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EDUCATIONAL TELEVISION: IS ANYBODY WATCHING?

by

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Support for educational television, just as the support for commercial TV, depends upon demonstration of an audience. While educational broadcasters are under less pressure than are advertisers to maximize the sets tuned to their channel, unless they can show that they are doing something for somebody they too lose their sponsors: government, school boards, or foundations.

Educational television has suffered from lack of a method to evaluate its audience and its impact upon it. For lack of better information educational television sometimes relied upon the data provided by rating services and their showing has been miserable. It has been rare indeed that an educational station has been able to demonstrate that as much as one per cent of sets in its area have been tuned to it at any given moment. Ratings for educational television have disappeared in the tail of the distribution with the resulting damage to both morale and support. But for ETV the ratings answer the wrong question. For ETV the question is not how many sets are tuned to it, but what function is it serving for the public: "Is ETV doing anything to anybody, or is it boondoggle supported because our society believes education is a good thing"?

To answer these questions a study was undertaken on the audience of WGBH-TV, the Boston educational television station. Similar studies had been attempted before. The procedure, as with some rating services, is

1. This study was conducted as part of the International Communication Program of the Center for International Studies at MIT. One of its purposes, not dealt with in the present article, was to examine sources of information about foreign affairs. The study was supported by a grant from the Office of Education, Dept. of Health, Education and Welfare.

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to phone or otherwise interview a sample of families to ascertain what program is tuned on at the moment. Listening logs and mechanical recording attachments are variants of the same approach. The first difficulty in this approach for ETV is one of reliability. A thousand or two thousand homes are phoned, five or ten persons may reply that they have the station tuned in. The subjective response of the broadcasters to this result is incredulity or demoralization, the objective one is to recognize that no useful statistical analysis can be made using five or ten cases to establish who was watching and what they got out of it. A few larger studies have been done. The National Association of Educational Broadcasters has had two national surveys made which give some sense of the audience on a nation-wide basis but without exploring any aspects of the ETV public, other than its size.

It gradually became clear that to beat these problems required a study so massive in size that it would note a significant amount of viewing in its dragnet. No other obvious way presents itself of getting at a representative sample of ETV viewers. Studies in schools for example, document behavior of a captive audience. Fortunately the National Defense Education Act Title 7, Grants for Research on Educational TV made the conduct of a large study possible.

From November 10 through December 17, 1959 and January 10 through February 24, 1960 we completed 9,140 telephone interviews between the hours of 5:00 and 10:00 on weekday evenings, and between 11:30 and 6:30 on Sundays, the hours during which WGBH-TV broadcasts.² We asked what was on at the moment and also asked retrospective questions on what programs the respondent

2. WGBH-TV also broadcasts instructional material in the morning in cooperation with local school systems. We did not attempt to study that part of its program. Following a break of several hours off the air it resumes broadcasting with cultural material intended for a varied audience.

remembered viewing, especially on WGBH-TV. As a second phase of the study we are now conducting more intensive personal interviews with selected and mixed cases portions of the viewers and non-viewers (these and their social composition being now identified in order to probe motivations and the impact of the programs upon the viewers.

The result even of phase one is a very different picture from the dismal one presented by an ordinary rating. But first let us see what the ratings would have given us.

TABLE 1

PROGRAM ON DURING INTERVIEW
WEEKDAYS COMPARED WITH SUNDAYS

	Total Set Owners* (8666)	Mondays-Fridays 5:00 P.M.-10:00 P.M. (6648)	Sundays 11:30 A.M.-6:30 P.M. (2016)
Channel 2 (WGBH)	.6%	.5%	.6%
Channel 4	19.1	20.4	14.7
Channel 5	15.5	16.5	12.3
Channel 7	14.7	14.5	15.6
Out of town channels	.5	.6	.4
Set on, program not indicated	1.4	1.4	1.1
Set not on	48.2	46.1	55.3
TOTAL	100%	100%	100%
Total TV sets on	51.8%	53.9%	44.7%
Mean time sets were on	2 hrs. 46 min.	2 hrs. 42 min.	3 hrs. 8 min.

*Total TV set owners is 8666. For 2 cases in this group, day of interview is not indicated.

We find that only one half of one per cent of all sets were tuned to ETV at any given moment on a weekday evening and that is only one per cent of the sets that were turned on. Only a tiny fraction of the public in the Boston Metropolitan Area had chosen to turn from Westerns, Variety Shows and commercials to the cultural fare that was available to them at the flick of a dial.

But before we conclude that educational television is a luxury for a top one per cent, we need to look in a more sophisticated way at what the ratings measure. The first thing to note is that our data would suggest that one half of the entire population of the Boston Metropolitan Area was sitting watching television at the moment we called. Extraordinary as the television audience in the United States may be, it is not of that order of magnitude. There may be moments that close to half the population of the country is doing this single thing, e.g., moments during the World Series or during the campaign debates, but between eating supper, washing the dishes, putting the children to bed, reading the day's paper, talking, playing games, and so forth, there is more to do than the television rating figures based on sets on would suggest. The point, of course, is that having the set on and watching it are two quite different things. As educational broadcasters are fond of pointing out, their programs are not adapted to providing background noise while the family is busy doing other things. It is hard to arrive at an estimate which relates actual viewing to the time the set is turned on. Our study produced one indicative figure, if certainly not a highly reliable one. We asked people to estimate how many hours they watch TV on an average weekday evening. The mean of this subjective estimate was one hour and 45 minutes. The mean time the sets were on estimated by whether our telephone survey caught them on or not.

was about two hours and 42 minutes during the evening up till 10:00 p.m. and an unknown time beyond that. This discrepancy of an hour or more between the two figures of course measures both the difference between subjective and objective measures and also the time the set was on but not being watched. Because of the confounding of these two variables the indicated estimate that the sets were on but not being watched by the respondents more than one third of the time is only an order of magnitude confirmation of an impression that we have anyhow.

The problem of the unattended sets is but one direction in which the ratings are seriously misleading. Only a small proportion of TV viewing is serious, sustained, concentrated attention. Advertisers are aware of this problem but don't know what to do about it. They too would often rather reach a smaller number of people paying full attention than a larger number of sets given an occasional glance. For the educator the problem is even more acute. It may be hard to define what cultural and educational material is, but one of its characteristics most certainly is a level of difficulty such that it requires more than intermittent attention. Music, jokes or brief incidents in a variety show may serve a legitimate purpose in providing background for other activities or interruptions during tedious chores. But an educational station does not seek that part of an audience's time. Nor does it seek to provide a soporific for a dozing man or woman tired from the day's chores and unwinding a bit before bed. The educational station is seeking that portion of the viewer's time which he is ready to devote to close, sustained observation of a program.

There is congruence between what the ETV station seeks and what the viewer does. Watching of educational television is purposeful, occasional and moderately serious. Previous studies have shown that programs viewed on ETV are not generally found by twiddling the dial. Viewing of a particular program is planned ahead.³ The station is seldomly left on except for the intended program.

How can the impact of such purposive viewing be measured. How in short can we get away from a rating based solely on time the set is on and based instead upon some measure of attention. Recall provides us with one way. How often and how recently have the viewers seen programs which they can still identify by specific title or information?

We asked our respondents whether they watched WGBH-TV. If the answer was "yes", we then asked what was the most recent program viewed and when. Thus we divided our population into four groups: non-viewers (i.e., persons who admitted that they do not watch Channel 2); confirmed viewers (those who claimed that Channel 2, WGBH, was watched in their home and also identified a specific program which he had watched within the past four weeks); mixed cases (such as claimed viewers but ones who could not identify a program seen, claimed viewers who had not watched within the past four weeks, those who said some other member of the family watches, etc.); and finally a small group with no TV in the household. Table 2 indicates the distribution.

³ KQED viewers tuned in on last program because:

read about it in newspaper	39.9%
just happened on it	23.1
knew about it because had	
listened before	5.5
noticed in KQED program guide	6.1
somebody told me about it	6.1
other	3.7
DK	15.6

Source: The Audience for Educational Television in the San Francisco Bay Area. Ann Arbor, 1957

TABLE 2
 DISTRIBUTION OF SAMPLE BY VIEWING OF CHANNEL 2

Confirmed Viewers	19.8%
Non-Viewers	45.4
Mixed Cases	29.6
No TV in Household	5.2
TOTAL	100%

Thus the .6 of one per cent of the Boston Metropolitan Area public watching educational television at any given moment built up over the course of a month to perhaps one third of the population giving some attention to it with one fifth, whom we will from here on call the viewers, giving enough attention to clearly identify a specific program. Twenty per cent of the public participating in education is by no means a trivial phenomenon if their participation is more than perfunctory.

It is the twenty per cent viewers whom we wish to examine more closely. Who are they, how much do they watch TV, was it only once a month or was it more often, what function did it serve in their lives? First let us examine their viewing habits. They do not differ much from the rest of the population in the amount of time they spend watching TV. Like other set owners they estimate that they spend an hour and three quarters in the evening in that activity. However, they are somewhat less prone to simply leave the set on at random as indicated by the fact that our estimate of the time the sets were on between five and ten in the evening (as judged by our catching them on) was two hours and 28 minutes for the confirmed viewers of ETV, two hours and 44 minutes for the mixed cases and two hours and 46 minutes for those who do not watch ETV.

That is a small difference and it corresponds to the fact that even the educational television viewers spend much more of their time on ordinary

commercial entertainment viewing than on ETV. Table 3 which may be compared with Table 1 indicates that WGBH had only a small percentage of the attention even of its own major audience.

TABLE 3

MONDAYS THROUGH FRIDAYS - PROGRAM ON DURING INTERVIEW

5:00 - 10:00 P.M.

	Total Set Owners* (6648)	Confirmed Viewers (1395)	Non- Viewers (3174)	Mixed Cases (2079)
Channel 2 (WGBH)	.5%	2.2%	- %	.2%
Channel 4	20.4	18.6	21.2	20.5
Channel 5	16.5	15.3	16.7	17.0
Channel 7	14.5	11.8	15.6	14.5
Out of town channels	.6	.6	.2	1.0
Set on, program not indicated	1.4	.7	1.6	1.6
Set not on	46.1	50.8	44.7	45.2
TOTAL	100%	100%	100%	100%
Total TV sets on	53.9%	49.2%	55.3	54.8%
Mean time sets were on	2 hrs. 42 min.	2 hrs. 28 min.	2 hrs. 46 min.	2 hrs. 44 min.

*Total set owners in sample is 6650. Day of week not indicated for 2 cases in this group.

Indeed it turns out that the average WGBH viewer watches the station about once every five or six days on the assumption that he typically views

a half hour program. Three different sets of figures all lead us to that conclusion. First if we take the percentage of confirmed viewers who were caught by the interview in the act of watching, we estimate that on the average six and a half minutes are spent on WGBH out of the two hours and 27 minutes that the set is on. Second if we were to assume that viewing of WGBH is no more intense than that of other stations (for reasons already noted, an unreasonably conservative assumption) the average confirmed ETV viewer spends five minutes of the hour and three quarters which he estimates he spends on ETV on WGBH. Assuming that when he watches he watches for half an hour we are led to an estimated frequency of once in six days. Finally, when we asked about the most recent program seen on WGBH and when it was seen, 24% of the confirmed weekday viewers placed it within the past day.⁴ Perhaps a small discount should be made for shortening of memory and a tendency to call whatever was done yesterday as within the past 24 hours, but this would not lower the figure below about 16 or 17%. That again suggests that there is a model pattern of viewing every five or six days. Translating these figures into ratings we find that a reasonable estimate of sets per day tuned to WGBH by confirmed viewers would be three or four per cent of all sets. If we added a few viewers from among the mixed cases, then the educational station could legitimately claim three and one half to almost five per cent of all sets tuned to it each day.

The point which we have so far documented is that even a tiny rating such as the .6 of one per cent which WGBH has at any moment builds up

4. WGBH-TV does not broadcast on Saturday.

rapidly over time to a highly respectable, indeed impressive, amount of attention to educational material. Since it is clear that viewing is not continuous but highly selective, six or so times that number of sets will tune in to the station some time in the course of an evening. Somewhere between ten and fifteen per cent of all sets will be tuned to the station in the course of a week. Perhaps ten per cent of the audience will have been provided enough stimulation for the viewer to recall the program and identify it, and by the time four weeks have elapsed, perhaps one third of all sets have been tuned to the station with one fifth of the respondents still able to describe what they have seen.

Applying these figures to the base of the population of Boston we find that educational television is providing a volume of educational material of unprecedented proportions. With 542,000 television sets estimated to be in the Boston Metropolitan Area with an average of 1.8 viewers watching a Channel 2 program on each set wherever we found it being viewed, with one fifth of the sets having been used for quite self-conscious viewing of ETV during the past four weeks and that for an average of three hours during that period, we come up with a total audience of 585,000 man-hours for the four-week period which should perhaps be raised by a third for the cases of mixed respondents. In any case, we come up with a confirmed audience of 195,000 individuals in the Boston area at an average of three hours apiece.

One reason why people are often not impressed by such a performance is that they have been over-sold by the approach of advertisers to saturation coverage at the lowest common level. If a serious monthly magazine taking three hours to peruse obtained a circulation of 195,000 readers in the Boston Metropolitan Area, it would be an extraordinary cultural phenomenon.

If an adult evening course program with classes for 45 minutes once a week were able to recruit 195,000 participants in courses, we would consider this too an extraordinary phenomenon. Perhaps these comparisons are unfair, for television in the home may not have the impact of a magazine or an evening course, but it is a comparison at least worthy of consideration and probably less unfair than the criterion of the rating service.

What sorts of people were in the audience of ETV? It goes without saying that they were better off, better educated, and more suburban than the non-viewers. The figures are of some interest and are presented in Tables 4, 5, Table 5a⁶ and 7.
A

TABLE 4

TOTAL FAMILY INCOME

<u>Family Income</u>	TOTAL (9140)	Confirmed Viewers (1810)	Non- Viewers (4149)	Mixed Cases (2707)	No TV in HH (474)
Under \$5,000	27%	21%	31%	22%	35%
\$5,000 - 7,000	24	25	23	27	18
\$7,000 - 10,000	11	17	7	13	7
over \$10,000	8	13	4	9	7
Refusal, DK, NA	30	24	35	29	33
TOTAL	100%	100%	100%	100%	100%

TABLE 5

EDUCATION

Education (last school attended; last grade completed)	TOTAL (9140)	Confirmed Viewers (1810)	Non-Viewers (4149)	Mixed Cases (2707)	No TV in HH (474)
Grade School	9%	4%	13%	6%	7%
Incomplete	3%	1%	4%	2%	2%
Complete	6	3	9	4	5
High School	42	32	48	43	16
Incomplete	11	6	15	10	5
Complete	31	26	33	33	11
Vocational or Commercial School	13	16	12	14	7
Incomplete	3	3	3	3	1
Complete	10	13	9	11	6
College	19	31	12	21	32
Incomplete	7	9	5	7	14
Complete	12	22	7	14	19
Postgraduate	5	9	2	4	18
NA	12	8	13	12	20
TOTAL	100%	100%	100%	100%	100%

TABLE 5A
EDUCATION AND FAMILY INCOME OF CONFIRMED VIEWERS

	Grade School	High School	Vocational School	College	Post Graduate
Family Income					
Under \$5,000	(404)	(1241)	(341)	(290)	(87)
% Confirmed Viewers	9%	12%	24%	24%	33%
\$5,000 - \$7,000	(114)	(1111)	(376)	(453)	(106)
% Confirmed Viewers	11%	16%	21%	32%	28%
\$7,000 - \$10,000	(23)	(308)	(181)	(363)	(94)
% Confirmed Viewers	22%	19%	31%	36%	51%
Over \$10,000	(11)	(121)	(72)	(344)	(123)
% Confirmed Viewers	18%	26%	32%	37%	39%

TABLE 6 - LOCALITY

	TOTAL (9140)	Confirmed Viewers (1810)	Non-Viewers (4149)	Mixed Cases (2707)	No TV in Household (474)
Urbanization					
Highly urbanized	41%	35%	43%	37%	68%
All other towns	59	65	57	63	32
Towns not indicated	-	-	-	-	-
TOTAL	100%	100%	100%	100%	100%

TABLE 7
CHARACTERISTICS OF CONFIRMED VIEWERS

Confirmed Viewers
as per cent of each
population stratum

Education

Grade School	10%
High School	15
Vocational School	24
College	32
Post-Graduate	37
NA	13

Family Income

Under \$5,000	16%
\$5,000 - \$7,000	21
\$7,000 - \$10,000	30
Over \$10,000	34
DK, NA, Refusal	16

Urbanization

Highly urbanized	17%
Suburban	22

Occupation of Head of Household

Professional	32%
Managers	26
Clerical	18
Sales	21
Farm	17
Craftsman	17
Operatives	12
Service workers	13
Laborers	9
Student	18
Retired	22
Unemployed	6
Housewife	15
Refusal, DK, NA	13

Viewers do not differ significantly from non-viewers in age, nor in the presence of children in the household. There is, however, a sex difference. Among women 49% were non-viewers and 18% viewers of ETV, among men 41% were non-viewers and 22% viewers, a substantially greater amount of attention to ETV by the men. WGBH is not on the air except for school courses during the day time and perhaps women are too busy in the evening, but whatever the explanation, the male character of the audience was unexpected, for culture is so often viewed as a feminine thing in our society.

These demographic differences between the ETV audience and the non-viewers are interesting, but perhaps less significant than a related behavioral finding. The ETV viewers turn out to be more participant in all recreational and cultural activities, except TV viewing, than are the non-viewers.

TABLE 8

SPARE TIME ACTIVITIES PARTICIPATED IN BY RESPONDENT

Activities	TOTAL (9140)	Confirmed Viewers (1810)	Non- Viewers (4149)	Mixed Cases (2707)	No TV in Household (474)
<u>Attend a sporting event?</u>					
No	58%	55%	62%	53%	57%
Yes	39	43	35	43	35
within last week	10%	12%	10%	11%	7%
NA	3	2	3	4	8
<u>Go to a lecture?</u>					
No	74%	65%	83%	72%	45%
Yes	22	33	13	23	47
within last week	5%	7%	3%	5%	19%
NA	4	2	4	5	8
TOTAL	100%	100%	100%	100%	100%

TABLE 8 - SPARE TIME ACTIVITIES (CONT)

	TOTAL (9140)	Confirmed Viewers (1810)	Non- Viewers (4149)	Mixed Cases (2707)	No TV in Household (474)
Take an evening course?					
No	84%	80%	88%	82%	74%
Yes	12	17	8	13	17
within last week	5%	8%	4%	6%	8%
NA	4	3	4	5	9
TOTAL	100%	100%	100%	100%	100%
Go to the movies?					
No	46%	44%	48%	46%	32%
Yes	50	54	48	49	61
within last week	10%	10%	9%	8%	18%
NA	4	2	4	5	7
TOTAL	100%	100%	100%	100%	100%
Go to the theatre?					
No	63%	54%	72%	61%	40%
Yes	32	42	24	34	52
within last week	2	4	1	2	6
NA	5	4	4	5	8
TOTAL	100%	100%	100%	100%	100%
Take part in a discussion group?					
No	80%	77%	85%	78%	71%
Yes	14	18	10	16	18
within last week	5	6	3	5	10
NA	6	5	5	6	11
TOTAL	100%	100%	100%	100%	100%

We are not surprised to find in Table 8 that they attend more lectures, go to more evening courses, go to the theatre more often, and participate in more discussion groups. But note that they also attend more sporting events and movies. Cultural level alone then is not the only variable at work. They also seem to be characterized by a trait which might be called involvement, activity, or alertness. The round of life of the viewers is a less constricted one than that of the non-viewers. They are people who are likely to seek out and participate in any activity in which they can find stimulation and interest.

We turn now from the facts about the demographic and personal characteristics of the audience established in our survey to consider the implications for ETV. What can we now say about the functions which ETV can play in the lives of its viewers? In what areas it may succeed and in which it is likely to fail. First, there is not much hope for increasing the numbers of viewers beyond what has been achieved by the more successful TV stations (WGBH in Boston, KQED in San Francisco and WQED in Pittsburgh). The viewers and non-viewers are so clearly differentiated by social and psychological characteristics that there is no reason to expect the same kind of programming to appeal to them both. In order of magnitude, if not to the last percentage point, WGBH's audience approaches full coverage of that segment of the population which is potentially receptive to serious programs. It is a minority of the population, but a considerable and significant minority.

The place where there is room for growth is in the amount of time which ETV's own audience allocates to it out of its total television viewing. That will never reach 100% nor probably 50%. Television serves many functions besides enlightening, educating or even entertaining. It serves as a babysitter, as a relaxer, as a sleeping pill, as something to occupy dead time,

as a background for dull chores. Quantitatively these purposes absorb more time than does serious viewing even for those who enjoy the latter. ETV is bound to be a limited time, purposeful activity even among persons prepared to seek its cultural stimulation.

Nonetheless, the serious problem for ETV pinpointed in this survey is the fact that its own audience watches it on the average only three hours a month. That audience which has the characteristics of enjoying and participating in all sorts of activities, of having a taste for education and cultural material, can presumably be habituated to use the opportunities that ETV can offer two, three or four times as much as it does now. The remaining research problem is to identify the functions which this audience would like ETV to fill, the needs and aspirations which they have and which the present programming is not adequately satisfying.

Over the long run the audience for ETV is bound to grow as we move past the point where 50% of the appropriate age cohort has been in college. In that sort of society ETV will come to play a significant role in the lives of an increasing minority and ultimately perhaps majority of the population. But for this role to be fulfilled we need to know more than we do now of the personal function it performs for those who enjoy it. Rating of performance on that dimension, not on sets tuned in, is what ETV needs.
