (16), 1940, completed a study on the relationship between housing and college scholarship. He translated course grades into honor points per credit hour as follows: a grade of "A" was given three honor points per hour of credit; the "B" mark was worth two honor points per hour of credit; a grade of "C", one honor point; and "D", one-half point. Honor points for the fall and winter terms were totaled and divided by the number of hours carried to determine the average. It was found that the honor point average for dormitory residents was 1.652 as compared with an average of 1.485 for off-campus residents. Dormitory students earned a total of 1434 honor points in two quarters while the off-campus group earned 1204.

Ludeman gives a number of reasons why dormitory residents might achieve greater academic success than students residing in off-campus housing. They are:

1. There is closer supervision of study time in most dormitories.
2. A dormitory on the campus is nearer the library and other study facilities.
3. A dormitory furnishes more chance for the inter-play of ideas among several students taking the same subjects.

4. Dormitory residents have the opportunity to practice regular living habits.
5. There is a general standard in dormitories favoring study and high scholarship.
6. Competition between students for high grades is keener in a dormitory.

In a study completed at the University of Minnesota, Van Alstine and others (24), 1942, compared the academic achievement of students residing in their parents' homes, private residences, college dormitories, and fraternity and sorority chapter houses who were majoring in medicine, law, pharmacy, engineering, business, and education. It was found that place of residence had little or no effect on academic achievement.

Peterson (20), 1943, in a study at the University of California College of Agriculture, Davis, California, during the school years 1939-1940, 1940-1941, and 1941-1942 found that the average student residing in a college operated dormitory at Davis did better scholastically than the average student residing in rooming houses. His findings indicated that the mean grade-point average of dormitory students would be greater than that of rooming house students 95 times out of 100.

Summary and implications.--Though most studies show that students living in college operated dormitories on the whole do better scholastically than students living

elsewhere, there have been findings to the contrary.

Intelligence and academic achievement

Educators in general agree that there is a positive relationship between intelligence and academic achievement. Many studies have been completed which show this to be true and it is only logical, therefore, that consideration be given to this relationship in selecting the sample for this study.

Line and Glen (15), 1935, compared intelligence test scores of a group of senior high school students with grades in school subjects and found an average correlation of .47 between the two variables.

Odell (19), 1937, found in using several different intelligence tests that the usual correlation between intelligence test scores and freshman achievement in college was .40 to .50.

Manning (17), 1938, found that the correlation between the American Council on Education Psychological Examination and first-year college grades was .67.

Gould (12), 1938, reported a correlation of .63 between the American Council on Education Psychological Examination and college success. He determined that this examination was the best single predictor of college success at Colorado Agricultural and Mechanical College.

Stinson (21), 1947, stated that intelligence was

a good predictor of college success. He found that most studies showed a correlation between the two variables of .40 to .50.

Summary and implications.--It is generally agreed that intelligence is an important factor affecting academic achievement. In order to control this factor, the two groups included in this study will be equated on the basis of the American Council on Education Psychological Examination percentile test scores.

Age and academic achievement

Age, as a factor affecting academic achievement, has been investigated in numerous studies. Since there was a possibility that age variance might be a problem in the selection of samples for this study, several findings relative to age and academic achievement were investigated.

Dwyer (7), 1939, reported that a number of studies have been made which show that younger students generally do better college work than older ones. He states, however, that the variation is only small, and that not infrequently the older students earn the highest grades.

Sward (23), 1945, stated that there is very little difference in the grades achieved by men in different age groups having the same intelligence scores. Age has a tendency to retard the rate far more than the quality

of work involving mental processes.

Hotchkiss (14), 1948, stated the following after making a survey of literature dealing with age and academic achievement: "Studies indicate that age does not have a marked effect upon academic achievement."

Summary and implications.--Age does not seem to have a marked effect upon academic success. However, to insure that it does not distort the findings of this study, the two groups will be equated on the basis of age.

First-quarter grades and academic achievement

Studies have been conducted to determine the relationship between first-quarter grades and college success. According to Cole (6), 1940, grades made by college students during the first term of enrollment are indicative of those they will continue to earn.

Eurich and Cain (9), 1941, stated that there was a high correlation between first-term grades in college and college success. They found that first-term grades correlated sufficiently high to base prediction of college graduation on first-term academic success.

Summary and implications.--In view of these studies, the procedure of using first-quarter grades as the basis for comparing the academic achievement of two groups of students is valid.

Chapter III

METHODS AND MATERIALS

For determining the effect of residence in college operated dormitories upon the academic achievement of freshman men, data were studied on single, first-quarter freshman men residing in a college operated dormitory, and single, first-quarter freshman men residing in off-campus housing while attending Colorado Agricultural and Mechanical College during the fall term, 1948. The presentation of methods and materials used describes the data-collecting devices and selection of the sample.

Data-collecting devices

Data concerning the sample selected were gathered from four sources. Records in the office of the Registrar were used to determine fall-quarter scholastic achievement as indicated by letter grades, addresses of the students constituting the sample, and their status with reference to service in the armed forces. Records in the Office of Student Affairs provided necessary data regarding percentile scores made on the American Council on Education Psychological Examination, and age of the students constituting the sample. Testing Bureau records revealed the total number of students taking entrance examinations for the fall term,

1948. The personal interview form was used to collect data in the following areas:

1. Time spent in study out of class.
2. Satisfaction with study conditions.
3. Participation in campus activities.
4. Hours employed.

In order to facilitate analysis and comparison, it was necessary to convert the letter grades as recorded in the office of the Registrar to grade-point average.

Grade-point average is computed at Colorado Agricultural and Mechanical College as follows:

1. Numerical weights are assigned each letter grade for computing quality points. They are:

A = 4	F = 0
B = 3	E = 0
C = 2	WF = 0 (Withdrawal failing)
D = 1	WP = (Withdrawal passing) disregarded

2. By using the above numerical weights, grade-point average is determined by dividing the total quality points earned by the total number of credit hours for which an individual was enrolled.

For example: A student who completed the first quarter of his freshman year with 5 credit hours of A, 2 credit hours of B, 3 credit hours of C, 2 credit hours of D, and 5 credit hours of F would have a total of 34 quality points and 17 credits. By dividing quality points by

credit hours, the grade-point average in this case is 2.00. Students at Colorado Agricultural and Mechanical College must maintain at least a grade-point average of 2.00 to remain in school after the freshman year.

In order to assure clarity and consistency of the interview form, a tentative form was constructed and administered to the students taking Education 226, Seminar in Research, and a number of others who visited the Office of Veterans Affairs. With their assistance, the interview form was altered so that it was simple to complete.

The final interview form 1/ was composed of four questions: one question concerning time spent in study outside of class, one question concerning satisfaction with study conditions, one question concerning participation in campus activities, and one question concerning the amount of time employed while attending school.

The interview form was administered personally to 189 of the 200 students included in the sample, or 94.5 per cent. These students were enrolled at Colorado Agricultural and Mechanical College at the time of this study. Those living in Braiden Hall, a college operated dormitory, were interviewed by the author with the assistance of dormitory counselors and those living off-campus were requested to visit the author in his office. The remaining 11, or 5.5 per cent, had withdrawn from school and were

1/ See Appendix A for copy of interview form.

mailed copies of the interview form accompanied by a personal letter 2/ expressing the purpose of the study, instructions for completion of the form, and the appreciation of the author for their cooperation in completing and returning the form. Of the 11 forms mailed, two were returned completed.

The total number of interview forms completed was 191, or 95.5 per cent of the 200 students contacted.

Sample

Upon investigation of registration cards in the office of the Registrar, it was found that 273 freshman men were residing in Braiden Hall during the fall quarter, 1948. Of this group, a sample of 100 students was selected as the experimental group for this study. Names were selected at random from an alphabetical list of Braiden Hall residents.

After selection of the experimental group, records in the Office of Student Affairs were used to determine the age to the nearest birthday of each student in the sample and their percentile scores on the American Council on Education Psychological Examination. Records in the office of the Registrar were checked to insure that all students in the experimental group were non-veterans.

In order to ascertain the effect of residence in

2/ See Appendix B for copy of letter mailed with interview form.

a college operated dormitory upon academic achievement, it was considered necessary to select a control group composed of freshman men residing in off-campus housing so that a comparison of their academic achievement could be made with that of the students residing in Braiden Hall. To insure that the two groups making up the sample were commensurate with respect to potential academic achievement, it was necessary to equate them according to age, American Council on Education Psychological Examination percentile test scores, sex, and lack of military service.

Investigation of the Testing Bureau records revealed that 1,224 students had taken entrance tests for the fall term, 1948. Freshman men from this group who were not residing in Braiden Hall or at home with their parents, as indicated by records in the office of the Registrar, were matched with Braiden Hall residents in the experimental group according to age and percentile test score on the American Council on Education Psychological Examination. Whenever possible, the author matched students of the same age who had attained the same percentile score on the American Council on Education Psychological Examination. When this was impossible, he attempted to match students with no more than one year's difference in age, or one percentile point difference in their American Council on Education Psychological Examination test score. In no case, did the age vary more than one year nor the American Council on

Education Psychological Examination test score more than two percentile points. Records in the office of the Registrar were checked to insure that all students in the control group were men with no military experience.

Chapter IV

ANALYSIS OF DATA

Data relative to factors affecting the academic achievement of freshman men residing in a college operated dormitory were gathered on 200 freshman men who were attending Colorado Agricultural and Mechanical College during the fall quarter of the 1948-49 school year. One hundred men were single, first-quarter freshmen residing at Braiden Hall. The other group of 100 was composed of single, first-quarter freshman men residing in off-campus housing.

Two methods were used to collect the necessary data. They were:

1. Records in the office of the Registrar, the Student Affairs Office, and College Testing Bureau were analyzed to determine fall-quarter scholastic achievement, addresses of students constituting the sample, status with reference to service in the armed forces, percentile scores made on the American Council on Education Psychological Examination, and age.

2. The personal interview form was administered to 191 students included in the sample to secure information relative to time spent in study out of class, satisfaction with study conditions, partici-

pation in campus activities, and employment.

Data collected will be presented as follows: "Equivalence of the two groups," "Time spent in study out of class," "Satisfaction with study conditions," "Participation in campus activities," "Employment," and "Academic achievement."

Statistical procedures

The critical ratio, t, was used to determine the significance of the difference between two statistics. A critical ratio is the ratio a statistic has to its standard error and can be considered to be significantly greater than zero if its value is equal to or greater than two. This device was used as demonstrated by Garrett (11) to determine the significance between two uncorrelated means (11:210), between two uncorrelated standard deviations (11:223), and between two percentages (11:226).

Equivalence of the two groups

As explained previously, in order to ascertain the effect of residence in a college operated dormitory upon academic achievement, a control group composed of freshman men residing in off-campus housing was selected so that a comparison of their academic achievement could be made with that of the students residing in Braiden Hall. The two groups were equated on the basis of sex, age, percentile test scores made on the American Council on

Education Psychological Examination, period of enrollment, and no military service.

Registration records in the office of the Registrar were checked to insure that all students selected for the sample were entering male college freshmen in the fall quarter of the school year 1948-49 with no military experience.

The two groups were evaluated statistically to insure equivalency with reference to age and percentile scores on the American Council on Education Psychological Examination.

Table 1 indicates that the two groups are comparable as to age. The difference in the mean ages is only .02 and the difference in the standard deviations is only .05. In addition, the standard error of the difference in the means is .08 and the critical ratio, t, is .25. The standard error for the difference of the standard deviations is .08 and the critical ratio, t, is .63. Since a t of less than 2 is not considered significant, the groups may be considered comparable as to age.

Table 1.--COMPARISON AS TO AGE OF BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS.

	Age				
	Braiden Hall	Off-Campus	Difference	S.E. (diff)	t
Mean	17.97	17.95	.02	.08	.25
S. D.	.78	.73	.05	.08	.63
Range	16-21	16-20			

Table 2 shows the similarity between the two groups with relation to percentile scores made on the American Council on Education Psychological Examination. The difference in the mean scores is only .05.

Further evidence that the two groups are comparable as to percentile scores made on the American Council on Education Psychological Examination is presented in Table 3. This table reveals that the difference in the mean percentile scores is only .05 and the difference in the standard deviations is .15. In addition, the standard error of the difference in the means is 3.91 and the critical ratio, t, is .01. The standard error for the difference of the standard deviation is 2.75 and the critical ratio, t, is .06. Since the t is less than 2 in each case, the two groups may be considered comparable as to percentile scores achieved on the American Council on Education Psychological Examination.

Table 2.--PERCENTILE TEST SCORES AS RECEIVED ON THE AMERICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION BY BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS.

A.C.E. Percentile Test Scores	Braiden Hall Residents(N=100)		Off-Campus Residents(N=100)	
	N	Cumulative Per Cent	N	Cumulative Per Cent
96 - 100	2	100	1	100
91 - 95	5	98	6	99
86 - 90	4	93	4	93
81 - 85	6	89	4	89
76 - 80	4	83	6	85
71 - 75	5	79	7	79
66 - 70	9	74	7	72
61 - 65	3	65	3	65
56 - 60	2	62	3	62
51 - 55	9	60	8	59
46 - 50	5	51	5	51
41 - 45	5	46	5	46
36 - 40	7	41	7	41
31 - 35	4	34	4	34
26 - 30	3	30	4	30
21 - 25	5	27	4	26
16 - 20	5	22	5	22
11 - 15	8	17	8	17
6 - 10	5	9	5	9
0 - 5	4	4	4	4
Mean		48.80		48.85
S. D.		27.70		27.55

Table 3.--COMPARISON OF BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS ACCORDING TO PERCENTILE TEST SCORES RECEIVED ON THE AMERICAN COUNCIL ON EDUCATION PSYCHOLOGICAL EXAMINATION.

	A.C.E. Percentile Test Scores				
	Braiden Hall	Off-Campus	Difference	S.E. (diff)	t
Mean	48.80	48.85	.05	3.91	.01
S. D.	27.70	27.55	.15	2.75	.06
Range	1-97	2-97			

Time spent in study out of class

The amount of time spent in study outside of class is a factor to be considered when comparing matched groups as to academic achievement. Table 4 shows that the off-campus residents tended to study slightly more than the Braiden Hall residents as evidenced by a mean of 20.66 hours per week spent in study outside of class compared to a mean of 19.52 hours per week for the Braiden Hall group.

Even though the off-campus group tended to spend slightly more time in study outside of class, Table 5 reveals that there is no significant difference between the two groups. The difference in the mean number of hours studied per week by each group is 1.14 and the difference in the standard deviations is .13. The standard error of the difference of the means is 1.03 and the critical ratio, t, is 1.11. The standard error for the difference of the standard deviations is .73 and the critical ratio, t, is

.17. Since the t is less than 2 in each case, there is no significant difference in the two groups relative to the amount of time spent in study outside of class.

Table 4.--HOURS PER WEEK SPENT IN STUDY OUTSIDE OF CLASS BY BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS.

Hours studied	Braiden Hall Residents		Off-Campus Residents	
	N	Per cent	N	Per cent
40 - 42	0	0.00	1	1.04
37 - 39	0	0.00	0	0.00
34 - 36	6	6.38	3	3.09
31 - 33	0	0.00	3	3.09
28 - 30	8	8.51	14	14.43
25 - 27	11	11.70	15	15.47
22 - 24	5	5.32	5	5.16
19 - 21	22	23.41	10	10.31
16 - 18	11	11.70	16	16.49
13 - 15	13	13.83	16	16.49
10 - 12	13	13.83	14	14.43
7 - 9	5	5.32	0	0.00
4 - 6	0	0.00	0	0.00
1 - 3	0	0.00	0	0.00
TOTAL	94	100.00	97	100.00
Mean	19.52		20.66	
S. D.	7.11		7.24	

Table 5.--COMPARISON OF BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS AS TO NUMBER OF HOURS SPENT IN STUDY PER WEEK.

	Hours Studied Per Week				
	Braiden Hall	Off-Campus	Difference	S.E.(diff)	t
Mean	19.52	20.66	1.14	1.03	1.11
S. D.	7.11	7.24	.13	.73	.17

Satisfaction with study conditions

All students interviewed were asked if the study conditions in their room were satisfactory to them. Fifty five of the 94 Braiden Hall residents interviewed, or 58.5 per cent, stated that they were satisfied with study conditions in their rooms. Eighty four of the 97 off-campus residents interviewed, or 86.6 per cent, stated that the study conditions in their rooms were satisfactory to them. Table 6 reveals that the difference in the percentages is 28.1 and that the standard error for the difference is 6.2. The resulting critical ratio, or *t*, is 4.53. Since a *t* of 2 or more is considered significant, the two groups may be considered to differ as to satisfaction with study conditions.

Table 6.--SIGNIFICANCE OF THE DIFFERENCE IN SATISFACTION WITH STUDY CONDITIONS BETWEEN BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS.

	Braiden Hall	Off-Campus	Difference	S.E. (diff)	t
Per cent	58.5	86.6	28.1	6.2	4.53
S. E. of per cent	5.1	3.5			

Data concerning the reasons why students were dissatisfied with study conditions in their rooms were compiled from the statements of those students included in the sample who indicated that study conditions were unsatisfactory 1/. During the interviews, it was noted that the Braiden Hall residents were much more emphatic and consistent with their reasons for dissatisfaction than were the off-campus residents. Investigation of the statements made by Braiden Hall residents shows that the crux of their dissatisfaction lies with the overcrowded conditions and resulting noise and disturbance. Some typical comments of the 39 Braiden Hall residents included in the sample who were dissatisfied with study conditions were:

> "The halls are noisy and there is a constant shuffle throughout the building. The rooms are overcrowded and there are not enough facilities for study."

1/ See Appendix D for reasons stated for dissatisfaction with study conditions in rooms.

"Disturbance from my roommates."

"Too many roommates."

"Constant noise in the building."

"Noise and loud talking prevalent."

"Guys in hall talking and making a disturbance."

"Roommates scuffling."

"General nonsense on the part of room occupants."

"Too much traffic in and out of the room and too much noise in hall."

"General confusion in the building."

"Too many people."

"Crowded conditions."

"Crowded facilities."

"Roommates too noisy."

"Crowded conditions in room."

"Radio and other ambient noises."

"My roommate is a general nuisance."

"Not enough space in the room for four people to study."

Statements made by the 13 off-campus residents who were included in the sample as to their reasons for dissatisfaction with study conditions were varied. Typical statements were:

"There were no definite study hours. Though there were regulations they were not enforced."

"Roommates were noisy."

"Too many men living in the space provided."

"Too many bull sessions."

"Landlord's children are a disturbing factor until they go to bed."

"My room was too cold during the end of the quarter."

"My room was cold and the landlord's cat climbed over my study table."

"The house where I stay is near the railroad. Trains going by bother me."

"With four in a room you can't study."

Factors causing dissatisfaction with study conditions for off-campus residents are many and varied while the source of dissatisfaction for Braiden Hall residents is the overcrowded condition with resulting noise and commotion.

Participation in campus activities

A greater percentage of Braiden Hall residents than of off-campus residents participate in campus activities. Eighty nine of the 94 Braiden Hall residents interviewed, or 94.7 per cent, stated that they participated in at least one club or activity centered about the campus, while 80 of the 97, or 82.5 per cent, of the off-campus residents stated that they participated in at least one club or activity. Table 7 reveals that the difference in

the percentages is 12.2 and that the standard error for the difference is 4.5. The resulting critical ratio, or t, is 2.7 and since a t of 2 or more is considered significant the two groups may be considered to differ significantly as to participation in campus activities.

Table 7.--SIGNIFICANCE OF THE DIFFERENCE IN PARTICIPATION IN CAMPUS ACTIVITIES BETWEEN BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS, EXPRESSED IN PER CENT OF THOSE PARTICIPATING

	Braiden Hall	Off-Campus	Difference	S.E.(diff)	t
Per cent	94.7	82.5	12.2	4.5	2.7
S. E. of per cent	2.3	3.9			

During the fall term, 1948, 38 of the 97 off-campus residents interviewed, or 39.2 per cent, were employed. During this same period, 22 of the 94 Braiden Hall residents interviewed, or 23.4 per cent, were employed. Investigation of Table 8 points out the fact that the difference in the percentages is 15.8 and that the standard error for the difference is 1.8. The critical ratio, or t, is 8.8 and since a t of 2 or more is considered significant the two groups may be considered to differ significantly with relation to employment.

Table 8.--SIGNIFICANCE OF THE DIFFERENCE IN PER CENT OF EMPLOYMENT BETWEEN BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS.

	Braiden Hall	Off-Campus	Difference	S.E.(diff)	t
Per cent	23.4	39.2	15.8	1.8	8.8
S. E. of per cent	1.4	1.2			

Academic achievement

Grade point averages for the fall term, 1948, were available on all students included in the sample for this study. Table 9 reveals several facts concerning the comparative grade averages of Braiden Hall and off-campus residents. Of those students failing to attain a 2.00 average during the fall term, which is the equivalent to a letter grade of C, 48 per cent were Braiden Hall residents as compared to 57 per cent of the off-campus residents. Of the students attaining a 3.00 average or better, which is the equivalent to a letter grade of B or above, 13 per cent were Braiden Hall residents and 16 per cent off-campus residents. The mean grade point average for those residents of Braiden Hall included in the sample was 2.07 as compared with a mean of 1.91 attained by off-campus residents.

Table 9.--ACADEMIC ACHIEVEMENT OF BRAIDEN HALL RESIDENTS AND OFF-CAMPUS RESIDENTS.

Grade point average	Braiden Hall (N-100)		Off-Campus (N=100)	
	N	Cumulative Per cent	N	Cumulative Per cent
3.75 - 4.00	1	100	3	100
3.50 - 3.74	4	99	1	97
3.25 - 3.49	3	95	8	96
3.00 - 3.24	5	92	4	88
2.75 - 2.99	9	87	2	84
2.50 - 2.74	12	78	6	82
2.25 - 2.49	5	66	9	76
2.00 - 2.24	13	61	10	67
1.75 - 1.99	14	48	8	57
1.50 - 1.74	11	34	15	49
1.25 - 1.49	8	23	8	34
1.00 - 1.24	5	15	13	26
.75 - .99	2	10	6	13
.50 - .74	6	8	2	7
.25 - .49	1	2	2	5
.00 - .24	1	1	3	3
Mean		2.07		1.91
S. D.		.82		.90

Even though residents in Braiden Hall achieved a higher grade point average during the fall term, 1948, than did off-campus residents, Table 10 reveals that

the difference in academic achievement between the two groups is not statistically significant. The difference in the means on academic achievement is .16 and the standard error of the difference in the means is .13. The resulting critical ratio, or *t*, is 1.23 and not considered significant.

Table 10.--SIGNIFICANCE OF THE DIFFERENCE IN ACADEMIC ACHIEVEMENT BETWEEN BRAIDEN HALL AND OFF-CAMPUS RESIDENTS.

	Academic achievement				
	Braiden Hall	Off-Campus	Difference	$S.E._{(diff)}$	t
Mean	2.07	1.91	.16	.13	1.23
S. D.	.82	.90	.08	.09	.87

Chapter V

DISCUSSION

Discussion of the effect of residence in a college operated dormitory upon the academic achievement of freshman men at Colorado Agricultural and Mechanical College will be presented under the following headings: "Time spent in study out of class", "Satisfaction with study conditions", "Participation in campus activities", "Employment", "Academic achievement", and "Effect of residence in a college operated dormitory upon academic achievement".

Time spent in study out of class

During the fall term, 1948, the average time spent in study each week by off-campus residents slightly exceeded that of the men living in Braiden Hall. However, since this difference was slight, 1.14 hours per man per week, it was not found to be statistically significant. In spite of this fact, it is interesting to note that even though the Braiden Hall residents studied fewer hours per week than off-campus residents they achieved a higher grade point average.

Satisfaction with study conditions

An analysis of the data concerning satisfaction with study conditions revealed that only 58.5 per cent of the Braiden Hall residents as compared to 86.6 per cent of the off-campus residents were satisfied with study conditions in their rooms. The difference between these percentages, 28.1, was found to be statistically significant.

Investigation of the statements made by those Braiden Hall residents who were not satisfied with study conditions in their rooms revealed that their reasons for dissatisfaction centered about the over-crowded conditions and resulting noise and disturbance. Reasons given by off-campus residents for dissatisfaction were varied with no emphasis on a specific area of dissatisfaction. Reasons for dissatisfaction as stated by men in both groups concur with the findings of Bird (3), who stated that ammy students have difficulty in studying because of certain conditions which prohibit concentration, or because of interruptions by other persons.

Participation in campus activities

Data gathered for this study with reference to participation in campus activities revealed a

significant difference between Braiden Hall and off-campus residents. Of the 94 Braiden Hall students interviewed, 89, or 94.7 per cent, stated that they participated in at least one club or activity during the fall term, 1948. Eighty of the 97 off-campus residents interviewed, or 82.5 per cent, stated that they took part in at least one organization or activity. The difference between these percentages, 12.2, was found to be statistically significant. Since the Braiden Hall residents also achieved a slightly higher grade point average, it would appear that these results concur with the statements made by Gardner and Pierce (10), and Williamson (27), who found that participation in extracurricular activities was beneficial to morale; hence motivation and academic achievement.

Employment

An analysis of the data concerning employment revealed a significant difference between the two groups making up the sample. During the fall term, 1948, 23.4 per cent of the Braiden Hall residents were employed, as compared to 39.2 per cent of the off-campus residents who were working. The difference between these percentages, 15.8, was found to be statistically significant. Since residents of Braiden Hall achieved a grade point average slightly higher than the off-campus residents, these findings do not agree with those of Clark (5), or Williamson (26), who stated that students who were employed part-time

achieved a grade average slightly higher than the non-employed students. Hotchkiss (14), however, found little, if any, relationship between employment and academic achievement.

Academic achievement

An analysis of the data concerning academic achievement revealed that the mean grade point average for the fall term, 1948, of those Braiden Hall residents included in the sample was 2.07. The mean grade point average for off-campus residents was 1.91. The difference between these two means, .16, was not found to be statistically significant. It is interesting to note, however, that the mean grade point average for Braiden Hall residents is above that required for graduation at Colorado Agricultural and Mechanical College, while that of the off-campus residents is slightly below the 2.00 requirement. Students who fail to achieve a 2.00 grade average at Colorado Agricultural and Mechanical College by the end of the sophomore year are suspended.

The above findings tend to concur with those of Van Alstine and others (24), who found that place of residence has little or no effect on academic achievement. However, Butts (4), Elliot (8), Ludeman (16), and Peterson (20), all made studies which reveal that students living

on the campus receive higher grades than those not living on the campus.

Effect of residence in a college operated dormitory upon academic achievement

The findings of this study reveal that, at present, residents of the men's dormitory at Colorado Agricultural and Mechanical College differ significantly from the off-campus residents in three areas:

1. Braiden Hall residents are more dissatisfied with study conditions in their rooms than are off-campus residents.

2. Braiden Hall residents participate more in campus activities than do off-campus residents.

3. Braiden Hall residents are not engaged in as much part-time work as the off-campus residents.

These findings indicate that, at present, residence in a college operated dormitory at Colorado Agricultural and Mechanical College has very little effect upon the academic achievement of freshman men. However, in view of the findings that Braiden Hall residents are much more dissatisfied with study conditions in their rooms than are off-campus residents, consideration should be given to the statement of Strang (22), who found that an inadequate study environment was a factor contributing greatly to academic failure. Williamson (27) reported

similar findings and explained that ineffective study may result in distorted educational perceptive and low academic achievement. Since Braiden Hall residents achieved a slightly higher grade point average than off-campus residents, even though only 58.5 per cent of them were satisfied with study conditions, it seems possible that they would achieve even better grades if the causes of their dissatisfaction were corrected.

In view of the fact that overcrowded conditions are the primary cause of dissatisfaction in Braiden Hall, the findings of Butts (4) seem apropos, since he stated that it is desirable for a person to have one roommate but that to have more than one is worse than having none.

Recommendations

1. In view of the results of this study, it seems desirable to give consideration to the possibility of reducing the number of residents in Braiden Hall.

2. Since certain older students are at present employed as counselors in Braiden Hall, it might be profitable to evaluate the organization of their counseling system with the view to providing additional assistance to those freshmen having difficulty.

Suggestions for further study

Future studies should be made on the following questions:

1. What are the conditions and personality factors that make for compatibility of roommates?

2. What is the effect of residence in a college operated dormitory upon the academic achievement of freshman girls at Colorado Agricultural and Mechanical College?

3. What is the comparative effect of various types of employment upon the academic achievement of college students?

4. What are the criteria used by students in the evaluation of rooming conditions?

5. If the conditions causing dissatisfaction in Braiden Hall are corrected, it is suggested that this study be repeated.

Chapter VI

SUMMARY

In order to ascertain the effect of residence in a college operated dormitory upon the academic achievement of freshman men at Colorado Agricultural and Mechanical College, a control group composed of 100 freshman men residing in off-campus housing was selected in order that a comparison of their academic achievement could be made with that of 100 students residing in Braiden Hall, a college controlled dormitory. The two groups were equated on the basis of sex, age, percentile test scores made on the American Council on Education Psychological Examination, period of enrollment, and no military service.

Two methods were used to collect the necessary data. They were:

1. Records in the office of the Registrar, the Student Affairs Office, and College Testing Bureau were analyzed to determine fall-quarter scholastic achievement, addresses of students constituting the sample, status with reference tc service in the armed forces, percentile scores made on the American Council on Education Psychological Examination, and age.

2. The personal interview form was adminis-

tered to 191 of the students included in the sample to secure information relative to time spent in study, satisfaction with study conditions, participation in campus activities, and employment.

Significant findings

The results of this study reveal that at present residents of the college operated dormitory for men at Colorado Agricultural and Mechanical College differ significantly from off-campus residents in three areas:

1. Residents of the college operated dormitory are more dissatisfied with study conditions in their rooms than the off-campus residents.

2. Residents of the college operated dormitory participate more in campus activities than do off-campus residents.

3. Residents of the college operated dormitory are not engaged in as much part-time work as the off-campus residents.

Areas in which this study revealed no significant difference between residents of the college operated dormitory for men at Colorado Agricultural and Mechanical College and off-campus residents are:

1. Time spent in study outside of class.

2. Academic achievement.

Even though residents of the college operated dormitory achieved a slightly higher grade point average

than the off-campus residents, the difference was not found to be significant and it cannot, therefore, be said that residence in a college operated dormitory affects academic achievement to a greater or lesser degree than residence in off-campus housing.

A P P E N D I X

APPENDIX TABLE OF CONTENTS

Appendix A.--SAMPLE OF "PERSONAL INTERVIEW FORM"

PERSONAL INTERVIEW FORM

1. During the fall quarter 1948, how many hours per week did you study outside of class?

2. During the fall quarter 1948, were the study conditions in your room satisfactory to you?

   Why not?

3. During the fall quarter 1948, in what campus activities did you participate?

Agricultural club _____	Dramatic club _____
Athletic team _____	Fraternity _____
A Cappella choir _____	Haylofter club _____
Band _____	Hiker club _____
Chemistry club _____	Intramural athletics __
Chess club _____	Silver Spruce staff ___
Collegian staff _____	Religious activities __
Contemporary club _____	Other _____
Cosmopolitan club _____	

4. During the fall quarter 1948, how many hours per week were you employed?

Appendix B.--COPY OF LETTER MAILED TO THE 11 STUDENTS OF THE SAMPLE WHO HAD DROPPED SCHOOL

1110 Remington
Fort Collins, Colo.
January 27, 1949

Dear Mr. _____:

A study regarding the effect of living conditions upon academic achievement is now under way at Colorado Agricultural and Mechanical College. To complete this research project, it is necessary to contact a number of the students who were enrolled at Colorado A & M College during the fall term 1948.

I have enclosed a short questionnaire and a self-addressed envelope. Will you please answer the questions on this interview form and return it to me at your earliest convenience? Your cooperation in this matter is greatly appreciated.

It is hoped that this study will reveal definite problem areas in order that action may be taken to better the living conditions and assist in the improvement of academic achievement for students attending Colorado A & M College.

Thank you for your assistance in this matter.

Kenneth L. McAferty

2 Enclosures:
1 - Questionnaire
1 - Self-addressed envelope

Appendix C.--MASTER DATA SHEET

BRADEN HALL RESIDENTS	AGE	A.C.E. SCORE	HOURS STUDIED PER WEEK	SATIS. STUDY COND. YES	SATIS. STUDY COND. NO	CAMPUS ACTIVITIES, NUMBER	NO. HRS. EMPLOYED PER WEEK	GRADE POINT AVERAGE
1	18	35	20		✓	1	10	1.50
2	18	47	15		✓	1	38	3.26
3	17	66	20		✓	2	0	1.68
4	18	36	26	✓		2	0	1.82
5	18	15						2.47
6	18	64	17	✓		2	0	1.26
7	18	67	14	✓		1	0	2.26
8	18	37	23		✓	0	14	2.09
9	19	1	10		✓	2	18	.56
10	17	39	21	✓		2	2	2.03
11	18	60	36	✓		3	26	1.86
12	18	88						2.62
13	17	15	20		✓	3	0	1.38
14	18	33	36	✓		2	0	.40
15	18	22	25	✓		4	0	2.57
16	18	3	16	✓		0	0	1.47
17	18	7	8	✓		2	28	1.55
18	19	91	25	✓		1	0	3.24
19	19	27	25	✓		2	0	2.21
20	18	16	36	✓		3	0	2.00
21	18	7	15		✓	1	0	.69
22	19	60	12		✓	1	0	.62
23	18	70	18	✓		1	0	1.76
24	17	39	21	✓		3	0	.60
25	18	93	30	✓		3	4	2.97
26	18	83	20		✓	2	0	2.59
27	17	54	17		✓	2	0	1.68
28	19	5						.58
29	20	73	30	✓		2	0	3.67
30	18	13	15	✓		1	0	1.42
31	18	37	12	✓		0	0	1.92
32	17	74	30	✓		0	0	3.08
33	17	14	35	✓		0	0	1.55
34	18	14	18	✓		2	0	1.32
35	17	92	21	✓		3	2	2.68
36	18	80	27	✓		2	17	3.18
37	19	7	35		✓	1	0	2.19
38	19	68	12	✓		1	0	1.27
39	18	35	10	✓		2	0	1.82
40	18	23	15		✓	3	0	2.05
41	18	81	7		✓	1	0	2.21
42	19	96	30		✓	3	0	3.12
43	19	51	10	✓		1	0	.53
44	19	12	10	✓		2	0	2.85
45	18	4	15	✓		2	0	1.88
46	18	25	25	✓		2	0	2.82
47	17	10	8	✓		2	0	1.44
48	17	77	20		✓	3	0	2.09
49	20	44	30		✓	0	0	1.84
50	19	67	21	✓		2	6	2.97
51	18	18	25	✓		1	0	1.97
52	17	43	18	✓		3	8	2.12
53	21	55	21		✓	2	0	1.62
54	18	88	12	✓		1	0	1.68
55	18	35	20	✓		0	0	1.81
56	19	14						1.20
57	17	75	19	✓		2	0	2.92
58	18	17	17		✓	1	0	2.42
59	17	93	23	✓		4	2	3.54
60	19	86	20	✓		2	0	2.94
61	18	97	22	✓		2	0	3.75
62	19	67	15		✓	0	0	1.19
63	18	61	20		✓	3	18	2.32
64	18	39	29	✓		2	0	2.74
65	17	51	30		✓	2	0	1.53
66	18	62	19		✓	3	24	2.69
67	18	47	20		✓	2	0	1.55
68	18	18	15		✓	1	0	1.82
69	17	71	17	✓		1	0	1.76
70	16	68	14	✓		1	20	1.12
71	17	6	6					.79
72	18	86	20		✓	2	0	2.94
73	18	82	30	✓		2	0	2.62
74	18	14	23	✓		2	0	1.63
75	18	51	14	✓		2	10	1.43
76	17	46	35	✓		3	5	3.00
77	18	17	15	✓		5	8	.93
78	19	83	10	✓		1	0	2.00
79	17	91	16		✓	2	0	2.88
80	18	51	27	✓		1	0	2.53
81	18	81	12	✓		3	10	3.53
82	18	30	25		✓	1	0	2.94
83	18	39	20		✓	1	0	2.03
84	19	54	11	✓		3	2	2.53
85	18	46	17		✓	1	0	2.67
86	18	26						.00
87	17	70	9		✓	4	12	1.97
88	18	44	14		✓	5	0	1.56
89	18	41	10		✓	2	0	1.18
90	18	78	15		✓	3	0	1.65
91	17	46	25	✓		2	0	1.76
92	17	25	20	✓		3	0	1.13
93	18	44	19	✓		3	21	3.32
94	18	67	9	✓		2	0	2.23
95	18	23	20		✓	2	0	2.04
96	18	77	24		✓	2	0	2.56
97	18	73	11		✓	1	24	2.26
98	18	55	18	✓		0	0	1.83
99	17	52	21	✓		2	0	2.59
100	18	81	25	✓		1	0	3.25

OFF-CAMPUS RESIDENTS	AGE	A.C.E. SCORE	HOURS STUDIED PER WEEK	SATIS. STUDY COND. YES	SATIS. STUDY COND. NO	CAMPUS ACTIVITIES, NUMBER	NO. HRS. EMPLOYED PER WEEK	GRADE POINT AVERAGE
1	18	35	15	✓		4	21	2.35
2	18	47	24	✓		3	7	1.55
3	17	66	14	✓		4	0	1.00
4	18	35	26	✓		1	14	2.09
5	18	15	26	✓		2	10	3.50
6	18	64	16	✓		2	0	1.21
7	18	67	28	✓		1	0	.34
8	18	37	20	✓		4	18	3.42
9	18	2	12	✓		2	8	1.33
10	18	39	25	✓		2	0	2.23
11	17	60	30		✓	1	0	1.81
12	18	88						2.06
13	18	14	21		✓	2	8	.86
14	18	33	33	✓		2	0	2.83
15	17	22	18		✓	2	0	1.10
16	18	3	40	✓		2	0	3.33
17	19	7	28	✓		2	0	.00
18	18	93	25		✓	2	0	4.00
19	18	27	30	✓		2	0	2.32
20	18	16	15	✓		2	10	1.07
21	18	7	27	✓		2	12	.94
22	18	60	21	✓		0	21	2.50
23	18	71	30	✓		1	12	3.00
24	17	39	17	✓		4	0	1.56
25	18	93	15		✓	3	0	3.26
26	18	83	22	✓		2	0	2.68
27	18	54	15	✓		2	0	1.64
28	20	5	31	✓		4	0	2.38
29	20	73	12	✓		2	16	1.15
30	18	13	18	✓		0	0	2.86
31	18	36	26	✓		2	0	.23
32	18	74	12		✓	3	0	1.08
33	17	14	25	✓		1	13	.90
34	19	14	25	✓		2	15	.93
35	17	92	15	✓		2	0	3.15
36	18	80	10	✓		2	16	3.41
37	19	6	10	✓		2	0	1.04
38	19	68	17	✓		3	0	.88
39	17	35	27	✓		2	0	2.33
40	18	21	15		✓	2	13	1.04
41	18	80	22		✓	1	0	1.61
42	19	94	28	✓		1	13	1.50
43	19	52	16	✓		0	0	1.08
44	18	12	15	✓		0	0	1.32
45	18	4	12	✓		2	4	.27
46	18	25	17	✓		2	0	1.85
47	18	10	15	✓		2	0	1.96
48	17	77	25	✓		2	0	1.97
49	19	44	25	✓		3	3	1.81
50	18	66	15	✓		3	7	2.12
51	18	19	30	✓		3	7	2.00
52	18	43	15	✓		3	26	2.35
53	20	56	29	✓		3	0	2.41
54	19	88	15	✓		3	3	1.67
55	17	36	20	✓		2	0	1.62
56	19	15	24		✓	2	10	1.50
57	18	75	25	✓		0	30	1.69
58	17	17	12	✓		1	18	1.35
59	17	92	25	✓		2	0	3.08
60	18	86	30	✓		2	0	2.12
61	18	97	20	✓		2	0	3.92
62	18	67	24	✓		0	20	2.12
63	18	61	35		✓	2	0	2.26
64	19	39	29	✓		2	0	1.37
65	17	51	10	✓		2	0	1.53
66	17	61	18	✓		3	25	1.09
67	18	46	30	✓		0	0	1.44
68	18	17	10	✓		1	7	1.37
69	17	71	25	✓		3	0	3.26
70	16	68						1.21
71	18	6	36	✓		0	0	1.28
72	17	86	13	✓		3	0	1.53
73	18	81	35	✓		0	0	3.79
74	18	15	28	✓		1	0	2.25
75	19	51	21	✓		3	0	3.31
76	18	47	19	✓		3	19	3.36
77	18	17	12	✓		0	0	.63
78	18	84	18	✓		2	0	2.50
79	18	91	17	✓		2	0	1.91
80	17	52	16	✓		1	4	1.62
81	19	81	18	✓		1	0	1.89
82	17	30	15	✓		2	0	1.59
83	19	39	33	✓		2	15	1.93
84	18	55	10		✓	3	10	1.25
85	19	46	20	✓		3	10	2.74
86	18	27						.17
87	17	72	17		✓	2	0	2.36
88	18	43	17		✓	2	0	.91
89	17	41	29	✓		2	0	2.12
90	18	77	30	✓		2	21	3.43
91	17	46	10	✓		2	0	1.11
92	18	26	17	✓		2	0	2.61
93	18	44	18	✓		2	0	.71
94	17	68	15	✓		3	3	2.56
95	18	23	27	✓		4	30	2.00
96	17	76	10	✓		2	0	1.63
97	18	74	15	✓		1	0	3.03
98	19	55	20	✓		2	0	2.06
99	17	51	20	✓		2	0	1.17
100	18	80	11	✓		4	0	1.65

Appendix D.--REASONS STATED FOR DISSATISFACTION WITH STUDY CONDITIONS IN ROOMS

REASONS STATED FOR DISSATISFACTION WITH

STUDY CONDITIONS IN ROOMS

Braiden Hall Residents

Case Number	Reason
1	"Too much activity in and out. Other members of the room didn't study."
2	"Too much noise, roommates too noisy."
3	"Noise and loud talking prevalent."
8	"Visitors from other rooms, general confusion."
9	"Too much activity in the room. General nonsense on room occupants part."
13	"I found that it was pretty hard to sleep or study. There were quiet hours at Braiden, but they weren't enforced. There was disturbance from my roommates."
21	"Noise in halls and visitors from other rooms."
22	"General noise."
24	"Too many people roaming in and out. People talking in room."
26	"Crowded, noise, poor lighting."
27	"Crowded conditions in room."
30	"In and out of room traffic, crowded conditions."
32	"My roommate is a general nuisance. There is general noise and closing of doors in the dormitory."
37	"Too crowded for four to study."
40	"Too much noise on the whole. Too many guys around."
41	"Overcrowding and one obnoxious roommate."
42	"Room is noisy and overcrowded."
48	"General noise and overcrowding."

Case Number	Reason
49	"Crowded conditions."
53	"There is too much noise for good studying."
58	"Guys in hall talking and making a disturbance."
62	"Roommates scuffling."
63	"Too many roommates."
65	"Crowded facilities in general."
66	"There was much disturbance from my roommates."
67	"Too crowded in room."
68	"Constant noise in the building."
72	"Radio and other ambient noises."
79	"Too crowded; distracted by undesirable, crude habits of roommates."
82	"My room was too crowded with four people. The building was generally noisy."
83	"The halls are noisy and there is a constant shuffle throughout the building. The rooms are overcrowded and there are not enough facilities for study."
85	"Too many visitors in room."
87	"I disliked my roommate."
88	"Doors slamming and fellows coming in and out."
89	"General confusion in the building."
90	"Noise in the halls."
95	"Too much traffic in and out of room and too much noise in the hall."
96	"Not enough space in room for four people to study."
97	"Too many running in and out. Too much noise in the halls."

REASONS STATED FOR DISSATISFACTION WITH

STUDY CONDITIONS IN ROOMS

Off-Campus Residents

Case Number	Reason
11	"There were no definite study hours. Though there were regulations, they were not enforced."
13	"Roommates were noisy."
15	"Too many men living in the space provided."
18	"Too many bull sessions."
25	"Too many in room."
32	"My room was too cold during the end of the quarter."
40	"Four men in the room and we couldn't get together on study time."
41	"Interrupted by the family in the house."
56	"With four in a room you can't study."
63	"Roommates didn't study. Noise in the house as a whole."
84	"Living by myself and was lonesome. The house where I stayed was near the railroad and trains going by bothered me."
87	"Landlords children are a disturbing factor until they go to bed."
88	"My room was cold and the landlord's cat climbed over my study table. I had two roommates and had trouble studying."

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