

TV Learning: Incidental or a Systematic Process

TV Watching and Political Awareness amongst Children and Young People
in East and West Germany

The Educational Effect of TV: Hypotheses and Findings

According to the German broadcasting laws, TV has three jobs – it must entertain, inform and educate. Entertainment has attracted a lot of attention (*Postman*, 1985), and one can assume that “entertainment” is not only to be seen as a momentary way of passing the time, but that in the context of an “internal learning structure” it also has affective, cognitive and socialising by-products (*Lukesch et al.*, 1989).

The intensive reporting of important events (eg. Chernobyl, the Gulf War, the Yugoslav Civil War) is evidence of the fundamental contribution that TV makes to the day-to-day information supply. In this role, TV is highly esteemed by reviewers in comparison to other sources of information – both young and old people ascribe the highest credibility to TV (*Bonfadelli et al.*, 1986, p. 161; *Eckhardt/Horn*, 1988, p. 106).

The educational function of TV is a different matter. This should be understood as the building-up of more or less stable knowledge structures. In this case, viewers rate TV as inferior to books and specialist journals, but superior to radio or the newspapers (*Bonfadelli et al.*, 1986, p. 163). Media research has paid particular attention to the interaction between media use and receiver variables (for example the Knowledge Gap Hypothesis; *Saxer*, 1988). But there has also been interest shown in the linear effect that the systematic viewing of information-oriented TV can have – above all in the context of those children’s programmes with an intended educational content.

But what is actually known of the viewing of television news and the consequent effects on children and young people? Studies in the *USA*, *Israel* and *Germany* show for a start that there is an increase in news watching from primary school age into adolescence (*Atkin/Ganz*, 1979; *Adoni*, 1979). Viewing and estimation of news programmes correlate with each other. Also significant are the differences in news viewing between boys and girls – in general, boys watch more. To qualify this though, it is significant that, for boys, news viewing takes place often by chance, when the TV set is not turned off in between favourite programmes (*Gerbner et al.*, 1984, p. 284).

In respect of political knowledge, the predictable correlations between age, social group and race (in the USA) emerge. However, the greater political knowledge displayed by boys is worth mentioning – obviously the result of an early development of different interests.

Also important is the lack of correlation between political knowledge and standard of school performance; the results indicate that school makes little or no systematic contribution in the realm of political knowledge. This is born out by the relationship between the use of news

media and political knowledge, which in spite of consideration of demographic characteristics, is substantial (*Adoni*, 1979; *Robinson et al.*, 1986).

Furthermore, it is worth mentioning that children who watch more news programmes also talk more about the news (especially with friends, less so with parents) and, on the basis of what they have seen, are stimulated to find out more. Finally, children who watch news programmes more often, display a greater interest in certain topics than do children who watch less news. So one can assume a more intensive cognitive processing of the contents of these programmes. Thus *Conway et al.* (1981) established proof of a two-way relationship between use of news media and political awareness.

Formulation of Questions on TV and Knowledge Acquisition

On the basis of available findings, the following suppositions seem well-grounded:

Boys have a greater political knowledge than girls.

Schooling has only a marginal influence on the sort of durable knowledge in question, as contemporary history is seldom part of the syllabus.

Heavier viewing of information-oriented TV should result in a higher political awareness.

There is a difference between “public” and “private” broadcasting, especially in Germany.

Information-oriented viewing of public channels goes hand in hand with greater durable knowledge. As for the viewing intensity of private channels, it can be supposed that these are chosen primarily for entertainment purposes and that, accordingly, news programmes

are only watched fortuitously.

Since heavier viewing of information-oriented programming can be a by-product of generalised heavy viewing (*Gerbner et al.*, 1984), the results must be considered in the light of the amount of TV watched. If total TV viewing time is controlled, then the correlation between information-oriented TV viewing and political awareness will appear more significant.

The actual weightings of personal in comparison with media influences are not clear. On one hand there are findings that show the media as playing the decisive role (*Adoni*, 1979); on the other hand, inter-personal communication may exert a considerable influence, as, from a cognitive-psychological viewpoint, conversation results in a markedly deeper processing of information.

Finally, what is also conceivable is a mutual interaction between political interest and politics-related TV viewing, as well as between the latter and political awareness (*Conway et al.*, 1981). There are not only socialising influences involved here, but others, connected with learning background and cognitive aptitude for knowledge processing, in the sense that a greater knowledge in the first place enables a better processing of any further knowledge.

The Survey

The opportunity for this survey arose in 1990, in the context of the political development that followed the unification of Germany. It was carried out before the implementation of monetary union, in *Saxony* (in and around Leipzig) and *Bavaria* (Regensburg and Oberpfalz). School children were asked about their media-use habits and various aspects of contemporary history. In the present context we will concentrate on the results from Bavaria. The survey was conducted in the seventh and ninth school years (275 pupils in Saxony; 303 in Bavaria).¹ The questionnaires firstly collected general data on TV equipment and viewing times. In the TV section there were three lists of information-oriented programmes, from public, private and East German channels.

Knowledge of contemporary history was surveyed on a number of topics. A first group of questions dealt with knowledge of National Socialism (Knowledge of National Socialism Scale). Other questions dealt with politicians from West and East Germany (Knowledge of Politicians Scale). In the course of the reporting of developments in *East Germany*, particular places were often mentioned in connection with important events (e.g. the Monday Demonstrations in Leipzig). Knowledge of the location of these places was investigated (Geographical Knowledge Scale). Because news programmes used abbreviations for political institutions, taking their meanings as self-evident, ten of these (e.g. NATO etc.) were included in the questionnaire. The pupils had to write down what they stood for (Knowledge of Abbreviations Scale). The identity-defining status of sports in East Germany was given its own scale (Sports Knowledge Scale).

Results

East/West Comparison and the Factor Sex

Political interest is seen to be much more pronounced in the East German sample (see Table 1). Furthermore, in both east and west, males show a greater political interest than did females. Differences in knowledge between boys and girls are supported statistically in the results for “Knowledge of National Socialism”, “Knowledge of Politicians” and “Knowledge of Sports”. These are not very substantial differences (1.5 – 6% explained variance), but they are consistently in favour of the male students (see also Table 2 for the single items of the Knowledge of Abbreviations).

There are also differences between the results of the two regions in Geographical Knowledge, Knowledge of Politicians and Knowledge of Abbreviations. In all three cases the Leipzig sample showed themselves to be more knowledgeable than their Bavarian counterparts. The differences are huge, especially in Geographical Knowledge (20% explained variance) and Knowledge of Abbreviations (33% explained variance).

However, one cannot claim any significant difference between the two regions in Knowledge of the Nazis – a fact that does not concur with the notion that the East Germans had spent a lot of effort on the reappraisal of this period of German history.

Table 1: Differences in TV Viewing and Aspects of Knowledge, by Gender (Factor A) and Region (Factor B: East/West German) of Pupils (two factor analysis of variance)

Number Variable	Boys		Girls	
	East 137	West 129	East 138	West 166
Political Interest				
Mean	3.15	2.74	2.88	2.52
SD	1.03	1.09	0.85	1.01
%p:A			**/1.70	
%p:B			**/3.49	
%p:AB			ns/0.01	
Knowledge of National Socialism				
Mean	24.84	24.98	22.98	22.73
SD	3.03	4.37	3.86	4.73
%p:A			**/5.98	
%p:B			ns/0.15	
%p:AB			ns/0.05	
Knowledge of Politicians				
Mean	28.5	26.75	27.12	26.20
SD	3.51	2.77	3.78	2.48
%p:A			**/2.48	
%p:B			**/4.05	
%p:AB			ns/0.40	
Knowledge of Geography				
Mean	35.81	31.45	35.67	31.40
SD	4.04	4.63	3.54	4.69
%p:A			ns/0.13	
%p:B			**/20.32	
%p:AB			ns/0.00	
Knowledge of Abbreviations				
Mean	20.50	14.81	18.86	13.77
SD	4.30	3.88	4.16	2.60
%p:A			**/3.11	
%p:B			**/32.92	
%p:AB			ns/0.10	
Knowledge of Sports				
Mean	36.02	35.92	34.97	34.67
SD	4.84	5.13	4.79	4.27
%p:A			**/1.49	
%p:B			ns/0.05	
%p:AB			ns/0.01	

Table 2: Knowledge of Abbreviations¹ According to Background Factors (N = 303, West German Sample, Figures in % of Correct Answers; Levels of Significance on Chi-Square Tests)

Items	Total	Gender		Year	
		Male	Female	7	9
(1) EG	78.4	76.9	79.5	70.2	88.3
(2) UNO	14.2	20.8	9.0	7.1	23.4
(3) PDS	11.5	10.8	12.0	11.9	11.7
(4) VEB	12.5	17.7	8.4	13.7	12.5
(5) RGW	6.4	5.4	7.2	1.2	13.3
(6) NVA	15.2	24.6	7.8	11.9	19.5
(7) KSZE	2.0	3.8	0.6	3.0	1.6
(8) STASI	56.4	61.5	52.4	50.0	65.6
(9) NATO	21.6	28.5	16.3	19.0	24.0
(10) SED	19.9	21.5	18.7	15.5	25.8

¹ Question: Here are some abbreviations that one often hears. Please write what you think each one stands for.

Knowledge, Interest and TV Viewing

Correlation analyses were used as a test of the relationship between information-oriented TV viewing, political knowledge and political interest. So as not to confuse any relationship with media influence, the variables of age and sex were partialled out.

It should be recognised (see Table 3) that in the Bavarian sample the information-oriented viewing of public TV channels may be slight, but it correlates consistently positively with four of the five areas of knowledge (r between .15 and .17). This is not the case with private channels or with the news programming of *East German TV*. Therefore if a learning effect from watching TV news programmes is to be inferred, it can only stand for a certain section of the TV spectrum. It is worth noting that a greater interest in politics results in greater viewing of the news output of only the public channels ($r = .40$).

Political interest also caused higher viewing of information-oriented TV amongst the sample in Saxony (information-oriented programmes from public and East German TV). The *West German sample* showed the same reaction as the *East German* – that is, a greater political interest meant a greater knowledge of the four politics-related topics.

Table 3: Correlations Between TV Viewing, Knowledge, Interests and Socio-Demographic Measures (N = 303, Children and Youth in West Germany, where $r = 0.13$, $p < 0.05$, correlations simultaneously partialling out Age and Sex)

	(1)	(2)	(3)	(4)
(1) Political Interest	1.00			
(2) West German Info TV	.40	1.00		
(3) East German Info TV	-.03	.14	1.00	
(4) Priv. Channels Info TV	.03	.21	.32	1.00
(5) Knowledge/National Socialism	.23	.15	-.06	-.01
(6) Knowledge/Politicians	.35	.17	-.08	-.02
(7) Knowledge/Geography	.21	.13	.06	-.05
(8) Knowledge/Abbreviations	.06	.15	.08	-.02
(9) Knowledge/Sports	.06	-.00	-.11	-.08

Table 4: Correlations Between TV Viewing Time, Viewing of Information-Oriented Programmes, and Knowledge Scales; first column simple correlations, last three of partialled correlations, controlling for overall TV viewing time (N = 303, Children and Youth in West Germany, $r = .13$, $p < 0.05$)

	Simple r		Partial r	
	(1)	(2)	(3)	(4)
(1) TV-time	1.00			
(2) Info-TV/West Germany	.03	1.00		
(3) Info-TV/East Germany	.14	.15	1.00	
(4) Info-TV/Private Channels	.19	.23	.30	1.00
(5) Knowledge/National Socialism	-.01	.17	-.04	.06
(6) Knowledge/Politicians	-.09	.19	-.07	.04
(7) Knowledge/Geography	.03	.13	.06	-.04
(8) Knowledge/Abbreviations	.07	.16	.07	.04
(9) Knowledge/Sports	.10	.01	-.12	-.07

It is worth reconsidering the further TV-connected hypothesis in the context of the Bavarian sample (see Table 4). The possibility that information-oriented TV viewing is only a by-product of heavy viewing in general cannot be ruled out. Nevertheless, if overall TV viewing time is partialled out, its apparent influence should disappear and the relationship between information-oriented TV viewing and knowledge should emerge more clearly.

If the average daily TV viewing time is taken into account for the analysis, it becomes clear that heavy TV viewing causes an increase in viewing of information-oriented programming predominantly from the private or East German channels ($r = .14$ or $.19$), not from public channels ($r = .03$). This leads one to suppose that the young heavy viewer is characterised by his/her greater use of the entertainment programming on offer from the private broadcasters.

The quantitative index of TV viewing does not correlate in any way with the specified areas of knowledge. Put simply, heavy TV viewing is neither a help nor a hindrance to knowledge growth.

Media, Personal and School Influences

Various questions were asked for the evaluation of different information sources in respect of political knowledge. As the Bavarian results show (see Table 5), estimations of the importance of media information sources correlated consistently positively with the areas of knowledge (r maximal $.28$). On the other hand, personal information sources did not correlate in any systematic way. Included amongst these are estimates of teachers' talk and of school teaching which are shown not to be relevant in this context. Further questions which took into account actual events in school also provided no correlations with the knowledge data (the same goes for the sample from Saxony).

Table 5: Relationships Between the Various Sources of Information and Political Knowledge (correlations simultaneously partialling out age and sex; N = 303, Children and Youth in Bavaria, where $r = .13$, $p < 0.05$)

Knowledge Measures	(1) DP	(2) TV	(3) Ra	(4) Fr	(5) Pt	(6) Sc	(7) Tc
National Socialism	.15	.19	.23	.08	.11	-.03	-.10
Politicians	.26	.28	.24	-.09	.01	-.03	-.05
Geography	.15	.25	.16	-.03	.04	.04	-.01
Abbreviations	.10	.19	.17	-.07	.01	-.10	-.12
Sportspeople	.16	.11	.06	-.13	-.06	-.09	-.07

Question: When you want to find out about political events, what are your most important sources of information? (1 = unimportant, 5 = very important)

- (1) Daily Paper (DP)
- (2) TV news programmes
- (3) Radio News (Ra)
- (4) Talk with friends (Fr)
- (5) Talk with parents (Pt)
- (6) School teaching (Sc)
- (7) Talk with teachers (Tc)

Discussion

The available indications confirm some previous findings. That is, boys watch more TV news programmes than do girls, and older boys watch more than younger ones. Boys have a greater political knowledge in comparison with girls, and older boys have a greater political knowledge in comparison with younger ones.

The relationship between information-oriented TV viewing and political knowledge only exists for the public channels. There is a relationship between political interest, political knowledge and a greater degree of information-oriented TV viewing.

Information coming from the media carries more weight than does personally communicated information. Schooling has a very limited influence on this age group in this context.

The overall amount of TV watched has no importance in the two German samples. Furthermore, if the amount of TV watched is taken into consideration, there results no higher relationship between viewing information-oriented television and lasting knowledge, as might have been expected.

Less important as far as media research goes, but of immediate interest are the differences between the samples in Saxony (East Germany) and Bavaria (West Germany). These emerged to an extent in the areas of knowledge and use of information but also in political interest. The East Germans were fundamentally more motivated than their West German counterparts.

As expected, even if not until now investigated in Germany, the frequency of viewing private channel information-oriented programming had no effect on lasting knowledge.

In spite of this collection of relationships the eventual variance explained within the knowledge scales remains unsatisfactory. If all the independent variables that correlate with the knowledge scales (gender, age, political interest, information-oriented television viewing, and assessment of the daily newspaper as the most important source of information) are taken jointly as predictors for the Bavarian sample the result is to account for a variance of between 5 and 18 percent.

The question remains of where the unexplained variance comes from. That is to say, why does heavy viewing of information-oriented television lead only to a slight increase in durable knowledge? These questions can be answered with reference to those respects in which viewing differs from a school learning situation.

Television does not provide anything like a favourable learning situation, for which a viewer should put her/himself into the role of pupil (Zillman, 1990, p. 80). The features that increase viewing are not the same as those that ensure a significant learning effect (e.g., a high degree of active involvement, Zillman, 1990, p. 83).

Media supported information does not provide enough scope for individual choice; the individual is not free to explore as part of the learning process and will not necessarily develop a hierarchic knowledge structure.

The viewer is not stimulated to a deeper processing of the information supplied. Viewers may have a superficial impression of having assimilated information, but this subjective impression does not stand up to precise testing (Sturm, 1989, p. 50). TV drama may be momentarily engrossing (e.g., with its use of quick editing, zooms, change of angle) but this kind of stimulation is in no way a sufficient condition for establishing long term memory storage. According to Sturm (1989, p. 58: 'the missing split second'), the speed of depiction impedes the necessary capacity of the viewer to categorise and to name objects. Television presents a fleeting image which one cannot hold still; one cannot interrupt the programme, and even when one has a video, it is not normally used for such a purpose.

The media can only have a limited consideration of the viewer's level of knowledge (although in attempting to be understandable to a wide range of the public, a simple vocabulary and short sentences are used). If the viewer does have problems understanding material s/he has no opportunity to question or ask for further explanation. Thus individual learning is not possible.

In spite of these possible explanations for the relatively slight educational effectiveness of

television, the question still remains of what other conditions would help to produce a better forecast of the spread of knowledge. Here, longitudinal data seem promising, where the question of change in knowledge can be addressed directly, without the ambiguity that is involved in the interpretation of cross sectionally obtained data.

Notes

We would like to thank the Bavarian authorities for Education and Culture as well as the various schools involved for their permission to carry out the survey, and the speed of their response. In Saxony, because of existing contacts we were able to obtain permission directly from the respective school heads. The survey in what was East Germany was carried out by Prof. Dr. W. Kessel and Dr. U. Jahn of Leipzig University Psychology Dept.

References

- Adoni, H. (1979), Politische Meinungsbildung bei Jugendlichen. Ein Vergleich zwischen Massenmedien und Primärgruppen als Informationsvermittlung während des Wahlkampfes 1977 in Israel, in: *Fernsehen und Bildung*, 13, pp. 47-58.
- Atkin, C./Gantz, W. (1979), Wie Kinder auf Fernsehnachrichten reagieren: Nutzung, Präferenzen, Lernen, in: *Fernsehen und Bildung*, 13, pp. 21-32.
- Bonfadelli, H., Darkow, M., Eckhardt, J., Franzmann, B., Kabel, R., Maier, W., Weger, H.-D., Wiedemann, J. (1986), Jugend und Medien. Eine Studie der ARD/ZDF-Medienkommission und der Bertelsmann Stiftung, Frankfurt a.M.: A. Metzner.
- Conway, M.M., Wyckoff, M.L., Feldbaum, E., Ahern, D. (1981), The news media in children's political socialization, in: *Public Opinion Quarterly*, 45, pp. 164-178.
- Eckhardt, J., Horn, I. (1988), Ältere Menschen und Medien. Eine Studie der ARD/ZDF-Medienkommission, Frankfurt a.M.: A. Metzner.
- Gerbner, G., Gross, L., Morgan, M., Signorelli, N. (1984), Political correlates of television viewing, in: *Public Opinion Quarterly*, 48, pp. 283-300.
- Lukesch, H., Kischkel, K.-H., Amann, A., Birner, S., Hirte, M., Kern, R., Moosburger, R., Müller, L., Schubert, B., Schuller, H. (1989), Jugendmedienstudie. Eine Multi-Medien-Untersuchung über Fernsehen, Video, Kino, Video- und Computerspiele sowie Printprodukte, Regensburg: Roderer.
- Postman, N. (1985), *Wir amüsieren uns zu Tode*, Frankfurt a.M.: Fischer.
- Robinson, J.P., Levy, M.R., Davis, D.K., Woodall, W.G., Gurevich, M., Sahin, H. (1986), *The main source. Learning from Television News*, Beverly Hills: Sage.
- Saxer, U. (1988), Zur Theorie der wachsenden Wissenskluft und ihrer Tragweite aus politischer und sozialer sicht, in: *Media Perspektiven*, 5, pp. 279-286.
- Sturm, H. (1989), Wissensvermittlung und Rezipient: Die Defizite des Fernsehens, in: Klett, M., Ratzke, D. (Eds.), *Wissensvermittlung, Medien und Gesellschaft. Ein Symposium der Bertelsmann Stiftung am 23. und 24. Februar in Gütersloh* (pp. 47-76), Gütersloh: Verlag Bertelsmann-Stiftung.
- Zillman, D. (1990), Erregungsarrangements in der Wissensvermittlung durch Fernsehen, in: Klett, M., Ratzke, D. (Eds.), *Wissensvermittlung, Medien und Gesellschaft. Ein Symposium der Bertelsmann Stiftung am 23. und 24. Februar in Gütersloh* (pp. 77-99), Gütersloh: Verlag Bertelsmann-Stiftung.