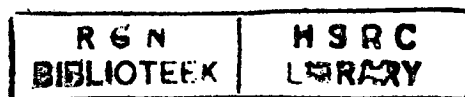


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The effect of television on the interest patterns
of Standard Nine pupils



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The effect of television on the interest patterns of Standard Nine pupils

J.J. de Beer

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BIBLIOGRAPHY

- 1 ALBERTS, N.F. *Kernelemente in voorligting: Inleiding tot teorie en praktyk*. Pretoria, Van Schaik Ltd., 1974.
- 2 DE BEER, J.J. *Die invloed van televisie op die belangstellingspatrone van standaard tien-leerlinge*. Pretoria, Human Sciences Research Council, 1980.
- 3 FOUCHÉ, F.A. and ALBERTS, N.F. *Handleiding vir die 19-Veld-Belangstellingsvraelys*. Pretoria, Human Sciences Research Council, 1971.
- 4 FURU, TAKEO. *Television and children's life: A before-after study*. Tokyo, Japan Broadcasting Corporation, Radio and Television Culture Research Institute, 1962.
- 5 HIMMELWEIT, H.T., OPPENHEIM, A.N. and VINCE, P. *Television and children*. London, New University Education, 1958.
- 6 SCHRAMM, W., LYLE, J. and PARKER, E.B. *Television in the lives of our children*. California, Stanford University Press, 1961.
- 7 STRIJDOM, H.G. *Sosiale status en die verband daarvan met vryetydsaktiwiteite, houdings en aspirasies van Afrikaanssprekende standaard ses-seuns*. Pretoria, Human Sciences Research Council, 1971.
- 8 VAN VUUREN, D.P. *'n Psigodiagnostiese studie van 'n groep leerlinge met beroepskeuseprobleme*. Pretoria, M.A. dissertation, University of South Africa, 1973.

The matching procedure resulted in the comparable groups having a particular composition, and findings with regard to these groups thus cannot be generally applied to the population at large.

The conclusion that can be drawn from this investigation (and from various others, e.g. Himmelweit, Oppenheim and Vince 1958; Schramm, Lyle and Parker 1961; Furu 1962 and De Beer 1980) is that television probably has the potential to affect children's interests. It was found in this investigation that the test group's interest had been stimulated in social work and law while it had declined in the performing arts and historical matters. The contents of certain television programmes probably contributed to a change in children's interests (cf. De Beer, 1980). It is recommended that further research be conducted on the qualitative and quantitative contents of the television programmes transmitted in the RSA to shed more light on the effect of television on children's interests.

ACKNOWLEDGEMENT

The information contained in this research finding was obtained from Project COMM 11 that was conducted to determine the effect of television on schoolchildren. Data were collected in schools in all four provinces of the RSA.

Thanks are due to the following persons and bodies for their contribution to the planning and implementation of the project.

The Committee of Heads of Education who gave permission for the project to be undertaken;

the principals of schools and their staff who served as testers;

the school psychologists of the Psychological and Guidance Service of the different education departments who were responsible for the training of the testers;

the pupils who served as respondents; and

members of the ad hoc committee who helped with the planning of the project, namely:

Dr J.D. Venter (Chairman)	Human Sciences Research Council
Prof. T.L. de Koning	University of Venda
Dr I.Z. Engelbrecht	Department of National Education
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Mr F. Swanepoel	OFS Education Department
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Dr D.P. Conradie	Institute for Communication Research
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Mr A.R. van den Berg	Institute for Psychological and Edumetric Research

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with greater caution than in Fields 3 and 14 where statistically significant differences were found with regard to both matched groups.

5

SUMMARY AND CONCLUSION

The aim of the investigation was to study the effect of television on the interest patterns of Standard Nine pupils. The sample was divided into two pre-television groups (the pupils tested respectively in 1974 and 1975) and a television viewer group (1977). The latter was divided into a heavy viewer group (respondents who watched television for an hour or longer a day during school terms) and a light viewer group (pupils who watched television for less than an hour a day during school terms). Other conditions for inclusion were that television viewers should have had a television set at home for at least three months and that they were not to have watched television elsewhere.

To ensure comparability between the groups of pre-television viewers, heavy viewers and light viewers, a process of matching was applied with regard to six extraneous variables that were identified through a stepwise regression analysis. The six extraneous variables that explained most of the variation in the test group's interests are sex, home language, the pupil's occupational choice, course followed at school and whether the pupil took a third language and Geography.

pretelevision group (Tables 3 and 4 as well as 6 and 7).

4.3.2 *Historical* (Field 7)

For the 1974/1977 matched groups a statistically significant difference was found between the means of the experimental and the control difference scores in the field of historical interests ($p < 0,05$; Table 5). This field is concerned with pupils' interest in visits to battlefields and museums, old forts and churches, the reading of historical literature and the collecting of antiques. As in the case of the previous field, the mean scores of the heavy viewers for this field were statistically significantly lower than those of the pretelevision group while the mean scores of the light viewers did not differ significantly from those of the pretelevision group (as can be seen from an inspection of Tables 3 and 4 as well as 6 and 7).

Television probably caused a decrease in the interest of the Standard Nine pupils in the matched groups in the performing arts and historical matters, which Alberts (1974) grouped together under the heading *Aesthetic interests*.

In Fields 5 and 7 where a statistically significant difference between the means of the experimental and the control difference scores occurred only with regard to one matched group, the interpretation that television can be responsible for this difference should be made

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4.2.2 *Law* (Field 14)

The calculations of the t tests in both the 1974/1977 and the 1975/1977 matched groups (Tables 5 and 8) showed statistically significant differences between the mean of the experimental difference scores and the control difference scores (1974/1977: $p < 0,01$ and 1975/1977: $p < 0,05$). This indicates that television probably stimulated these pupils' interest in law. In both matched groups the 19 FII scores of the heavy viewers were higher than those of the light viewers (according to inspection of Tables 3 and 4 as well as 6 and 7). De Beer (1980) found a similar stimulating effect of television on the interests of Standard Ten pupils in law.

4.3 FIELDS IN WHICH THE INTEREST CHANGED (DECREASED)

4.3.1 *Performing Arts* (Field 5)

This field is concerned with interest in music, singing, ballet, opera and operetta. A statistically significant difference was found here in the 1975/1977 matched groups ($p < 0,05$), which indicates that television probably caused a decrease in the experimental groups' interest in the performing arts. Statistically the heavy viewers' mean scores for this field was significantly lower than that of the pretelevision group while the light viewers' mean scores showed no statistically significant difference from those of the

TABLE 8

DIFFERENCES BETWEEN THE MEAN OF THE EXPERIMENTAL DIFFERENCE SCORES (D_2) AND THE
CONTROL DIFFERENCE SCORES (E_2) OF THE 1975/1977 MATCHED GROUPS

Field	Group	N	\bar{X}	s	r	t
1	D_2	104	-3,808	17,016	0,55045	-0,3631
	E_2	104	-3,308	17,352		
2	D_2	104	2,038	12,220	0,47744	1,4671
	E_2	104	0,010	15,197		
3	D_2	104	0,519	13,701	0,52851	2,0201*
	E_2	104	-2,269	15,245		
4	D_2	104	-1,519	14,076	0,50364	-0,2955
	E_2	104	-1,077	16,452		
5	D_2	104	-4,500	16,019	0,43755	-2,0104*
	E_2	104	-1,106	16,234		
6	D_2	104	-4,885	16,300	0,50390	-0,2265
	E_2	104	-4,548	14,082		
7	D_2	104	-3,500	13,955	0,56520	-1,8902
	E_2	104	-1,038	14,527		
8	D_2	104	0,788	13,996	0,47254	0,0062
	E_2	104	0,769	14,901		
9	D_2	104	-1,106	13,771	0,52265	0,4096
	E_2	104	-1,625	12,655		
10	D_2	104	0,721	13,440	0,38886	0,9526
	E_2	104	-0,712	14,298		
11	D_2	104	-0,644	12,762	0,47039	0,9126
	E_2	104	-1,808	12,514		
12	D_2	104	-2,337	13,600	0,33747	0,8290
	E_2	104	-3,538	12,022		
13	D_2	104	1,288	13,043	0,54709	-1,3116
	E_2	104	2,971	14,421		
14	D_2	104	-0,538	17,781	0,50340	2,3137*
	E_2	104	-4,529	17,521		
15	D_2	104	-3,923	12,964	0,38619	0,3390
	E_2	104	-4,442	15,132		
16	D_2	104	-0,635	12,862	0,53747	0,2913
	E_2	104	-1,010	14,397		
17	D_2	104	-0,125	12,011	0,43533	-1,1092
	E_2	104	1,298	12,604		
18	D_2	104	-0,106	14,225	0,46509	-1,1050
	E_2	104	1,538	15,099		
19	D_2	104	-0,510	15,159	0,60244	1,4756
	E_2	104	-2,538	16,258		
20	D_2	104	0,317	3,640	0,57799	0,3377
	E_2	104	0,202	3,915		
21	D_2	104	0,952	4,755	0,38057	0,2527
	E_2	104	0,827	4,298		

* $p < 0,05$
df = 103

TABLES

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TABLE 7

DIFFERENCES BETWEEN THE MEAN 19 FII SCORES OF THE PRETELEVISION GROUP (C₂) AND THE
LIGHT VIEWERS (B₂) OF THE 1975/1977 MATCHED GROUPS

Field	Group	N	\bar{X}	s	r	t
1	B ₂	104	22,240	11,567	-0,03874	-1,9440
	C ₂	104	25,548	12,495		
2	B ₂	104	16,134	11,541	0,06339	0,0060
	C ₂	104	16,125	10,647		
3	B ₂	104	24,423	-12,223	0,26926	-1,5184
	C ₂	104	26,692	12,978		
4	B ₂	104	21,779	13,772	0,23839	-0,6678
	C ₂	104	22,856	12,863		
5	B ₂	104	16,798	12,262	0,22415	-0,6954
	C ₂	104	17,904	13,737		
6	B ₂	104	16,192	12,407	0,37202	-3,2940**
	C ₂	104	20,740	12,719		
7	B ₂	104	18,221	9,234	-0,05451	-0,7292
	C ₂	104	19,260	10,723		
8	B ₂	104	12,327	9,847	-0,06358	0,5262
	C ₂	104	11,558	10,576		
9	B ₂	104	14,981	11,008	0,35996	-1,3097
	C ₂	104	16,606	11,357		
10	B ₂	104	29,394	10,800	0,11319	-0,5079
	C ₂	104	30,106	10,671		
11	B ₂	104	23,904	10,408	0,25990	-1,4759
	C ₂	104	25,712	10,161		
12	B ₂	104	29,731	9,684	0,24446	-3,0013**
	C ₂	104	33,269	9,874		
13	B ₂	104	25,337	12,208	0,36354	2,1038*
	C ₂	104	22,365	13,306		
14	B ₂	104	13,577	11,584	0,02919	-2,7531**
	C ₂	104	18,106	13,487		
15	B ₂	104	25,404	11,183	0,03606	-2,9936**
	C ₂	104	29,846	10,606		
16	B ₂	104	14,673	9,654	-0,04275	-0,7154
	C ₂	104	15,683	10,276		
17	B ₂	104	21,356	10,108	0,18440	1,0504
	C ₂	104	20,058	9,620		
18	B ₂	104	22,337	13,210	0,28938	1,0403
	C ₂	104	20,798	12,075		
19	B ₂	104	18,798	10,744	0,00428	-1,5926
	C ₂	104	21,337	12,249		
20	B ₂	104	14,567	2,701	-0,11228	0,5261
	C ₂	104	14,365	2,547		
21	B ₂	104	10,894	3,156	-0,01528	1,9618
	C ₂	104	10,067	2,871		

*p < 0,05

**p < 0,01

df = 103

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TABLE 6

DIFFERENCES BETWEEN THE MEAN 19 FII SCORES OF THE PRETELEVISION GROUP (C₂) AND THE
HEAVY VIEWERS (A₂) OF THE 1975/1977 MATCHED GROUPS

Field	Group	N	\bar{X}	s	r	t
1	A ₂	104	21,740	12,061	0,03993	-2,2822*
	C ₂	104	25,548	12,495		
2	A ₂	104	18,163	11,116	0,36998	1,7011
	C ₂	104	16,125	10,647		
3	A ₂	104	27,212	12,108	0,40509	0,3874
	C ₂	104	26,692	12,978		
4	A ₂	104	21,337	12,305	0,37505	-1,1008
	C ₂	104	22,856	12,863		
5	A ₂	104	13,404	11,559	0,20690	-2,8703**
	C ₂	104	17,904	13,737		
6	A ₂	104	15,856	11,008	0,06165	-3,0567**
	C ₂	104	20,740	12,719		
7	A ₂	104	15,760	9,300	0,03383	-2,5583*
	C ₂	104	19,260	10,723		
8	A ₂	104	12,346	10,850	0,14671	0,5742
	C ₂	104	11,558	10,576		
9	A ₂	104	15,500	10,665	0,21910	-0,8193
	C ₂	104	16,606	11,357		
10	A ₂	104	30,827	10,066	0,16088	0,5637
	C ₂	104	30,106	10,671		
11	A ₂	104	25,067	9,293	0,14158	-0,5156
	C ₂	104	25,712	10,161		
12	A ₂	104	30,933	10,361	0,09717	-1,7518
	C ₂	104	33,269	9,874		
13	A ₂	104	23,654	12,539	0,49196	1,0087
	C ₂	104	22,365	13,306		
14	A ₂	104	17,567	13,122	0,10712	-0,3091
	C ₂	104	18,106	13,487		
15	A ₂	104	25,923	10,079	0,21514	-3,0864**
	C ₂	104	29,846	10,606		
16	A ₂	104	15,048	10,007	0,19596	-0,5035
	C ₂	104	15,683	10,276		
17	A ₂	104	19,933	9,098	0,17741	-0,1062
	C ₂	104	20,058	9,620		
18	A ₂	104	20,692	12,468	0,32848	-0,0760
	C ₂	104	20,798	12,075		
19	A ₂	104	20,827	11,915	0,21308	-0,3431
	C ₂	104	21,337	12,249		
20	A ₂	104	14,683	2,756	0,05955	0,8911
	C ₂	104	14,365	2,547		
21	A ₂	104	11,019	3,814	0,00786	2,0417*
	C ₂	104	10,067	2,871		

*p < 0,05

**p < 0,01

df = 103

1 INTRODUCTION

The data contained in this research finding form part of a comprehensive project that is being undertaken by the South African Institute for Communication Research of the HSRC to study the effect of television on schoolchildren. The investigation resulted from the recommendations of the Commission of Inquiry into Matters relating to Television and of the Technical Advisory Committee of the SABC, namely that research be conducted on the sociocultural structure of South African society and the effect television may have on it.

The investigation is being conducted among pupils in Standard Three to Standard Ten in provincial schools in the Transvaal, Natal, the Cape and the Orange Free State.

Data for the project are collected through questionnaires and standardized tests and the personalities, attitudes (personal, home, social and formal), value orientations, social behaviour, study habits and attitudes, time utilization and interests of pupils are studied. Because of the extent of the data that have already been collected on each of these factors, in this investigation attention will be devoted only to the interest patterns of Standard Nine pupils*.

*Standard Nine is the second last year of high school.

TABLE 5
DIFFERENCES BETWEEN THE MEAN OF THE EXPERIMENTAL DIFFERENCE SCORES (D_1) AND THE
CONTROL DIFFERENCE SCORES (E_1) FOR THE 1974/1977 MATCHED GROUPS

Field	Group	N	\bar{X}	s	r	t
1	D_1	104	-2,683	14,629	0,42779	-0,2627
	E_1	104	-1,962	15,898		
2	D_1	104	1,865	13,829	0,50990	1,6322
	E_1	104	-0,375	14,437		
3	D_1	104	-0,490	13,126	0,51319	2,0182*
	E_1	104	-3,269	15,257		
4	D_1	104	-1,481	15,789	0,53568	-0,3573
	E_1	104	-0,942	16,142		
5	D_1	104	-1,856	15,855	0,44449	-1,9494
	E_1	104	1,423	16,682		
6	D_1	104	-2,231	16,002	0,55942	-0,2314
	E_1	104	-1,885	16,486		
7	D_1	104	-4,106	15,042	0,58823	-2,0085*
	E_1	104	-1,471	14,438		
8	D_1	104	1,298	14,249	0,49615	0,0330
	E_1	104	1,250	15,304		
9	D_1	104	-0,990	14,571	0,56618	0,3643
	E_1	104	-1,452	13,163		
10	D_1	104	-0,904	11,984	0,32488	0,9614
	E_1	104	-2,346	14,245		
11	D_1	104	-1,837	12,623	0,50659	0,8814
	E_1	104	-2,962	13,565		
12	D_1	104	-3,298	12,735	0,26360	0,7953
	E_1	104	-4,452	11,627		
13	D_1	104	-0,135	11,679	0,47602	-1,2481
	E_1	104	1,452	13,583		
14	D_1	104	1,442	17,896	0,51394	2,6578**
	E_1	104	-3,010	16,736		
15	D_1	104	-3,481	14,041	0,44598	0,5374
	E_1	104	-4,298	15,388		
16	D_1	104	0,423	13,170	0,56958	0,2172
	E_1	104	0,144	15,007		
17	D_1	104	0,788	11,590	0,39090	-0,8770
	E_1	104	1,923	12,314		
18	D_1	104	-0,163	14,197	0,46717	-1,1888
	E_1	104	1,625	15,490		
19	D_1	104	0,029	13,459	0,48780	1,4458
	E_1	104	-1,962	14,280		
20	D_1	104	0,423	3,535	0,54012	0,1419
	E_1	104	0,375	3,658		
21	D_1	104	0,740	4,933	0,45255	0,0774
	E_1	104	0,702	4,632		

* $p < 0,05$

** $p < 0,01$

df = 103

In overseas research little attention has been devoted to the effect of television on children's interests. Indications have however been found that television has the potential to affect children's interests. Schramm, Lyle and Parker (1961) found in the USA that television can probably stimulate children's interests but that it does not really encourage them towards new activities or creativity. Similar findings were obtained in Japan (Furu, 1962) and in England (Himmelweit, Oppenheim and Vince, 1958).

De Beer (1980) also found in the RSA that television probably has the potential to affect children's interests. In a study of Standard Ten pupils he found that television probably stimulated these pupils' interests in law and homecrafts while it weakened their interests in social work. These groups however consisted mainly of Afrikaans-speaking girls, with the result that the findings are not applicable to the general population of Standard Ten pupils.

2 AIM

The aim of the investigation is to determine whether television has an effect on the interest patterns of Standard Nine pupils.

TABLE 4

DIFFERENCES BETWEEN THE MEAN 19 FII SCORES OF THE PRETELEVISION GROUP (C₁) AND THE LIGHT VIEWERS (B₁) OF THE 1974/1977 MATCHED GROUP

Field	Group	N	\bar{X}	s	r	t
1	B ₁	104	22,404	11,669	0,11779	-1,2580
	C ₁	104	24,365	12,259		
2	B ₁	104	16,096	11,511	0,24239	-0,2649
	C ₁	104	16,471	11,940		
3	B ₁	104	24,529	12,302	0,23426	-2,1852*
	C ₁	104	27,798	12,354		
4	B ₁	104	21,962	13,740	0,32273	-0,5952
	C ₁	104	22,904	13,996		
5	B ₁	104	16,798	12,262	0,16906	0,8704
	C ₁	104	15,375	13,572		
6	B ₁	104	16,279	12,346	0,11007	-1,1654
	C ₁	104	18,163	12,369		
7	B ₁	104	18,308	9,236	-0,06035	-1,1035
	C ₁	104	19,779	10,554		
8	B ₁	104	12,375	9,813	-0,17367	0,9927
	C ₁	104	11,125	10,162		
9	B ₁	104	15,115	10,946	0,29371	-1,1250
	C ₁	104	16,567	11,201		
10	B ₁	104	29,365	10,765	0,02178	-1,6804
	C ₁	104	31,712	9,566		
11	B ₁	104	24,029	10,426	0,11510	-2,2263*
	C ₁	104	26,990	9,960		
12	B ₁	104	29,702	9,663	0,17175	-3,9093***
	C ₁	104	34,154	8,335		
13	B ₁	104	25,385	12,272	0,45207	1,0925
	C ₁	104	23,933	13,590		
14	B ₁	104	13,317	11,331	0,05491	-1,8347
	C ₁	104	16,327	12,954		
15	B ₁	104	25,183	11,199	-0,02351	-2,8482**
	C ₁	104	29,481	10,294		
16	B ₁	104	14,731	9,661	-0,07757	0,0978
	C ₁	104	14,587	10,759		
17	B ₁	104	21,279	10,111	0,26508	1,5925
	C ₁	104	19,356	10,204		
18	B ₁	104	22,596	13,329	0,26357	1,0720
	C ₁	104	20,971	12,151		
19	B ₁	104	19,058	10,684	0,22640	-1,4023
	C ₁	104	21,019	12,197		
20	B ₁	104	14,567	2,701	0,10828	1,0454
	C ₁	104	14,192	2,777		
21	B ₁	104	10,894	3,156	-0,02497	1,5457
	C ₁	104	10,192	3,312		

*p < 0,05

**p < 0,01

***p < 0,001

df = 103

3 METHOD

3.1 MEASURING INSTRUMENTS

For the purpose of this investigation use was made of data collected with the 19 Field Interest Inventory, the Biographical Questionnaire and the Television Questionnaire.

3.1.1 *The 19 Field Interest Inventory (19 FII)*

The 19 FII is a standardized questionnaire of the HSRC used for measuring the interests of high school pupils (Standards 8; 9 and 10), students and adults (Fouché and Alberts, 1971). The questionnaire measures 19 broad fields of interest as well as the degree to which the respondent is actively or passively interested in the fields and whether his interests are job or hobby oriented.

The questionnaire measures interest orientation with regard to the following:

Field	Measures interest in
1 Fine arts	painting, sculpting, sketching, advertisement design and commercial art
2 Clerical	stock control, typing, filing and general administrative office work

TABLE 3

DIFFERENCES BETWEEN THE MEAN 19 FII SCORES OF THE PRETELEVISION GROUP (C₁) AND THE HEAVY VIEWERS (A₁) OF THE 1974/1977 MATCHED GROUPS

Field	Measures interest in
3 Social Work	the rendering of service to people in need of assistance such as the blind, the deaf, unmarried mothers, the aged and underprivileged children
4 Nature	activities pursued out of doors such as agriculture, animal husbandry and forestry
5 Performing Arts	music, singing, ballet, opera and operetta
6 Science *(natural science)	the physical and biological sciences, e.g. chemical analysis, astronomy, bacteriology, nuclear physics and medicine
7 Historical	visits to battlefields, museums, forts and churches, reading historical literature, collecting antiques
8 Public Speaking	making speeches, debates and political discussions

* Natural science is probably a more suitable name for this field.

Field	Group	N	\bar{X}	s	r	t
1	A ₁	104	21,683	12,050	0,27583	-1,8698
	C ₁	104	24,365	12,259		
2	A ₁	104	18,337	11,001	0,27537	1,3769
	C ₁	104	16,471	11,940		
3	A ₁	104	27,308	12,114	0,42460	-0,3807
	C ₁	104	27,798	12,354		
4	A ₁	104	21,423	12,242	0,28152	-0,9583
	C ₁	104	22,904	13,996		
5	A ₁	104	13,519	11,615	0,21486	-1,1958
	C ₁	104	15,375	13,572		
6	A ₁	104	15,933	10,938	0,06122	-1,4215
	C ₁	104	18,163	12,369		
7	A ₁	104	15,673	9,368	-0,13713	-2,7826**
	C ₁	104	19,779	10,554		
8	A ₁	104	12,423	10,804	0,07724	0,9291
	C ₁	104	11,125	10,162		
9	A ₁	104	15,577	10,581	0,10600	-0,9533
	C ₁	104	16,567	11,201		
10	A ₁	104	30,808	10,041	0,25353	-0,7694
	C ₁	104	31,712	9,566		
11	A ₁	104	25,154	9,230	0,13625	-1,4836
	C ₁	104	26,990	9,960		
12	A ₁	104	30,856	10,322	0,08049	-2,6437*
	C ₁	104	34,154	8,335		
13	A ₁	104	23,798	12,583	0,60412	-0,1181
	C ₁	104	23,933	13,590		
14	A ₁	104	17,769	13,010	0,04988	0,8217
	C ₁	104	16,327	12,954		
15	A ₁	104	26,000	10,017	0,04444	-2,5283*
	C ₁	104	29,481	10,294		
16	A ₁	104	15,010	10,000	0,19658	0,3276
	C ₁	104	14,587	10,759		
17	A ₁	104	20,144	9,214	0,29086	0,6941
	C ₁	104	19,356	10,204		
18	A ₁	104	20,808	12,349	0,32848	-0,1171
	C ₁	104	20,971	12,151		
19	A ₁	104	21,048	11,775	0,36996	0,0220
	C ₁	104	21,019	12,197		
20	A ₁	104	14,615	2,760	0,18457	1,2201
	C ₁	104	14,192	2,777		
21	A ₁	104	10,933	3,778	0,03673	1,5325
	C ₁	104	10,192	3,312		

*p < 0,05
**p < 0,01
df = 103

for this field, which indicates that television probably stimulated these pupils' interest in social work (Tables 5 and 8). The mean 19 FII scores of the heavy viewers, for example, were consistently higher than those of the light viewers (according to inspection of Tables 3 and 4 as well as 6 and 7). An interesting point is that De Beer (1980) found that Standard Ten pupils' interest declined probably as a result of television. Possible explanations for these apparently contradictory findings may be that the compositions of the matched groups in the Standard Nine and Standard Ten investigations did not correspond closely enough, or that the interests of Standard Nine and Standard Ten pupils are not directly comparable. If one looks at the occupational choice development theory of Ginzberg *et al.* (1951, as referred to by Van Vuuren, 1973) it appears that pupils between 15 and 16 years of age (value stage) are particularly oriented towards the idea of rendering service to the community. In the transitional stage however (17 to 18 years) adolescents are more oriented towards an immediate concrete decision on the choice of an occupation and towards reality. This orientation of the pupils could be the reason why Standard Nine pupils, more so than the Standard Ten pupils, were more interested in television programmes dealing with social work.

Field	Measures interest in
9 Numerical	use of numbers, mathematical calculations, statistical operations, cost accounting, auditing and control
10 Sociability	entertaining guests, social gatherings, parties
11 Creative thought	solving problems, logical and original arguments, creative work, theorizing
12 Travel	the work of a travel agent, visiting tourist resorts, tours
13 Practical-Female	housekeeping, dressmaking, knitting, general domestic tasks
14 Law	the study and application of laws and judicial principles
15 Sport	athletics, surfing, trampoline jumping, swimming, cricket or softball, squash, diving, base=ball, soccer or netball, rugby or basketball, cycling
16 Language	literature, story writing, arti=cles, column and essay writing, poetry, philology

Field	Measures interest in
17 Service	service to persons who are not needy, such as rendered by waiters, hairdressers, traffic officers, air hostesses, flight stewards, shop assistants and bus and train conductors
18 Practical-Male	the handling of tools, practical repairs and woodwork
19 Business	commercial matters such as dealing in shares, buying and selling articles, businesses, property transactions

(Adapted from the Manual for the 19 Field Interest Inventory, Fouché and Alberts, 1971.)

3.1.2 Biographical Questionnaire

The Biographical Questionnaire was designed by the South African Institute for Communication Research of the HSRC to obtain relevant biographical information on the respondents. The following questions were used.

- 1 What do you wish to become one day?
(If you have not decided, write: I do not know.)

Respondents' answers to the question were categorized as follows:

4 FINDINGS

4.1 INTRODUCTION

According to the design of this investigation the determination of the effect of television on pupils' interests is mainly based on the comparison of two mean difference scores, namely the experimental difference scores and the control difference scores.

The aim of the comparison of the mean group scores of the three groups of respondents (the heavy viewer group, the light viewer group and the pretelevision group) is to qualify the conclusions regarding the effect of television on the pupils' interests according to increases or decreases. For this reason reference to the results of the comparisons between the scores of the three groups is only made in cases where statistically significant differences occurred in the comparison of the experimental and the control difference scores.

4.2 FIELDS IN WHICH THE INTEREST CHANGED (INCREASED)

4.2.1 Social Work (Field 3)

In the 1974/1977 as well as the 1975/1977 matched groups the mean of the experimental difference scores showed a statistically significant difference from the mean of the control difference scores ($p < 0,05$)

Explanation of Symbols

- k = Number of respondents in each group
- i = A number that can assume any value from 1 to k
- A_i = 19 FII score of one of the members of the heavy viewers
- B_i = 19 FII score of one of the members of the light viewers
- C_i = 19 FII score of one of the members of the pretelevision group
- Difference score $D_i = A_i - C_i$ (where i every time has the same value for D_i , A_i and C_i between 1 and k)
- Difference score $E_i = B_i - C_i$ (where i every time has the same value for E_i , B_i and C_i between 1 and k)
- X_1 to X_k = Respondents for the pre-television group
- Y_1 to Y_k = Respondents for the heavy viewer group
- Z_1 to Z_k = Respondents of the light viewer group
- \bar{D} = The mean of the experimental difference scores

$$(\bar{D} = \sum_{i=1}^k \frac{D_i}{k})$$
- \bar{E} = The mean of the control difference scores

$$(\bar{E} = \sum_{i=1}^k \frac{E_i}{k})$$

$$t = \frac{\bar{D} - \bar{E}}{\sqrt{\frac{(S_1^2 + S_2^2)}{k}} \sqrt{1 - r_{D_i E_i}}}$$

(Du Toit, 1975)

where s_1 = The standard deviation of the experimental difference scores

s_2 = The standard deviation of the control difference scores

and $r_{D_i E_i}$ = the correlation coefficient between the experimental difference scores and the control difference scores

- a) Professional, technical and related worker
- b) Administrative, executive and managerial worker
- c) Clerical worker
- d) Sales worker
- e) Workers in agriculture, forestry, fishery and hunting
- f) Mining and quarry worker
- g) Transport and communication worker
- h) Artisan, production worker and labourer
- i) Service, sport and recreation worker.

(These categories were obtained from the Department of Statistics.) For the purpose of this investigation Categories a to d were grouped together as a *high occupational choice* and Categories e to i as a *low occupational choice*.* Pupils who had not decided on an occupation were classified as *uncertain occupational choice*.

*This category grouping is based on the classification devised by Strijdom (1971, p. 29), namely that Categories a and b can be described as high socioeconomic status occupations, Categories c and d as average status and the rest as low-status occupations.

- 2 Mark the standard you are in.
- 3 I am a boy/girl.
- 4 What language do you mostly speak at home?
- 5 Are you taking a course that will grant you admission to take a degree course at a university?
- 6 Indicate which subjects you are taking:

Mathematics

A third language, e.g. Latin, German, French, etc.

History

Geography

Biology

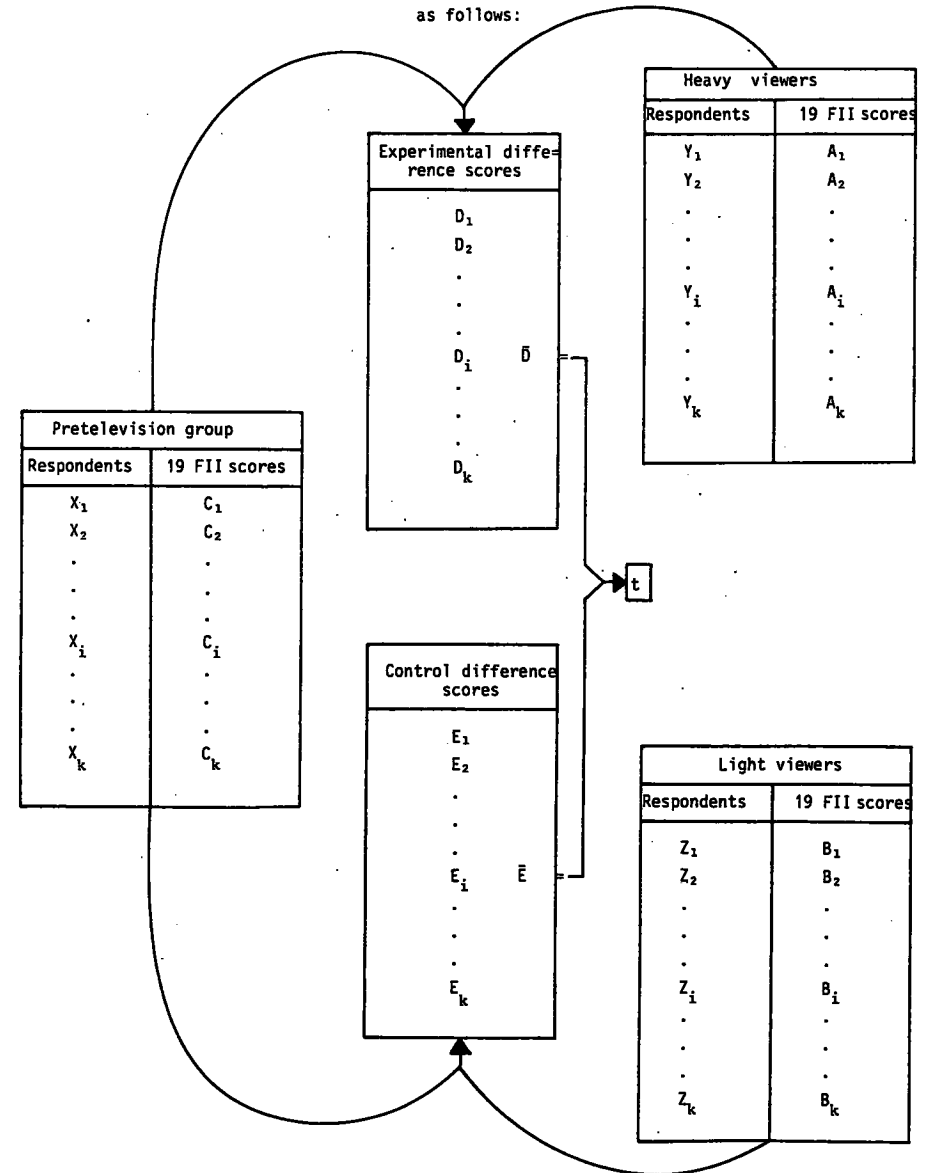
Physical Science

3.1.3 Television Questionnaire

This questionnaire was also compiled by the South African Institute for Communication Research of the HSRC to obtain an indication of the television viewing habits, programme preferences, etc. of the pupils. The following questions were used.

- 1 How many hours per day do you usually watch television?
(Mondays to Thursdays during school terms)

The design used for comparing the matched groups can schematically be represented as follows:



scores of the heavy viewers are higher than those of the light viewers while an opposite interpretation can be attached to a negative t value.

The data were processed with the aid of the SAS programme system (Statistical Analysis System: Barr, *et al.*, 1976).

3.5.2 *Further comparisons*

For both matchings a mean group score per field was calculated for each of the three matched groups (pretelevision group, heavy viewer group and light viewer group). In each case these scores give an indication of the interest of the particular matched group as a whole. To determine the significance of differences in interest between the groups the mean scores were compared as follows by means of two-tailed t tests.

- (a) The mean scores of the pretelevision group with those of the heavy viewer group.
- (b) The mean scores of the pretelevision group with those of the light viewer group.

These further comparisons lend perspective to the findings on the effect of television on the interests of the test groups.

2 How many hours per day do you usually watch television during weekends? (Fridays to Sundays during school terms)

3 How long has your family had a television set at home?

3.2 SAMPLE

The data in this investigation were collected in 1974, 1975 and 1977 during the comprehensive investigation conducted in provincial schools in the four provinces of the RSA. Data collecting for the comprehensive project covers a period of eight years (1974 to 1981) and involves pupils from Standard Three to Standard Ten. Some of the Standard Three and Standard Six pupils included in the first survey in 1974 (before the introduction of television) will be followed up annually until they reach Standard Ten (follow-up pupils). For control purposes a number of pupils who have not been tested before, are also tested annually (control pupils). In this investigation into the effect of television on Standard Nine pupils' interest patterns use was made only of the data of the control pupils.

With the aid of information supplied by the four provincial education departments to the South African Institute for Communication Research in 1973 the broad sample was stratified according to sex, language medium in which the pupils are taught at school, area (urban/non-

urban situation of the schools) and province.

3.3 TEST GROUPS

The test groups in this investigation were composed of respondents who had been involved in the 1974 and 1975 surveys (before the introduction of television) and in the 1977 survey (after the introduction of television). To control the novelty effect of television, data were used only of those pupils who indicated that they had had a television set at home for at least three months. The occasional viewers (i.e. viewers who had no television set at home but who watched elsewhere) were also eliminated.

The experimental group was composed of pupils who indicated in the Television Questionnaire (in 1977) that they watched television for one hour or more a day on weekdays (Mondays to Thursdays during school terms) and over weekends (Fridays to Sundays during school terms) and that they had a television set at home for at least three months. In this investigation this group of pupils is known as the *heavy viewers*.

Pupils who indicated in the 1977 survey that they had owned a television set for at least three months and that during the week and over weekends (during school terms) they watched television for less than one hour a day, formed the control group and are called the *light viewers*. To this group were added pupils who

parison (see Paragraph 3.4):

A pretelevision group

A heavy viewer group

A light viewer group

For each interest field a set of difference scores was calculated by subtracting the 19 FII score of each respondent in the pretelevision group from the 19 FII score of the corresponding matched respondent in the heavy viewer group. Later in the text this set of difference scores is referred to as the experimental difference scores. A set of difference scores between the pretelevision group and the light viewer group was calculated in the same way (control difference scores).

A mean difference score was subsequently calculated with regard to each interest field respectively for the experimental difference scores and the control difference scores. After this two-tailed t tests for matched groups were used every time to study the significance of the difference between these two mean difference scores. According to this method a statistically significant difference can be regarded as an indication of the effect that television may have on the interests of the test groups. By inspection of the sign of the particular t values an indication can be obtained of the *direction* of the effect. A positive t value indicates that as a result of television viewing, the 19 FII

TABLE 2
COMPOSITION OF THE 1975/1977 MATCHED GROUPS

			Boys						Girls						TOTAL
			High occupa= tional choice		Low occupa= tional choice		Uncertain about occu= pational choice		High occupa= tional choice		Low occupa= tional choice		Uncertain about occu= pational choice		
			Afr.	Eng.	Afr.	Eng.	Afr.	Eng.	Afr.	Eng.	Afr.	Eng.	Afr.	Eng.	
Senior certificate without exemption	Take a third language	Take Geo= graphy													
		Do not take Geography													
	Do not take a third language	Take Geo= graphy							1	1					2
		Do not take Geography	1		7	1	2	1	18	3	2	2	6		43
Senior certificate with exemption	Take a third language	Take Geo= graphy													
		Do not take Geography	1						1					1	3
	Do not take a third language	Take Geo= graphy	2	2		1		1	3	3			6	1	19
		Do not take Geography	4	2	8	1	4	1	3	3	3		7	1	37
TOTAL			8	4	15	3	6	3	26	10	5	2	19	3	104

SUMMARY OF TABLE 2

	N	%
AFRIKAANS-SPEAKING	79	76
ENGLISH-SPEAKING	25	24
BOYS	39	37,5
GIRLS	65	62,5
HIGH OCCUPATIONAL CHOICE	48	46
LOW OCCUPATIONAL CHOICE	25	24
UNCERTAIN ABOUT OCCUPATIONAL CHOICE	31	30
COURSE: WITH EXEMPTION	59	57
COURSE: WITHOUT EXEMPTION	45	43
TAKE A THIRD LANGUAGE	3	3
TAKE GEOGRAPHY	21	20

indicated that they did not have a set at home and never watched television. The pupils who were tested in 1974 and 1975 are known as the pretelevision groups.

3.4 MATCHING

In the child's life world there are many factors, including television, that may affect his interests (De Beer, 1980). To determine the effect of *television* on these interests the other factors (extraneous variables) have to be identified and controlled as far as possible. A stepwise regression analysis was done on the relevant biographical variables to determine which independent variables explained most of the variation in the interest patterns (dependent variable) of the test group. Six extraneous variables were identified in this way, namely sex, home language, the pupil's occupational choice, course followed at school, and whether the following school subjects were being taken: A third language and Geography.

To control these six extraneous variables, i.e. to make the groups as comparable as possible with regard to these variables, a process of *matching* was applied.

Groups of heavy viewers, light viewers and pretelevision respondents were matched for the following years:

- 1974 with 1977
- 1975 with 1977

TABLE 1
COMPOSITION OF THE 1974/1977 MATCHED GROUPS

The matched groups were designated as follows:

- (i) *First matching* (1974 with 1977)
 - (a) Group C₁ (the 1974 pretelevision group)
 - (b) Group A₁ (the 1977 heavy viewers)
 - (c) Group B₁ (the 1977 light viewers)
- (ii) *Second matching* (1975 with 1977)
 - (a) Group C₂ (the 1975 pretelevision group)
 - (b) Group A₂ (the 1977 heavy viewers)
 - (c) Group B₂ (the 1977 light viewers)

The composition of the matched groups are shown in Tables 1 and 2.

3.5 EXPERIMENTAL DESIGN

3.5.1 *Investigation into the effect of television on interest patterns*

To study the effect of television two comparisons were made with regard to each interest field. A three-group design was used in each case. By a process of matching, three comparable groups were composed for each com=

			Boys						Girls						TOTAL
			High occupa= tional choice		Low occupa= tional choice		Uncertain about occu= pational choice		High occupa= tional choice		Low occupa= tional choice		Uncertain about occu= pational choice		
			Afr.	Eng.	Afr.	Eng.	Afr.	Eng.	Afr.	Eng.	Afr.	Eng.	Afr.	Eng.	
Senior certificate without exemption	Take a third language	Take Geo=graphy													
		Do not take Geography													
	Do not take a third language	Take Geo=graphy						1	1						2
		Do not take Geography	1		7	1	2	1	18	3	2	2	6		43
Senior certificate with exemption	Take a third language	Take Geo=graphy													
		Do not take Geography	1					1					1	3	
	Do not take a third language	Take Geo=graphy	2	2		1		1	3	3			6	1	19
		Do not take Geography	4	2	8	1	4	1	3	3	3		7	1	37
TOTAL			8	4	15	3	6	3	26	10	5	2	19	3	104

SUMMARY OF TABLE 1

	N	%
AFRIKAANS-SPEAKING	79	76
ENGLISH-SPEAKING	25	24
BOYS	39	37,5
GIRLS	65	62,5
HIGH OCCUPATIONAL CHOICE	48	46
LOW OCCUPATIONAL CHOICE	25	24
UNCERTAIN ABOUT OCCUPATIONAL CHOICE	31	30
COURSE: WITH EXEMPTION	59	57
COURSE: WITHOUT EXEMPTION	45	43
TAKE A THIRD LANGUAGE	3	3
TAKE GEOGRAPHY	21	20