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Radio listening and television viewing habits of students of Daniel Webster Junior High School and the relationship between those habits and academic achievement

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RADIO LISTENING AND TELEVISION VIEWING HABITS OF
STUDENTS OF DANIEL WEBSTER JUNIOR HIGH SCHOOL
AND THE RELATIONSHIP BETWEEN THOSE HABITS
AND ACADEMIC ACHIEVEMENT

A Thesis
Presented to
the Faculty of the Department of Speech
College of the Pacific

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

by
William Mulford Hill
June 1959

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CHAPTER I

THE PROBLEM

Statement of the problem. It was the purpose of this study (1) to investigate the radio listening and television viewing habits of seventh, eighth, and ninth-grade students at Daniel Webster Junior High School, Stockton, California, (2) to determine whether there was a relationship between grades received at school and the amount of time spent listening to the radio and/or watching television; and (3) to show whether there was any direct application of radio listening or television viewing in their academic work.

Importance of the problem. The junior high school system has spread rapidly throughout the country in recent years. One educational magazine, October 11, 1957, stated:

3,500 school systems--half the national total, but including most of the big ones--have junior highs.
Total enrollment: 2,000,000 or more pupils . . .
The national trend is very much in favor of junior highs.¹

Many writers realize that these 2,000,000 early adolescents constitute a significant segment of society. The "Between Agers" from eleven to fourteen years of age

¹"Junior High School on Wane?", Scholastic Teacher, 71:1, October 11, 1957.

were discussed in the New York Times Magazine, February 24, 1957.² Parent's Magazine, August, 1957, described the most important needs of eleven to thirteen year old boys and girls.³ E. Schattman and L. Kavalier pointed out the fact that "They're Growing Up Faster Nowadays," in Parent's Magazine, September, 1958.

Many studies have been made concerning two mass media of communication, radio and television. In 1946, and again in 1948, the National Opinion Research Center conducted an exhaustive survey of the radio listening habits of the general populace without concern for a specific age group.⁴ There have been detailed studies of television viewing habits of elementary school children to determine to what extent television is what Dr. Paul Witty calls an "electronic Pied Piper."⁵

It was the purpose of this investigation, therefore, to focus its attention upon one specific and significant

²D. Barclay, "Between Aged, 11-14," New York Times Magazine, February 24, 1957, p. 40.

³"Prime Needs of 11-13 Year Olds," Parent's Magazine, 32:48-9, August, 1957.

⁴Paul F. Lazarsfeld and Harry Field, The People Look At Radio (Chapel Hill: University of North Carolina Press, National Opinion Research Center, 1946); and Paul F. Lazarsfeld and Patricia Kendall, Radio Listening in America (New York: Prentice-Hall, Inc., National Opinion Research Center, 1948).

⁵Paul Witty, "TV and Today's Children," Today's Health, 35:20-1, November, 1957.

age group, the twelve through fourteen year olds in junior high school; to set forth their radio listening and television viewing habits as a separate and discrete segment of society.

An educational television station is being completed for the central-northern California area, with programming scheduled to start in the spring of 1959. Are these junior high school students now using radio and television as a direct educational aid to their school work? Is there a need for further development of radio and television as an educational device? Can the new educational television station help to fulfill this need? It is hoped that this study will help provide answers to these questions.

CHAPTER II

REVIEW OF THE LITERATURE

An indication of the awareness of the sociological implications of television is the fact that Cunningham and Walsh, a New York research organization, has been using "Videotown" as a laboratory for television since April, 1948. "Videotown" is termed by the organization as a typical American "secret test" city. In its third annual census completed June, 1950, the Cunningham and Walsh survey reported:

Young children and teen-agers are consistent viewers. Of this young group, 78 per cent are watching television programs on an average night. The heaviest child viewing of television is in the group of five and six years where the figure is four hours a day. But three hours a day which seems to be average for most children between seven and seventeen is still, in the opinion of educators and other child study authorities, excessive.¹

The average figure of three hours of televiewing per day was borne out by a survey of over 2,000 children conducted in the Chicago area in 1957 by the Psycho-Education Clinic of Northwestern University. Paul Witty, director of the clinic, reported as follows:

In 1957, 96 per cent of the children interviewed had television sets in the home. The average viewing was twenty hours a week among Evanston children (just about

¹Robert Lewis Shayon, Television and Our Children (New York: Longmans, Green and Company, 1951), p. 27.

three hours a day). High school students watch less. The average was . . . 12 hours a week. Favorite programs included (1) Disneyland, (2) Mickey Mouse Club, (3) Lassie, and (4) I Love Lucy.²

In some studies the average figure for watching television went beyond the three hour a day mark. A survey conducted by Burdick Junior High School, Stamford, Connecticut, in 1950, disclosed that children were devoting almost as much time each week viewing television as they were attending school:

These boys and girls are sitting in front of their TV sets twenty-seven hours a week, or 3.86 hours a day. The results of the survey show that 79 per cent of the student body now looks at TV on a regular basis. . . . Children attending Burdick were believed by school officials to represent a reasonably good economic cross section of Stamford . . . 447 children filled out questionnaires. The average hours of viewing among these were: School days, 3.7; Saturdays, 4.2, and Sundays, 4.3 hours.³

The Burdick Junior High School survey also gave a breakdown of hours spent watching television as follows:⁴

²Witty, loc. cit.

³Jack Gould, "Pupils' Time Spent at TV Rivals Hours in Classes," New York Times, March 6, 1950, p. 62.

⁴Ibid.

Number of Children

<u>Hours A Day</u>	<u>Monday through Friday</u>	<u>Saturday</u>	<u>Sunday</u>
1	6	2	5
2	41	22	21
3	37	38	39
4	82	57	64
5	41	57	46
6	8	30	25
Over 6	0	8	15

An investigation of the amount of time spent in front of the television screen by children was also conducted in San Leandro, California, in 1954. The study was confined to fifteen classes of sixth and seventh-grade children with an enrollment of 456 students:

The range in viewing time for the upper 27 per cent was from 22.75 to 69.5 hours per week. The lower 27 per cent included children who viewed no hours per week to 9.75 hours per week.⁵

Arnold Leslie Lazarus studied pupils' televiewing habits during the academic year 1954-1955 under a grant from the Ford Foundations. Among his findings is this statement concerning televiewing time:

⁵Lloyd F. Scott, "Television and School Achievement," Phi Delta Kappan, 38:25-8, October, 1956.

The median televiewing time for elementary pupils is twenty hours a week. Secondary students spend about 20 per cent less time than do elementary pupils. Girls on both levels spend about 10 per cent more time than boys.⁶

The average range from three to four hours per day seems to hold true for various sections of the country as established by the studies cited. Three other studies which were discussed in the book The Age of Television by Leo Bogart, also substantiate this average range:

Walter Clarke reported in 1951 that the average twelve or thirteen year old child in Cincinnati spent 3.7 hours a day before the television screen, or 30 hours a week.⁷

National survey of high school students directed by H. H. Remmers, R. E. Horton, and R. F. Mainer of Purdue University, March, 1953, found that the average teen-ager with a television set at home spends about three hours daily in viewing.⁸

T. C. Battin, questioning 1,100 children of the schools of Ann Arbor, Michigan, 1951, found the heaviest viewing in sixth, seventh, and eighth grades:⁹

⁶ Arnold Leslie Lazarus, "Pupils' TV Habits," Educational Leadership, 13:241-2, January, 1956.

⁷ Leo Bogart, The Age of Television (New York: Frederick Ungar Publishing Company, 1956), p. 234.

⁸ Bogart, op. cit., p. 237.

⁹ Bogart, op. cit., p. 234.

Portion of Table 87

Weekly Hours of Television Viewing
By School Grade

Source: Battin, 1951 Ann Arbor Study

	Boys	Girls
7th Grade	27 hrs. 34 min.	21 hrs. 28 min.
8th Grade	23 hrs. 16 min.	23 hrs. 21 min.
9th Grade	20 hrs. 18 min.	21 hrs. 28 min.

Leo Bogart sums up these studies in Chapter 12, "Television and the Juvenile Audience," with the statement: "The school studies which we have already cited suggest that viewing is heaviest at ages eleven or twelve."¹⁰

The question of the relationship between the time spent watching television and school achievement also came under scrutiny in many studies:

A survey in a New Jersey school revealed that grades of pupils who watched regularly dropped 15 per cent. About the same time Phillip Lewis compared grades of high school sophomores for a year and a half. Despite an over all decrease of 5 per cent in grades, TV actually seemed to help students in some subjects.¹¹

In 1950, Ira Cain, TV editor of the Fort Worth Star Telegram, reported that 60 per cent of the junior and senior high school students with TV sets made higher grades than in the previous year.

¹⁰ Bogart, op. cit., p. 241.

¹¹ Witty, loc. cit.

The results of studies of grades in relation to the amount of time devoted weekly to TV are also conflicting. Our studies show little relationship between grades and amount of time spent televiewing. As one teacher remarked: "Good students tend to remain good; poor students stay poor."

In our studies excessive viewing of television seemed to be associated with somewhat lower academic achievement. The average time devoted to TV by the upper fourth in academic achievement was twenty-one hours per week. The average of the lower fourth was twenty-six hours. Although televiewing did not appear to influence educational attainment greatly, there were individuals who were apparently affected undesirably. But we should point out that other children were led to do better work in school because of interests awakened by TV.¹²

Lloyd F. Scott, continuing his report of the San Leandro, California, survey, also commented upon the subject of television and its relation to school achievement:

Significant differences were found in arithmetic, reading, and total achievement. All of these differences favored that group of children who are in the lower 27 per cent of the distribution of television viewing time. Those children who view more television achieve less proficiency, as measured by standardized tests in arithmetic and reading . . .

Our own feeling is that if scholastic achievement is valued above television viewing, as it must always be, then children must be introduced to planned television viewing. Planning must be made to limit quantity. . . . Educational achievement must triumph over the television hazard!¹³

The recent and comprehensive book on television by Leo Bogart also contained two references bearing upon the relationship between television viewing and school work:

¹²Witty, loc. cit.

¹³Scott, loc. cit.

No conclusive findings were obtained in a study of 544 sixth grade school children, and 454 parochial school seventh graders who were questioned by Xavier University in 1951.¹⁴

Witty, questioning Evanston youngsters in 1950, found that 31 per cent said TV helped them with their school work, while 67 per cent said that it did not.¹⁵

The studies which have been cited (as well as other reports) cover other aspects of the problem under investigation. They include: (1) types of programs preferred, (2) parental control over television viewing, (3) television as a source of information for school work, and (4) the extent to which watching television interferes with homework. The Burdick Junior High School report, Stamford, Connecticut, includes several of these:

Types of Programs Most Enjoyed

1. Feature films
2. Sports
3. Vaudeville
4. Music
5. Mystery
6. Drama
7. Quiz
8. News

¹⁴Bogart, op. cit., p. 257.

¹⁵Bogart, op. cit., p. 256.

Have Your Parents Told You That TV
Interferes With Doing Your Homework?

Regularly	16
Sometimes	110
Never	96

Has a TV Program Ever Been Made Part
Of a Homework Assignment? 16

Regularly	3
Sometimes	68
Never	150

The Xavier University study, conducted by Walter J. Clark, Professor of Education, Xavier University, surveyed 1,100 sixth and seventh grade school children. The following results were disclosed:

1. An appalling percentage of parents have no concern about what their children watch on TV.
2. 52 per cent of the children reported they could watch whenever they wished.
3. 58 per cent watched after midnight at least once a week. 13 per cent watched after midnight five times a week.
4. Children who reported that there was control of TV in their homes were usually in the higher I.Q. brackets.¹⁷

The Television Sub-Committee of the White House Conference on Children and Youth in 1952 questioned 905 children

¹⁶Gould, loc. cit.

¹⁷Max Wylie, Clear Channels (New York: Funk and Wagnalls, 1955), p. 149.

about their television viewing habits. Those in the intermediate range, from fourth through eighth grades, responded as follows concerning parental restriction:

Fifty-three said, "We must stop watching at certain times on school days."

Nine said, "We cannot watch while eating."

Seventy-two said, "We must have our homework done before we may watch TV."

Thirty-one said, "We have to do our chores first."

Ten said, "We can only watch what our parents want us to."

Ten said, "We may not watch murder mysteries."¹⁸

A brief word about program preferences of children of junior high school age was included in a report for UNESCO by Charles A. Siepmann in 1952: "For grades seven to nine, the first choice was theater programs, second choice, sports, according to a study undertaken in Minneapolis."¹⁹

A further reference to Bogart's "The Age of Television" provides additional information about program preferences and parental control:

¹⁸ Freda Postle Koch, "Children's TV Habits," Report of the Television Sub-Committee, White House Conference on Children and Youth, 1952.

¹⁹ Charles A. Siepmann, Television and Education in the United States (Paris: UNESCO, 1952), p. 102.

Children's Viewing at Different Age Levels
For Average Program of Various Program Types

Table 91

	11-12 yrs.	13-14 yrs.	15-16 yrs.
Comedy--Variety	15%	15%	15%
Situation Comedy	15%	15%	10%
Western	15%	8%	6%
Science Fiction	14%	11%	7%
Drama	9%	11%	5%
Kid Shows	11%	7%	4%
Mystery	6%	8%	4%
Music	5%	6%	9%

(Source: American Research Bureau, 1954)²⁰

Parental discipline has two aspects: (1) Control over the total amount of viewing, and over the times in which viewing is to be done, and (2) control over the selection of individual programs.²¹

From Koch's survey in Columbus, it appears that parental control over children's TV entertainment is drastically curtailed after the child finishes grade school and enters high school.²²

²⁰Bogart, op. cit., p. 240.

²¹Bogart, op. cit., p. 246.

²²Ibid.

Parental Control Over Children's Viewing

	4th-8th Grade	10th-12th Grade
Per Cent Whose Parents Always Let Them Choose Programs They Watch	13%	36%
Per Cent Whose Parents Have Rules for Watching	61%	29%

(Source: Koch, 1952 Columbus Survey)²³

These studies attest to two things: (1) That much time and attention in many sections of the country have been devoted to research on the television viewing habits of the school age population, and (2) that although junior high school grades have been included in many of these surveys, they have not been singled out for study as a discriminate unit.

It is also noted that in spite of the fact that almost every home in the United States contains one or more radio sets, and that radio set sales are at an all time high, the major emphasis on audience research in the past decade has been in the field of television. This holds true to an even greater degree in the particular area with which this investigation is concerned; namely, the relationship of both radio and television to youth of junior high school age.

²³ Ibid.

It is hoped that this study will delineate, in the areas mentioned, the habits and attitudes of the 1,200 students in one junior high school community, and will thus contribute to the fund of knowledge that is being compiled concerning radio and television and their influence upon school children.

CHAPTER III

METHODS OF OBTAINING AND ANALYZING THE DATA

The data were obtained by the circulation of a questionnaire to all students of Daniel Webster Junior High School, Stockton, California. (See Appendix, page 137.) A second questionnaire was submitted to the faculty. (See Appendix, page 1 .) The questionnaires were handed out to the students by their social studies teachers, June 11, 1958, and were gathered approximately ten minutes later. Following is a breakdown of the return of 1,188 questionnaires:

	Number of Questionnaires <u>Returned</u>
7th Grade Girls	200
7th Grade Boys	179
8th Grade Girls	183
8th Grade Boys	188
9th Grade Girls	214
9th Grade Boys	<u>224</u>
Total	1,188

Forty teacher questionnaires were returned.

Student population of Daniel Webster. Students of the junior high school come from economic strata termed as middle class and upper middle class. There are no slum areas in any section of the Daniel Webster school district.

The great majority of the student body are Caucasian. There are very small minorities of Mexican-American, Chinese-American, and Japanese-American. There is none of the Negro race.

The general intelligence levels, measured by intelligence quotient, are average and above average.

Contextual organization of the questionnaires. In an attempt to obtain answers of maximum validity, the following statement was made at the top of the student questionnaire:

May I sincerely request that you fill out this questionnaire honestly and fairly. As you can see, you do not sign your name. No one is interested in the name of the person who completes this paper. Your honest answers are requested for statistical purposes only, and I am interested only in the habits of the entire group at Daniel Webster. I am doing this for summer study for the College of the Pacific, and it has no connection with your school work at all. If you will fill this out to the best of your ability, and include your past quarter grades at the bottom, you will help make this a valid report.

Thank you very much.

In addition, each social studies teacher read the following announcement before handing out the questionnaires:

One of our teachers, Mr. Hill, is doing some summer graduate work, and is asking a favor of you. You are requested to fill out a questionnaire which you will receive in just a moment. As the questionnaire explains to you, you do not sign your name to it. You are not required in any way to complete this questionnaire, so Mr. Hill makes one request--that you do not fill it out at all, unless you fill it out honestly. Here are the questionnaires. I'll give you five minutes, then they will be collected and saved for Mr. Hill.

The questionnaire which was submitted to the teachers for completion also contained a brief statement at the beginning:

May I please ask your cooperation in completing at your convenience the following questionnaire? It is in connection with some graduate work I am doing at The College of the Pacific. I would appreciate it very much if you would fill it out and put it in my mail box. This is just a general statement and survey, so please do not include your name.

Thank you very much.

(Signed) Bill Hill

The questionnaire contained four general categories:

(1) A statement about hours spent doing homework, (2) a series of ten questions devoted to the subject of radio listening, (3) eleven questions on the topic of television viewing, and (4) a listing of the student's latest grades.

The questionnaires were separated into six groups, segregated both as to grade level and sex. Tabulation was made item for item of all the questionnaires.

Structural organization of the questionnaire. The questionnaire was multilithed on one sheet of white paper, eight and one-half by fourteen inches. The questions were confined to one page to make it easier for students to answer the questions, and to make the questionnaire appear shorter.

Statistical technique. In order to determine whether any significant relationships existed between radio listening

and academic achievement as measured by grades, and television viewing and academic achievement, it was necessary to devise a method for sorting the data. For this purpose Unisort Analysis Cards were used.¹ (See Appendix, page 1 .)

Categories were assigned to the cards by means of an index sheet. (See Appendix, page 1 .) To cite one example, if an analysis card were punched at holes #1, #3, #23, #40, #50, #61, #70, #76, and #84, it would reveal the following information:

This is a seventh grade boy who listens to the radio from four to five hours a day, Mondays through Fridays. He listens from six to seven hours daily on Saturdays and Sundays. He watches television two to three hours a day, Mondays through Fridays, and from two to three hours a day on Saturdays and Sundays. In the school quarter preceding the completion of this questionnaire he received a B in English, an A in social studies, and a D in mathematics.

By using a long, specially designed needle, it is possible to sort out the cards which are applicable to any particular category.

Six hundred questionnaires were used for the purpose of this statistical analysis. One hundred were selected at random from each of the six groups: seventh-grade girls, seventh-grade boys, eighth-grade girls, eighth-grade boys, ninth-grade girls, and ninth-grade boys. A random table

¹ Unisort Analysis Card, Std. Form Y 9, The Todd Company, Inc., Charles R. Hadley Division.

was used to insure complete random selection of these 600 questionnaires.²

In the statistical study of the relationship between grades and radio listening or television viewing, three report card grades were used for each student: English, social studies, and mathematics.

In the attempt to determine whether statistically significant relationships did exist in the various divisions of the investigation, the Chi Square experimental technique was used. As Oliver L. Lacey points out in his book, Statistical Methods in Experimentation, Chi Square is "suited for data which involve the simple counting or enumeration of cases in different categories."³

Lacey lists the basic steps of the Chi Square technique as follows:

1. Compute the expected values in each category.
2. Square the deviation of each observed frequency from the expected frequency.
3. Divide each squared deviation by the associated expected value to find Chi Square.
4. Find the number of degrees of freedom involved in the experiment.
5. Determine the⁴significance of the value of Chi Square.

²Allen L. Edwards, Statistical Methods For the Behavioral Sciences (New York: Rinehart and Company, Inc., 1954). Table of Random Numbers, pp. 472-76.

³Oliver L. Lacey, Statistical Methods in Experimentation (New York: The Macmillan Company, 1953), p. 132.

⁴Ibid, p. 136.

Preview of the following chapters. The subsequent chapters of this investigation will include: (1) A point by point compilation of the data in the questionnaires, (2) the setting forth of the significance of relationships between homework and grades, amount of radio listening and grades, amount of television viewing and grades, and (3) a report of conclusions and recommendations.

CHAPTER IV

COMPILATION OF THE DATA IN THE QUESTIONNAIRES

Analysis of the results of each question of Section One. Section One of the student questionnaire included two questions, both concerned with homework.

Question One

About how many hours of homework do you
average each night (Monday-Friday)?

Table I indicates the number of hours spent on homework nightly Mondays through Fridays by the girls and the boys of each grade level. Table II, page 24, converts the actual number of boys and girls to a percentage. For example, Table I lists the fact that 110 seventh-grade girls spent from one to two hours nightly on homework during the week. Examination of Table II reveals that these 110 constituted 55 per cent of the seventh-grade girls.

The girls of each grade averaged a greater amount of time at their homework during the week than did the boys of the same grade. The average hours of homework are shown at the foot of Table I.

The general average study time for all students during the week was 1.44 hours per night. The ninth-grade students averaged the greatest amount of time at their studies on the week nights. The seventh-grade boys and girls rated second; the eighth-graders, third.

TABLE I

HOURS SPENT DOING HOMEWORK EACH NIGHT,
MONDAYS THROUGH FRIDAYS, BY SEVENTH,
EIGHTH, AND NINTH GRADE PUPILS

Number of Hours	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9
Less than 1	41	57	56	99	23	68
1 to 2	110	103	81	64	130	103
2 to 3	30	8	22	7	46	20
3 to 4	8	3	3	11	6	11
More than 4	4	6	15	3	9	9
Not stated	7	2	6	4	0	13
Totals	200	179	183	188	214	224
Average Hours Homework	1.6	1.37	1.5	1.17	1.5	1.5

TABLE II

HOURS SPENT DOING HOMEWORK EACH NIGHT,
MONDAYS THROUGH FRIDAYS, BY SEVENTH,
EIGHTH, AND NINTH GRADE PUPILS;
PERCENTAGE TABULATION

Number of Hours	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %
Less than 1	20.5	32	31	53	11	30
1 to 2	55	57.5	44	34	61	46
2 to 3	15	4	12	4	21	9
3 to 4	4	2	2	6	3	5
More than 4	2	3	8	1	4	4
Not stated	3.5	1.5	3	2	0	6

The largest group of students at each grade level, with the exception of the eighth-grade boys, spent between one and two hours nightly during the week doing homework. The largest group of eighth-grade boys studied less than one hour a night Mondays through Fridays.

Question Two

About how many hours of homework
do you average over the weekends?

A summary of the time spent on homework over the weekends is presented by Table III. Table IV, page 27, converts the answers to percentage figures. This merely means that the results as given in Table III have been interpreted in percentages for those persons who are interested in reading percentage ratios. For example, examination of Table III reveals the fact that eleven seventh grade girls studied from three to four hours on the weekends. Table IV shows that these eleven were five and one-half per cent of the seventh grade girls.

The largest group of students at each grade level, with the exception of eighth grade boys, spent between one and two hours on homework on Saturdays and Sundays. The largest group of eighth grade boys studied less than one hour on the weekends.

Over three-fourths of the Daniel Webster students studied two hours or less on weekends. The average hours of weekend homework time are shown at the foot of Table III.

TABLE III

HOURS SPENT DOING HOMEWORK, SATURDAYS
AND SUNDAYS, BY SEVENTH, EIGHTH,
AND NINTH GRADE PUPILS

Number of Hours	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9
Less than 1	64	79	47	107	57	54
1 to 2	91	74	87	61	118	104
2 to 3	20	16	13	4	18	5
3 to 4	11	3	6	6	6	4
More than 4	5	5	3	1	7	7
Not stated	9	2	27	9	11	50
Total	200	179	183	188	214	224
Average Hours Homework	1.37	1.27	1.4	1.0	1.48	1.4

TABLE IV
HOURS SPENT DOING HOMEWORK, SATURDAYS
AND SUNDAYS, BY SEVENTH, EIGHTH,
AND NINTH GRADE PUPILS;
PERCENTAGE TABULATION

Number of Hours	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %
Less than 1	32	44	26	57	27	24
1 to 2	45.5	41	48	32	53.6	46.5
2 to 3	10	9	7	2	8	2.5
3 to 4	5.5	2	3	3.5	3	2
More than 4	2.5	2.5	2	.5	3.4	3
Not stated	4.5	1.5	14	5.0	5	22

The general average study time for all students on the weekends was 1.32 hours. The same relationship between grade levels was shown on weekends as existed during the week; that is, the ninth grade students averaged the greatest amount of time at their studies, the seventh graders rated second, the eighth graders, third.

Analysis of the results of each question of Section Two. Section Two of the questionnaire consisted of ten questions devoted to radio listening.

Question One

How many hours a day, Monday through Friday, do you listen to the radio?

Table V, lists the amount of time during the week that seventh, eighth, and ninth-grade pupils spent listening to the radio. Table VI, page 30, presents the weekday radio listening habits on a percentage basis. For example, reference to Table V indicates that eighteen seventh grade girls listened from three to four hours daily Mondays through Fridays. Table VI shows that these eighteen represented 9 per cent of all seventh grade girls.

The largest single group of pupils, 32 per cent, listened to the radio from one to two hours a day during the week. It is noted that 10 per cent did not listen to the radio at all during the week, while at the other extreme four and one-half per cent listened seven hours a day or more!

TABLE V
HOURS OF RADIO LISTENING DAILY, MONDAYS
THROUGH FRIDAYS, OF SEVENTH, EIGHTH,
AND NINTH GRADE PUPILS

No. Hours Listening	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
None	24	23	13	25	12	13	110
Less than 1	39	42	21	40	16	37	195
1 to 2	62	62	50	53	70	77	374
2 to 3	23	21	34	22	44	34	178
3 to 4	18	10	21	18	22	23	112
4 to 5	10	7	18	11	21	16	83
5 to 7	8	5	11	9	9	11	53
7 to 9	6	3	8	3	7	4	31
Over 9	3	4	5	2	8	4	26
Total	193	177	181	183	209	219	1,162
Average No. Hours	2.06	1.80	2.76	2.0	2.75	2.30	2.278

TABLE VI

HOURS OF RADIO LISTENING DAILY, MONDAYS
THROUGH FRIDAYS, OF SEVENTH, EIGHTH,
AND NINTH GRADE PUPILS;
PERCENTAGE TABULATION

No. Hours Listening	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %	Average: All Grades %
None	13	13	7	13.5	6	6	10
Less than 1	20	24	11	22	8	17	17
1 to 2	32	34	28	29	33	35	32
2 to 3	12	12	19	12	21	16	16
3 to 4	9	5.5	12	10	10	10	9
4 to 5	5	4	10	6	10	7	7
5 to 7	4	3	6	5	4.5	5	4.5
7 to 9	3	2	4	1.5	3.5	2	2.5
Over 9	2	2.5	3	1	4	2	2

The general weekday average listening time was 2.278 hours, or two hours, seventeen minutes. The girls listened on the average more than did the boys.

The main reason the boys and girls listened to the radio was to hear popular music. (See Table X, page 37). Therefore, the averages set forth at the foot of Table VI show that the girls as a group tended to be more interested in popular music than did the boys, particularly those of the younger age. The ninth-grade boys, perhaps becoming more socially conscious, were more interested in the current music, as reflected by the fact that their average listening was appreciably greater than that of the seventh and eighth-grade boys.

Question Two

How many hours a day (Saturday, Sunday) do you listen to the radio?

Table VII tabulates the number of hours of radio listening on weekends by seventh, eighth, and ninth grade pupils. Table VIII, page 33, lists the number of hours of weekend listening on a percentage basis. Fifty-three seventh grade girls, for example, according to Table VII, listened to the radio from one to two hours a day on Saturdays and Sundays. Table VIII shows that these 53 comprise 27 per cent of all seventh grade girls.

The largest single group of students, 25 per cent, listened to the radio from one to two hours a day on weekends.

TABLE VII

HOURS OF RADIO LISTENING DAILY, SATURDAYS
AND SUNDAYS, OF SEVENTH, EIGHTH,
AND NINTH GRADE PUPILS

No. Hours Listening	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
None	27	39	20	43	12	29	170
Less than 1	28	31	17	35	10	14	135
1 to 2	53	56	33	44	40	70	296
2 to 3	17	14	24	14	19	29	117
3 to 4	19	16	14	20	27	26	122
4 to 5	14	4	15	14	25	15	87
5 to 7	18	4	17	7	20	15	81
7 to 9	10	2	8	2	25	5	52
Over 9	7	6	30	6	34	20	103
Total	193	172	178	185	212	223	1,163
Average No. Hours	2.44	1.75	3.76	2.0	4.46	2.90	2.88

TABLE VIII

HOURS OF RADIO LISTENING DAILY, SATURDAYS
AND SUNDAYS, OF SEVENTH, EIGHTH,
AND NINTH GRADE PUPILS;
PERCENTAGE TABULATION

No. Hours Listening	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %	Average: All Grades %
None	14	23	11	23	6	13	15
Less than 1	15	18	10	19	5	6	12
1 to 2	27	33	19	24	18	31	25
2 to 3	9	8	13	7.5	9	13	10
3 to 4	10	10	7	11	13	12	11
4 to 5	7	2	8	7.5	12	7	7
5 to 7	9	2	10	4	9	7	7
7 to 9	5	1	5	1	12	2	4
Over 9	4	3	17	3	16	9	9

It is also noted that the pupils, especially in grades eight and nine, spent longer periods of time listening on Saturdays and Sundays than they did during the week. A total of 103 for example, 9 per cent, indicated that they listened over nine hours daily on weekends. Of course it must be kept in mind that they could listen to the radio while engaging in other activities at the same time. On the other hand, 170 boys and girls, 14 per cent, indicated that they did not listen at all.

The general average weekend listening time was 2.88 hours, or two hours, fifty-three minutes. The average number of hours as set forth at the foot of Table VII bear out the same relationship as existed on the weekdays; namely, that the girls listened more than the boys, and the ninth grade boys listened to a much greater extent than the boys of seventh or eighth grades.

The overall average radio listening time for all grades is shown as follows in descending order:

Average Hours of Radio Listening
All Days of the Week

9th Grade Girls	3.61
8th Grade Girls	3.26
9th Grade Boys	2.60
7th Grade Girls	2.25
8th Grade Boys	2.0
7th Grade Boys	1.78
Average (All Grades)	2.579

The preceding information was compiled from Table V and Table VII.

On the average, therefore, pupils of Daniel Webster Junior High School listened to the radio two and one-half hours a day, seven days a week.

Question Three

Do you listen to the
radio while you study?

The number and per cent of seventh, eighth, and ninth grade pupils who listened to the radio while studying are listed in Table IX.

At each grade level a greater proportion of girls studied with the radio turned on than did the boys.

Over one-half the ninth grade boys, and almost three-fourths of the ninth grade girls indicated that they had regular radio accompaniment to their homework.

A total of 52 per cent of all students listened to the radio while studying.

Question Four

What types of radio programs do you listen to?

Students who answered this question could indicate more than one type of radio program if they wished to do so. Some of them did. The tabulation of types of programs listened to by seventh, eighth, and ninth graders is

TABLE IX

SEVENTH, EIGHTH, AND NINTH GRADE PUPILS WHO DID
(OR DID NOT) LISTEN TO THE RADIO WHILE STUDYING

Grade Level	Yes	No	Per Cent Who Do Listen While Studying %
9th Grade Girls	149	62	71
9th Grade Boys	132	89	59
8th Grade Girls	103	78	57
7th Grade Girls	97	101	49
8th Grade Boys	79	113	41
7th Grade Boys	61	114	35

TABLE X

TYPES OF RADIO PROGRAMS LISTENED TO BY
SEVENTH, EIGHTH, AND NINTH GRADE PUPILS

Type of Program	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
Popular Music	176	138	169	164	203	200	1,030
News	44	45	30	30	31	33	213
Classical Music	21	14	14	12	21	17	99
Sports	5	15	3	15	1	14	53
Drama	8	13	13	4	5	8	51

Note: Students could indicate more than one choice.

represented in Table X. The programs are listed in order of popularity.

Popular music was by far the most popular type of program at every grade level. A total of 1,050, or 88 per cent, listened to popular music.

The other types of programs mentioned were: (1) News, 213 listeners, (2) Classical Music, 99 listeners, (3) Sports, 53 listeners, and (4) Drama, 51 listeners.

Question Five

Do your parents restrict your radio listening in any way?

The proportion of seventh, eighth, and ninth grade pupils whose radio listening met with parental restriction was very small, as is shown by Table XI.

The girls were restricted to a greater extent than the boys in the seventh and eighth grades. In the ninth grade, an equal percentage of boys and girls indicated that their radio listening was restricted in some way.

Only 23 per cent of the students stated that their parents restricted their listening in any way.

Question Six

In what way do your parents restrict your radio listening?

The 25 per cent of the student body who met with parental restriction to their radio listening indicated various reasons for the restriction, as shown in Table XII.

page 40.

TABLE XI

PARENTAL RESTRICTION OF THE RADIO LISTENING
OF SEVENTH, EIGHTH, AND NINTH GRADE PUPILS

Grade Level	Parental Restriction	No Parental Restriction	Per Cent Whose Listening Is Restricted %
8th Grade Girls	49	129	28
7th Grade Girls	54	143	27
9th Grade Girls	44	161	21
7th Grade Boys	35	132	21
9th Grade Boys	47	176	21
8th Grade Boys	37	147	20

TABLE XII

REASONS FOR PARENTAL RESTRICTION OF THE RADIO LISTENING
OF SEVENTH, EIGHTH, AND NINTH GRADE PUPILS

Reason for Restriction	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
Not while doing homework	17	9	10	9	13	9	67
Must have homework done first	9	5	8	4	3	3	32
Turn off after cer- tain hour	8	13	12	15	7	10	65
Radio too loud. Turn it off.	7	4	20	4	13	12	60
Parents do not like the music	10	1	4	3	9	3	30
Prohibit listening as punishment	1	1		2	1	3	8
No murder or crime programs	2	2				5	9

The three main reasons for parental restriction of radio listening, in descending order as to frequency of mention, were: (1) May not listen while doing homework, (2) must turn off radio after a certain hour, and (3) must turn radio off because it was too loud.

Other restrictions were that homework had to be completed before listening was permitted, and certain programs were prohibited such as crime shows. In a few cases parents prohibited listening as a punitive measure.

Question Seven

How late at night do you listen to the radio (Sunday through Thursday)?

Table XIII tabulates the number of seventh, eighth grade, and ninth grade pupils who listened to the radio at night, Sundays through Thursdays, and the lateness of the hour to which they listened. Table XIV, page 43, converts the numbers listed in Table XIII to a percentage basis. For example, Table XIII indicates that fifty-eight seventh grade girls listened to the radio on week nights until between nine and ten o'clock. Table XIV shows that these fifty-eight made up 30 per cent of the seventh grade girls.

The largest single group, 33 per cent, listened until between 9 and 10 p.m. during the week.

A total of 205 students, 19 per cent, stated that they did not listen at all on week nights.

TABLE XIII

HOW LATE AT NIGHT SEVENTH, EIGHTH, AND NINTH GRADE PUPILS
LISTENED TO THE RADIO, SUNDAYS THROUGH THURSDAYS

Lateness of the Hour	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
Do not listen	55	61	21	27	16	25	205
6 to 7 p.m.	13	10	9	9	11	10	62
7 to 8 p.m.	16	12	17	12	14	7	78
8 to 9 p.m.	27	23	18	27	27	23	145
9 to 10 p.m.	58	43	66	63	81	72	383
10 to 11 p.m.	15	16	39	36	39	55	200
11 to 12	5	4	3	4	7	12	35
Later than 12	2		3	9	7	6	27
Total	191	169	176	187	202	210	1,135

TABLE XIV

HOW LATE AT NIGHT SEVENTH, EIGHTH, AND NINTH GRADE PUPILS
LISTENED TO THE RADIO, SUNDAYS THROUGH THURSDAYS;
PERCENTAGE TABULATION

Lateness of the Hour	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %	Total %
Do not listen	29	36	12	15	8	12	19
6 to 7 p.m.	7	6	5	5	5	5	6
7 to 8 p.m.	8	7	10	6	7	3	7
8 to 9 p.m.	14	14	10	15	13	11	12
9 to 10 p.m.	30	25	37	33	40	34	33
10 to 11 p.m.	8	10	22	19	19	26	17
11 p.m. to 12	3	2	2	2	4	6	3
Later than 12	1		2	5	4	3	3

Radio listening late at night, to midnight and later, increased as the students grew older. Taken from Tables XIII and XIV is the following break-down of late night listening to midnight or later:

	<u>Number</u>	<u>Per Cent</u>
7th Grade	11	3
8th Grade	19	5
9th Grade	32	7

Only a small minority were in the habit of listening to the radio very late at night during the week.

Question Eight

How late at night do you listen to the radio (Friday and Saturday)?

A listing of the students, and how late they listened to the radio on Friday and Saturday nights, is presented in Table XV. For those who are interested in percentage ratios, the figures shown in Table XV have been converted to percentages in Table XVI, page 46. For example, Table XV shows that thirty-seven seventh grade girls listened to between 10 and 11 p.m. on Saturdays and Sundays. Table XVI indicates that these thirty-seven represent 19 per cent of the seventh grade girls.

Over one-fourth, 26 per cent, stated that they did not listen to the radio at all on Saturdays and Sundays.

TABLE XV

HOW LATE AT NIGHT SEVENTH, EIGHTH, AND NINTH GRADE PUPILS
LISTENED TO THE RADIO, FRIDAYS AND SATURDAYS

Lateness of the Hour	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
Do not listen	59	72	34	52	36	44	297
6 to 7 p.m.	12	9	5	10	12	9	57
7 to 8 p.m.	9	8	7	3	8	8	43
8 to 9 p.m.	18	15	7	13	10	11	74
9 to 10 p.m.	32	29	46	29	40	25	201
10 to 11 p.m.	37	26	45	45	47	47	247
11 p.m. to 12	15	9	23	16	27	36	126
Later than 12	7	5	10	17	16	21	76
Total	189	173	177	185	196	201	1,121

TABLE XVI

HOW LATE AT NIGHT SEVENTH, EIGHTH, AND NINTH GRADE PUPILS
LISTENED TO THE RADIO, FRIDAYS AND SATURDAYS;
PERCENTAGE TABULATION

Lateness of the Hour	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %	Total %
Do not listen	31	41	19	28	19	22	26
6 to 7 p.m.	6	5	3	5	6	4	5
7 to 8 p.m.	5	5	4	2	4	4	4
8 to 9 p.m.	10	9	4	7	5	5	6
9 to 10 p.m.	17	17	26	16	20	13	18
10 to 11 p.m.	19	15	26	24	24	24	22
11 p.m. to 12	8	5	13	9	14	18	13
Later than 12	4	3	5	9	8	10	6

Boys and girls listened to the radio later on Friday and Saturday nights. The largest single group of listeners, 247 in all, or 22 per cent, listened no later than from 10 to 11 p.m.

A greater proportion of pupils in each of the three grades indulged in late night listening on Fridays and Saturdays than during the week. (See page 44). Following is a breakdown of listening to midnight or later on Fridays and Saturdays:

	<u>Number</u>	<u>Per Cent</u>
7th Grade	36	10
8th Grade	66	18
9th Grade	100	25

Question Nine

Do you use the radio in any way in your school work?

Only 247 pupils, 20.5 per cent of the student body, indicated that radio was used in some way in their school work. Table XVII sets forth the number of pupils, and the percentage, who employed radio directly in their academic work.

Table XVII shows that a greater proportion of seventh graders (25.5 per cent) used radio in their school work than did ninth graders (20 per cent), or eighth grade boys and girls (16 per cent).

TABLE XVII
NUMBER OF SEVENTH, EIGHTH, AND NINTH GRADE
PUPILS WHO USED RADIO IN SCHOOL WORK

Grade Level	No. of Pupils	Per Cent
		%
7th Grade Girls	52	26
7th Grade Boys	44	25
9th Grade Girls	46	21
9th Grade Boys	44	19
8th Grade Girls	32	17
8th Grade Boys	29	15
Total	247	

Question Ten

In what way do you use radio
in your school work?

There were two principal reasons why pupils used radio in connection with their school work, as shown in Table XVIII. They listened to keep up with current events, and for the weather reports.

It may be assumed that current events were stressed in all three grades, as the great majority of those who did use radio in their academic work did so to keep abreast of the news. A total of 133 pupils used the news in their school work.

Thirty-three seventh-grade girls, and twenty-four seventh-grade boys noted that they listened regularly to weather reports for their "weather map". A weather map was a requirement of one seventh grade science teacher. (See page 83).

Spanish, during the 1957-1958 academic year, was taught only in the ninth grade. Consequently only the ninth-graders, twenty-two of them, noted that they listened to Spanish programs in connection with their school work. The one eighth-grade boy who stated that he listened to Spanish programs to help his school work, did not explain how it was applied to his studies!

TABLE XVIII

WAYS IN WHICH SEVENTH, EIGHTH, AND NINTH GRADE
PUPILS USED RADIO IN SCHOOL WORK

Radio Use in School Work	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
News (Cur- rent Events)	16	17	19	29	25	27	133
Weather Reports (Science)	33	24	2	2	1	4	66
Classical Music (Music)	5	3					8
Spanish Programs (Spanish)				1	16	6	23
Social Studies Reports	3	1	4			1	9
Speeches			2	1	1	2	6
Total	57	45	27	33	43	40	245

Note: Pupils could indicate more than one choice.

Analysis of the results of each question of Section Three. Section Three included eleven questions devoted to television viewing.

Question One

How many hours a day, (Monday-Friday) do you watch television?

The pupils' hours of televiewing, Monday through Friday, are represented in Table XIX. Table XIX shows the number of pupils who listened for various periods of time during the week. Table XX, page 53, converts the number of pupils to a percentage. For example, Table XIX indicates that twenty-three seventh grade girls watched television from five to seven hours a day, Mondays through Fridays. Table XX shows that these twenty-three make up 12 per cent of all seventh grade girls.

Only eight students of the 1,188 who completed questionnaires stated that their home did not have a television set, for a television set ownership percentage of 99.3.

The fact that television was not viewed at all during the week was indicated by 43 pupils, or 4 per cent. At the opposite extreme, thirty boys and girls, 2 per cent, recorded over nine hours of TV viewing daily.

The average number of hours spent watching television Mondays through Fridays is shown at the foot of Table XIX. The average ranges from the maximum of 3.6 hours per day,

TABLE XIX

HOURS OF TELEVISION VIEWING DAILY, MONDAYS THROUGH FRIDAYS,
OF SEVENTH, EIGHTH, AND NINTH GRADE PUPILS

No. Hours Viewing	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
None	7	6	6	3	12	9	43
Less than 1	7	2	9	8	13	11	50
1 to 2	43	34	35	46	81	62	301
2 to 3	35	43	34	39	38	47	236
3 to 4	40	28	37	44	25	41	215
4 to 5	27	23	28	27	23	25	153
5 to 7	23	20	26	7	10	15	101
7 to 9	6	8	5	9	7	2	37
Over 9	6	9	3	4	5	3	30
Total	194	173	183	187	214	215	1,166
Average No. Hours	3.16	3.60	3.4	3.3	2.68	2.8	3.15

TABLE XX

HOURS OF TELEVISION VIEWING DAILY, MONDAYS THROUGH FRIDAYS,
OF SEVENTH, EIGHTH, AND NINTH GRADE PUPILS;
PERCENTAGE TABULATION

No. Hours Viewing	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %	Total
None	4	3	3	2	6	4	4
Less than 1	4	1	5	4	6	5	4
1 to 2	22	20	19	25	38	29	26
2 to 3	18	25	19	21	18	22	21
3 to 4	20	16	20	23	11.5	19	18
4 to 5	14	13	15	14	10.5	12	13
5 to 7	12	12	14	4	5	7	9
7 to 9	3	5	3	5	3	1	3
Over 9	3	5	2	2	2	1	2

registered by seventh grade boys, to the minimum of 2.8 hours per day for ninth grade boys. The average television viewing of the entire group is 3.15 hours a day, Mondays through Fridays.

Pupils of Daniel Webster Junior High School tended to conform to the pattern of students throughout the country in respect to time spent watching television during the week. Three hours a day was the figure set as average for most children between seven and seventeen.¹ The Daniel Webster average of 3.11 hours was less than the average recorded in some cases. Students of Burdick Junior High School, Stamford, Connecticut, indicated a weekday TV viewing average of 3.7 hours.² The average twelve or thirteen year old child in Cincinnati in 1951 spent 3.5 hours a day before the television screen.³

In summary, pupils of Daniel Webster approximated the same general average TV viewing time during the week as did pupils of other sections of the country. However, at no grade level did Daniel Webster boys and girls register a daily average as high as 3.7 hours.

The average number of hours of viewing at the foot of Table XIX shows that peak television interest existed in the

¹Shayon, loc. cit. ²Gould, loc. cit.

³Scott, loc. cit.

seventh and eighth grades, or the twelve to fourteen year age group. In this respect also, Daniel Webster pupils followed the same pattern as has been found elsewhere. Leo Bogart had this to say: "T. C. Battin, questioning 1,100 children of the schools of Ann Arbor, Michigan, in 1951, found the heaviest viewing in sixth, seventh, and eighth grades."⁴ The greatest average amount of viewing at Daniel Webster was registered by seventh and eighth graders. The viewing average of ninth-grade boys and girls was under three hours a day.

Question Two

How many hours a day (Saturday and Sunday) do you watch television?

The length of time habitually spent watching television on Saturdays and Sundays as recorded by seventh, eighth, and ninth-grade pupils is shown in Table XXI. Table XXI indicates the number of pupils who watched TV. Table XXII, page 57, converts the number of pupils to a percentage. For example, Table XXI shows that thirty-two seventh grade girls viewed television from four to five hours on Saturdays and Sundays. Table XXII shows that these thirty-two constituted 17 per cent of the seventh grade girls.

⁴ Bogart, loc. cit.

TABLE XXI

HOURS OF TELEVISION VIEWING DAILY, SATURDAYS AND SUNDAYS,
OF SEVENTH, EIGHTH, AND NINTH GRADE PUPILS

No. Hours Viewing	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
None	6	6	7	10	14	12	55
Less than 1	1		1	2	5	1	10
1 to 2	23	15	23	21	24	37	143
2 to 3	21	23	23	23	28	23	141
3 to 4	23	29	27	31	31	41	182
4 to 5	32	26	25	40	36	31	190
5 to 7	34	34	36	30	32	30	196
7 to 9	18	23	17	24	19	16	117
Over 9	30	22	17	6	21	18	114
Total	188	178	176	187	210	209	1,148
Average No. Hours	4.9	4.9	4.5	4.3	4.4	4.1	4.51

TABLE XXII

HOURS OF TELEVISION VIEWING DAILY, SATURDAYS AND SUNDAYS,
OF SEVENTH, EIGHTH, AND NINTH GRADE PUPILS;
PERCENTAGE TABULATION

No. Hours Viewing	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %	Total %
None	3	3	4	6	7	6	5
Less than 1	1		1	1	2	0.5	1
1 to 2	12	9	13	11	11.5	17.5	12
2 to 3	11	13	13	12	13	11	12
3 to 4	12	16	15	17	15	20	16
4 to 5	17	15	14	21	17.5	15	17
5 to 7	18	19	20	16	15	14	17
7 to 9	10	13	10	13	9	7	10
Over 9	16	12	10	3	10	9	10

Fifty-five pupils, 5 per cent, did not watch television at all on Saturdays and Sundays. For 231 boys and girls, however, the weekend was devoted to extensive tele-viewing. A total of 231, 20 per cent, watched television seven hours a day or more, on Saturdays and Sundays.

The average number of hours spent on weekend TV viewing is shown at the foot of Table XXI. The weekend average for all students is 4.51 hours. This is somewhat higher than the weekend average recorded for students of Burdick Junior High School, Stamford, Connecticut, in 1950. Their weekend average number of hours was 4.25.⁵

The average number of hours of televiewing during the week for Daniel Webster pupils was 3.15. (See Table XIX, page 52). The average number of weekend hours was 4.51 per day, as shown in Table XXI, page 56. Thus the average number of hours of TV viewing on a seven day a week basis was 3.54 per day, or 24.75 hours per week.

A comparison of the figure of 24.75 hours of weekly TV viewing with other surveys indicates that Daniel Webster pupils were about average in this respect, and well below the maximum. After a year's study, Paul Witty stated in 1957 that the average viewing among Evanston children was twenty

⁵Bogart, loc. cit.

hours a week.⁶ Lloyd F. Scott reported concerning a survey in San Leandro, California, in 1954: "The range in viewing time for the upper 27 per cent was from 22.75 to 69.5 hours per week."⁷ Walter Clarke reported in 1951 that the average twelve or thirteen year old child in Cincinnati spent 3.7 hours a day before the television screen, or 30 hours a week."⁸

One final comparison may be made between the tele-viewing time of Daniel Webster pupils and those of Burdick Junior High School, Stamford, Connecticut. The seven day a week average viewing time for Burdick students in 1950 was 3.98 hours per day, or 27.86 hours per week.⁹ This is over three hours a week in excess of the Daniel Webster weekly average.

Question Three

Do you watch television while you study?

Many students of all three grades, as is pointed out in Table XXIII, noted that television viewing regularly accompanied their accomplishment of homework.

Table XXIII shows that 421 boys and girls, 37 per cent, watched television while studying. Of these 421 pupils, 238, or 21 per cent, were girls; 183, or 16 per cent, were boys.

⁶Witty, loc. cit. ⁷Scott, loc. cit.

⁸Witty, loc. cit. ⁹Gould, loc. cit.

TABLE XXIII
SEVENTH, EIGHTH, AND NINTH GRADE PUPILS WHO
WATCHED TELEVISION WHILE STUDYING

Grade Level	Number	Per Cent
Girls, Grade 7	93	48
Girls, Grade 9	79	39
Girls, Grade 8	66	38
Boys, Grade 8	67	36
Boys, Grade 9	64	30
Boys, Grade 7	52	30
Total	421	

Question Four

What type of television programs do you watch?

As is shown in Table XXIV, movies were the most popular type of television program among pupils of Daniel Webster Junior High School. Movies were the leading choice of both boys and girls of every grade.

The types of television programs in order of preference were: movies, drama, music, quiz shows, westerns, comedy-variety, news, and sports.

The TV program tastes of Daniel Webster pupils vary from those of a similar age group surveyed in 1954 by the American Research Bureau.¹⁰ In that survey, comedy-variety shows were listed as the most popular, followed in order by: situation comedy, western, science fiction, drama, kid shows, mystery, and music.

The often cited Burdick Junior High School report, Stamford, Connecticut, 1950, shows television program preferences more in line with those of Daniel Webster students: feature films, sports, vaudeville, music, mystery, drama, quiz shows, and news.¹¹

¹⁰Eogart, op. cit., p. 240.

¹¹Gould, loc. cit.

TABLE XXIV

TYPE OF TELEVISION PROGRAMS VIEWED BY SEVENTH,
EIGHTH, AND NINTH GRADE PUPILS

Type of Program	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
Movies	135	128	122	119	156	162	822
Drama	98	45	90	62	98	91	474
Music	86	40	96	45	102	72	441
Quiz Shows	75	35	65	45	64	61	345
Westerns	44	49	49	51	29	56	278
Comedy- Variety	20	15	57	25	29	40	186
News	16	21	19	17	20	35	128
Sports	1	5		19	1	27	53

Note: Students could indicate more than one choice.

Question Five

What are your favorite television programs?

It would be impossible to include a complete tabulation of all the programs registered on the students' questionnaires. Table XXV lists the fifteen most popular programs in order of popularity.

Although the preferences varied both according to grade and sex, four programs received the great majority of the popularity votes. They are as follows:

1. American Bandstand	272
2. Maverick	246
3. Ozzie and Harriet	230
4. Gunsmoke	211

The strong popularity of western programs is also noted at all three grade levels. For example, five TV westerns made every one of the lists of the "top fifteen" with one minor exception. "Have Gun Will Travel" was not included among the fifteen most favored programs of the ninth grade girls.

Although the most popular programs were popular among all three grades, a certain change in the maturity level of program preference may be discerned in Table XXV. One example is Disneyland, which appeared on the seventh grade lists of the most popular shows, but which was absent from the lists of the eighth and ninth grades. Moreover, some of

TABLE XXV

MOST POPULAR TELEVISION PROGRAMS OF SEVENTH,
EIGHTH, AND NINTH GRADE PUPILS

	7th Grade Girls	7th Grade Boys	8th Grade Girls	8th Grade Boys	9th Grade Girls	9th Grade Boys
1.	American Bandstand	Gunsmoke	American Bandstand	Maverick	American Bandstand	Gunsmoke
2.	Ozzie and Harriet	Maverick	Ozzie and Harriet	Gunsmoke	Ozzie and Harriet	Maverick
3.	Maverick	Have Gun, Will Travel	Father Knows Best	Cheyenne	Maverick	American Bandstand
4.	Father Knows Best	Zorro	Maverick	American Bandstand	Father Knows Best	Have Gun, Will Travel
5.	Gunsmoke	Disneyland	Sugarfoot	Late Movie	Gunsmoke	Cheyenne
6.	Have Gun, Will Travel	American Bandstand	Gunsmoke	Sugarfoot	Bachelor Father	Ozzie and Harriet
7.	Sugarfoot	Late Movie	Late Movie	\$64,000 Question	Late Movie	Bob Cummings Show
8.	Oh Susanna	Ozzie and Harriet	Cheyenne	Twenty One	Cheyenne	Sugarfoot
9.	Leave It To Beaver	Sugarfoot	Have Gun, Will Travel	Restless Gun	Oh Susanna	Late Movie
10.	Disneyland	Cheyenne	Oh Susanna	Ozzie and Harriet	Danny Thomas	Alfred Hitchcock Presents

TABLE XXV (Continued)

MOST POPULAR TELEVISION PROGRAMS OF SEVENTH,
EIGHTH, AND NINTH GRADE PUPILS

	7th Grade Girls	7th Grade Boys	8th Grade Girls	8th Grade Boys	9th Grade Girls	9th Grade Boys
11.	I Love Lucy	Twenty One	Perry Mason	Red Skelton	Sugarfoot	Science Fic- tion Theater
12.	Zorro	Bachelor Father	Loretta Young	Wyatt Earp	Loretta Young	Real McCoys
13.	Danny Thomas	Ball Games	Danny Thomas	Have Gun, Will Travel	Twenty One	Red Skelton
14.	Medic	Red Skelton	Pat Boone	Sea Hunt	I Love Lucy	Twenty One
15.	Cheyenne	Leave It To Beaver	Zorro			20th Century

the more sophisticated programs such as "The Loretta Young Show", the "Bob Cummings Show", which were included as favorites in some of the upper grades, did not appear on the seventh grade lists.

Question Six

Do your parents restrict your TV viewing in any way?

Two-fifths of the Daniel Webster student body, or 40 per cent, stated that parents restricted their television watching in some way, as is shown in Table XXVI. Numerically, the boys and girls met with equal restriction.

Walter J. Clark touched upon the subject of parental restriction of TV viewing in his survey of 1,100 sixth and seventh grade children. He found the following: "Fifty-two per cent of the children reported they could watch whenever they wished."¹² In the Daniel Webster survey, 60 per cent reported they could watch whenever they wished.

The Daniel Webster survey would tend to bear out the following statement from Bogart's "The Age of Television":

From Koch's survey in Columbus, it appears that parental control over children's TV entertainment is drastically curtailed after the child finishes grade school and enters high school.¹³

Bogart then cites the following percentages from the Koch survey of 1952: "In fourth through eighth grade, 61

¹²Wyllie, op. cit., p. 149.

¹³Bogart, op. cit., p. 246.

TABLE XXVI

PARENTAL RESTRICTION OF THE TELEVISION VIEWING
OF SEVENTH, EIGHTH, AND NINTH-GRADE PUPILS

Grade Level	Parental Restriction	No Parental Restriction	Per Cent Whose Viewing Is Restricted
7th Grade Boys	75	86	46
7th Grade Girls	76	111	40
8th Grade Girls	72	108	40
8th Grade Boys	71	109	39
9th Grade Girls	81	130	39
9th Grade Boys	81	138	37

per cent reported that their parents had rules for watching television. In tenth through twelfth grades, 29 per cent reported parental rules."¹⁴

Question Seven

In what way do your parents restrict your television viewing?

By far the leading parental restriction of television viewing was the denial of watching after a certain hour at night, as set forth in Table XXVII.

Table XXVII lists the other principal reasons for parental restriction of televiewing as: (1) May not watch while doing homework, (2) must have homework finished before television may be watch at all, and (3) certain programs (such as horror or crime shows) are prohibited. In five cases parents prohibited watching as a punitive measure.

The survey of television viewing habits of 905 school children in 1952 by the Television Sub-Committee of the White House Conference on Children and Youth received six reasons for parental restriction of television viewing: "(1) We must stop watching at certain times on school days, (2) we cannot watch while eating, (3) we must have our homework done first, (4) we have to do our chores first, (5) we can only watch what our parents want us to, and (6) we may not

¹⁴ Ibid.

TABLE XXVII

REASONS FOR PARENTAL RESTRICTION OF THE TELEVISION VIEWING
OF SEVENTH, EIGHTH, AND NINTH-GRADE PUPILS

Reason for Restriction	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
Not after a certain hour	24	30	25	38	36	31	189
Not while doing homework	11	7	13	8	13	17	69
Must have homework done first	18	19	7	10	16	17	87
Can't watch certain programs	16	6	11	9	7	8	57
Prohibit viewing as punishment	3	1				1	5
Hard on the eyes	5	4	3			2	14
No TV on school nights	2	1	3	1	2	9	18
Home chores not done	3	4		4	10	2	23

watch murder mysteries."¹⁵ All but one of the six reasons recorded by the Television Sub-Committee appear on the Daniel Webster list in Table XXVII.

Question Eight

How late at night do you watch television (Sunday through Thursday)?

The number of seventh, eighth, and ninth-grade pupils who watched television week nights, and the lateness of the hour to which they did watch, are tabulated in Table XXVIII. Table XXIX, page 72, converts the numbers listed in Table XXVIII to a percentage. For example, Table XXVIII shows that 58 seventh grade girls watched television nightly during the week until between eight and nine o'clock. Table XXIX shows that these fifty-eight made up 31 per cent of the seventh grade girls.

The largest single group, 602 boys and girls, or 53 per cent, viewed TV until between 9 and 10 p.m. during the week.

A total of forty-five students, 4 per cent, stated that they did not watch television at all Sunday through Friday nights.

Television viewing late at night, to midnight and later, increased as the students grew older, as was also

¹⁵Siepmann, loc. cit.

TABLE XXVIII

HOW LATE AT NIGHT SEVENTH, EIGHTH, AND NINTH-GRADE PUPILS
WATCHED TELEVISION, SUNDAYS THROUGH THURSDAYS

Lateness of the Hour	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
Do not watch	8	2	9	10	13	3	45
6 to 7 p.m.	3		1	3	2	2	11
7 to 8 p.m.	6	8		2	7	8	31
8 to 9 p.m.	58	45	24	21	35	39	222
9 to 10 p.m.	93	97	103	97	102	110	602
10 to 11 p.m.	16	12	35	47	34	43	187
11 p.m. to 12	2	5	2	4	5	4	22
Later than 12		2	2	6	3	4	17
Total	186	171	176	190	201	213	1,137

TABLE XXIX

HOW LATE AT NIGHT SEVENTH, EIGHTH, AND NINTH-GRADE PUPILS
WATCHED TELEVISION, SUNDAYS THROUGH THURSDAYS;
PERCENTAGE TABULATION

Lateness of the Hour	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %	Total %
Do not watch	4	1	5	5	6	1	4
6 to 7 p.m.	2		1	2	1	1	1
7 to 8 p.m.	3	5		1	3	4	3
8 to 9 p.m.	31	26	13	11	18	18	20
9 to 10 p.m.	50	57	59	51	51	52	53
10 to 11 p.m.	9	7	20	25	17	20	16
11 p.m. to 12	1	3	1	2	3	2	2
Later than 12		1	1	3	1	2	1

true of radio listening. (See page 44). Following is a breakdown of late night television viewing to midnight or later during the week:

	<u>Number</u>	<u>Per Cent</u>
7th Grade	9	2.5
8th Grade	14	3.5
9th Grade	16	4.0

A greater number of pupils at each grade level listened to the radio late at night during the week than watched television to a late hour. This could well be due to the fact that they could listen to the radio in their own rooms, even after having retired. (See page 44).

Question Nine

How late at night do you watch television, (Friday and Saturday)?

Table XXX, lists the number of pupils who watched television on Friday and Saturday nights, and the hour to which they habitually watched. Table XXXI, page 75, converts the numbers to a percentage. For example, reference to Table XXX shows that thirty-nine seventh-grade girls usually watched television later than midnight on Friday and Saturday nights. Table XXXI indicates that these thirty-nine represented 21 per cent of the seventh-grade girls.

Only sixty-one pupils, 5 per cent, stated that they did not watch television at all on Friday and Saturday nights.

TABLE XXX

HOW LATE AT NIGHT SEVENTH, EIGHTH, AND NINTH-GRADE PUPILS
WATCHED TELEVISION, FRIDAYS AND SATURDAYS

Lateness of the Hour	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
Do not watch	8	2	12	10	19	10	61
6 to 7 p.m.				1	2	1	4
7 to 8 p.m.	2	1	1	2	3	3	12
8 to 9 p.m.	2	5	3	9	3	4	26
9 to 10 p.m.	46	43	36	32	23	33	213
10 to 11 p.m.	59	50	51	45	47	54	306
11 p.m. to 12	29	32	50	60	44	65	280
Later than 12	39	35	25	25	60	54	238
Total	185	168	178	184	201	224	1,140

TABLE XXXI

HOW LATE AT NIGHT SEVENTH, EIGHTH, AND NINTH-GRADE PUPILS
WATCHED TELEVISION, FRIDAYS AND SATURDAYS;
PERCENTAGE TABULATION

Lateness of the Hour	Girls Grade 7 %	Boys Grade 7 %	Girls Grade 8 %	Boys Grade 8 %	Girls Grade 9 %	Boys Grade 9 %	Total %
Do not watch	4	1	7	5	10	5	5
6 to 7 p.m.					1		0
7 to 8 p.m.	1			1	1	1	1
8 to 9 p.m.	1	3	2	5	1	2	2
9 to 10 p.m.	24	26	20	17	11	15	20
10 to 11 p.m.	34	30	29	25	24	24	28
11 p.m. to 12	15	19	28	33	22	29	24
Later than 12	21	21	14	14	30	24	21

Boys and girls of Daniel Webster watched television to a much later hour on Friday and Saturday nights than they did during the week. A total of 28 per cent viewed TV at least until 11 p.m., 24 per cent until midnight, and 21 per cent later than midnight. Following is a listing of television viewing to midnight or later on Friday and Saturdays:

	<u>Number</u>	<u>Per Cent</u>
7th Grade	135	38
8th Grade	160	45
9th Grade	223	53

It is apparent that many pupils did watch late at night on the weekends. Television viewing late at night increased as the age of the pupils increased. Over one-half the ninth-grade students, 53 per cent, watched to midnight or later on Friday and Saturday nights.

A much greater number of boys and girls watched television late at night than listened to the radio late at night on Fridays and Saturdays. (See page 47).

The Xavier University study, conducted by Walter J. Clark, found far more late night television viewers than did this investigation. The Xavier University survey of 1,100 sixth and seventh grade children disclosed the following information: "58 per cent watched after midnight at least once a week. 13 per cent watched after midnight five times

a week."¹⁶ Only 1 per cent of the Daniel Webster boys and girls watched television later than midnight five nights a week. Only 21 per cent watched after midnight on Fridays and Saturdays.

Question Ten

Do you use TV in any way in your school work?

A total of 264 pupils, 22 per cent, stated that television was used in their school work. Table XXXII shows the number of pupils, and the percentage, who used television directly in their academic work.

Table XXXII indicates that a greater proportion of seventh-graders (28.5 per cent) used TV in their school work than did ninth-graders (20.5 per cent), or eighth-grade boys and girls (18 per cent).

One survey may be cited for purposes of comparison: "Witty, questioning Evanston youngsters in 1950, found that 31 per cent said TV helped them with their school work, while 67 per cent said that it did not."¹⁷

Question Eleven

In what way do you use television in your school work?

¹⁶Wylie, op. cit., p. 149.

¹⁷Bogart, op. cit., p. 256.

TABLE XXXII

NUMBER OF SEVENTH, EIGHTH, AND NINTH-GRADE PUPILS
WHO USED TELEVISION IN SCHOOL WORK

Grade Level	Number of Pupils	Per Cent
		%
7th Grade Girls	59	30
7th Grade Boys	49	27
8th Grade Girls	29	16
8th Grade Boys	37	20
9th Grade Girls	45	21
9th Grade Boys	45	20
Total	264	

The ways in which pupils used television in their school work are tabulated in Table XXXIII. The principal use of television in academic work was for the news and weather. A total of 125 pupils used television news in their school work.

Television was also used frequently as an aid to the pupils' science study. A total of seventy-two boys and girls, the majority of them seventh graders, watched science programs to help them in their classwork.

Twenty-one pupils of the seventh grade watched television programs in connection with their Social Studies work. They listed such programs as "Bold Journey", and "I Search for Adventure" as examples. The eighth and ninth-grade pupils indicated no use of television in social studies work, however. It is noted that the seventh-grade social studies curriculum is concerned with exploration, and the various countries of the world. The program examples given cover this type of material. The eighth graders studied United States government, and the ninth graders were concerned with state and local government.

Sixteen boys and girls stated that "quiz shows are educational." They did not explain the direct application of quiz programs in their school work.

TABLE XXXIII

WAYS IN WHICH SEVENTH, EIGHTH, AND NINTH-GRADE PUPILS
USED TELEVISION IN SCHOOL WORK

Television Use in School	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9	Total
News Weather	24	25	11	22	21	22	125
Science programs	27	15	7	9	8	6	72
Shows for Social Studies	13	8	2				23
"Educational" programs	4	3	5	7	7	9	35
Musical programs	3	1					4
Shows assigned for homework		1			3	3	7
Dramas for book reports		1	5		4	3	13
"Quiz shows are educational"	1	3	3	2	3	4	16
Total	72	57	33	40	46	47	295

Note: Pupils could indicate more than one choice.

Analysis of the results of the teachers' questionnaires.

Question One

This year have you used radio in any way in your teaching from the standpoint of making a certain program a general classroom assignment, either during or outside of classroom time? If so, in what way?

Forty teachers' questionnaires were returned. Only eight teachers stated that they had used radio in some way for a classroom assignment. Following is a listing of those eight affirmative statements:

1. Art - 7th Grade. Radio was used in a unit on drawing to music. Various kinds of radio music were used.
2. Music - 7th Grade. The teacher taped some radio classical music excerpts for use in class.
3. Social Studies - 8th Grade. The President's message to Congress was heard in class by radio.
4. Social Studies - 9th Grade. Students were given the assignment to summarize current events in outline form. They could use either radio or newspaper for current events.
5. Social Studies - 9th Grade. Radio was used as a source for daily news topic reports. The President's message to Congress was broadcast in the classroom.
6. English, Social Studies - 9th Grade. Radio was used for current news reports, both oral and written.
7. English, Social Studies - 9th Grade. Radio newscasts used for current events. President's message to Congress broadcast to class.

8. Spanish - 9th Grade. Students were told to listen to Spanish programs on the radio to learn to listen carefully to the spoken foreign language, and to hear the happy music of the Spanish speaking people.

Question Two

This year have you used television in any way in your teaching from the standpoint of making a certain program a general classroom assignment, either during, or outside of classroom time? If so, in what way?

Eighteen teachers stated that television had been, or was being used in connection with their classroom work. Following is a listing of the teachers' comments as to how television was used in their classroom work:

1. Band - 7th, 8th, and 9th Grades. The Telephone Hour, conducted by Leonard Bernstein, was suggested but not ordered as a listening assignment.
2. Science - 7th Grade. Disneyland and Telephone Hour special programs.
3. English, Social Studies - 7th Grade. "Navy Log", "Victory at Sea", and "Air Power" programs were given as a general assignment to help provide background for study of World War II.
4. Science - 7th and 9th Grades. The students were asked to view programs supplemental to the subject material studied, such as health, astronomy, air.
5. Music - 7th and 8th Grades. TV listening to selected programs was assigned on an "extra credit" basis.
6. English, Social Studies - 7th Grade. Current events were stressed. They must keep up with the news. TV was used for speeches, Disneyland, Mr. Wizard, operas, and plays.
7. Art - 7th Grade. Anything of an esthetic nature was advocated, leading to a common experience which could be turned to drawing or sculpture.

8. Social Studies - 7th Grade. Certain TV programs dealing with World War II were assigned as homework.
9. Homemaking - 8th Grade. In a unit on family relationships, or making and keeping friends, a particular movie that appeared on TV illustrating typical problems was used for class discussion.
10. Social Studies, English - 9th Grade. A tape recorded sound track of the TV production of "The Yearling" was used in class. The class had just read the book.
11. Science - 9th Grade. The class was told to watch weather reports on TV, and to make weather maps.
12. English and Drama - 9th Grade. Review such productions as "Shirley Temple's Storybook", and Shakespearean plays.
13. English - 9th Grade. Students may report on assigned television dramas or plays. Credit would be given the same as for book reports.
14. Spanish - 9th Grade. Students were urged to watch Spanish lesson on Channel 9, the educational television station.
15. Spanish - 9th Grade. To listen to and to watch Spanish programs to try to put to use their newly acquired knowledge.
16. English, Social Studies - 9th Grade. President's talks on television were assigned.
17. English - 9th Grade. In connection with Literature, the class was told to watch TV versions of "Tale of Two Cities", "Les Miserables", "Moby Dick".
18. Social Studies - 9th Grade. TV was used as a source for daily news topic reports.

Question Three

Have you used radio or TV this year as a specific assignment to one student or a small group? If so, in what way?

Six teachers stated that radio or television had been used for a specific assignment during the school year for one student or a small group. Their replies follow:

1. Science. A group weather report was assigned. The group could use either radio or TV or both in fulfilling this assignment.
2. Science - 7th Grade. Small groups were given the assignment of reporting on specific programs, such as "Disneyland" and "Telephone Hour" science programs.
3. Homemaking - 8th Grade. Students could tell the class of a certain program viewed pertaining to the current phase of study, such as a cooking demonstration.
4. English and Drama - 9th Grade. Small groups were asked to make reports on such productions as "Shirley Temple Storybook", Shakespearean plays, etc.
5. Science - 7th and 9th Grades. Single reports were made in class by one pupil on TV programs that supplemented the material studied; such as health, astronomy, and air.
6. Spanish - 9th Grade. Individual assignments were made to listen to the radio and to watch TV to hear the spoken language.

An examination of the responses in the teachers' questionnaires shows that current events and weather reports constituted the only continuing use of radio or television in the classroom work. All other comments were concerned with suggested supplemental assignments, or special, isolated programs, such as the President's message to Congress.

In only one instance did a teacher mention Channel 9 (the educational television station located in Berkeley, California), or recommend it to the pupils.

CHAPTER V

DISTRIBUTION OF GRADES USING CHI SQUARE

To what extent are television viewing and radio listening related to academic achievement? Lloyd F. Scott in his 1954 report of the San Leandro, California, survey commented: "Educational achievement must triumph over the television hazard!"¹ Is television indeed a hazard to educational achievement?

Studies have shown conflicting results. In 1950, Ira Cain, TV editor of the Fort Worth Star Telegram, stated: "Our studies show little relationship between grades and amount of time spent televiewing."² On the other hand Paul Witty commented, in connection with the Evanston study: "In our studies excessive viewing of television seemed to be associated with somewhat lower academic achievement."³ Lloyd Scott was even more definite when he said: "Significant differences were found in arithmetic, reading, and total achievement. All of these differences favored that group of children who are in the lower 27 per cent of the distribution of television viewing time."⁴

¹ Scott, loc. cit. ² Witty, loc. cit.

³ Ibid. ⁴ Scott, loc. cit.

An attempt was made in this investigation to see if significant differences in academic achievement did exist. The Chi Square experimental technique was used. (See page 20).

In seeking significant relationships between grades and radio listening, television viewing, and homework, a Chi Square of the Averages was employed. Three subject grades were used in this analysis: English, social studies, and mathematics. As discussed in Chapter II, one hundred samples were chosen at random from each of the six student divisions of the study: seventh-grade girls, seventh-grade boys, eighth-grade girls, eighth-grade boys, ninth-grade girls, and ninth-grade boys.

In the determination of the Chi Square of the Averages, the expected distribution of grades was ascertained by the average of all grades of a particular student division. For example, all of the English grades were tabulated for the one hundred seventh-grade girls selected at random. They were calculated as follows:

English Grades - 7th Grade Girls

<u>Grade</u>	<u>Number</u>	<u>Per Cent</u>
A	19	19
B	45	45
C	32	32
D	4	4
F	0	0

The social studies and mathematics grades for seventh-grade girls were also set up on a percentage basis. This was done for the English, social studies, and mathematics grades of the seventh-grade boys, and for all eighth and ninth-graders. In this way, the expected distribution of grades was established.

An example would best illustrate the setting up of the Chi Square of the Averages. The first determination of significant relationships involving grades was made as follows: Were the grades of seventh-grade girls who had one hour or less of homework nightly Monday through Friday significantly lower, or higher, than the average of all the seventh-grade girls? There were forty-two girls with one hour or less of homework during the week. Therefore, if these forty-two were average, it would be expected that 19 per cent of them would receive an A in English. (See Table on page 86). Thus, 19 per cent of the forty-two is 8. By actual count, 12 girls of these forty-two received an A in English. Thus the actual over the expected, following the Chi Square formula, would be: $\frac{12}{8}$.

Lastly, since this was a Chi Square of the Averages, all three grades, English, social studies, and mathematics were averaged in together, rather than making a separate calculation for each subject.

Therefore, if the Chi Square of the Averages were being calculated for a group of forty-two girls, there would be a total of 126 grades, distributed between A's and F's. The figure of 126 is derived from the fact that each girl has three subject grades: one for English, social studies, and mathematics.

The Chi-Square computations follow (see pages 89-121). A full explanation of the source of the figures in the Chi Square problem is given in the first computation at each sex and grade level.

Analysis of the Chi Square calculations is presented on pages 122-26.

Seventh-Grade Girls - Chi Square of the Averages.

1. Seventh-grade girls who had one hour or less of homework nightly Mondays through Fridays.

Total: 42 girls

<u>Report Card Grades</u>	<u>Number of Grades Received by Test Group of 42 Girls</u>	<u>Number of Grades Received by <u>Average</u> Group of 42 <u>Girls</u></u>
A's and B's	58	69.5
C's	53	47.9
D's and F's	15	8.6
	<u>A's and B's</u>	<u>C's</u> <u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>58</u>	<u>53</u> <u>15</u>
<u>Expected Number of Grades</u>	<u>69.5</u>	<u>47.9</u> <u>8.6</u>

$\chi^2 = 7.58$ with 2 degrees freedom.

Significant at .025 level.

2. Seventh-grade girls who had over two hours of homework nightly, Mondays through Fridays.

Total: 20 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>34</u>	+	<u>25</u>	+	<u>1</u>
<u>Expected Number of Grades</u>	<u>33.2</u>		<u>22.8</u>		<u>4</u>

$$X^2 = 2.48 \text{ with 2 degrees freedom.}$$

Significant at .30 level.

3. Seventh-grade girls who listened to the radio one hour or less daily, Mondays through Fridays.

Total: 42 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>90</u>	+	<u>27</u>	+	<u>9</u>
<u>Expected Number of Grades</u>	<u>69.7</u>		<u>47.9</u>		<u>8.4</u>

$$X^2 = 15.2 \text{ with 2 degrees freedom.}$$

Significant at .001 level.

4. Seventh-grade girls who listened to the radio over four hours a day, Mondays through Fridays.

Total: 12 girls

	<u>A's and B's</u>		<u>C's and D's</u>
<u>Actual Number of Grades</u>	<u>14</u>	+	<u>22</u>
<u>Expected Number of Grades</u>	<u>20</u>		<u>16</u>

$$X^2 = 3.93 \text{ with 1 degree freedom.}$$

Significant at .05 level.

5. Seventh-grade girls who watched television less than two hours daily, Mondays through Fridays.

Total: 32 girls

$$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} = \frac{\text{A's and B's}}{53} + \frac{\text{C's and D's}}{43}$$

$$\chi^2 = .168 \text{ with 1 degree freedom.}$$

Significant at .70 level.

6. Seventh-grade girls who watched television more than four hours a day, Mondays through Fridays.

Total: 30 girls

$$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} = \frac{\text{A's and B's}}{50} + \frac{\text{C's and D's}}{40}$$

$$\chi^2 = .045 \text{ with 1 degree freedom.}$$

Significant at .85 level.

7. Seventh-grade girls who watched television less than four hours daily, Saturdays and Sundays.

Total: 34 girls

$$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} = \frac{\text{A's}}{16} + \frac{\text{B's}}{40} + \frac{\text{C's}}{39} + \frac{\text{D's}}{7}$$

$$\chi^2 = .167 \text{ with 3 degrees freedom.}$$

Significant at .937 level.

8. Seventh-grade girls who watched television more than six hours daily, Saturdays and Sundays.

Total: 32 girls

$$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} = \frac{\text{A's}}{15} + \frac{\text{B's}}{38} + \frac{\text{C's}}{37} + \frac{\text{D's}}{6}$$

$$\chi^2 = 8.79 \text{ with 3 degrees freedom.}$$

Significant at .035 level.

Seventh-Grade Boys - Chi Square of the Averages

1. Seventh-grade boys who had one hour or less of homework nightly Mondays through Fridays.

Total: 61 boys

<u>Report Card Grades</u>	<u>Number of Grades Received by Test Group of 61 Boys</u>	<u>Number of Grades Received by <u>Average</u> Group of 61 Boys</u>
A's and B's	58	60
C's	72	77
D's and F's	53	46

$$\begin{array}{rcccl}
 & & \text{A's} & & \text{D's} \\
 & & \text{and} & & \text{and} \\
 & & \text{B's} & & \text{F's} \\
 \hline
 \text{Actual Number of Grades} & = & \frac{58}{60} & + & \frac{72}{77} & + & \frac{53}{46}
 \end{array}$$

$\chi^2 = 1.33$ with 2 degrees freedom.

Significant at .50 level.

2. Seventh-grade boys who had over two hours of homework nightly Mondays through Fridays.

Total: 8 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{10}{8}$	+	$\frac{9}{10}$	+	$\frac{5}{6}$

$$\chi^2 = .77 \text{ with 2 degrees freedom.}$$

Significant at .70 level.

3. Seventh-grade boys who listened to the radio one hour or less daily, Mondays through Fridays.

Total: 52 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{48}{51}$	+	$\frac{72}{66}$	+	$\frac{36}{39}$

$$\chi^2 = .95 \text{ with 2 degrees freedom.}$$

Significant at .65 level.

4. Seventh-grade boys who listened to the radio over four hours a day, Mondays through Fridays.

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{19}{20}$	+	$\frac{28}{25}$	+	$\frac{13}{15}$

$$\chi^2 = .676 \text{ with 2 degrees freedom.}$$

Significant at .75 level.

5. Seventh-grade boys who watched television two hours or less daily, Mondays through Fridays.

Total: 21 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>28</u>	+	<u>28</u>	+	<u>7</u>
<u>Expected Number of Grades</u>	<u>21</u>		<u>26</u>		<u>16</u>

$$\chi^2 = 7.48 \text{ with 2 degrees freedom.}$$

Significant at .025 level.

6. Seventh-grade boys who watched television over four hours a day, Mondays through Fridays.

Total: 40 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>30</u>	+	<u>54</u>	+	<u>36</u>
<u>Expected Number of Grades</u>	<u>40</u>		<u>50</u>		<u>30</u>

$$\chi^2 = 4.02 \text{ with 2 degrees freedom.}$$

Significant at .12 level.

7. Seventh-grade boys who watched television four hours or less daily, Saturdays and Sundays.

Total: 41 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>43</u>	+	<u>47</u>	+	<u>23</u>
<u>Expected Number of Grades</u>	<u>40</u>		<u>52</u>		<u>31</u>

$$\chi^2 = 2.765 \text{ with 2 degrees freedom.}$$

Significant at .25 level.

8. Seventh-grade boys who watched television over six hours a day, Saturdays and Sundays.

Total: 34 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>28</u>	+	<u>46</u>	+	<u>28</u>
<u>Expected Number of Grades</u>	<u>34</u>		<u>43</u>		<u>25</u>

$$\chi^2 = 1.62 \text{ with 2 degrees freedom.}$$

Significant at .45 level.

Eighth-Grade Girls - Chi Square of the Averages

1. Eighth-grade girls who had one hour or less of homework nightly Mondays through Fridays.

Total: 52 girls

<u>Report Card Grades</u>	<u>Number of Grades Received by Test Group of 52 Girls</u>	<u>Number of Grades Received by <u>Average</u> Group of <u>52 Girls</u></u>
A's and B's	99	97
C's	46	45
D's and F's	11	14

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	99	+	46	+	11
<u>Expected Number of Grades</u>	97		45		14

$\chi^2 = .70$ with 2 degrees freedom.

Significant at .70 level.

2. Eighth-grade girls who had over two hours of homework nightly, Mondays through Fridays.

Total: 22 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	33	+	23	+	10
<u>Expected Number of Grades</u>	41		19		6

$X^2 = 4.9$ with 2 degrees freedom.

Significant at .09 level.

3. Eighth-grade girls who listened to the radio one hour or less daily, Mondays through Fridays.

Total: 27 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	67	+	12	+	2
<u>Expected Number of Grades</u>	50		24		7

$X^2 = 15.35$ with 2 degrees freedom.

Significant at .001 level.

4. Eighth-grade girls who listened to the radio over four hours a day, Mondays through Fridays.

Total: 26 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	37	+	29	+	12
<u>Expected Number of Grades</u>	48		23		7

$X^2 = 7.5$ with 2 degrees freedom.

Significant at .023 level.

5. Eighth-grade girls who watched television two hours or less daily, Mondays through Fridays.

Total: 25 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>54</u>	+	<u>16</u>	+	<u>5</u>
<u>Expected Number of Grades</u>	<u>46</u>		<u>22</u>		<u>7</u>

$$\chi^2 = 3.45 \text{ with 2 degrees freedom.}$$

Significant at .17 level.

6. Eighth-grade girls who watched television over four hours a day, Mondays through Fridays.

Total: 39 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>58</u>	+	<u>44</u>	+	<u>15</u>
<u>Expected Number of Grades</u>	<u>72</u>		<u>34</u>		<u>11</u>

$$\chi^2 = 7.0 \text{ with 2 degrees freedom.}$$

Significant at .08 level.

7. Eighth-grade girls who watched television four hours or less daily, Saturdays and Sundays.

Total: 38 girls

	A's and B's		C's		D's and F's
<u>Actual Number of Grades</u>	<u>78</u>	+	<u>31</u>	+	<u>5</u>
<u>Expected Number of Grades</u>	<u>71</u>		<u>33</u>		<u>10</u>

$\chi^2 = 3.32$ with 2 degrees freedom.

Significant at .19 level.

8. Eighth-grade girls who watched television over six hours a day, Saturdays and Sundays.

Total: 30 girls

	A's and B's		C's		D's and F's
<u>Actual Number of Grades</u>	<u>54</u>	+	<u>28</u>	+	<u>8</u>
<u>Expected Number of Grades</u>	<u>56</u>		<u>26</u>		<u>8</u>

$\chi^2 = .23$ with 2 degrees freedom.

Significant at .90 level.

Eighth-Grade Boys - Chi Square of the Averages

1. Eighth-grade boys who had one hour or less of homework nightly, Mondays through Fridays.

Total: 73 boys

<u>Report Card Grades</u>	<u>Number of Grades Received by Test Group of 73 Boys</u>	<u>Number of Grades Received by <u>Average</u> Group of 73 Boys</u>
A's and B's	114	112
C's	86	83
D's and F's	20	24

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>114</u>	+	<u>86</u>	+	<u>20</u>
<u>Expected Number of Grades</u>	<u>112</u>		<u>83</u>		<u>24</u>

$\chi^2 = .84$ with 2 degrees freedom.

Significant at .65 level.

2. Eighth-grade boys who had over two hours of homework nightly, Mondays through Fridays.

Total: 16 boys

	A's and B's		C's		D's and F's
Actual Number of Grades	20	+	18	+	10
Expected Number of Grades	25		18		5

$\chi^2 = 6$ with 2 degrees freedom.

Significant at .05 level.

Note: Reverse significance; that is, with more homework, grades were significantly lower.

3. Eighth-grade boys who listened to the radio one hour a day or less, Mondays through Fridays.

Total: 48 boys

	A's and B's		C's		D's and F's
Actual Number of Grades	90	+	45	+	9
Expected Number of Grades	74		54		16

$\chi^2 = 7.9$ with 2 degrees freedom.

Significant at .02 level.

4. Eighth-grade boys who listened to the radio over four hours daily, Mondays through Fridays.

Total: 22 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	22	+	29	+	15
<u>Expected Number of Grades</u>	34		25		7

$\chi^2 = 13.78$ with 2 degrees freedom.

Significant at .001 level.

5. Eighth-grade boys who watched television two hours a day or less, Mondays through Fridays.

Total: 24 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	49	+	20	+	3
<u>Expected Number of Grades</u>	37		27		8

$\chi^2 = 8.72$ with 2 degrees freedom.

Significant at .015 level.

6. Eighth-grade boys who watched television over four hours a day, Mondays through Fridays.

Total: 42 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	54		55		17
<u>Expected Number of Grades</u>	64		48		14

$\chi^2 = 3.16$ with 2 degrees freedom.

Significant at .20 level.

7. Eighth-grade boys who watched television four hours or less daily, Saturdays and Sundays.

Total: 40 boys

$$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} = \frac{\text{A's and B's}}{62} + \frac{\text{C's}}{45} + \frac{\text{D's and F's}}{13}$$

$$\chi^2 = 4.0 \text{ with 2 degrees freedom.}$$

Significant at .15 level.

8. Eighth-grade boys who watched television over six hours a day, Saturdays and Sundays.

Total: 36 boys

$$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} = \frac{\text{A's and B's}}{55} + \frac{\text{C's}}{41} + \frac{\text{D's and F's}}{12}$$

$$\chi^2 = 10.91 \text{ with 2 degrees freedom.}$$

Significant at .01 level.

Ninth-Grade Girls - Chi Square of the Averages

1. Ninth-grade girls who had one hour or less of homework nightly, Mondays through Fridays.

Total: 31 girls

<u>Report Card Grades</u>	<u>Number of Grades Received by Test Group of 31 Girls</u>	<u>Number of Grades Received by Average Group of 31 Girls</u>
A's and B's	60	61
C's	26	23
D's and F's	7	9

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	60	+	26	+	7
<u>Expected Number of Grades</u>	61		23		9

$\chi^2 = .82$ with 2 degrees freedom.

Significant at .65 level.

2. Ninth-grade girls who had over two hours of homework nightly, Mondays through Fridays.

Total: 32 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{25}{63}$	+	$\frac{16}{24}$	+	$\frac{5}{9}$

$$\chi^2 = 6.71 \text{ with 2 degrees freedom.}$$

Significant at .08 level.

3. Ninth-grade girls who listened to the radio one hour or less daily, Mondays through Fridays.

Total: 27 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{58}{64}$	+	$\frac{18}{20}$	+	$\frac{5}{7}$

$$\chi^2 = 1.07 \text{ with 2 degrees freedom.}$$

Significant at .60 level.

4. Ninth-grade girls who listened to the radio over four hours a day, Mondays through Fridays.

Total: 25 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{43}{49}$	+	$\frac{24}{19}$	+	$\frac{8}{7}$

$$\chi^2 = 2.17 \text{ with 2 degrees freedom.}$$

Significant at .40 level.

5. Ninth-grade girls who watched television two hours or less daily, Mondays through Fridays.

Total: 57 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>125</u>		<u>35</u>		<u>11</u>
<u>Expected Number of Grades</u>	<u>113</u>	+	<u>43</u>	+	<u>15</u>

$$\chi^2 = 4.34 \text{ with 2 degrees freedom.}$$

Significant at .12 level.

6. Ninth-grade girls who watched television over four hours a day, Mondays through Fridays.

Total: 17 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>28</u>		<u>16</u>		<u>7</u>
<u>Expected Number of Grades</u>	<u>34</u>	+	<u>13</u>	+	<u>4</u>

$$\chi^2 = 4.0 \text{ with 2 degrees freedom.}$$

Significant at .14 level.

7. Ninth-grade girls who watched television four hours or less daily, Saturdays and Sundays.

Total: 53 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>109</u>	+	<u>35</u>	+	<u>15</u>
<u>Expected Number of Grades</u>	<u>105</u>		<u>40</u>		<u>14</u>

$$\chi^2 = .82 \text{ with 2 degrees freedom.}$$

Significant at .65 level.

8. Ninth-grade girls who watched television over six hours a day, Saturdays and Sundays.

Total: 19 girls

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>34</u>	+	<u>17</u>	+	<u>6</u>
<u>Expected Number of Grades</u>	<u>38</u>		<u>14</u>		<u>5</u>

$$\chi^2 = 1.26 \text{ with 2 degrees freedom.}$$

Significant at .52 level.

Ninth-Grade Boys - Chi Square of the Averages

1. Ninth-grade boys who had one hour or less of homework nightly, Mondays through Fridays.

Total: 53 boys

<u>Report Card Grades</u>	<u>Number of Grades Received by Test Group of 53 Boys</u>	<u>Number of Grades Received by <u>Average</u> Group of 53 Boys</u>
A's and B's	71	80
C's	51	51
D's and F's	37	28

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>71</u>	+	<u>51</u>	+	<u>37</u>
<u>Expected Number of Grades</u>	<u>80</u>		<u>51</u>		<u>28</u>

$\chi^2 = 3.98$ with 2 degrees freedom.

Significant at .15 level.

2. Ninth-grade boys who had over two hours of homework nightly, Mondays through Fridays.

Total: 19 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>30</u>	+	<u>19</u>	+	<u>8</u>
<u>Expected Number of Grades</u>	<u>29</u>		<u>18</u>		<u>10</u>

$X^2 = .484$ with 2 degrees freedom.

Significant at .80 level.

3. Ninth-grade boys who listened to the radio one hour or less daily, Mondays through Fridays.

Total: 35 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>64</u>	+	<u>24</u>	+	<u>17</u>
<u>Expected Number of Grades</u>	<u>53</u>		<u>33</u>		<u>19</u>

$X^2 = 4.92$ with 2 degrees of freedom.

Significant at .09 level.

4. Ninth-grade boys who listened to the radio over four hours a day, Mondays through Fridays.

Total: 24 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>33</u>	+	<u>23</u>	+	<u>16</u>
<u>Expected Number of Grades</u>	<u>36</u>		<u>23</u>		<u>13</u>

$X^2 = .94$ with 2 degrees freedom.

Significant at .65 level.

5. Ninth-grade boys who watched television two hours a day or less, Mondays through Fridays.

Total: 38 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	71	+	30	+	13
<u>Expected Number of Grades</u>	57		36		21

$\chi^2 = 7.4$ with 2 degrees freedom.

Significant at .02 level.

6. Ninth-grade boys who watched television over four hours daily, Mondays through Fridays.

Total: 29 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	32	+	30	+	25
<u>Expected Number of Grades</u>	43		16		28

$\chi^2 = 15.3$ with 2 degrees freedom.

Significant at .001 level.

7. Ninth-grade boys who watched television four hours a day or less, Saturdays and Sundays.

Total: 42 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>76</u>	+	<u>37</u>	+	<u>13</u>
<u>Expected Number of Grades</u>	<u>63</u>		<u>40</u>		<u>23</u>

$$\chi^2 = 7.25 \text{ with 2 degrees freedom.}$$

Significant at .02 level.

8. Ninth-grade boys who watched television over six hours a day, Saturdays and Sundays.

Total: 22 boys

	<u>A's and B's</u>		<u>C's</u>		<u>D's and F's</u>
<u>Actual Number of Grades</u>	<u>29</u>	+	<u>21</u>	+	<u>16</u>
<u>Expected Number of Grades</u>	<u>33</u>		<u>21</u>		<u>12</u>

$$\chi^2 = 1.81 \text{ with 2 degrees freedom.}$$

Significant at .42 level.

Chi Square Combinations - Seventh, Eighth, and
Ninth Grades Included

1. Pupils who studied at least two hours every night, and
who watched television not over two hours a day.

Total: 41 pupils

<u>Report Card Grades</u>	<u>Number of Grades Received by Test Group of 41 Pupils</u>	<u>Number of Grades Received by Average Group of 41 Pupils</u>
A's	49	24
B's	49	41
C's	21	42
D's and F's	4	16

$$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} = \frac{49}{24} + \frac{49}{41} + \frac{21}{42} + \frac{4}{16}$$

$\chi^2 = 46.9$ with 3 degrees freedom.

Significant at .001 level.

2. Pupils who had one hour or less of homework nightly during the week, and who watched television over four hours a day.

Total: 100 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{41}{60}$	$+$ $\frac{81}{99}$	$+$ $\frac{112}{102}$	$+$ $\frac{66}{39}$

$$\chi^2 = 36.87 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

3. Pupils who had at least two hours of homework nightly during the week, and who listened to the radio not over two hours a day.

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{56}{32}$	$+$ $\frac{55}{52}$	$+$ $\frac{39}{54}$	$+$ $\frac{9}{21}$

$$\chi^2 = 29.23 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

4. Pupils who had one hour of homework or less nightly during the week, and who listened to the radio over four hours a day.

Total: 61 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{20}{37}$	$+$	$\frac{52}{60}$	$+$
			$\frac{74}{62}$	$+$
				$\frac{37}{34}$

$$\chi^2 = 18.2 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

5. Pupils who had at least two hours of homework nightly during the week, and who watched television and listened to the radio not over two hours a day.

Total: 23 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{29}{14}$	$+$	$\frac{25}{23}$	$+$
			$\frac{14}{23}$	$+$
				$\frac{1}{9}$

$$\chi^2 = 26.6 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

6. Pupils who had one hour or less of homework nightly during the week, who listened to the radio and watched television over four hours a day.

Total: 26 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{7}{16}$	$+$ $\frac{17}{26}$	$+$ $\frac{33}{26}$	$+$ $\frac{21}{10}$

$$\chi^2 = 22.1 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

7. Pupils who listened to the radio and watched television over four hours a day.

Total: 59 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{14}{35}$	$+$ $\frac{48}{59}$	$+$ $\frac{74}{60}$	$+$ $\frac{41}{23}$

$$\chi^2 = 31.3 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

8. Pupils who listened to the radio and watched television not over two hours per day.

Total: 120 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{111}{72}$	$+$ $\frac{123}{119}$	$+$ $\frac{103}{122}$	$+$ $\frac{18}{47}$

$$\chi^2 = 42.5 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

9. Pupils who watched television one hour or less per day.

Total: 80 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{77}{48}$	$+$ $\frac{76}{79}$	$+$ $\frac{49}{52}$	$+$ $\frac{18}{31}$

$$\chi^2 = 37.2 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

10. Pupils who watched television less than two hours per day.

Total: 200 pupils

		<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
<u>Actual Number of Grades</u>	=	$\frac{172}{120}$	+ $\frac{219}{198}$	+ $\frac{166}{204}$	+ $\frac{43}{78}$
<u>Expected Number of Grades</u>					

$$\chi^2 = 47.4 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

11. Pupils who watched television from two to four hours per day.

Total: 204 pupils

		<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
<u>Actual Number of Grades</u>	=	$\frac{112}{122}$	+ $\frac{197}{202}$	+ $\frac{219}{208}$	+ $\frac{84}{80}$
<u>Expected Number of Grades</u>					

$$\chi^2 = 1.72 \text{ with 3 degrees freedom.}$$

Significant at .6 level.

12. Pupils who watched television more than four hours per day.

Total: 196 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
<u>Actual Number of Grades</u>	78	173	230	107
<u>Expected Number of Grades</u>	118	194	200	76

$$= \frac{78}{118} + \frac{173}{194} + \frac{230}{200} + \frac{107}{76}$$

$$\chi^2 = 32.9 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

13. Pupils who watched television more than six hours per day.

Total: 80 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
<u>Actual Number of Grades</u>	20	69	96	56
<u>Expected Number of Grades</u>	48	79	82	31

$$= \frac{20}{48} + \frac{69}{79} + \frac{96}{82} + \frac{56}{31}$$

$$\chi^2 = 39.9 \text{ with 3 degrees freedom.}$$

Significant at .001 level.

14. Pupils who listened to the radio less than two hours per day.

Total: 334 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
<u>Actual Number of Grades</u>	236	342	318	106
<u>Expected Number of Grades</u>	200	331	341	130

$$\chi^2 = 12.6 \text{ with 3 degrees freedom.}$$

Significant at .005 level.

15. Pupils who listened to the radio from two to four hours per day.

Total: 137 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
<u>Actual Number of Grades</u>	71	129	158	53
<u>Expected Number of Grades</u>	82	136	140	53

$$\chi^2 = 4.13 \text{ with 3 degrees freedom.}$$

Significant at .25 level.

16. Pupils who listened to the radio more than four hours per day.

Total: 129 pupils

	<u>A's</u>	<u>B's</u>	<u>C's</u>	<u>D's and F's</u>
$\frac{\text{Actual Number of Grades}}{\text{Expected Number of Grades}} =$	$\frac{53}{77}$	$+$ $\frac{109}{128}$	$+$ $\frac{151}{132}$	$+$ $\frac{74}{50}$

$\chi^2 = 24.4$ with 3 degrees freedom.

Significant at .001 level.

Analysis of the Chi Square computations. The statement of Lloyd Scott in connection with his San Leandro study is applicable to this investigation: "Significant differences were found. . . . All of these differences favored that group of children in the lower 27 per cent of the distribution of television viewing time."⁵

The Chi Square computations indicate that those Daniel Webster pupils who listened to the radio less received grades that were significantly higher than the average of their class. Those pupils who watched television less earned academic marks significantly higher than the average.

Table XXXIV shows those grade-level Chi Square calculations which resulted in statistically significant differences. Reference to Table XXXIV points out the fact that seventh-grade girls, eighth-grade girls, and eighth-grade boys who listened to the radio one hour or less per day earned grades significantly higher than the average grades for their class.

Seventh-grade boys, eighth-grade boys, and ninth-grade boys who watched television two hours or less per weekday, received academic marks significantly higher than the average of their class.

⁵ Scott, loc. cit.

TABLE XXXIV

HOMEWORK, RADIO LISTENING, AND TELEVISION VIEWING
 ACTIVITIES OF PUPILS WHOSE GRADES WERE SIGNIFI-
 CANTLY AT VARIANCE WITH AVERAGE GRADES

Activity	Girls Grade 7	Boys Grade 7	Girls Grade 8	Boys Grade 8	Girls Grade 9	Boys Grade 9
1 hour or less homework	Yes					
Over 2 hours homework						
Listen radio 1 hour or less	Yes		Yes	Yes		
Radio listening over 4 hours	Yes		Yes	Yes		
TV viewing 2 hours or less, Monday - Friday		Yes		Yes		Yes
TV viewing more than 4 hours, Monday - Friday						Yes
TV viewing less than 4 hours, Saturday, Sunday						Yes
TV viewing more than 6 hours, Saturday, Sunday	Yes			Yes		

On the other hand, seventh-grade girls, eighth-grade girls, and eighth-grade boys who listened to the radio over four hours per day received grades significantly lower than the average of their class.

It is in the Chi Square combinations, (see pages 113-121) wherein all Daniel Webster pupils were included, that the most significant inferences may be drawn. Following is a list of circumstances in which pupils' grades were significantly higher than the average grades of Daniel Webster pupils:

Circumstances in Which Pupils' Grades
Were Significantly Higher Than Average

1. Pupils who studied at least two hours per week night, and who watched television not over two hours per day.
2. Pupils who studied at least two hours nightly during the week, and who listened to the radio not over two hours per day.
3. Pupils who had at least two hours of homework nightly during the week, and who watched television and listened to the radio not over two hours per day.
4. Pupils who listened to the radio and watched television not over two hours per day.
5. Pupils who watched television one hour or less per day.
6. Pupils who watched television less than two hours a day.
7. Pupils who listened to the radio less than two hours per day.

There were also homework, radio listening, and television viewing patterns in which pupils' grades were significantly lower than the average of all Daniel Webster pupils, listed as follows:

Circumstances in Which Pupils' Grades
Were Significantly Lower Than Average

1. Pupils who had one hour or less of homework nightly during the week, and who watched television over four hours a day.
2. Pupils who had one hour of homework or less nightly during the week, and who listened to the radio over four hours a day.
3. Pupils who had one hour or less of homework nightly during the week, who listened to the radio and watched television over four hours a day.
4. Pupils who listened to the radio and watched television over four hours per day.
5. Pupils who watched television more than four hours per day.
6. Pupils who watched television more than six hours per day.
7. Pupils who listened to the radio more than four hours per day.

In two calculations, both of them involved with radio listening or television viewing in average amounts, there was no significant difference between the pupils' grades, and average grades. They are:

Circumstances in Which Pupil's Grades Were
Not Significantly Different From Average

1. Pupils who watched television from two to four hours per day.
2. Pupils who listened to the radio from two to four hours per day.

No cause and effect relationship can be established as a result of these calculations. It may not be stated,

on the basis of the evidence presented, that pupils' grades were significantly higher because they listened to the radio, or watched television only one or two hours per day.

However, tendencies may clearly be shown. At Daniel Webster Junior High School, pupils who spent more time on homework, and less time on radio listening and television viewing received higher grades than the average student. Moreover, omitting homework from consideration, pupils who listened to the radio less, and/or watched television less, received higher grades than the average student. Those who watched television more, and/or listened to the radio more, received lower grades than the average student.

While no strict line of demarcation can be set up, generally those who watched or listened two hours per day or less, received higher grades than the average. Those who watched or listened from two to four hours per day showed no significant differences as far as grades were concerned. Those who watched or listened more than four hours per day received lower grades than the average.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

The threefold purpose of this investigation was set forth on page 1. Stated in summary form are the conclusions to the three phases of the investigation:

Radio listening and television viewing habits of students of Daniel Webster Junior High School.

1. The pupils averaged 1.44 hours of homework nightly on week nights, 1.32 hours on weekends.
2. Pupils listened to the radio an average of 2.3 hours per day throughout the week, 2.88 hours a day on the weekend, for a seven day a week daily average of 2.6 hours.
3. A large proportion of the pupils, 52 per cent, listened to the radio while doing homework.
4. The favorite types of radio programs were popular music and news.
5. Radio listening was restricted in some way by the parents of 23 per cent of the pupils.
6. Seventy-seven per cent of the pupils listened to the radio not later than 10 p.m. during the week. Fifty-nine per cent listened to the radio not later than 10 p.m. on Friday and Saturday nights.
7. Pupils watched television an average of 3.15 hours per day during the week, 4.51 hours per day on the weekends, for a seven day a week daily average of 3.54 hours.
8. Thirty-seven per cent watched TV while studying.
9. Movies were the most popular television program.
10. Television viewing was restricted in some way by the parents of 40 per cent of the public.

11. Eighty-one per cent of the pupils watched television not later than 10 p.m. during the week. Twenty-eight per cent watched TV not later than 10 p.m. on Fridays and Saturdays.

Relationship between grades received at school and amount of time spent listening to the radio and/or watching TV. The second phase of the investigation was an attempt to determine whether there were relationships between amount of radio listening or television viewing time and academic grades received. It was determined that definite relationships did exist. Those who watched television and/or listened to the radio two hours a day or less received grades significantly higher than the average grades of the pupils in the survey. Those who watched television and/or listened to the radio more than four hours per day received grades significantly lower than the average. No significant difference in grades could be found for those who watched television and/or listened to the radio from two to four hours per day.

Extent to which there is a direct application of radio listening or television viewing in the pupils' academic work. The final stated purpose of the investigation was to attempt to show if there were any direct application of radio or television in the school work of the Daniel Webster pupils.

Only 247 boys and girls, 20.5 per cent, stated that radio was used in any way in their school work. Only eight

teachers, 20 per cent, used radio in any way in their classroom assignments. And of these eight, seven teachers made assignments that could have been fulfilled by other means than radio listening. For example, some teachers specified listening to the radio for current events or weather information. Current events could have been compiled from television viewing, or from the reading of the newspaper. One teacher did make a specific and continuing radio assignment: her Spanish classes were told to listen to Spanish programs on the radio.

A total of 264 pupils, 22 per cent, indicated that television was used in some way in their school work. Eighteen teachers, 45 per cent, stated that they employed TV in some way in their classroom assignments.

All of the television assignments were of a supplemental nature in addition to the regular classroom subject matter. Eleven of the eighteen teachers used special TV programs as assignments for supplemental information, such as: "Navy Log", "Victory at Sea", "Disneyland", "The Telephone Hour", and "Shirley Temple's Storybook".

Only one teacher mentioned the one existing educational television station, Channel 9, that was within range of the pupils' television receivers.

It may be concluded that there was some direct application of radio and television in the pupils' academic work, but

that the application was very limited in scope. There was only one example cited where an assignment was made that could have been fulfilled by radio alone. In the case of television, there was no mandatory assignment. Less than one-half the teachers used television at all. Those who did, used it only infrequently. In some instances the television assignment material could have been obtained from other sources, such as radio or newspaper.

Recommendations for future studies. In considering some of the conclusions of this investigation, it becomes evident that future studies could well center about some aspects of this project. Perhaps some of the following problems should be considered.

1. The cause-and-effect relationship between radio listening time and grades, and television viewing time and grades could be investigated. The present inquiry indicated that those pupils who watched or listened more, received lower grades. Is the greater amount of radio listening or television viewing the cause of lower academic achievement? Is it a contributing factor?

2. This study indicates that there is need for much greater use of existing radio and television program material by teachers in the academic program. An investigation could be made of methods of integrating present commercial radio and/or television programs in classroom work. Perhaps a

syllabus could be devised with specific program recommendations for certain units of a regular course.

3. Methods by which commercial radio and television could increase their own effectiveness as an educational device could be examined. Radio and television stations are licensed in the public interest. They will be glad to help if it can be shown that a certain educational plan is feasible.

4. Programming plans are being formulated for Channel 6, the new educational television station for the San Joaquin and Sacramento County areas. A research project could be undertaken for Channel 6 on the problem of educational television programming for the junior high school. The curriculum of the junior high school is exploratory in nature, and thus could well lend itself to further exploration through television.

5. Studies similar to this investigation could be made in other localities to establish correlations with this report. This might be done by employing the same questionnaire form (see Appendix, page 1).

Concluding statement. This study certainly is not unique. Similar investigations have been undertaken in other parts of the country. Nor does the investigator wish to leave the impression that this report has adequately answered all of the questions about the radio listening and television viewing habits of junior high school students. However, such research helps to broaden the fund of knowledge and perhaps

helps assess more accurately some of the impact of radio and television programs upon school children. It is hoped that this inquiry will be of service to those who read it, as well as acting as a springboard for further examination.

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APPENDIX

QUESTIONNAIRE

May I sincerely request that you fill out this questionnaire honestly and fairly. As you can see, you do not sign your name. No one is interested in the name of the person who completes this paper. Your honest answers are requested for statistical purposes only, and I am interested only in the habits of the entire group at Daniel Webster. I am doing this for a summer study for the College of the Pacific, and it has no connection with your school work at all. If you will fill this out to the best of your ability, and include your past quarter grades at the bottom, you will help make this a valid report.

Thank you very much.

Grade in School _____
7, 8 or 9

Boy _____

Girl _____

About how many hours of homework do you average each night (Monday - Friday) ? _____

About how many hours of homework do you average over the weekends ? _____

RADIO LISTENING

1. How many hours a day (Monday - Friday) do you listen to the radio ? _____

2. How many hours a day (Saturday, Sunday) do you listen to the radio ? _____

3. Do you listen to the radio while you study ? _____

4. What type of programs do you listen to ? _____
(pop. music, news, classical music, drama, other)

5. Do your parents restrict your listening in any way ? _____

6. If so, in what way ? _____

7. How late at night do you listen to the radio ? (Sunday through Thursday) _____

8. How late at night do you listen Friday and Saturday ? _____

9. Do you use the radio in any way in your school work ? _____

10. If so, in what way ? _____

TELEVISION VIEWING

1. How many hours a day (Monday - Friday) do you watch TV ? _____

2. How many hours a day (Saturday, Sunday) do you watch TV ? _____

3. Do you watch TV while you study ? _____

4. What type of programs do you watch ? _____
(Drama, music, news, movies, quiz shows, other)

5. What are your favorite programs ? _____
(Please name specific shows here)

6. Do your parents restrict your TV viewing in any way ? _____

7. If so, in what way ? _____

8. How late at night do you watch TV ? (Sunday through Thursday) _____

- 6. If so, in what way ? _____
- 7. How late at night do you listen to the radio ? (Sunday through Thursday) _____
- 8. How late at night do you listen Friday and Saturday ? _____
- 9. Do you use the radio in any way in your school work ? _____
- 10. If so, in what way ? _____

TELEVISION VIEWING

- 1. How many hours a day (Monday - Friday) do you watch TV ? _____
- 2. How many hours a day (Saturday, Sunday) do you watch TV ? _____
- 3. Do you watch TV while you study ? _____
- 4. What type of programs do you watch ? _____
(Drama, music, news, movies, quiz shows, other)
- 5. What are your favorite programs ? _____
(Please name specific shows here)
- 6. Do your parents restrict your TV viewing in any way ? _____
- 7. If so, in what way ? _____
- 8. How late at night do you watch TV ? (Sunday through Thursday) _____
- 9. How late do you watch TV on Friday and Saturday ? _____
- 10. Do you use TV in any way in your school work ? _____
- 11. If so, in what way ? _____

GRADES (your latest grades)

ENGLISH _____
SOCIAL STUDIES _____
MATH _____
P.E. _____

ALGEBRA _____
(Subject) _____
(Subject) _____
(Subject) _____
(Please write in name of subject)



TEACHERS' QUESTIONNAIRE

May I please ask your cooperation in completing at your convenience the following questionnaire? It is in connection with some graduate work I am doing at The College of the Pacific, and would appreciate it very much if you would fill it out and put it in my mail box. This is just a general statement and survey, so please do not include your name.

Thank you very much.

Bill Hill

Subject taught _____

RADIO

1. This year have you used radio in any way in your teaching from the standpoint of making a certain program a general classroom assignment, either during, or outside of classroom time?

2. If so, in what way? _____

TELEVISION

1. This year have you used television in any way in your teaching from the standpoint of making a certain program a general classroom assignment, either during, or outside of classroom time?

2. If so, in what way? _____

Have you used radio or TV this year as a specific assignment to 1 student, or a small group?

If so, in what way? _____

NOTE: If you have used radio or TV as indicated in this questionnaire, please specify whether for 7th, 8th or 9th grade students.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

HADLEY CARD MASTER INDEX SHEET

- | | |
|------------------------------------|-------------------------------|
| 1. Boy | 49. TV (M-F), 1-2 hrs. |
| 2. Girl | 50. TV (M-F), 2-3 hrs. |
| 3. 7th grade | 51. TV (M-F), 3-4 hrs. |
| 4. 8th grade | 52. TV (M-F), 4-5 hrs. |
| 5. 9th grade | 53. TV (M-F), 5-6 hrs. |
| 6. Homework (M-F), 0 hrs. | 54. TV (M-F), 6-7 hrs. |
| 7. (M-F), 0-1 hrs. | 55. TV (M-F), 7-8 hrs. |
| 8. (M-F), 1-2 hrs. | 56. TV (M-F), 8-9 hrs. |
| 9. (M-F), 2-3 hrs. | 57. TV (M-F), over 9 hrs. |
| 10. (M-F), 3-4 hrs. | 58. Television, |
| 11. (M-F), more than 4 hrs. | Sat., Sun. 0 hrs. |
| 12. Homework, (Sat., Sun.), 0 hrs. | 59. TV Sat., Sun. 0-1 hrs. |
| 13. Sat., Sun. 0-1 hrs. | 60. TV Sat., Sun. 1-2 hrs. |
| 14. Sat., Sun. 1-2 hrs. | 61. TV Sat., Sun. 2-3 hrs. |
| 15. Sat., Sun. 2-3 hrs. | 62. TV Sat., Sun. 3-4 hrs. |
| 16. Sat., Sun. 3-4 hrs. | 63. TV Sat., Sun. 4-5 hrs. |
| 17. Sat., Sun. more than 4 hrs. | 64. TV Sat., Sun. 5-6 hrs. |
| 18. Radio, (M-F), 0 hrs. | 65. TV Sat., Sun. 6-7 hrs. |
| 19. (M-F), 0-1 hrs. | 66. TV Sat., Sun. 7-8 hrs. |
| 20. (M-F), 1-2 hrs. | 67. TV Sat., Sun. 8-9 hrs. |
| 21. (M-F), 2-3 hrs. | 68. TV Sat., Sun. over 9 hrs. |
| 22. (M-F), 3-4 hrs. | |
| 23. (M-F), 4-5 hrs. | |
| 24. (M-F), 5-6 hrs. | |
| 25. (M-F), 6-7 hrs. | |
| 26. (M-F), 7-8 hrs. | |
| 27. (M-F), 8-9 hrs. | |
| 28. (M-F), over 9 hrs. | |
| 33. Radio, (Sat., Sun.), 0 hrs. | |
| 34. Sat., Sun. 0-1 hrs. | |
| 35. Sat., Sun. 1-2 hrs. | |
| 36. Sat., Sun. 2-3 hrs. | |
| 37. Sat., Sun. 3-4 hrs. | |
| 38. Sat., Sun. 4-5 hrs. | |
| 39. Sat., Sun. 5-6 hrs. | |
| 40. Radio, | |
| Sat., Sun. 6-7 hrs. | |
| 41. Sat., Sun. 7-8 hrs. | |
| 42. Sat., Sun. 8-9 hrs. | |
| 43. Sat., Sun. over 9 hrs. | |
| 47. Television, (M-F), 0 hrs. | |
| 48. TV (M-F), 0-1 hrs. | |

Grades

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|------------------------|
| 69. English - A |
| 70. English - B |
| 71. English - C |
| 72. English - D |
| 73. English - F |
| 76. Social Studies - A |
| 77. Social Studies - B |
| 78. Social Studies - C |
| 79. Social Studies - D |
| 80. Social Studies - F |
| 81. Mathematics - A |
| 82. Mathematics - B |
| 83. Mathematics - C |
| 84. Mathematics - D |
| 85. Mathematics - F |