BACKGROUND VARIABLES AFFECTING THE CLOTHING INTERESTS OF HIGH SCHOOL GIRLS IN METROPOLITAN GROUPS

Based on

The Texas Co-operative Youth Study

Sponsored by

The Texas Colleges and Universities Approved to Train Vocational Homemaking Teachers;
The Home and Family Life Division,
Texas Education Agency;
The Hogg Foundation for Mental Hygiene,
The University of Texas

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By

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INTRODUCTION

Many studies have been made of the clothing interests of girls in high school homemaking classes. In a statewide survey, in 1952, of the homemaking curriculum in the area of clothing, Missouri secondary schools, Alexander (1) reported a high clothing interest for all students enrolled in homemaking. However, the second-year students were more indifferent to activities in all areas of homemaking than were the first- and third-year students. The advanced group showed the greatest interest, but there was more interest in the selection and construction of clothing than in either the care of clothing or in activities that had socio-economic implications.

There are probably many factors which affect these interests. In a study of 110 ninth-grade homemaking girls and their mothers, made by Angelina (2) in Oklahoma, in 1956, it was found that there were significant differences in attitudes toward dress and grooming. These differences were due to social status. Differences also existed between mothers and daughters in the same social class and also between girls in the same social level.

The clothing inventories of 41 teen-age girls in second-year homemaking classes in Rochester, New York, were studied by Mayer (4),

in 1957, to determine who selected and purchased teen-age wardrobes, how many and what kind of clothes they had, and how much money was spent. Half of the girls were responsible for buying their own clothes. Students who had the highest total cost had the largest number of garments and paid the highest prices for them. Mayer (4) concluded that the large number of some garments owned, the high total cost of some wardrobes, and the high yearly expenditures were evidences that students could profit greatly from help in wardrobe planning.

An analysis of clothing interest scores in the Texas Co-operative Youth Study (CYS) (5) showed wide differences in the clothing interests of high school students due to such variables as region, age, grade, and sex. The CYS (5) was made to gather data on the interests, attitudes, problems, and concerns of high school youth in personal and family life. The purposes were to make possible a more functional approach to curriculum planning in homemaking education and to provide a basic source of information for research on personality development; on the interests, attitudes, and concerns of youth; on personal and family relationships; and on many other problems relating to homemaking education.

The data, which were drawn from representative high schools in each area after the state had been divided into five regions, included over 13,000 youth. The analysis was made according to race—white and Negro; and the data also were organized according to community type—small, medium, and metropolitan. Analyses were made to

determine the relationships of certain variables such as father's education and years of homemaking taken by students to the students' attitudes and concerns. However, no investigation was made of factors which might influence interest scores.

Using data collected in the CYS (5), it is the purpose of the present study to show the relationships of certain background variables to the clothing interests of high school girls in metropolitan groups. Specifically, it proposes to answer the question, does the student's age, the number of siblings, the father's education, or the father's occupation influence these interests?

PROCEDURE

Data for the present study were obtained from the CYS (5). Subjects of the study were girls in metropolitan groups, Region IV, Central Texas. To insure as accurate results as possible, all of the 640 girls of the white race in the group were included in the study.

Of the four instruments, prepared specifically for the CYS (5), two were used for the present study; namely, the interest inventory and the personal information sheet. The interest inventory consisted of 98 items related to the different areas of homemaking. The statements, which were designed to include items that were appropriate and meaningful to the students, were very short. The student indicated her interest in each item by marking 1 if strongly interested, 2 if mildly interested, and 3 if not interested.

The personal information sheet was of the survey type. Information asked for concerned the student herself, the family structure, schooling of each parent, occupation of parents, living conditions at home, economic status, religious preference, number of homemaking courses students had taken, and many other background items. There were 43 in all.

The data collected on the interest inventory were grouped according to the major areas of the homemaking curriculum. The clothing area,

clothing the family, with which the present study was concerned, consisted of 10 items, namely: learning to buy clothes for the whole family; how to launder, press, and make simple repairs on clothes; skills which give the ability to construct and make clothes fit; when is it cheaper to buy clothes, and when is it best to make them; how to have a place of my own for clothes and my other belongings; selecting appropriate clothes which will best suit my build and personality; knowing my share of the family clothing money; how to glamorize "hand me downs" and "made-overs"; how to assemble clothing babies need; and how to cut down the cost of clothes and yet keep them good-looking.

Each of these items had been marked by the respondents according to the three interest levels. In order to achieve the purposes of this study, it was necessary to derive an interest score for each girl. This was done by adding the numbers which indicated the interest level of each of the 10 items. Since the highest interest in any single item was indicated by marking it one (1), the lowest composite scores represent the highest interest. Accordingly, the lowest interest in any single item was indicated by marking it three (3); so the highest composite scores represent the lowest interest.

An analysis of variance was made to determine whether the student's age, number of siblings, father's occupation, or father's education influences the interest scores in any way. This technique is used

for separating from comparable groups the variation that is traceable to specified sources. The interest scores remained constant as they were analyzed according to the suspected variable. F values were derived to determine if the variance among the different groups was significant. $F_{.05}$ was considered significant and $F_{.01}$ highly significant.

In the analysis of variance the following formulas were used:

Sum of squares: $$\Sigma X^2 - \frac{(\Sigma X)^2}{N}$$

Variance between classes or groups:

$$\frac{(\Sigma X_1)^2}{N_1} + \frac{(\Sigma X_2)^2}{N_2} + \frac{(\Sigma X_3)^2}{N_3} + \frac{(\Sigma X_4)^2}{N_4} - \frac{(\Sigma X_T)^2}{N_T}$$

After the sum of the squares had been computed for each of the variables as well as for the total sample, mean squares were derived by dividing each sum of squares by its respective degrees of freedom. In each case the degrees of freedom were the numbers in the groups minus one (N - 1). After subtracting the total of the sum of the squares for all of the variables from the sum of squares for the total sample, the remainder variance or experimental error was derived by dividing the remaining sum of squares by the remaining degrees of freedom.

Mean squares were also found by dividing the sum of squares of each variable by its degrees of freedom. The ratio of the mean square to the remainder variance was the F value.

After a variable was found to be significant in its relation to the interest score, further analysis was necessary to determine the nature of its influence. Mean scores were determined for each of the groups within the four variables and differences between these mean scores were compared to discover which were significant. The significance of the difference was determined in terms of its ratio to the standard error. The formula was: $t = D/S_d$. Here D was the mean difference and S_d was the square root of the variance divided by the number in each of the groups being compared:

$$\sqrt{\frac{V_1}{N_1} + \frac{V_2}{N_2}}.$$

Classes within the variables were derived by grouping the 640 subjects according to gradient levels, status, and miscellaneous factors. The age groups were: 13-14 year olds, 83 girls; 15 year olds, 137 girls; 16 year olds, 127 girls; 17 year olds, 167 girls; and 18-19 year olds, 126 girls. Since there were only five 13 year olds, they were grouped with the seventy-eight 14 year olds to make a group comparable to the others. In the oldest group there were ninety-six 18 year olds, twenty-six 19 year olds, and four whose ages were unknown. Since the mean score of the

unknowns was nearer the mean score of the 19 year olds than any of the other mean scores, it seemed best to group them with the 18-19 year old group.

There were five sibling groups: no siblings, 91 girls; one sibling, 124 girls; two siblings, 145 girls; three to four siblings, 143 girls; and five to nine siblings, 137 girls. Though there were only 91 in the no sibling group, they were not combined with any of the others because it was felt that their interests would be quite different from groups with one or more siblings. The 92 subjects with three siblings were combined with the 51 who had four siblings, making a group of 143. Those with five or more siblings were combined to form the last group of 137 individuals. This included 30 girls with five siblings; 27 with six; 21 with seven; 17 with eight; 12 with nine; and 30 with the number of siblings unknown. The mean score of the unknowns was very near the other mean scores in this group, hence their inclusion.

Groups within the variable, father's education, were derived by grouping 27 who had no schooling with 65 who had completed from one to four grades, which made a total of 92 in this first group. The next group was composed of 133 who had completed the fifth to the eighth grades. The 117 high school graduates made the fourth group. The 61 with some college training were combined with six junior college graduates for a total of 67 in the fifth group. Four who were four-year college graduates and 38 whose fathers' education was unknown made the sixth class of 111.

There was a great deal of difference in the size of the different groups within this variable, but it was felt that these groupings would tend to point out differences which are significant.

Five groups were made within the variable, father's occupation; these also varied in size to some extent. The first group, consisting of 135 individuals, was composed of 46 farm tenants and 89 semi-skilled manual workers. The second group, 155, was made up of 137 skilled manual workers and 18 unemployed persons. The third group of 123 included two farm owner-managers and 121 white-collar workers. Included in the fourth group were 98 small business owners or managers, 47 professional people or small-large business owners or managers. The smallest group, 72, was made up of four farm laborers and 68 unknowns. Since the mean scores of these two groups of workers were almost identical, they were considered together.

RESULTS

Table I shows the results of the analysis of variance of girls' interests in clothing. Column heads give the source of variation, degrees of freedom, sum of squares, mean square, and F values. The source of variation refers to the selected factors chosen for this study. Each source of variation is made up of classes which characterize the differences within that source.

In the column, degrees of freedom, one is subtracted from the total number of students for total degrees of freedom; one is also subtracted from the number of classes in each source of variation for its degrees of freedom. The third column shows the sum of the squares. Each sum of squares was divided by its degrees of freedom to obtain the mean square, the fourth column. The remainder variance or experimental error is the quotient obtained when the remaining sum of squares is divided by the remaining degrees of freedom. The ratio of the mean square to the remainder variance gives the F value. The results of this test are in the F column.

All of the factors were found to be significant. Garrett's (3) F values for determining the significance of statistics for samples of 640 girls with specified degrees of freedom for the larger mean square are:

TABLE I

ANALYSIS OF VARIANCE OF GIRLS' INTERESTS IN CLOTHING

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Total	639	8,719.95		
Age	4	165.30	41.32	3.27[a]
Siblings	4	192.47	48.12	3.81[b]
Father's education	5	353.64	88.41	7.00[b]
Father's occupation	4	152.91	38.23	3.03[a]
Remainder	622	7,855.63	12.62	

[a]Significant

[b]Highly significant

4 degrees of freedom, 2.39 is significant and 3.36 is highly significant; 5 degrees, 2.23 and 3.05. The variable with the smallest significant value is father's occupation, F = 3.03. Next is age, F = 3.27. The F value for siblings is 3.81, and is highly significant. However, the most significant is father's education with an F value of 7.00.

Table II shows the mean scores of the different groups within the variables. In the age group, the mean scores range from 13.23 for the 18-19 year olds to 14.66 for the 15 year olds. The mean score 14.47 for

the 13-14 year group is only slightly out of line with the apparently consistent trend from the lower to the higher scores of the older to the younger girls. Since the lower scores mean higher interest, this indicates that interest increases from younger to older and is highest at the 18-19 year level.

The sibling groups range from 13.27 for the 5-9 group to 14.96 for the no sibling group. The mean scores for the 1, 2, and 3-4 groups, 14.20, 14.26, and 14.57, respectively, are not very different, indicating very little difference in interest among these groups. Since the no sibling group has the highest score, the 5-9 group the lowest, and the three middle groups have scores in between, it appears that interest increases as the number of siblings increase.

The mean scores for the father's education vary from 13.51 for the ninth to eleventh grade group to 15.28 for the four-year college graduates. The sameness of the mean scores of the first three groups indicates that interest does not change much for the father's education groups at the different levels. The relatively low scores indicate that interest is highest at these lower education levels. As the father's education increases, interest decreases. The fact that the range in the mean scores of the groups within this variable is considerably greater than the range within the other three variables indicates that the father's education may have the greatest influence on clothing interests.

TABLE II

MEAN SCORES OF CLOTHING INTERESTS FOR SPECIFIED GROUPS

Classification	Number	Mean
Age		
13-14 years	83	14.47
15 years	137	14.66
16 years	127	14.50
17 years	167	14.22
18-19 years	126	13.23
Siblings		
0	91	14.96
1	124	14.20
2	145	14.26
3-4	143	14.57
5-9	137	13.27
Education		
0-4th grade	92	13.80
5th-8th grades	133	13.46
9th-11th grades	120	13.51
Completed high school	117	14.90
Junior college graduate	67	14.55
4-year college graduate	111	15.28
Occupation		
Unskilled and semi-skilled	135	13.88
Skilled manual worker	155	13.57
White-collar worker	123	14.48
Business and professional	155	14.85
Unknown	72	14.36

There is less difference in the mean scores of the groups within the variable, father's occupation, than within the other three variables. The scores range from 13.57 for the skilled manual worker to 14.85 for the business and professional group. The mean score of 13.88 for the unskilled manual worker is only slightly higher than the 13.57 for the skilled manual worker. These two scores are the lowest within this variable, indicating that they have the highest interest of any of these groups. There appears to be a gradual and consistent increase in scores as job responsibility increases with the vocation or professional category. Girls whose fathers are in the business and professional group seem to show the least amount of interest in clothing problems. The business and professional group includes small retail dealers, contractors, bankers, large department store owners or managers, physicians, dentists, teachers, ministers, lawyers, and many others. The unskilled manual workers are garage laborers, porters, janitors, construction laborers, and street cleaners; the farm laborers are all non-owning, non-renting farm workers. Semi-skilled manual workers are truck drivers, machine operators, service station attendants, waiters, and countermen. Skilled workers include carpenters, machinists, plumbers, masons, printers, barbers, and cooks. Clerks, salesmen, agents, semi-professional workers, and technicians make up the white-collar group. The unknowns are treated as a separate group because of their large number; including them with any of the others might distort group characteristics.

Table III shows the mean differences between mean scores of the groups within each of the four variables. The t test was applied to determine significant differences between the mean scores. The 5 per cent level of confidence was used. In general, mean differences between mean scores classified according to age indicate that after age 15 clothing interests tend to increase as age increases. However, the 18-19 year old group has a significantly lower score than all of the other age groups, and is the only group which is significantly different from the other groups. The low score indicates a relatively high interest.

There are no significant differences among the first four sibling groups. They include the groups none, one, two, and three or four siblings. However, there is a significant difference when the mean score of each of these groups is compared with the mean of the largest number of siblings, 5-9. Highly significant differences are found between the no sibling group and 5-9, and between the 3-4 group and 5-9. Mean scores for both of these smaller sibling groups have been shown to be comparatively high; this indicates that they have a relatively low interest. The 1 and 2 sibling groups also have significantly higher scores than the 5-9 sibling group. In each comparison, the 5-9 group has the greater interest.

Mean differences between mean scores of groups classified according to father's education show that clothing interest scores tend to increase with the higher education groups. This means that interest is

TABLE III

MEAN DIFFERENCES BETWEEN MEAN SCORES OF INTEREST

Variable	Mean Difference in Terms of D/S_d			
Age in Years	15	16	17	18-19
13-14	.19	.03	-.25	-1.24[a]
15		-.16	-.44	-1.43[b]
16			-.28	-1.27[b]
17				-.99[a]
Siblings	1	2	3-4	5-9
0	-.76	-.70	-.39	-1.69[b]
1		.06	.37	-.93[a]
2			.31	-.99[a]
3-4				-1.30[b]

Father's education	5-8	9-11	High School	Junior College	College Graduate
0-4th grade	-.34	-.29	1.10[a]	.75	1.48[a]
5th-8th grade		.05	1.44[b]	1.09[a]	1.82[b]
9th-11th grade			1.39[b]	1.04[a]	1.77[b]
Completed high school				-.35	.38
Junior college graduate					.73

Father's occupation	Skilled	White Collar	Profes-sional	Unknown
Unskilled manual	-.31	.60	.97[a]	.48
Skilled manual		.91[a]	1.28[b]	.79
White collar			.37	-.12
Business and professional				-.49

[a]Significant

[b]Highly significant

greater at the lower educational level. With one exception, girls whose fathers completed high school or attended college had significantly higher scores than those from the three lower educational groups. The exception is that those who had some college training or were junior college graduates did not have significantly higher scores than the 0-4 grade groups. However, the difference in this case was relatively small, and the failure to show significance may be due to the fact that the college group is disproportionately small and not entirely comparable. No significant score differences were found among the high school and the higher education groups.

Mean differences between mean groups classified according to the father's occupation show that clothing interest tends to decrease consistently as the father's job responsibility increases. Those whose fathers are in the business and professional groups have the highest score, therefore, the lowest interest. No significant differences exist when the unskilled group is compared with the two groups next in order of responsibility, namely, the skilled manual and white-collar workers; however, when compared with the professional group, there is a difference. Significant differences also exist between the skilled manual group and the white-collar group, and between the skilled manual and the professional groups. The latter is highly significant. In each case, girls from the higher occupational group have less interest in clothing.

SUMMARY AND CONCLUSIONS

The purpose of this study was to show the relationships of certain background variables to the clothing interests of high school girls in metropolitan groups. Data for the study were obtained from the CYS (5). Subjects were the 640 white high school girls in metropolitan groups in Central Texas. Two of the four instruments, prepared specifically for the CYS (5), were used; namely, the interest inventory, which consisted of 98 items related to the different areas of homemaking, and the personal information sheet, which consisted of 43 items which asked for information concerning the student, family structure, schooling and occupation of each parent, economic status, and other background items. From the interest inventory the 10 clothing interest items were used. In order to achieve the purpose of this study, it was necessary to derive an interest score for each girl. This was done by adding the numbers each student had marked to indicate her interest level in each item. The sum of these scale markings constituted the clothing interest score. A high score indicated low interest; a low score indicated high interest. Information taken from the personal information sheet concerned the student's age, number of siblings, father's education, and father's occupation. These were the four variables used in this study. Each source

of variation was made up of classes which characterized the differences within that source.

An analysis of variance was made to determine which of the four variables listed influenced the clothing interest scores of the 640 subjects. The interest scores were used as the constant. F values were derived to determine if the variance among the different groups was significant. $F_{.05}$ was considered significant and $F_{.01}$ highly significant. The results of this test showed that each of the four variables was significant. There was not a great deal of difference shown in the significance of students' age, number of siblings, and fathers' occupation; but the number of siblings was highly significant. Of greatest significance was the father's education. From the analysis of variance it was not possible to determine what specific group or groups within these variables was responsible for this significance. Further analysis was made to determine this. However, the findings here showed that student's age, number of siblings, father's education and father's occupation all influenced the clothing interests of the subjects studied.

Mean differences between mean scores of interest were compared to discover which groups within each variable were significantly different. The significance was determined in terms of the ratio of the mean difference to the standard error. The only significant difference in age groups was found between the 18-19 year olds and the younger groups.

The differences were highly significant when the 15 or 16 year olds were compared with the oldest group. These results show that it is the oldest group that is responsible for the students' age being significant in determining clothing interests of high school girls; they show, too, that the 18-19 year olds are more interested in clothing than are the younger girls.

There was a very marked difference between the clothing interests of girls from large and smaller families. Here differences were found when each of the first four groups was compared with the 5-9 sibling group. The 5-9 sibling group had significantly higher interest than the girls from any of the smaller sibling groups. Although the results do not show significant differences among the smaller sibling groups, it may be that interest increases consistently with family size. The evidence is inconclusive because of the unequal samples within the variables.

Significant differences in the education groups were found when the 0-4th grade group was compared with the high school graduates; the 5th-8th grade with the high school graduates, junior college graduates, and four-year college graduates; and the 9th-11th grades with high school, junior college, and four-year college graduates. In each case daughters of fathers of the higher educational levels had less interest in clothing problems. The only exception to the trend followed here was that no significant difference was found between the 0-4th grade group and the junior college graduates. This might have been due to the small size of the

junior college group. No significant score differences were found between high school and the higher education groups.

Mean differences between mean scores were found to be significant among only three of the occupation groups. When compared with the skilled manual workers, the white-collar group, as well as the professional group, have significantly lower interest. Furthermore, when the unskilled manual workers are compared with the professional group, the latter has decidedly less interest.

Further examination of some of the aspects of this study is warranted. One question raised has to do with the clothing items on the interest inventory. Were the questions adequate for determining the clothing interests of high school girls, and were 10 items a sufficient number for a valid score? Also, some of the groups within the variables were unequal in size and therefore not entirely comparable. These factors, together with the fact that no statistical allowance was made for the interaction of the variables, made some of the results inconclusive.

Assuming that there was a good sampling and that the groups within the four variables were comparable, the following conclusions are drawn. The student's age, number of siblings, father's education, and father's occupation are significant influences in the clothing interests of high school girls of metropolitan groups. Clothing interests may be expected to increase with age, but are especially high in the 18-19 year old group.

Furthermore, the girl who has five or more siblings, or whose father's education is below the twelfth grade, or whose father's work is in the lower occupational levels, has greater interest in the family's clothing problems than the girl of other specified class levels.

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