

## TV VIEWING HABITS OF 3, 4 AND 5 YEAR OLD CHILDREN

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*The study reports a survey of the TV viewing habits of 3, 4 and 5 year olds and the effects of viewing on language interaction in the home.*

Despite the wealth of comment on the influence of TV on pre-school children's behaviour there has been little published research to support it. This is perhaps surprising when Schramm pointed out in the early 60's that the greatest amount of incidental learning from TV is likely to take place in early childhood from about 3 to 6 years of age: ". . . in the early years before the child learns to read, when his horizon is still narrow and his curiosity boundless, when almost everything beyond his home and little family circle is new—that is the time when TV has a unique opportunity to contribute information and vocabularly skills." (Schramm, Lyle and Parker, 1961, p. 77).

Even the current emphasis on the development of learning skills and the influence of the environment on learning, seems to have produced few explorations of the influence of TV on the cognitive development of pre-schoolers. The major exception concerns the evaluation of the American programme, "Sesame Street," created primarily for disadvantaged pre-schoolers. An independent evaluation team from Educational Testing Service has now produced two major reports on the effects of the programme on American pre-schoolers from a wide range of home backgrounds (Ball and Bogatz, 1970, Bogatz and Ball, 1971). Ball and Bogatz also remarked on the virtual lack of any previous research as a base from which to explore (Ball and Bogatz, 1970, p. 4).

An early study by Maccoby (1951) in Cambridge, Mass., when television in that area was still in its infancy, covered the 4-17 age range, and one of Schramm, Lyle and Parker's (1961) eleven studies, the San Francisco "Whole Family" study (p. 199), included a number of 3, 4 and 5 year olds. These investigated sociological issues related to viewing whereas the ETS study examined cognitive changes in the young viewer.

Three small surveys of pre-schoolers' viewing have recently come from Australia. Howells (1968) questioned 47 parents and Penhalluriack (1968, 1969) 93 children concerning programme preferences and their reactions to them. Barrow (1968) extended his study to include length of viewing, activities displaced or reduced by TV watching and effect on vocabulary.

In New Zealand, Mitchell in 1965 collected data, not yet fully analysed, from Otago school age children over 8 years of age and Panckhurst (1971) is currently completing a study of the influence of TV on kindergarten children's learning.

The present study was an attempt to survey the TV viewing habits of 3, 4 and 5 year olds and to examine the effects of viewing on language interaction in the home. A questionnaire was developed to be used in interviewing mother and child and a number of interviewers trained in its use.

The interviews took place in homes, kindergartens and play centres. Three quarters of the 203 children were drawn from pre-schools, which introduced a number of biases into the sample. Half the group fell between 4 years and 4 years 11 months, the commonest age in kindergarten (average age 4 years 4 months). There were 81% from urban areas (1966 census, 75.5%). One quarter of the mothers worked, either part-time (12.8%) or full-time (12.3%).

The distribution on socio-economic status (Table 1) was heavily weighted on the professional end. Occupations of the fathers were classified using the recent index developed by Elley and Irving (1972) from data collected in the 1966 census on median income and median educational level.

TABLE 1  
SOCIO-ECONOMIC DISTRIBUTIONS

Socio-economic level		1	2	3	4	5	6
Sample	No.	48	47	27	41	27	13
	%	23.6	23.2	13.3	20.2	13.3	6.4
N.Z.	%	5.8	19.3	13.3	28.2	21.3	12.61

(Elley & Irving 1972)

Attempts have been made to modify the sample to bring it closer to the national socio-economic distribution. Groups 1 and 2 could be adjusted by dropping randomly selected subjects but building up groups 5 and 6 proved particularly difficult. Student interviewers had reported difficulties in obtaining replies from many of the mothers from working class homes unless they had been associated with the local kindergarten or playcentre. It was decided to use two older married women with some experience in home interviewing to visit selected homes in their own neighbourhood. However, this did not change the data gathering problem very greatly, though it did raise a number of interesting side issues. The difficulties in obtaining information were revealed as primarily due to the fact that the mothers

had extremely limited knowledge of what their children did around the home, secondarily to their having no real desire to know or find out, so the questions for them had no point or interest. Sometimes this seemed to be a function of having to care for a family of several preschoolers and babies, or a disorganised household in which the mother seemed to have little control over what was happening in it — almost a state of perpetual pending catastrophe which, in fighting it off, left her no time for keeping track of any detailed behaviour. The questionnaires were therefore heavily weighted with "Don't know" responses.

It was decided before proceeding further to investigate the influence of the socio-economic variable on the major items. This was done using data from a reduced sample in which the numbers in groups 1 and 2 were lowered to the Elley-Irving percentages. Note that the sample was still low by comparison at the working class end of the scale. The differences were not generally significant. Only in the case of library membership, weekend viewing times and verbal versus motor response to the programmes were they large enough to warrant comment.

The original sample was therefore retained for analysis with the caution that it is heavily skewed towards the upper educational/income groups. Efforts are still continuing to adjust the sample but it seems clear that those working-class mothers who can supply the required information on the same basis as mothers from other socio-economic groups will represent a particular type of working-class mother, e.g. sufficiently interested in their children's development to enrol them at a pre-school or show a middle-class interest in their activities.

Further difficulties were met with non-viewers. In a pilot run an attempt was made to build up a non-viewing contrast group but this was abandoned when it was realised that these children came from highly restricted groups. "Total" non-viewing children came from families whose religious beliefs prohibited the use of TV. A second group of virtual non-viewers comprised mainly student or young professional families who tended to disapprove of TV because of its effects on family life, the poor quality of programmes and the limiting effect on the growing child's motivation to get out and find out for himself. Many children from this group watched when they could at neighbours' or relatives' homes. Maccoby (1951) found similar attitudes in her upper social group non-TV owners. She and Schramm et al. (1961, p. 16) also reported children from non-TV homes as "fairly often viewers of neighbours' sets." With set saturation running at over 87.4% of Auckland households (P. & T. Dept. TV registrations April, 1972) and an unknown but probably sizeable number of the remainder childless households, or homes where children watched elsewhere, it was decided to abandon attempts to locate a matched non-viewing contrast group.

One advantage of having no prior information on the habits of young New Zealand viewers was that our interviewers were genuinely unable to "help" mothers seeking a behavioural norm on which to base their replies. Frequently mothers had to admit they did not have any precise information about their children's viewing habits or programme preferences. A common statement went something like "Don't really know; haven't thought about it. I 'spose he'd be typical of other 4 year olds. What do other 4 year olds do? He'd be much the same." A number of group 1 and 2 mothers became very interested and asked for the forms to be left for a couple of days to give them a chance to observe their family's behaviour before completing the items.

Interviews took place in the spring and might have produced differing results had they been held in mid-summer or winter. The sample then is predominantly urban 4 year olds from homes in the upper socio-economic bracket.

The questions concerned with the language aspects of this study were designed to elicit information on:

- (a) the proportion of time spent watching TV in relation to other activities,
- (b) the extent the child talked about what he viewed and the form of the verbal interaction,
- (c) the amount of discussion generated in front of the TV screen,
- (d) the extent to which TV modified meal-time conversation,
- (e) the extent to which TV modified the reading or telling of bed-time stories,
- (f) the extent to which TV replaced reading in the home, and
- (g) the extent to which TV replaced other educational or entertainment activities.

## RESULTS

### Favoured activities (Table 2)

Mothers were questioned about the commonest form of special behaviour exhibited by their children at home; playing or talking with others, playing on their own, watching TV, etc. Responses in over three quarters of the cases related to activities in the afternoon or evening as most were at pre-school in the morning. Between 60% of the mothers reported the favourite activities as playing with brothers and sisters, playing by self, talking with mother and playing with neighbouring children, in that order, except that in the 5 year old group, playing with neighbourhood children became the most popular and playing by self and talking with mother dropped to well below 60% for the group. Only 37% of the mothers considered TV to be as popular or more popular than activities involving physical participation. This may

reflect a "more acceptable response" reaction from the mothers to a student interviewer but there was some confirmation of the relative popularity from the children's own comments. Four year olds were more interested in watching than 3 or 5 year olds.

These figures suggest that in New Zealand we are a long way from reaching the stage of American suburban life where, according to Feinbloom (1971) reporting to a Pediatric Conference last year, parents have grown accustomed to turning children over to the TV set thus robbing them of the all important social interchange with their parents (Paul, 1971).

**TABLE 2**  
**FAVOURED ACTIVITIES (AS OBSERVED BY MOTHERS)**  
**IN PERCENTAGES**

	Total	Boys	Girls	3 yrs.	4 yrs.	5 yrs.
Playing with siblings	70	71	69	74	68	72
Playing by self	65	66	63	63	68	47
Talking with mother	61	61	61	74	60	42
Playing with neigh. children	60	57	63	46	62	75
Watching TV	37	40	35	26	45	33
Playing with mother	33	30	36	51	28	14
Following mother around aimlessly	10	14	6	15	9	11

#### **Regularity of viewing and amount of viewing time**

About half the sample viewed regularly, i.e. sometimes every evening, while over three quarters spent some time in front of the set most evenings.

From Table 3 it can be seen that the median viewing time was between 1 and 2 hours per evening. Greater precision than this hour-range was deemed unwarranted as mothers were on the whole not sufficiently certain how long their children watched within this range. Length of viewing time for the target child on the previous day was also sought for confirmation but frequently the response was qualified with some comment indicating an atypical day's viewing so that here too attempts to gauge average viewing time down to minutes was abandoned. (See Schram et al, 1961, appendix III, pp. 211-216 for discussion of problems in estimating viewing time.) The previous day's viewing time confirmed the 1-2 hour range, though closer to the shorter limit. This estimate lines up also with Ritchies' (1970, p. 80)



finding collected between 1963 and 1966, that pre-schoolers viewed regularly for around two hours a night.

TABLE 3  
AVERAGE VIEWING TIME PER WEEK-DAY  
(IN PERCENTAGES)

	Total	Boys	Girls	3 yrs.	4 yrs.	5 yrs.
Very occasional viewers*	7	7	8	13	5	6
<1 hour	28	23	34	38	21	33
1-2 hours	55	60	50	43	60	61
2-3 hours	7	7	8	7	10	0
3-4 hours	2	3	1	0	4	0

\* Very occasional viewers=less than an hour a day and only 2 or 3 days a week.

Viewing time figures from small Australian samples are similar. Barrow's pre-schoolers averaged just under two hours a day and 77% of Howells' (1968) mainly 4 year old sample watched between 2 and 3 hours. Penhalluriack's (1969) suspicion that Australian children spend much less time in front of TV than American children of the same age, would seem to apply to New Zealand children also. American information is published in a variety of forms. Maccoby (1951) found an average of 2.4 hours weekday viewing and Schramm et al's. (1961) San Francisco sample (= 84) produced median estimates of 0.7 hours for 3 year olds, 1.4 for 4 year olds, 2.2 hours for 5 year olds but 2.9 for another group of 5's (Table III-3 p. 217). Ball and Bogatz (1970, p. 2) claim children under 6 years watch about 25% more than adults; Doyle (1970) reports elementary school children spending as much time in front of a set as in front of a teacher; while last year a pediatrician claimed that the average American pre-kindergarten child (i.e. under 5 years) watched on an average 54 hours each week—nearly 64% of his waking hours! (Looney, 1971). Himmelweit's British figures (1958, p. 98ff) for older children (11 years) averaged just under 2 hours a day.

Maccoby's average times varied little from age to age with a slight tendency for those from the highest socio-economic level to spend a little less time watching. Schramm's varied more with age (p. 217) but the socio-economic variation was similar. In the present group the 3's spent less than than the 4's and 5's. There was a slight increase from socio-economic groups 1 to 5/6 (combined). (The percentages of each S.E. group from 1 (professional, executive) to 5/6 for 1-2 hours viewing are 50, 46, 58, 65, 67. All viewers of over 3 hours were in S.E. groups 4 and 5/6.)

### Week-end viewing

Maccoby recorded a shift upwards from an average of 2.4 to 3.5 hours viewing in the weekend. Schramm et al. (1961, p. 30) found Sunday viewing averaged one half to one hour longer, while Saturday varied greatly but was generally a little longer. Times for half the New Zealand group did not change, but among the half that did the greatest movement was a reduction in viewing time (39% viewed less and 10% viewed more). An educational/occupational difference was seen here in that most of the reduced viewing was reported from mid to upper socio-economic homes (groups 1-3). The commonest explanations given for time reduction were of two types; (a) there's more going on in the weekends with all the family involved, so less time for TV, and (b) with all the family about the house at the weekend there's less need for TV as a baby minder during meal preparation.

### Verbal interaction arising from programme viewing (Tables 4 and 5)

How much are programmes discussed with others, or verbalised in other ways? (excluding simple declarations such as "beaut", "neat," "yuk", "boring"). There were 78% of mothers who reported some form of expressive reaction, with the 4 year olds providing the greatest amount and greatest range of responses. Boys were more inclined to act out activities with friends and ask questions, than the girls whose preference was for repeating songs.

Differences between the socio-economic groups were generally slight, except for a tendency in unskilled worker families towards acting out in preference to verbal description and use of programme words.

TABLE 4

#### TALKING ABOUT PROGRAMMES WITH OTHERS (IN PERCENTAGES)

	Total	Boys	Girls	3 yrs.	4 yrs.	5 yrs.
Yes	78	81	73	71	85	66
No	21	17	26	27	13	34
Don't know	1	2	1	2	2	0
Sing songs	53	45	61	54	54	47
Describes	45	48	41	41	52	33
Acts out	44	50	37	41	50	33
Ask questions	40	43	35	33	48	28
Uses words	31	37	22	23	36	28

TABLE 5

TALKING ABOUT PROGRAMMES WHILE WATCHING  
(IN PERCENTAGES)

	Total	Boys	Girls	3 yrs.	4 yrs.	5 yrs.
A great deal	24	28	20	28	23	22
Occasionally	54	48	60	54	57	44
None	13	14	13	8	13	22
Don't know	9	10	7	10	8	11

The amount of discussion related to the programmes that is likely to occur in front of the screen is dependent on who the child is viewing with. The usual social context of watching was with siblings (45%) or the whole family (34%). Solo watching as the usual viewing pattern was reported in a mere 10% of cases. One of the variables influencing the composition of viewing groups is obviously the size of the viewer's family and his position in it, and 6% of the sample were only children, and 40% were last in the family, 29% first and 25% middle. Viewing group composition changed regularly across mother, friends, siblings, etc., but the most common pattern was clearly with siblings or the whole family. Maccoby (1951) found more time was spent viewing with the family members than any other pattern both weekday and Sunday while solo viewing ranked low.

As the mothers reported it, slightly over half the group talked occasionally about the programme as it was being shown, a quarter talked a great deal. Five year olds talked rather less than the 3's and 4's. The socio-economic breakdown produced very little difference between groups.

**Late afternoon viewing**

Heaviest viewing time was during the interval from 4 p.m. to the evening meal (85% of sample), slightly more than half watched during the meal (55%), 41% from mealtime to bedtime and 13% from 2 to 4 p.m. Several reasons were given for the late afternoon preference when many of the children could have watched from 2 p.m. to bed-time. Obviously this is the slot in the day's screening devoted to children's programmes and the pre-schoolers showed a preference for these as in Schramm's surveys (p. 37-9). Other than the child's own disinclination, parents are the hindrance to adult-programme watching, and in New Zealand as elsewhere (Himmelweit 1958, p. 378) parents do not appear, as a whole, to apply too heavy a hand to the off button. Among mothers, 40% reported no selection of programmes, the children watched what they wanted; 32% exercised occasional selection; the



remainder (22%) always decided what could be watched. The other important, naturally selective factor is "bed-time".

In the late afternoon the television provided an excellent baby-minding service during one of the most difficult times of the day for a young mother. Preparation of the evening meal was made easier by having the pre-schoolers out of the kitchen; there was less interference from them when assisting with older children's homework; with them out of the way it was easier to deal with demands for mother's attentions from home coming school children. And with the set baby-sitting, the mother had little cause to worry about the pre-schooler's roaming, inquisitive, mischievous behaviour, particularly while she was occupied with other children or meal preparation. In some cases mothers who had resisted turning on the set gave in when the school age children came home and turned it on.

Mothers were quite definite that after-school to before-evening-meal television had eased a very difficult period in the young-family's day. (See also Maccoby, 1951, or Himmelweit, 1958, p. 384).

#### Mealtimes viewing (Tables 6 and 7)

Half of the families ate their evening meal between 5.30 and 6 p.m. during which time there were programmes which the children wanted to see and 10% of parents emphatically refused to have the set on at mealtimes, most of these being in socio-economic groups 1, 2 and 3. More stated that mealtimes viewing was *permitted* in the family (58%) than admitted to "usual" or "occasional" viewing actually occurring during meals (32%). Some of the discrepancy appears to be accounted for in situations where families rule that special programmes may be watched but manage to find very few such sessions. One sensed that mothers agreed with meal time viewing in the abstract but when confronted with distracted feeders and prolonged eating, the watching was curtailed. In almost half the group the TV could not be seen from the meal table. Half of the mealtimes viewers watched from the table, the other half took food and sat in front of the television set. In a considerable number of cases (not recorded) where viewing from the table was impossible and eating away from the table was not permitted, meals were hastily consumed in order to get back to the set. The Ritchies' prediction in the early days of television seems to have come close to the mark:

"Our guess is that father and mother [after TV is well established] are still sitting there having their ritual meal while the children gobble down their food or forgetfully pick at it as Lassie leaps, Thunderbirds thunder and cowboys shoot it out." (1970; p. 75).

**TABLE 6**  
**TV AND MEALTIME VIEWING**  
**(IN PERCENTAGES)**

Families permitting mealtime viewing	Can TV be viewed from meal table?		Mealtime viewing
Usually	55	Yes	36
Occasionally	11	No	48
Seldom	10	TV never on	10
Never	25	No reply	5
			Food taken in front of set
			50

**TABLE 7**  
**TV AND MEALTIME CONVERSATION**  
**(IN PERCENTAGES)**

	Total	Boys	Girls	3 yrs.	4 yrs.	5 yrs.
Encourages	6	7	5	2.5	10	0
Reduces	57	56	59	68	48	71
No diff.	29	25	33	20	37	19
Don't know	8	11	3	10	5	10

The mothers of those who watched during meals were asked about its effect on meal time conversation. Whether the viewing was from the table or from the floor in front of the set, 57% of the mothers considered it reduced verbal comment with the oft mention exception of interjections like "shut up", testy "can't you keep quiet", or plaintive "I can't hear". Some mothers pointed out that viewing from the table also tended to impose a restriction on inter-adult conversation because the watching children objected to any talking across the TV outflow.

Maccoby's mothers were much less permissive in 1951. Only 16% permitted regular watching of television during "supper", 55% never allowed it. The Americans who felt TV had had an effect on eating habits, generally believed it had helped the eating situation as the children ate more slowly and were less "fussy" about their food.

**TV and bed-time stories**

Another time which, it was felt, might be affected was the pre-schooler's bed-time. Table 8 reports the incidence of bed-time story telling or reading in the homes: 64% of the children were given stories four or more nights a week and only 7% never. As expected, the every-night event dropped off from 3-5 years of age and the "never" increased. Girls were more regular recipients than boys.

TABLE 8

## BED-TIME STORIES (IN PERCENTAGES)

	Total	Boys	Girls	3 yrs.	4 yrs.	5 yrs.
Every night	26	22	32	38	23	17
4-5 nights a week	38	35	41	30	42	42
2-3 nights a week	23	28	19	20	23	20
Seldom	6	9	3	8	4	11
Never	7	8	5	5	7	11

The adult most commonly involved was the mother whether on her own (32%) or where the task was shared by both parents (34%). Father and older siblings, as the usual story readers, tied for second place (13%). In the Maccoby, Schramm and Himmelweit studies there was a slight extension of bed-time in TV owning homes by fifteen minutes or so. Is this extra viewing time deducted from the bed-time stories? Do parents barter a story for additional viewing? Less than a quarter of the children who were read stories were given the choice between a story or extended viewing and most of them (17%) only very occasionally. Where the choice was given, half opted for a story and a quarter were inconsistent in their choice. Seventy percent of the mothers were quite certain that television was not replacing bed-time stories for younger children, and a quarter felt it was to some extent.

#### Printed material in the home

Television is frequently accused of taking time away from other activities, social and cultural (Maccoby 1951, p. 435; Himmelweit 1958, Chap. 32; Barrow 1968, p. 26). If TV were to disappear in New Zealand the children in this sample would have 1-2 hours each late afternoon to early evening to fill in in some other way. In the homes survey, 76% regularly read at least one magazine a week and 20% subscribed to a magazine for children, like *Jack and Jill* or *Humpty Dumpty*, 58% of the children belonged to a library and borrowed regularly — girls rather more frequently than boys. Half of the children visited a library at least once a month, 17% of them once a week. It was not possible to determine from the data how many more might have used a library, looked at books, magazines, etc., had they not had TV. Originally it had been planned to check these figures against those from a non-viewing control group. All that can be stated is that as well as watching TV, over half had access in the home to books and magazines.

## SUMMARY

In summary it would seem that in this particular group of 3, 4 and 5 year olds television had not taken over their lives as some prophets of doom have predicted. It still ranked lower than old-fashioned play and talking with mother. For the parents it was seen generally as a useful "occupier" during the evening meal preparation period when the bulk of the viewing occurred. Exposure in most cases was under two hours a day, whether weekday or weekend. In over half the cases there was some type of verbal or motor activity follow-up of the programmes — using the material for acting out, talking, singing, questioning. As in overseas studies viewing tended to be a family social event, the pre-schooler generally watching with siblings or the whole family. About half the group — commonly the 4 year olds — talked about the programme while watching, but in most cases this amounted to occasional comments only.

In over half the families viewing was permitted during the evening meal and half of these allowed food to be eaten away from the table in front of the set. This seemed to be the situation in which the TV had the most adverse effect on language in that it effectively reduced the amount of "talk" during the meal. But not a return to the Victorian meal eaten decorously and in virtual silence. Prolonged conversation interfered with listening although a quick comment was in order.

In contrast, television seemed to have had little effect on the pattern of bed-time stories. These continue to be read or told, mainly by the mother, so that today's pre-schoolers get both TV and stories.

Although the amount of time available for looking at books may have been reduced as a result of TV, the homes in this sample were not without books and magazines, and over half the children regularly used a library.

From this, one might conclude that television both provides and restricts opportunities for the pre-schooler to learn to use his language. Perhaps if parents were more aware of the importance of practice in language usage, both the visual and auditory stimuli coming off the screen could be utilised to better effect. For greatest effectiveness this would involve appropriate programmes for joint parent-child viewing at a more convenient time during the day than the present 4.30-5.30 spot.

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