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A Comparative Study of Scholastic Achievement between Day and Dormitory High School Students in Ankara, Turkey

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A COMPARATIVE STUDY OF SCHOLASTIC ACHIEVEMENT
BETWEEN DAY AND DORMITORY HIGH SCHOOL
STUDENTS IN ANKARA, TURKEY

A Thesis
Presented to
the Graduate Faculty
Central Washington State College

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Richard B. Howe
July, 1969

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CHAPTER I

THE PROBLEM AND TERMS USED

The United States dependents schools in Europe are located in more than a dozen countries covering an area of twenty-three million square miles. The system comprises more than one hundred thousand students in 148 elementary schools, 42 junior high schools, and 33 high schools, as is shown in Figure 1, Appendix A. Reference to Figure 2 in Appendix A will reveal that these schools employ a teaching staff of over five thousand and represent teachers from every state in the union. The curriculum offered is similar to that of the schools in the United States. Ankara American High School is accredited, as are nearly all the dependents schools, by the North Central Association of Colleges and Secondary schools.

"Nine of the American high schools in Europe are dormitory schools" (30:7).

In May 1963, by joint decision of the Department of State, the U. S. Agency for International Development, and the Department of Defense, the United States Government allocated approximately \$1,275,000 to construct and equip a new modern high school in Ankara, with dormitory facilities for 200 boarding students from this general area (32:1).

For those students living in Ankara with their parents, school is similar to that in the United States. Bus transportation and extra-curricular activities, except

for highly competitive interschool athletics, are provided.

Those students whose parents do not reside in Ankara live in the dormitory. To be eligible for enrollment in the residence hall an applicant must:

1. Be an American citizen.
2. Be the dependent of parents assigned to one of the following geographic areas: Afghanistan, Bahrain, Ceylon, Crete, Cyprus, Ethiopia, India, Iran, Israel, Jordan, Kenya, Kuwait, Lebanon, Malawi, Nepal, Rhodes, Saudi Arabia, Somalia, Sudan, Syria, Tanzania, Turkey, Uganda, West Pakistan, Yeman, or Zambia.
3. Have successfully completed the eighth grade. (Ninth and tenth grade students at Adana and Karamursel, Turkey, and ninth grade students at Crete will attend American schools at those bases.)
4. Be a dependent of a parent employed by the Department of Defense, the Department of State, or any other United States federal government agency; or be a dependent whose parents are under direct contract to AID; or be a dependent whose parent is a Fulbright-Hays grantee.

Applicants whose parents do not come under one of the above categories will be accepted only if there is space in the residence halls after those in the above categories have been served (32:6).

The residence year is 257 days in residence. Students are in the dormitory seven days a week and return to their parents' homes for the Christmas and Easter holidays. The high school and dormitories are located about two miles west of downtown Ankara. Near the residence halls are the youth center, post exchange, hobby shops, tennis courts, football

and softball fields, riding stable, swimming pool, and other sports facilities. On weekends dormitory students are taken on tours of nearby historical sites in Turkey. Transportation is also provided on weekends to movies and other points of interest. All dormitory students' time outside of school is quite regimented, and the students must sign out whenever they go anywhere outside the dormitory building proper. They are required to attend a two-hour study hall each night before a school day, in accordance with rules set by the D. O. D. for the Ankara High School dormitory (32:25).

Ankara teachers and administrators agree that most students, whether day or dormitory, seem to adjust to their new environment satisfactorily after entering Ankara High School. Others, however, never seem to adjust. This lack of adjustment manifests itself in poor academic achievement or, sometimes, in problem behavior. Students experience many new problem situations in attending and preparing to attend a high school in a foreign country, such as: traveling sometimes thousands of miles alone, language barriers, cultural differences and lack of typical American facilities. Patterson, although discussing college students who attend foreign universities abroad, offered a partial explanation which seems applicable in this situation:

Every year thousands of young Americans board ships and planes to spend a few months abroad. For some it is a high adventure that stimulates the imagination and

gives reality to classroom learning. For others it is a time of disappointment and frustration. The difference lies not only in the young people themselves and the circumstances of their stay abroad, but in the objectives they seek and the planning and preparation that precedes their trip (25:67).

Patterson's college students have the advantage of age and of having had a choice as to whether they would attend school at all, let alone abroad. The differences, therefore, between the college students described by Patterson and the high school dormitory students being discussed (who have no real choice in the matter) are evident. However, according to Patterson and O'Neil, the objectives, planning, and preparation for the experience can make an appreciable difference in its success or failure for both groups. O'Neil, in his study on attitudes and experiences of American high school students living in Turkey, enlarged on these differences and agreed with Patterson that preparation and attitude of the student are important:

It seems evident that a very large number are unprepared for their overseas education and many find the life distasteful. Were the students able to make a choice as to whether they came or stayed home the implication for counseling would be different. These students, however, do not have this choice. The evidence suggests that counselors provide an orientation program up to six months (24:43).

In Ankara American High School there are two distinct sets of students: day students and dormitory students. Some of their problems of adjustment are mutual, but as has been pointed out, those of the dormitory student are

amplified, and there are many exclusive to him. There has been no research to determine whether these students' special situation may be directly correlated to their scholastic achievement, or to determine whether changes in existing dormitory rules and procedures might have a beneficial effect on their achievement. There has been no study conducted to determine whether there is a significant difference between the scholastic achievement of this dormitory group and the rest of their classmates, the day students.

Each spring a team consisting of the dormitory principal, the high school vice-principal, a school psychologist, a guidance counselor, and a secretary visit Karamursel, Crete, and Adana, areas from which most of the dormitory students come to Ankara High School. This may be seen in Figure 3, Appendix A. On these trips one of the most frequently asked questions is related to scholastic achievement of dormitory students. Parents are quite naturally curious as to the standard of achievement maintained by that segment of the student population with which their child will be associated. Since there has been no study conducted to determine what this standard is, as compared to the rest of the student population, there is no authoritative answer. In past years the school psychologist, Mr. James Wurtz, has been able to point out only that while grade point averages

for the entire school tend to be lower than United States schools, the scores on achievement tests are higher.

I. THE PROBLEM

A need has been indicated for study of the dormitory environment for high school students attending Department of Defense schools, in particular with regard to their scholastic achievement as compared to that of their classmates, the day students.

There are several reasons that the GPA of dormitory students might be significantly different from that of day students. Ankara teachers and administrators think the most pertinent reasons are:

1. There is a lack of parental influence and supervision for dormitory students.
2. The shock experienced in moving to a new environment (a foreign culture, from home to dormitory, from familiar to new latitudes, or restrictions in freedom) was supposed to be detrimental to their study habits.
3. Dormitory students are forced to an abruptly new level of maturity in that the familiar guidelines and decision-makers are no longer available, and they are left to decide for themselves whether these are pertinent in their new situation, to defend them, to apply them to new problems, or to revise them on their own.

Hypothesis

To determine whether the living conditions of the students of Ankara High School could affect their grade point averages, this study was undertaken and the following

hypothesis was formulated: It is hypothesized that the grade point average of dormitory students is poorer than that of day students.

The desirability of such a study was emphasized by the support and encouragement of Mr. William C. Schultheis, Associate Director, Pupil Personnel Services, of Karlsruhe, Germany. Mr. Schultheis acts as superintendent in charge of dormitories for the D. O. D. in Europe. His interest in this study is based on the lack of any previous USDESEA comparative study between "dormies" and "days." With the suggestion and encouragement of Mr. Thomas Smith, principal of the Ankara Dormitory, this study was conducted.

Statement of the Problem

The primary purpose of this study was to compare the scholastic achievement of dormitory students and day students after both groups entered Ankara American High School.

Importance of the Study

The study of modern educational problems has convinced educators that the living conditions provided for students are of fundamental importance in their development. It is hoped that substantial facts produced will help answer questions about the scholastic achievement of students in dormitories for Department of Defense administrators and

parents, and provide these administrators with valid evidence for retaining or changing present dormitory practices.

II. DEFINITIONS OF TERMS USED

Five-day dormitory. A five-day dormitory exists when students arrive at the dormitory Sunday afternoon or evening and depart for home after school hours on Friday.

Seven-day dormitory. A seven-day dormitory exists when students are in residence seven days a week during the school year, except for Christmas and Easter vacations.

Day students. Day students are those students who live in Ankara with their parents. These students are similar to public school students in the United States.

Dormitory counselors. Dormitory counselors are Teacher-certified men and women who provide supervision and scholastic and academic assistance, and who provide experiences for the students in social, cultural, and recreational activities.

Dormitory building proper. The dormitory building proper is that facility in which the students are housed and in which their personal lounge areas are located.

Feeder plan. The Feeder Plan is a plan which brings students to the Ankara dormitory from the ninth or tenth

grade of schools in twenty-seven different countries.

Sponsor. A sponsor is a parent in Ankara who offers to help a dormitory student in cases of special need or during school emergencies.

III. LIMITATIONS OF THE STUDY

There are nine Department of Defense dormitory schools in the European area. This study is, however, concerned only with Ankara American High School. Since other dormitory schools are in other countries and may be run in different ways, the results of this study apply only to Ankara High School.

This investigation is limited to and includes all available eleventh grade students. The eleventh grade class contains 126 students. Twelfth and tenth grade students were not used because they had not been given intelligence tests at Ankara High School and this factor would be uncontrolled in their cases.

The study was also limited to comparison of grade point averages between day and dormitory students, before and after entering Ankara American High School.

IV. ORGANIZATION OF THE SUCCEEDING CHAPTERS

Chapter II will review the literature relating to the importance of dormitories and scholastic achievement. In

Chapter III will be found the description and procedures involved in gathering data for this study. Chapter IV will give interpretations and findings of data gathered. Chapter V will contain the summary, conclusions, and recommendations of the study.

CHAPTER II

REVIEW OF LITERATURE

Educators have long been interested in the dormitory as an important factor in the educative process. Rashdall pointed out that the problem of student housing may be said to date back to the very beginnings of the great European universities in the twelfth and thirteenth centuries (26:52). As students came in ever increasing numbers to various centers where famous masters and books were available--such centers as Paris, Bologna, and Oxford--they created many problems for the universities, the townspeople, and for themselves. But, though problems were created and brought to the attention of educators even at this early date, at first the universities undertook no supervision over the private lives of their students beyond seeing "that they were not cheated by unscrupulous citizens or injured in the numerous broils of the day" (27:8).

As the importance of student environment became more evident, various philosophies governing dormitory situations were developed and fluctuated extremely throughout history. To clarify consideration of residence halls in present-day student development, it is well to hold in mind Crowley's

statement of the three outstanding philosophies which underlie student housing.

The first of these is British, as exemplified by Oxford and Cambridge, which thinks of the residence hall as the center of the student's education, formal as well as informal. The second of the three dominant philosophies is the German, under which the student outside the lecture room is of no concern whatever to the institution. The third and most prevalent of the philosophies Crowley designated is the American. It is the resultant of the impact of the first two upon each other under the conditions of this continent, and it provides bodily shelter for at least some of the students of a college or university and some special education in residence which is quite separate in spirit from the curricular life of the campus. It is this last philosophy which best describes the governing atmosphere at Ankara High School's dormitory (5:30).

Studies have been conducted concerning the correlation of dormitory environment to student academic achievement, but little was found which had relevancy for this study, for two reasons: the studies dealt with college and private school students, and the studies showed conflicting results. For example, Moulton stated that whatever the impelling philosophies behind residential halls may be:

. . . the literature dealing with the attainment of students living in them shows a good deal of agreement as

to their scholastic superiority. Investigation of students at a state teacher's college has shown that the academic standing of students living in college halls of residence is higher than that of students living under different conditions (23:362).

Her findings were reinforced by Walker's study in Chicago, which found that in groups investigated (private homes, private boarding houses, residence halls, and fraternities), the residence hall men and women stayed in college longer, completed the largest number of majors each quarter, and averaged the highest in grades. They had the smallest proportion of dismissals and probations for poor work and the largest portion still in residence, graduating, and enrolled for graduate work. They ranked first not only in scholastic record but in rating by students and faculty (33:37).

Further, in a year's study of the women students at Western Illinois State Teacher's College at Macomb, Illinois, it was discovered by Grote that the dormitory group, with an average I.Q. and high school record both slightly lower than the corresponding general groups, achieved an honor point average two points higher than the corresponding general average (12:507).

Another author, Stewart, disagreed. It was his contention that the differences in scholarship between the dormitory and other groups, in most instances, are so small as to lack statistical significance. He also maintained

that opposing authors have failed to account for many uncontrolled variables which enter into the relationship. He pointed out, for example, that residential halls provide supervision in the form of quiet hours, regulation of number of evenings out of the residence, and so on, which are valuable study aids. Moreover, college houses of residence may draw a group of students more financially secure and less dependent upon full- or part-time outside occupation for the continuation of their college careers than are other students (29:37).

If studies had agreed in results as to the superiority or inferiority of the dormitory situation as opposed to other environments with respect to academic achievement, the relevancy of those studies to this one might be questioned on the grounds that they are, after all, studies made on college students. The fact that the data is quite inconclusive makes application of this material impossible. Review of literature available dealing with the dormitory situation offers one other area in which studies have been made--the private school.

Gertler gave an excellent summary of the history and purposes of non-public secondary schools in the United States in a report for the United States Department of Health, Education and Welfare. She said that non-public schools have constituted an integral factor in the

educational pattern of the United States from its earliest beginnings. In fact, the first schools established in the American colonies were semiprivate institutions legally encouraged by local or state governments but mainly dependent for financing upon tuition payments, with a minimum of tax support. Since the church-state separation was not explicitly defined or enforced, they were subject to the influence of the dominant religious group of the community, prepared students for specific denominated colleges, and frequently received at least part of their support from the same or related religious sources.

Although the first publicly supported and publicly controlled high school was established in Boston in 1821, this type of school made little progress until after the Civil War. Its growth paralleled that of large, industrialized cities. The private academies were at the peak of their influence in the 1840's. They were, at this time, educating over two hundred fifty thousand students at over six thousand academies. However, the rapid spread of the public school idea, along with increasing growth and concentration of population, caused the non-public school to become a smaller and smaller factor in the nation's educational picture. Although the number of schools and enrollment of private and parochial schools has shown a steady upward trend, the major impact of increased population and increased

secondary school attendance has been absorbed by public schools (10:5). Ferrer pointed out that in 1953 only one per cent of all secondary school students attended non-public schools (8:102).

Gertler went on to say that although non-public schools are not large numerically, compared with all secondary schools, they continue to play a significant part in education, particularly in the East. They have a strong appeal to individual parents who are able and willing to pay for more individualized attention in small classes, for more ready entry into specific institutions of higher education, and for other claimed advantages. The reputation for scholastic excellence "enjoyed by some non-public secondary schools may not be generally applicable to the entire group, but high standards are maintained by a number of them" (10:1).

Review of literature dealing with private schools has revealed some interesting facts. Studies at Princeton showed that graduates of public schools achieve better grades in their first two years than do non-public school graduates of equal basic ability. A study by Shuey showed:

At Randolph-Macon Women's College, 189 pairs of freshman were studied. From this study it would appear that public school students earned higher grades, on the average, than the students from private schools who were of the same age, intelligence, with similar academic programs from the same section of the country and from communities of similar size. The two groups of students

did not differ significantly in motivation that could be attributed to religious preference, number of children in the family, education of parents, or percentage of broken homes; nor did participation in extra-curricular activities appear to account for the difference obtained (28:35).

The results of a second study by Shuey during the sophomore year of 245 pairs of students showed that public school students earned significantly higher grades on the average than private school students (28:35).

On the other hand, Barr made several interesting points. He said that most private schools are able to offer better college guidance than public schools because college placement is part of their stock in trade. A private school senior has a slightly better chance to get into a good college--all other things being equal--than the senior from a public school. This is partly because the headmaster or guidance director of a private school knows the students better than the over-burdened guidance teacher in a large public high school, who is able to write up an evaluation of a youngster only on the basis of the school's official files (1:74).

This brings us to the problem of the application to this study of studies dealing with private schools. Again, it would be hazardous to accept any findings from material on private schools as relevant to the situation at Ankara High School dormitory for the same reasons that material

dealing with college students is unacceptable: the situation is quite different. Barns pointed out that the primary reason for parents' sending their child to a boarding school is: (1) for a better education and (2) for religious training. He added:

Most boarding schools have small classes and intimate, friendly council with the teachers, unlike public schools that have larger class loads and are in contact with the student only during the time he is in class (2:28).

Barr maintained that one school may send dozens of boys to "better" schools every year because "the school may have deliberately selected its student body so that it consists largely of sons of families who graduated from the 'better schools'" (1:74). Elisber, in writing about entrance to private schools, stated that admissions tests are a fact of life for families who want their children to have a non-public school education, and that non-public schools are becoming overcrowded and selective with new students (7:106). In addition, Gertler said that it would be difficult to describe a typical non-public school. They vary in age and aims, in size and teaching methods, in price and prestige, in religious affiliation, and in numerous other ways. Some are similar to public schools in the same geographic areas, and others specialize only in certain programs (4:6).

Probably the most definitive list of differences between the private school and the public one with which

this study is concerned was made by Cort:

1. Classes are small. On the average there are 10 students to a teacher; in public schools there are often more than 35 to a teacher.
2. Students are carefully selected. Some schools emphasize family connections and income. Most good places, however, are more anxious to find students who will do well in college.
3. The school usually specializes in college preparation. The basic curriculum is aimed toward college entrance examinations.
4. Public school students who take college board exams consistently make better scores in most subjects than non-public school youngsters with the same ability (3:35).

With the exception of some secondary schools of agriculture affiliated with land-grant colleges in the states of Alabama and Georgia, in which dormitory environments are common, and of the "Open Air" schools in the Southwest which offer boarding or combined facilities, there is a dearth of information regarding secondary public schools with dormitories. Moreover, the ones mentioned above offer no information about their dormitories, either socially or scholastically.

I. SUMMARY

Studies concerning dormitory environments may be found in two areas: those concerning college students, and those dealing with private school students. The validity of those concerning college students may be discounted as relevant to this study on the grounds that they show conflicting

results and that they deal with a student population dissimilar in many important respects to that of Ankara American High School. Those dealing with private school students are also difficult to relate to this study, for the student attending Ankara American High School attends a public school, regardless of his mutual experience with the private school student in their dormitory environment. The differences in public and private schools have been adequately delineated in the preceding chapter and are too numerous and varied to allow this author to regard the two situations as parallel.

Furthermore, while a considerable body of literature regarding residence halls has appeared, this study is meant to deal with the impact of a dormitory environment on scholastic achievement, and the literature available is concerned with the physical aspects of the dormitory--the dimensions of the bedrooms, the sanitation facilities necessary for a given number of students, adequate lighting and ventilation. There is a poverty of information as to how residence halls can serve as a potent means for developing social competence and scholastic achievement, and for providing experience in democratic living. With remarkable consistency the authors of available material discuss management, supervision, sanitation, and the student, to what-have-you ratio. Almost any aspect of the dormitory imagined to be relevant has been

discussed at length, with the curious exception of the effect of dormitory living on scholastic achievement.

CHAPTER III

DESCRIPTION AND PROCEDURES OF THE STUDY

This study was an investigation to determine whether there were any significant differences between the grade point averages of dormitory students from day students at Ankara American High School. It was intended to be an immediately useful study, and for this reason there has been no consideration given to the question of whether grade point average is an accurate yardstick with which to measure scholastic achievement. For the purposes of this study, GPA and scholastic achievement will be interchangeable terms. The administrators and teachers of the Department of Defense must be concerned with nine existing dormitory situations in secondary schools, and they must be prepared to answer parents' questions about the possibility of their child's acceptance to a university of their choice. Since the grade point average of a student is of such importance to them, to parents, and to universities alike, this writer has not attempted to discuss or determine in this study whether the importance attached to GPA is merited.

This writer attempted to determine the difference in scholastic achievement by comparing the GPA's of all available eleventh grade students before and after they entered Ankara High School.

Description of the Subjects

As the European Area Dependents Schools Pamphlet pointed out, students in United States dependents schools in Europe represent a cross section of the United States, with its diverse races, religions, and ethnic groups. They are largely members of the American military families or dependents of government civilian employees serving abroad. Family incomes vary, but extremes of poverty or affluence do not exist. A few students are nationals of other countries and may have to learn English as a second language. Dependent schools' students speak in all American accents and come from both urban and rural backgrounds. Before they graduate from high school, they normally have attended three or more schools in more than two countries. Few dependents school students become dropouts. The emphasis the Armed Forces place on education and the lack of job opportunities for teenagers on military installations combine to make these students complete high school. The majority of these students plan to continue their education beyond high school, either in college or in vocationally oriented programs (31:17).

The school day for all students consists of six fifty-five minute classes with a forty-five minute lunch, five minutes between classes, and a fifteen minute homeroom period. The curriculum is similar to most high schools in

the United States, and is accredited by the North Central Accreditation Association. Day students commute to school by bus. Dormitory students eat all meals in the school cafeteria. They must sign out whenever they leave the dormitory and are restricted to the amount of time they can be away from the dorm and where they can go. All dormitory students must attend a supervised two-hour study hall and have their lights out by 10:00 p.m. before each school day.

All available eleventh grade students in George C. Marshall High School were used in this study. The eleventh grade class contains 126 students. With the suggestion of the district psychologist and high school guidance counselor, the class was divided into four groups of equal size. These groups consisted of boy day students, girl day students, boy dorm students, and girl dorm students. Because the boy dorm group had only twenty-eight available members, the other groups were reduced to equal the number of this group. This was done in a way that insured that the groups would remain randomized.

The members of each group were numbered, and with the assistance of a table of random sample numbers, enough members were omitted from each group to make all groups equal in size.

Compilation of Data

Intelligence quotients of all students were obtained from the Lorge-Thorndike Intelligence tests. Students were placed in four classrooms and the test was administered over the school intercom by one guidance counselor. A teacher was placed in each room to act as proctor, and another guidance counselor rotated among the four classrooms to insure a consistent testing situation for all students and to answer questions.

Test results were placed on the permanent record card. Intelligence quotients for this study were obtained from this permanent record card. Also obtained from this permanent file were the grade point averages, information as to the time of each student's enrollment at Ankara High School, and the length of time spent there.

Grade point averages of each student were calculated before and after their enrollment in Ankara High School. The data compiled above is listed in Tables IV through VII in Appendix B.

Credits in band, chorus, shop, art, drama, and physical education were not used when computing grade point averages. All other courses were used in computation of averages if one-half semester credit was received for the course. In determining grade averages, the 4, 3, 2, 1, and 0 were used for A, B, C, D, and F, respectively.

CHAPTER IV

FINDINGS OF THE STUDY

It was the purpose of this study to compare the scholastic achievement of dormitory and day students in Ankara, Turkey. Before it was possible to compare the groups, it was necessary to determine whether the GPA's of the groups were significantly influenced by George C. Marshall High School to the same degree. To determine this a statistical technique entitled Analysis of Variance was employed. The particular design used can be found in Winer's Statistical Principles in Experimental Design (34:302).

The design is a 2 x 2 factorial design. Table I shows the results of this problem. The two factors were the sex of the student and whether he was a day or dorm student. The dependent variable was the length of residence at G. C. Marshall High School. The raw data for this problem is in Tables IV through VII in Appendix B.

Table I clearly shows that there is no significant difference in any of the groups in regard to the amount of time spent in Ankara High School. The test of significance at the five per cent level is based on an F ratio of 3.92. All groups from the ninth grade through one-half the eleventh averaged about one and one-half years in Ankara High School.

TABLE I
ANALYSIS OF VARIANCE SUMMARY
SEX X LIVING CONDITIONS
OVER TIME IN RESIDENCE

	Sum of Squares	Degree of Freedom	Mean Square	F
Sex (A)	0.00	1	0.00	<1
Living Conditions (B)	.11	1	.11	<1
A x B	.01	1	.01	<1
Error	28.88	108	.27	<1
Total	29.00			

Note: $F .95_{1,108} = 3.92$

It is also important to note that the average intelligence quotients of all groups are almost equal. Refer to Tables IV through VII, Appendix B. To determine whether there was a significant difference in scholastic achievement between dorm and day students after entering Ankara High School, another analysis of variance, also outlined by Winer, was used (34:342). This is a three factor problem. The factors are sex, living conditions, and pre-post grade point average of students. The analysis is to show whether there was a significant difference between dorm and day students after they entered Ankara High School. It points out significant differences in grade point averages with regard to

the sex of the student and to the before-after entering Ankara High School factor. It also takes these three factors either together or two at a time, to determine whether there are significant interactions under these conditions of analysis. The results of this analysis are found in Table II. Raw data for this problem is located in Tables IV through VII, in Appendix B.

TABLE II
ANALYSIS OF VARIANCE SUMMARY
SEX X LIVING CONDITIONS X
PRE-POST ANKARA G.P.A.

	Sum of Squares	Degree of Freedom	Mean Square	F
Sex (A)	11.3538	1	11.3533	18.1888*
Living Conditions (B)	1.4256	1	1.4256	2.2839
A x B	.0146	1	.0146	1
Subject within Groups Error (Between)	67.4138	108	.6244	
Total	80.2075			
Pre-Post GPA (C)	1.8342	1	1.8342	10.7515*
A x C	.0001	1	.0001	1
B x C	.0406	1	.0406	1
A x B x C	.0860	1	.0860	1
C x Subject within Groups Error (Within)	18.4199	108	.1706	1
Total	20.3808			

Note: $F_{.99, 1, 108} = 6.85$

*P < .01

Table II indicates that there is no significant difference in the grade point averages of dorm and day students after both groups of students had attended Ankara American High School for approximately one and one-half years. The table does indicate a significant difference in scholastic achievement with regard to sex of the student and before and after entering Ankara High School. The test of significance at the one per cent level is based on an F ratio of 6.85.

Table III shows that after entering Ankara High School, the grade point average of all groups went down.

TABLE III
MEAN GRADE POINT AVERAGES OF ELEVENTH GRADE
STUDENTS AT G. C. MARSHALL HIGH SCHOOL

		Pre-Ankara	Post-Ankara	Average
Males	Dorm	2.19	1.99	
	Day	2.32	2.15	
	Average	2.26	2.07	= 2.18
Females	Dorm	2.58	2.47	
	Day	2.82	2.58	
	Average	2.70	2.53	= 2.62
			Average	= 2.40

The average drop in GPA of all students was .18. This table also shows the average GPA before entering Ankara as 2.48, and after living in the dorm for an average of one and

one-half years as 2.38. The average difference in high school GPA's between boy and girl students was .44, with the female student GPA at 2.62, and the male GPA at 2.18.

In other areas studied, differences were found not to be statistically significant. These areas were: interaction factors of sex and living conditions, sex and pre-post Ankara GPA's, living conditions and pre-post Ankara GPA's, and sex, living conditions, and pre-post Ankara GPA's.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The primary purpose of this study was to determine whether there were significant differences in academic achievement between two groups of high school students: (1) those living in the school dormitory, and (2) those living at home with their parents. Although many factors might reasonably be expected to influence results in such a study, these factors were narrowed down to those which this writer believed were most pertinent and which could be expected to give the most accurate results. The data compiled therefore included intelligence quotients, sex of student, status of student (dormitory or day), and the time of enrollment in Ankara High School. This last factor was considered to be of key importance, for it was decided that any statistically significant variance could be most accurately determined if the grade point averages were compiled and compared with direct regard to the time of the student's enrollment in this high school. Grade point averages were therefore taken for each student before and after his enrollment.

At this point the analysis was done to determine any significant variances in scholastic achievement between:

(1) dormitory and day students, (2) male and female students, and (3) all students before and after entering Ankara High School. The analysis of variance was then employed to compare these three factors two at a time and, finally, all together, to determine any significant interactions under these conditions of analysis.

This is best illustrated by designating the three factors of sex, living conditions, and pre-post GPA as factors A, B, and C respectively. The first analysis of variance compares only the A factor; that is, male to female. The B factor and then the C factor are compared in the same manner.

Secondly, the analysis of variance is utilized to compare factor A times factor B, A times C, and B times C. The final analysis, which compares these three factors, is A times B times C. In this way, each pertinent variable or possibility of variance was compared and accounted for.

II. CONCLUSIONS

The dormitory students are actually and consistently segregated from day students in physical environment and in attitude and atmosphere, and all relative studies (although dissimilar in that college students are used) show a marked difference between dorm and day groups. Results of this study are therefore interesting and somewhat startling.

This researcher expected, on the evidence of previous studies, and because of the overwhelming evident and subtle differences imposed on dormitory students as compared to students living with their parents, that there would be a significant variance shown in their scholastic achievements. However, this expectation was not borne out by the study.

This study has, in fact, determined no statistically significant differences in scholastic achievement in the comparison of dormitory students with day students.

Secondary findings of this study are thought-provoking, and indicate that further study may be desirable to determine reasons for the following findings. For all groups, regardless of living conditions, sex, intelligence quotient, or pre-entry GPA, a significant drop in grade point average was determined to occur after entry in Ankara High School. The average drop of GPA for all students in this inclusive group was .18. It was also found that the drop in scholastic achievement for male students, inclusive of all factors, was significantly greater than that of females after entering Ankara High School.

III. RECOMMENDATIONS

As a result of this study, the investigator offers the following recommendations to help improve the scholastic

achievement of dormitory and day students at Ankara High School.

Dormitories should continue to operate in basically the same method until further study proves that dormitories are no longer satisfactory environments for students, and changes are indicated. At the time of this study, the recommendation is that studies be continued so that any changes considered necessary or desirable will not be overlooked.

Incoming student orientation should be extended in all aspects and, as O'Neil suggested, counselors in the Continental United States should help to prepare students who transfer to an overseas school (24:46).

Further study should be conducted to determine the reason for the drop in GPA after students enroll in Ankara High School. Parents and students are very concerned about grade point average--and with adequate reason; the universities, at this time, still make this concern advisable.

Further study should also be conducted to determine the reason that the drop in GPA is greater for males than for females in Ankara High School. It has been suggested that the lack of an Interschool Athletic League may be a factor in causing a general drop of interest in school by male students.

Because all dormitory students must attend a two-hour study hall each night from 7:30 until 9:30, and lights are turned out at 10 o'clock each night before a school day, it seems reasonable to assume that dorm students are deprived of various plays, exhibits, lectures, and movies which are available to other students at foreign embassies, exhibit halls, and theaters. While this study showed no significant difference in scholastic achievement between the two groups, this writer suggests an attitude study to determine whether the dormitory students feel, or are, "culturally deprived."

Follow-up studies are recommended for these groups of students at the college level, when most of them will live in college dormitories. The purpose of these studies would be to determine which group adjusts most readily and easily to a college environment, and to determine which group achieves better academically.

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APPENDIX A

FIGURE 1.

TOTAL NUMBER OF SCHOOLS AND ENROLLMENT BY COUNTRIES

SY 1968-69

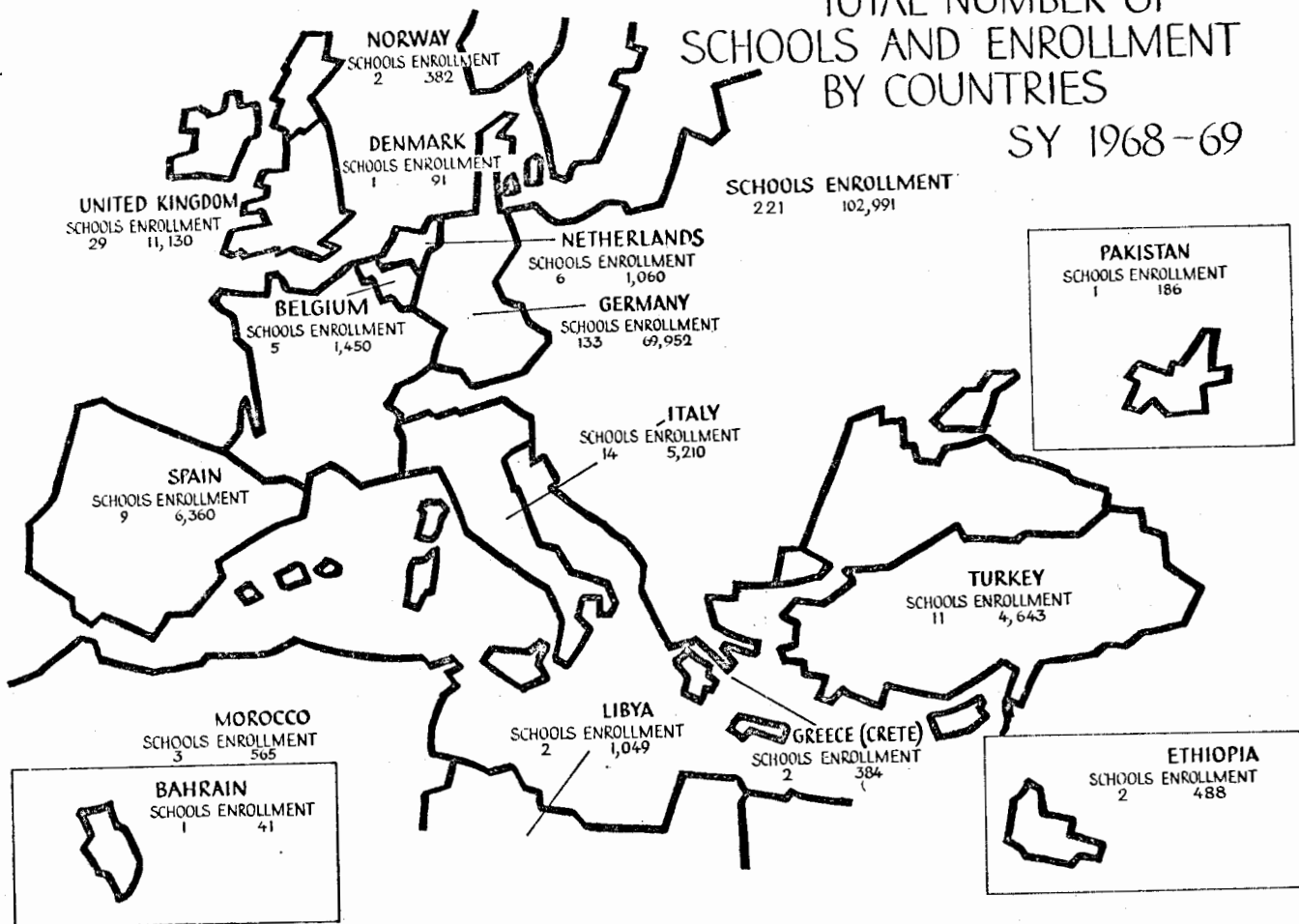


FIGURE 2

Where Our Teachers Come From . . .

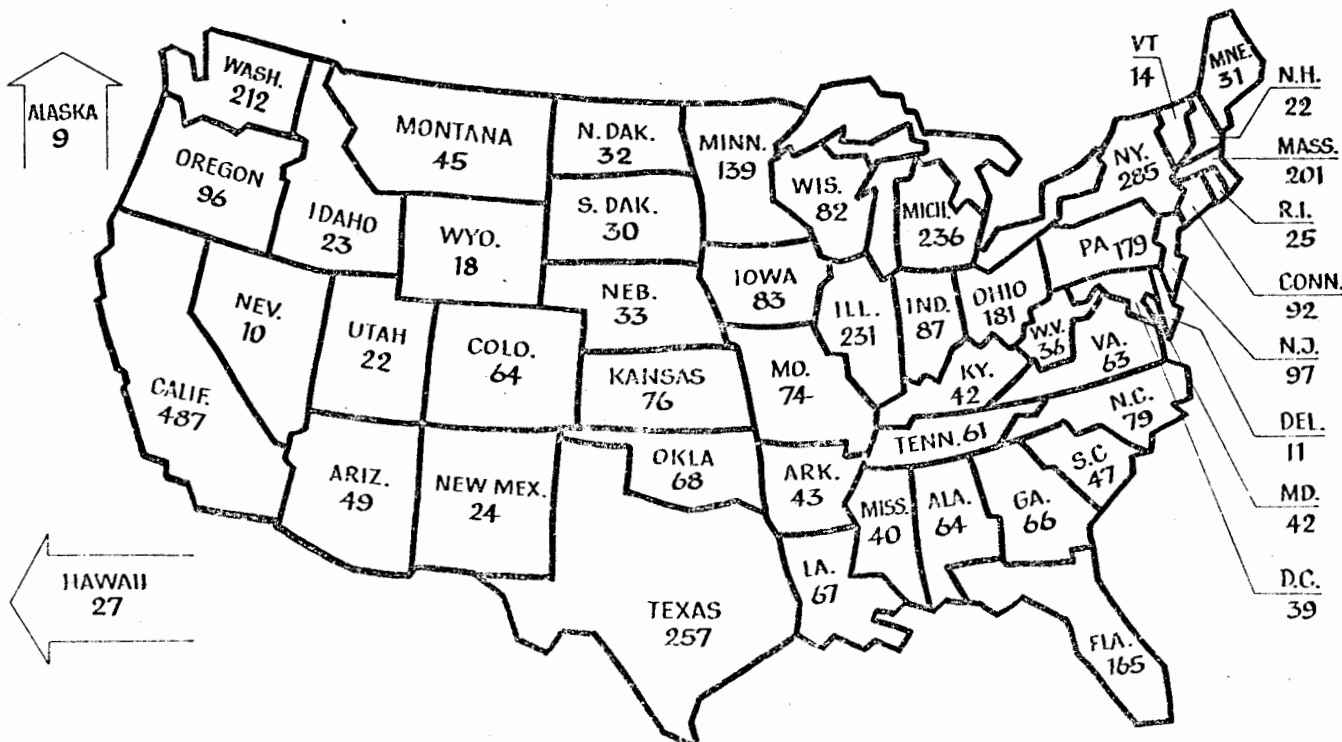
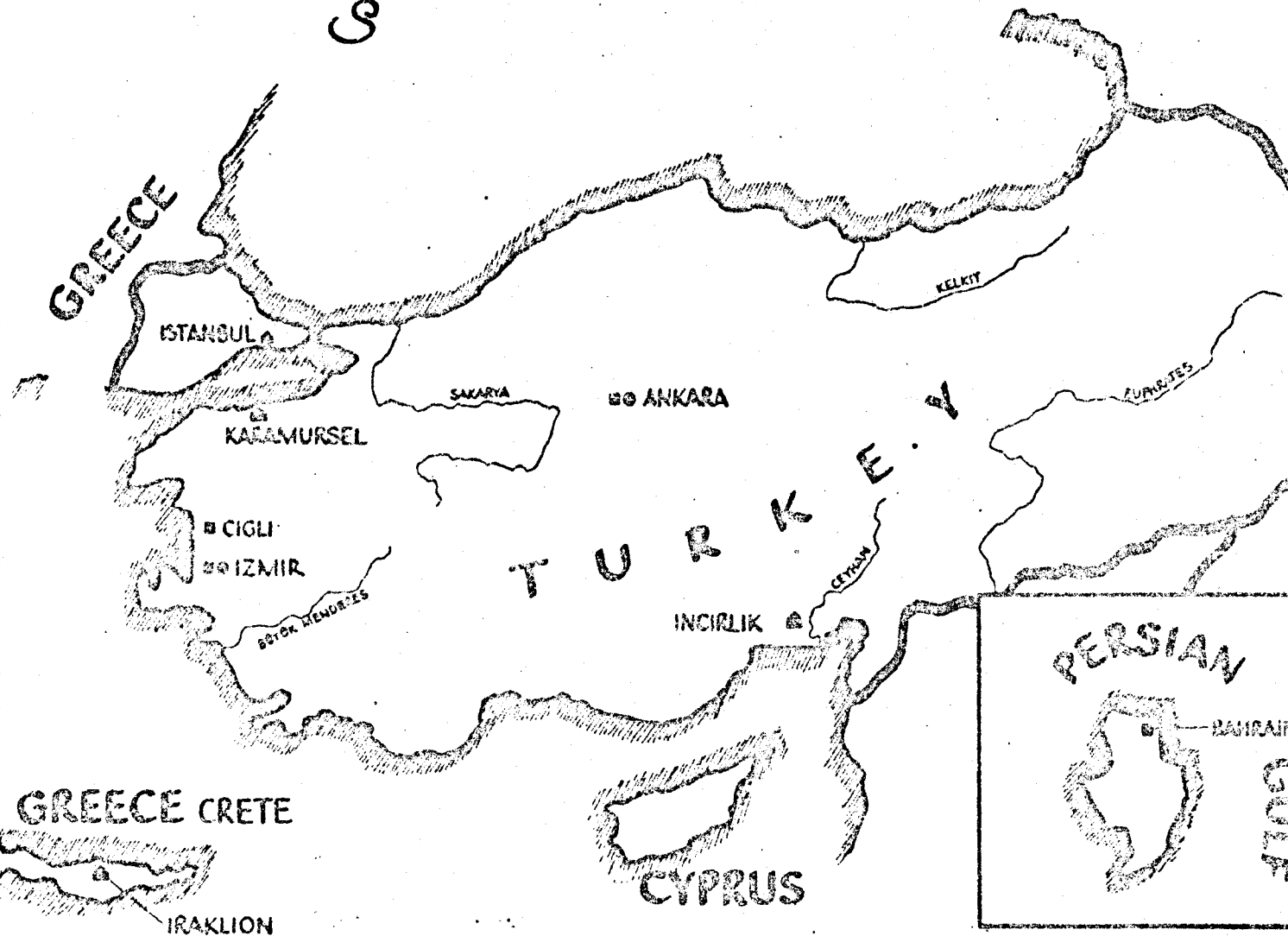
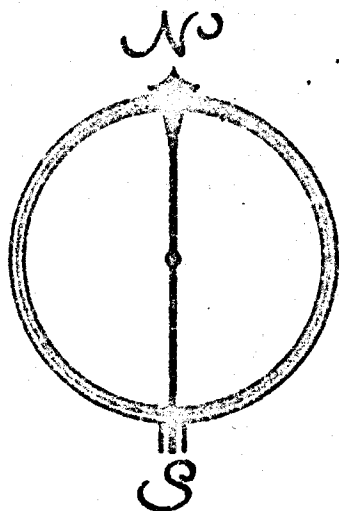
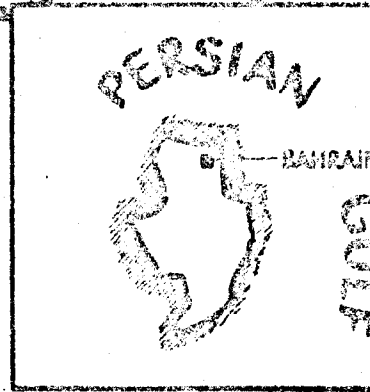
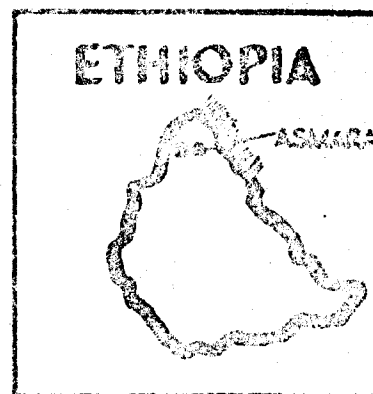
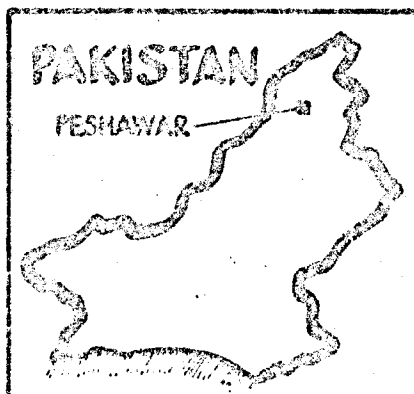


FIGURE 3

USDESEA DISTRICT IV



SCHOOL KEY	
ELEMENTARY	■
ELEMENTARY - JUNIOR HIGH	□
JUNIOR HIGH	●
HIGH SCHOOL	○



APPENDIX B

TABLE IV

ELEVENTH GRADE BOY DORMITORY STUDENTS

Student	First Grading Period In Dorm	I.Q.	Grade Point Averages				
			Grade 9	First Half Grade 11	High School To Date	Before Entering Dorm	After Entering Dorm
1	11	115	1.30	1.75	1.45	1.39	1.75
2	11	106	1.08	1.00	1.58	1.73	1.00
3	10 $\frac{1}{2}$	108	2.21	2.02	2.20	2.15	2.92
4	10	96	2.88	1.80	2.17	2.88	1.80
5	10 $\frac{1}{2}$	113	2.31	2.12	2.30	2.25	2.02
6	11	100	1.75	1.50	1.60	1.63	1.50
7	11	99	1.25	1.00	1.24	1.38	1.00
8	11	116	1.60	.83	1.24	1.06	.83
9	11	109	2.22	2.03	2.21	2.16	1.93
10	10	136	4.00	3.83	3.92	4.00	3.88
11	10	117	1.50	2.00	2.11	1.50	2.10
12	11	112	1.50	1.40	1.59	1.63	1.40
13	11	110	1.75	1.80	1.74	1.71	1.80
14	10 $\frac{1}{2}$	106	1.50	.60	1.05	1.48	.85
15	10	135	4.00	3.80	3.92	4.00	3.94
16	10	130	2.00	1.50	2.05	2.19	1.50
17	11	109	2.80	2.83	2.68	2.78	2.83
18	9 $\frac{1}{2}$	124	1.80	2.40	2.49	1.95	2.02
19	10	114	2.30	2.11	2.29	2.24	2.01
20	10	129	3.00	3.00	3.00	3.00	3.00
21	10	112	2.26	2.06	2.24	2.19	1.96
22	10 $\frac{1}{2}$	110	2.27	2.08	2.26	2.21	1.98
23	10 $\frac{1}{2}$	109	2.16	1.97	2.15	2.10	1.80
24	11	97	3.00	2.25	2.87	3.22	2.25
25	9 $\frac{1}{2}$	111	2.25	2.40	2.50	2.21	2.01
26	11	84	2.75	2.20	2.41	2.44	2.20
27	10 $\frac{1}{2}$	113	2.36	2.17	2.35	2.30	2.17
28	10	94	1.50	1.60	1.39	1.50	1.38
Sum	295.0	3113	61.30	57.05	61.91	61.28	55.83
Mean	10.5	111	2.26	2.07	2.25	2.19	1.99

TABLE V

ELEVENTH GRADE GIRL DORMITORY STUDENTS

Student	First Grading Period In Dorm	I.Q.	Grade Point Averages				
			Grade 9	First Half Grade 11	High School To Date	Before Entering Dorm	After Entering Dorm
29	11	117	2.75	2.67	2.35	2.35	2.67
30	11	103	1.67	1.20	1.70	1.89	1.20
31	11	129	3.00	3.40	3.26	3.24	3.40
32	10	120	3.20	3.33	3.24	3.56	3.40
33	11	128	2.75	2.50	2.86	2.88	2.80
34	10.5	117	2.68	2.43	2.54	2.57	2.46
35	10	113	2.70	2.45	2.57	2.59	2.48
36	11	116	3.83	3.67	3.64	3.27	3.60
37	10	110	3.75	3.17	3.27	3.44	3.17
38	11	93	2.69	2.44	2.56	2.58	2.48
39	11	113	1.80	2.50	1.78	1.57	1.67
40	10	129	3.40	2.17	2.65	2.67	2.00
41	11	83	2.17	1.60	1.84	1.75	1.60
42	10	129	3.38	2.00	2.54	2.72	2.00
43	10	112	2.83	2.17	2.52	2.83	2.57
44	10	123	3.09	2.80	3.04	3.14	2.80
45	10	119	2.59	2.34	2.46	2.48	2.37
46	10	94	1.88	1.80	1.83	2.06	1.80
47	10.5	111	2.79	2.54	2.66	2.68	2.57
48	10	104	3.60	2.17	3.00	3.26	2.17
49	10	108	2.63	2.38	2.50	2.52	2.41
50	10	122	2.75	2.50	2.62	2.64	2.53
51	11	108	.67	1.83	1.23	1.09	1.83
52	11	114	2.00	2.60	2.17	2.11	2.60
53	11	106	2.49	2.24	2.36	2.38	2.27
54	10	119	2.67	3.00	2.92	2.67	3.14
55	9.5	127	2.70	1.80	2.39	2.58	2.46
56	10.5	114	2.89	2.64	2.76	2.78	2.67
Sum	292.0	3081	72.65	68.34	71.26	72.30	69.12
Mean	10.4	110	2.69	2.44	2.55	2.58	2.47

TABLE VI

ELEVENTH GRADE BOY DAY STUDENTS

Student	First Grading Period In Ankara	I.Q.	Grade Point Averages				
			Grade 9	First Half Grade 11	High School To Date	Before Entering Ankara	After Entering Ankara
57	10	101	3.25	2.20	2.52	3.25	2.13
58	10	112	1.20	.83	.68	1.20	.50
59	10	102	1.98	1.88	1.84	1.78	1.73
60	11	122	2.79	2.68	2.65	2.73	2.53
61	11	101	2.10	1.80	2.17	2.28	1.80
62	11	124	2.40	2.67	2.25	2.32	2.67
63	11	89	1.90	1.50	1.54	1.61	1.50
64	11	122	2.50	3.33	2.86	2.56	3.33
65	11	106	1.75	1.60	1.68	1.53	1.60
66	11	121	2.80	2.20	2.44	2.10	2.20
67	10	106	1.63	3.40	2.12	1.63	1.71
68	10	107	2.90	2.20	2.18	2.90	1.93
69	11	129	4.00	3.60	3.75	3.78	3.60
70	10.5	120	2.39	2.33	2.72	2.33	2.13
71	10	117	2.30	2.60	2.52	2.30	2.85
72	11	114	1.82	2.20	1.82	1.69	2.20
73	10	108	1.78	1.68	1.65	1.73	1.43
74	10.5	104	2.30	2.20	2.17	2.41	2.21
75	11	116	2.46	2.36	2.33	2.15	2.36
76	10.5	105	2.36	2.26	2.28	2.31	2.11
77	11	118	2.98	2.88	2.85	2.93	2.73
78	10	113	2.40	2.30	2.27	2.35	2.15
79	10.5	112	2.37	3.00	2.75	2.53	2.73
80	11	111	1.57	1.00	1.41	2.25	1.00
81	9.5	115	2.40	2.33	2.27	2.32	2.15
82	11	128	3.90	3.60	3.80	3.85	3.60
83	10.5	113	2.36	1.67	2.00	2.13	1.93
84	10	103	2.00	1.60	1.65	2.00	1.38
Sum	295.0	3139	66.59	63.90	63.17	64.95	60.19
Mean	10.5	112	2.38	2.28	2.26	2.32	2.15

TABLE VII

ELEVENTH GRADE GIRL DAY STUDENTS

Student	First Grading Period In Ankara	I.Q.	Grade Point Averages				
			Grade 9	First Half Grade 11	High School To Date	Before Entering Ankara	After Entering Ankara
85	10	113	4.00	3.60	3.80	4.00	3.67
86	10.5	115	3.01	2.70	2.82	2.94	2.69
87	10	108	2.78	3.00	2.83	2.78	2.68
88	11	107	2.80	2.59	2.61	2.73	2.49
89	10	116	3.50	3.60	3.43	3.50	3.60
90	10	112	2.89	2.68	2.70	2.82	2.58
91	10.5	110	2.85	2.64	2.66	2.78	2.53
92	11	109	2.90	2.58	2.69	2.71	2.58
93	11	108	2.60	2.40	2.16	2.20	2.40
94	10	100	2.50	3.00	2.48	2.50	2.60
95	11	108	2.20	1.80	2.24	2.35	1.80
96	10.5	115	2.91	3.00	2.92	2.89	2.55
97	11	102	3.70	3.00	3.22	3.28	3.00
98	10.5	114	2.00	3.17	2.40	2.86	2.61
99	10	128	3.50	3.80	3.67	3.50	3.40
100	10.5	99	3.00	2.50	2.70	2.92	2.56
101	10.5	124	3.00	3.04	3.02	2.77	2.59
102	10	101	2.40	1.60	1.83	2.40	1.46
103	11	96	1.80	1.60	1.96	2.05	1.60
104	10.5	113	2.95	2.74	2.76	2.88	2.63
105	10	110	2.89	2.68	2.70	2.82	2.57
106	10.5	112	2.91	2.70	2.72	2.84	2.59
107	10	132	3.75	4.00	3.68	3.75	3.67
108	10	101	2.13	1.40	1.83	2.13	1.60
109	11	107	2.88	2.17	2.50	2.56	2.17
110	10.5	119	3.00	2.17	2.67	2.80	2.57
111	11	122	2.60	2.50	2.50	2.50	2.50
112	11	116	3.00	2.50	2.73	2.81	2.50
Sum	293.8	3117	80.45	75.16	76.23	79.07	72.19
Mean	10.5	111	2.87	2.68	2.72	2.82	2.58