

TELEVISION, EDUCATIONAL ACHIEVEMENT AND JOB ASPIRATION

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Scholars and researchers in the field of mass communication have been interested in the study of mass media effects on human behavior. One of the important focus on these issues has been the study of the effects of television on children.

As we all know, television is the magic tool in the household that attracts the attention of all members of the family regardless of their age, time and interests. Studies reported that children spend more time in front of a television set than they do in school. This phenomenon, i.e., heavy viewing of television, has to be looked at carefully so that one can do something about it and probably take advantage of it to develop various skills and abilities that human beings need to deal with nature and with people in general. Without doubt this heavy viewing of television programs has a variety of impacts on the viewers. Whether they are negative or positive, these effects shape and affect the behaviour, learning skills and conduct of the children. However, it has been noticed from past research and studies that most of the time it was difficult to gauge the various effects of television on the children. (The interactions and relationships in this issue are complex and depend on a large number of variables that are sometimes very hard to control. Another problem related to this issue is social desirability. Children sometimes give unreliable data. These are only a few of the problems that face the study of television effects on children. But no matter what these limitations and problems are one can assert proudly that some significant results have been reached and the future of the research in this area is very promising.

Being aware of the limitations discussed above, this essay looks at the relationships between I.O. scores, television viewing

patterns and job aspirations. The main purpose of this study, however, is to confirm the importance and the necessity of all variables that surround and may have an impact on the interactions between TV viewing and children's behaviors.

Related studies

TV Viewing and School Achievement

A substantial number of studies have been done on the issue of television viewing and its various effects on school achievement. Some studies have looked at the amount of time spent in front of a TV set, and the students' I.Q., taking into consideration other variables such as TV viewing rules, family atmosphere, and socio-economic status.

The overall conclusions of most of the studies done on television and I.Q. suggest that there is a negative relationship between amount of viewing and measure of scholastic aptitude. Burton and his co-authors (1979) studied the effects of preschool television watching on first - grade children. The researchers studied five first - grade classrooms from two separate schools. The first one was a racially mixed group from a lower socio-economic, city school while the second one was a primarily white, middle socio-economic, suburban school. The size of the sample was 174. The authors concluded that the effects of preschool television viewing on grades and sociability were considerable. They write:

preschool television viewing was inversely related to academic achievement in the first grade ($P < .001$). The amount of preschool television viewing was inversely related to sociability ($P < .001$). (burton and others, 1979: 166.)

Felter (1984) studied the interaction of effects of amount of viewing, measures of social class, study habits and the home environment on sixth grade student achievement in reading, written expression and mathematics.

Data of this study suggest that students who were heavy viewers and who were from professional families showed a low achievement. A relative increase in achievement was found among those students who were moderate viewers and whose parents were semi-professional or skilled workers. Moderate viewers from unskilled parents showed high achievement.

Morgan and Gross (1980) did an analysis of TV viewing, I.Q.

and academic achievement. Their sample consisted of 625 students drawn from sixth through tenth grades. The findings of the study show a negative correlation between hours of daily viewing and I.Q. test scores.

In 1982 the two authors did a review of television and educational achievement and aspiration. By this word "aspiration" Morgan and Gross meant educational aspiration, expectation and perspectives for future careers. This provocative review raises some major questions concerning the limitations of the studies reviewed. They Write:

Television viewing leads to conflicts in behavior, attitudes, and behavioral expectations. We can be fairly sure that at any given time, adolescents who watch more television will score lower in achievement, particularly for reading and that they will express lower ambitions for both schooling and career... The questions of how the underlying processes of interaction with other social, personal, and family-related factors actually work are still wide open (Morgan and Gross, 1982 : 99).

On the topic of the relation between socio-economic status and academic achievement, Karl White did a meta-analysis study analyzing almost 200 studies that considered SES and academic achievement. When using individuals as the unit of analysis, SES and academic achievement are weakly correlated ($r=.22$). However, the correlation increases tremendously ($r=.73$) when aggregated units of analysis are used to determine the relationship between SES and school achievement.

It can be concluded from past research that further work is still to be done concerning the methodology used to determine the relationship between television viewing and school achievement. More attention has to be given to other variables that interact with TV viewing and educational performance such as home atmosphere, social environment, family background, and social desirability among others. Such variables can take away some doubts and inconsistencies from the findings and conclusions of the past studies.

Socio-Economic Status, Sex and Job Aspirations

Few studies have been done on the relationships and interactions between socio-economic status, and job aspirations. Most of the studies done along these lines analyzed socio-economic status

and sex as the independent variables and the occupational choices as the dependent one. William R. Mackay and Curtis A. Miller (1982) did a study on the relations of socio-economic status and sex variables to the complexity of worker functions in the occupational choices of elementary school children. From past research the authors assert that SES is an important variable in the study of occupational-choice behavior. Sex is also found to be an important variable.

Mackay and Miller selected an elementary school from an economically heterogeneous setting; twenty boys and twenty girls were selected from the third and fifth grades. Ten children with parents of low SES and 10 children with parents of middle and high SES were requested to be in the sample for the purpose of the study. Findings suggest that both boys and girls chose sex role-stereotyped occupations. Boys chose occupations such as "policeman, truck drivers, pilot, and architect," whereas girls selected jobs such as "nurse, stewardess, and teachers." Data also show that children from middle and upper socio-economic backgrounds choose white collar and professional jobs as future careers. On the other hand, children from lower socio-economic status are more likely to aspire to less complex professions (Mackay and Miller, 1982 : 34-35).

The findings of Mac Kay and Miller correlate strongly with past research done on socio-economic status, sex variables and job aspirations. Bendix, Lipset and Malma (1954) concluded that the occupational aspirations of the children are strongly related to their parents' SES. This correlation is stronger for males than females.

E. Clark (1967) found that middle-class elementary school children have a tendency to choose professional occupations, whereas lower-class elementary school boys aspire for positions such as policeman, soldier, truck driver and other less complex types of jobs.

Like the studies done on TV viewing and school achievement, the studies conducted to determine the relationships between socio-economic status, sex and occupational choices have neglected some important variables that may play an important role in such a complex interaction. Variables such as I.Q., family atmosphere, television viewing, parent's and brothers' occupations are

worth taking into consideration in the study of children's job aspirations.

Methodology

This essay is based on the data of an extensive study conducted by Kathy Krendl, assistant professor in the department of Telecommunications at Indiana University. Krendl's study examined media use and its impact on children's educational achievement in terms of reading and writing skills. The study consisted of 201 variables and 651 children selected randomly from The Oak Ridge, Tennessee Public School System. Students were randomly selected from third to tenth grades. Each grade level was represented by 80 to 90 pupils. This study will consist of three - waves, using a self - administered questionnaire.

This essay looks at the relationships among three variables, I.Q., hours of television viewing per day, and job aspiration.

Hours of Television Viewing per Day :

The question used for the purpose of this variable was : "About how many hours did you watch television yesterday ? — number of hours." Because the hours varied from one to 18, four categories of viewing were formed :

- Category one : Almost no viewing (0, 1 Hour).
- Category two : Low viewing (2, 3 Hours).
- Category three : Medium viewing (4, 5 Hours).
- Category four : High viewing (6, 18 Hours).

Intelligence Quotient :

Students' I.Q. scores varied from 54 to 150. Thus, it was decided to form three categories, taking into consideration the distribution of the scores :

- Category one : Low I.Q. — 54 to 103.
- Category two : Medium I.Q. — 104 to 117.
- Category three : High I.Q. — 118 to 150.

Job Aspiration :

An open – ended question was used to determine what kind of job the pupil is interested in doing, “Wath kind of job do you want when you finish school ?” The answers varied from “physician,” “adventurer,” “breakdancer,” football player,” to “swimming coach.” Nine categories were developed according to the job classification of the U.S. Census Bureau. These categories vary from the most complex job, 1 (intelligence, data, interaction with other people) to the least complex, 9 (do not require a lot of skills, qualifications and intelligence).

- Category one : Managerial, professional specialty occupations.
- Category two : Behavioral sales and administrative support occupations.
- Category three : Administratives support occupations, including clerical.
- Category four : Service occupations.
- Category five : Farming, forestry, and fishing occupations.
- Category six : Precision production, craft and repair occupations.
- Category seven : Operators, fabricators and Laborers.
- Category eight : Housewife, unemployed.
- Category nine Others (football players, professional athletes, and other occupations that do not fit in the above categories).

To answer the research questions of this study crosstabulation were run on I.Q. by TV viewing hours per day ; crosstabulations were run on I.Q. by job aspiration by TV viewing hours per day, I.Q. by TV viewing hours per day, I.Q. by job aspiration, and job aspiration by TV viewing hours per day. Pearson Correlation Coefficients were on I.Q. job aspiration and number of hours spent on viewing television per day.

Proposition :

- P1 : Television viewing and I.Q. scores correlate negatively.
- P2 : Students with high I.Q. are most likely to aspire for more complex jobs, and students with low I.Q. scores tend to choose less complex jobs.
- P3 : Television viewing does not have any predictive power fort job aspiration. The correlation is very weak between these variables.

Research Questions :

- Q1 : What is the relationship between amount of television viewing and I.Q. scores ?
- Q2 : What is the correlation between I.Q. scores and job aspirations ?
- Q3 : What is the relationship between amount of television viewing and job aspirations ?
- Q4 : What is the relationship between I.Q., television viewing and job aspirations ?

Findings

Data on the relationship between I.Q. and TV viewing suggest that neither variable has a predictive power on the other. Those students with low I.Q. were distributed almost equally on the four categories of TV viewing (almost no viewing, 11.8%, low viewing 32.2% medium 30.3% and high viewing 25.7%). One can conclude that for those students with low I.Q., the I.Q. variable is not a determinant of the amount of time spent before a TV set. Pearson correlation coefficients on the relationship between these two variables (I.Q. and hours of TV viewing per day) shows a strong negative correlation $-.28$, significant at the $.001$ level, ($P < .001$). (Tables 1, 5).

**TABLE N° 1 : AMOUNT OF TELEVISION VIEWING
AND I.Q. SCORES**

CROSSTABULATION OF I.Q. BY VIEWDAY

VIEWDAY

Count Row PCT Col PCT Tot. PCT	Almost No Viewing 1.	Low Viewing 2.	Medium Viewing 3.	High Viewing 4.	Row Total
1	18 11.8 18.2 3.6	49 32.2 27.1 9.8	46 30.3 31.3 9.2	39 25.7 54.9 7.8	152 30.5
2	25 17.0 28.3 5.6	59 39.8 32.6 11.8	56 33.9 38.1 11.2	22 13.3 31.0 4.4	165 33.1
3	53 29.3 53.5 10.6	73 40.3 40.3 14.7	45 24.9 30.6 9.0	10 5.5 14.1 2.0	181 36.3
Column Total	99 19.9	181 36.3	147 29.5	71 14.4	498 100.0

Raw Chi Square = 41.29142 With 6 Degrees of Freetom.
Signification = .00,00

TABLE N° 2 : I.Q. AND JOB ASPIRATIONS

CROSSTABULATION OF JOB BY I.Q.

V188

COUNT ROW PCT COL PCT TOT PCT	MOST COMPLEX	1	2	3	4	6	7	8	9	LEAST COMPL.	ROW TOTAL
LOW 1	61 49.2 23.6 15.6	1 8 8.3 3	7 5.6 53.8 1.8	2.3 18.5 52.3 1.8	1 8 33.3 3	12 9.7 75.0 3.1	1 8 100.0 3	18 14.5 41.9 4.6	124 31.70		
MEDIUM 2	83 63.8 32.0 21.2	5 3.81 41.7 1.3	4 3.1 30.8 1.0	2 1.5 66.7 5	2 1.5 66.7 5	3 2.3 18.8 8	0 0 0 0	20 15.4 46.5 5.1	130 33.2		
HIGH 3	115 83.9 44.4 129.4	6 4.4 50.0 1.0	2 1.5 15.4 5	8 5.8 18.2 2.0	0 0 0 0	1 7 6.3 3	0 0 0 0	5 3.6 11.6 0	137 35.30 1.3		
COLUMN	259 66.2	12 3.13	13 33	44 11.3	3 8	16 4.1	1 3	43 11.0	391 100.00		

Raw square = 57.06355 with 14 degrees of freedom. Significance = .00.00
Cramers's V = . 27013

Concerning the relationship between I.Q. scores of the children and their job aspirations, statistics show that regardless of their school performance, students tend to choose more complex jobs (49.2% of those who have low I.Q. chose professional jobs, 63.8% from medium I.Q. and 83.9% from high I.Q.). (Table 2) A total of 259 students from the three different I.Q. categories selected category number one for job choices (the most complex). The distribution was almost balanced (from low I.Q. 23.6% medium I.Q. 44.4%) (table 2). Furthermore, The Pearson correlation coefficient shows a strong negative correlation between I.Q. and job aspiration $-.28$ significant at the .001 Level ($p < .001$) (Table 5).

Statistics on the relationship between amount of television viewing and job aspirations show no difference between the four categories of TV viewing and occupational choices. Seventy students out of ninety (77.8%) from the "almost no viewing" category chose job category number one (the most complex). The same pattern of relationship appeared in the three other categories (low viewing 65.5%, medium viewing 68.5%, and high viewing 57.1%). Among all students who selected professional jobs (category number one) 22.2% of them come from "almost no viewing" category, 36.2% are low viewers, 27.6% are medium viewers and 14% are high viewers. The percentages here are almost equal between the four viewing categories. (Table 3) this suggests that viewing patterns do not have any predictive power on job aspirations. Pearson correlation coefficient between viewing and job aspirations shows a very weak positive correlation .11 significant at the .008 Level. This suggests that there is almost no relationship between TV viewing and job aspirations. (Table 5).

**TABLES N° 3 : TELEVISION VIEWING
AND JOB ASPIRATION**

CROSSTABULATION OF JOB BY VIEWDAY

Row Pct Col Pct Tot Pct	Almost No Viewing 1	Low Viewing 2	Medium Viewing 3	High Total Viewing 4	Row
Most 1 Complex Professional	70 22.2 77.8 15.1	114 36.2 67.5 24.6	87 27.6 68.5 18.8	44 14.0 57.1 9.5	81 68.0 68.0
2	4 30.8 4.4 .9	4 30.8 2.4 .9	4 30.8 3.1 .6	1 7.7 1.3 .2	13 2.8
3	3 17.5 3.0 .6	4 28.5 2.4 .9	4 17.6 2.4 .9	1 41.2 9.7 .2	17 8.7
4	5 10.0 5.6 1.1	17 34.0 10.1 3.7	14 38.0 15.0 4.1	9 18.0 11.7 1.9	50 10.8
6	0 0 0 0	1 25.0 .6 .2	1 25.0 .8 .2	2 50.0 2.6 .4	.4 .9
7	2 11.8 2.2 .4	6 35.3 3.6 1.3	3 17.6 2.4 .6	6 35.3 7.8 1.3	17 3.7
8	1 50.0 1.1 2	0 0 0 0	0 0 1.3 0	1 50.0 .4 .2	2 .4
Least 9 Complex 5.6 1.1	5 11.1 13.6 5.0	23 51.1 7.9 2.2	10 22.2 2.1 1.5	7 15.6	45 9.7
Column Total	90 19.4	160 36.5	127 27.4	77 16.6	463 100.0

Chi square = 32.87420 freedom significance = 047
Contingency coefficient = 25748.

**TABLES N° 4 : I.Q. SCORES, TELEVISION VIEWING
AND JOB ASIPATIONS**

**CROSSTABULATION OF I.Q. BY V 188
JOB CONTROLLING
FOR ALMOST NO VIEWDAY VALUE VIEWING**

Count Row Pct Col Pct Tot Pct I.Q.	V188 Most Complex 1	2	3	4	7	Least Complex 9	Row Total
Low 1	7 50.0 11.7 9.0	1 7.1 25.0 1.3	2 14.3 66.7 2.6	1 7.1 20.0 1.3	2 14.3 100.0 2.6	1 7.1 25.0 1.3	14 17.9
Medium 2	18 78.3 30.1 23.1	1 4.3 25.0 1.3	1 4.3 33.3 1.3	1 4.3 20.0 1.3	0 0 0 0	2 8.7 50.0 2.6	23 29.5
High 3	35 85.3 58.3 44.9	2 4 50.3 2.6	0 0 0 0	3 7 60.0 3.8	0 0 0 0	1 2.4 25.0 1.3	41 52.6
Column Total	60 76.9	4 5.1	3 3.8	5 6.4	2 2.6	4 5.1	78 100.0

- Raw ch square = 18.02620 with 10 degrees of freedom. signifi-
cance = 0545
- Cramers V = 33993
- Contingency coefficient = 43327

**CROSSTABULATION OF I.Q. BY V188
JOB LOW VIEWING
CONTROLLING FOR VIEWDAY VALUE 2 V 188**

Count Row Pct Col Pct Tot Pct I.Q.	1	2	3	4	7	9	Row Total
1	16 43.2 18.6 11.9	0 0 0 0	2 5.4 50.0 1.5	6 10.2 40.0 4.4	4 10.8 66.7 3.0	9 24.3 42.9 6.7	37 27.4
2	29 64.4 33.7 21.5	1 2.2 33.3 7	1 2.2 25.0 7	5 11.1 33.3 3.7	1 2.2 16.7 7	8 17.8 38.1 5.9	45 33.3
3	41 77.4 47.7 30.4	2 3.8 66.7 1.5	1 1.9 25.0 7	4 7.5 26.7 3.0	1 1.9 16.7 7	4 7.5 19.0 3.0	53 39.3
Column Total	86 63.7	3 2.2	4 3.0	15 11.1	6 4.4	21 15.6	135 100.8

- Raw chi square = 16.70317 with 10 degrees of freedom signifi-
cance = 0812
- Cramer's V = 24872
- Contingency coefficient = 33182

**CROSSTABULATION OF I.Q. BY V 188
JOB LOW VIEWING**

CONTROLLING FOR VIEWDAY VALUE

Count Row Pct Col Pct Tot. Pct I.Q.	1.	2.	3.	4.	6.	7.	9.	Row Total
1	18 50.0 23.4 16.1	0 0 0 0	0 0 0 0	13 36.1 83.1 11.6	0 0 0 0	2 5.6 66.7 1.8	3 8.3 30.0 2.7	36 32.1
2	28 66.7 36.4 25.0	2 4.8 50.0 1.8	1 2.4 100.0 9	2 4.8 12.5 1.8	1 2.4 100.0 9	1 2.4 33.3 9	7 16.7 70.0 6.3	42 37.5
3	31 91.2 40.3 27.7	2 5.9 50.0 1.8	0 0 0 0	1 2.9 6.3 9	0 0 0 0	0 0 0 0	0 0 0 0	34 30.4
Column Total	77 68.8	4 3.6	1 9	16 14.3	1 9	3 2.7	10 8.9	112 100.0

Raw chi square = 35.28.621 with 12 degrees of freedom significance = .00.04 cramer's V = .39690.
Contingency coefficient = .48346

**CROSSTABULATION OF I.Q. BY V 188
JOB CONTROLLING**

FOR VIEWDAY VALUE

Count Row Pct Col Pct Tot. Pct I.Q.	1.	2.	3.	4.	6.	7.	9.	
1	18 52.9 52.9 30.0	0 0 0 0	3 8.8 75.0 5.0	3 8.8 42.9 1.7	1 2.5 50.0 6.7	4 11.8 100.0 1.7	1 2.9 100.0 6.7	4 11.8 57.1
2	8 47.1 23.5 19.3	1 5.9 100.0 1.7	0 0 0 0	4 23.5 57.1 6.7	1 5.9 50.0 1.7	0 0 0 0	0 0 0 0	3 17.6 42.9 5.0
3	8 88.9 23.5 13.3	0 0 0 0	1 11.3 25.0 1.7	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Column Total	34 56.7 100.0	1 1.7	4 6.7	7 11.7	2 3.3	4 6.7	1 1.7	7 11.7

Raw Chi Square = 15.55405 with 14 degrees of freedom. Significance = .3414 Cramer's V = .36002
Contingency coefficient = .45373
Lambda (asymmetric) = .07692 with I.Q. dependent. = with V188 dependent.

**TABLE N° 5 : PEARSON CORRELATION COEFFICIENTS
ON I.Q. TV VIEWING AND JOB ASPIRATION**

TV VIEWING HOURS PER DAY

	V192	V188	V63
VI 92 I.Q.	.0000 (0) P = *****	.2843 (391) P = .001	.2832 (500) P = .001
VI 88 JOB ASPIRATION	-.2843 (391) P = .001	1.0000 (0) P = *****	-.1117 (455) P = .008
V 63	-.2832 (500) P = .001	.1117 (465) P = .008	1.0000 (0) P = *****

(Coefficient/Case/Significance) (99.0000 Means uncomputable).

The three way table run to determine the relationship between I.Q. television viewing and job aspiration confirms the statistics of the two-way tables run in order to measure the relationship between I.Q. and job aspirations and TV viewing and job aspirations. Controlling for television viewing patterns, the three-way table shows no significant relationship between I.Q., TV viewing hours per day and occupational choices. Regardless of students' I.Q. and students' television viewing patterns, the occupational choices of the pupils from the various I.Q. categories and TV viewing classifications concentrated on professional jobs in most of the cases. For the "almost non viewers" category, 50% of the students with low I.Q. selected professional jobs, 78.3% with low I.Q. also chose the most complex job, and 85.3% with high I.Q. opted also for professional jobs. These statistics confirm once again that there is no statistically significant correlation between I.Q., television viewing patterns and job aspirations. For category two of television viewing patterns (low viewing), statistics were almost similar to those found in "almost no viewing," (low I.Q. 42.2%, medium I.Q. 64.4%, and high I.Q., 77.4%, respectively chose professional jobs). The same patterns of relationship were also found in category number three (medium viewing, (low I.Q. 50%, medium I.Q. 66.7% and high I.Q. 91.2% respectively selected the most complex jobs). the fourth category of viewers (high viewing) shows also the same relationship between the three variable of this study, (low I.Q. 52.9%, medium I.Q. 47.1% and high I.Q. 88.9% respectively chose professional occupations), (table 4). It can be noted that there are some differences in job choices between the students from the three different I.Q. categories, but these are mainly due to the distribution of the students among the various categories. In addition these differences are not statistically significant.

Discussion

Findings of this study support proposition number one (television viewing and I.Q. scores correlate negatively) and therefore, they confirm the suggestions of past studies. However, it can be noted here that dealing only with these two variables (TV viewing and I.Q.) is not enough to determine the interaction between

them. In this respect this study failed to look at other variables such as family atmosphere, TV viewing rules... etc. to assess in more systematic ways the interactions and the relationship between television viewing and I.Q. scores.

Statistics of this study refute proposition number two (Students with high I.Q. are most likely to aspire to more complex jobs). However, students with low I.Q. scores tend to choose less complex jobs. The data suggest that regardless of their school achievement, children tend to select professional jobs but at different proportions. Here also one notices another limitation in this study. The socio-economic status and the occupation of the children's parents can be a strong determinant of the occupational choices of the kids. In addition, the weak correlation between I.Q. scores and job aspiration can be interpreted by the fact that kids of third through seventh grades do not have a good understanding of various jobs, their complexity and even their meaning.

Proposition number three (television viewing does not have any predictive power on job aspiration. The correlation is very weak between these two variables). This study shows another limitation in studying these two variables. As mentioned earlier parents' socio-economic status, sex, family atmosphere and television viewing rules are important variables that help determine the relationship between television viewing and job aspiration. It can be argued that television viewing is actually and logically a weak variable to influence anyhow the occupational choices of the children in their young age.

In general it can be concluded that television viewing, I.Q. scores, and job aspiration are three variables that should be studied with other related variables in order to assess and determine in a more systematic and effective way the possible interactions and relationships among them.

This study was fruitful. It supported a common finding concerning the relationships between TV viewing, and I.Q. scores and it raises many questions and suggestions concerning the relationships between television viewing, I.Q. scores and job aspiration. With the consideration of such suggestions future research will yield more significant and meaningful findings.

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