

They Want to, They Can, They Will, They Do (Adults Learn by Television)

by Judy Yates
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This paper presents a rationale for educators and administrators in the Cooperative Extension Service to increase the use of television as a medium for delivering educational programs to adults. Evidence secured by others is used to show that:

- adults spend a lot of time watching television;
- adults consider TV an effective way to acquire knowledge;
- adults and children can learn from educational TV programs;
- most any subject matter can be presented via television.

Results of the authors' research show that

- adults do watch Extension-produced educational television programs and they check out videocassettes for repeat viewing at home on video cassette recorders.

Adults Watch Television

Television is the one activity that "dominates the American family's time together. No other single activity consumes as much free time" (*How families use time*, 1986). In January, 1988, 88.6 million households in the United States had at least one television set and persons in these households watched an average of 7 hours of television each day (Nielsen, 1988).

Adults Consider TV An Effective Delivery Method

Adults prefer television over many other delivery methods for educational programs (Iams and Wilhelm, 1984; Ostman and Jeffers, 1983; Wunderlich, 1981; Wahl and Andrews, 1979). This is especially true among low income residents (Wunderlich); Iams and Wilhelm found that 49.7% of their audience perceived TV/radio to be "very effective" methods of information dissemination, compared to 28.1% for workshops. Older persons preferred adult education programs on TV over daytime serials, sports, music-variety, movies, and game shows (Ostman and Jeffers).

According to Rubin (1983), of the two types of television viewers, the information seeker spends more time watching TV than does the other—the escapist—who watches for entertainment or from habit.

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Adults and Children Learn from TV

Children and adults do learn from educational programs on television (Schramm, 1977). Wunderlich found that viewers of Extension home economics television programs not only learned but also made practice changes based upon that learning. Stewart and Soliah (1986) found a 20% improvement in knowledge gained among viewers of an Extension-produced program offered via satellite videoconference with phone-in questions. That was the same amount of knowledge gain found among other participants who attended the inperson lecture.

Most Subject Matter Is Appropriate for TV

Nearly every type of subject matter has been taught successfully by video, e.g., preparation of students for G.E.D. tests (Cervero & Cunningham, 1977), adult basic education (Maryland Department of Education, 1976), adult continuing education (Everly, 1971), technical subject matter (MacLean, 1971), and nontechnical subject matter (Moss, 1970). However, more creativity in format may be required for some subjects than for others.

Adults (and children for that matter) prefer formats other than the "talking head" or "lecturing professor" type. They want programs that are real-life, interesting (vs. strictly entertaining), and structured (Brown, 1984, & Nugent, et al., 1980). They are very concerned about efficiency. According to Allen Tough, they ask, "What is the cheapest, easiest, fastest way for me to learn to do 'that'?" and then proceed independently along this self-determined route. (Zemke & Zemke, 1981). They want the information to be "precompressed" and concise (Barrington, 1972), which is most likely to be achieved by taping a program in advance, for the camera, rather than while being presented to an audience.

Adults Watch Extension-Produced Educational Programs

In 1984, the Pinellas County, Florida, Cooperative Extension Service (PCCES) began producing and airing a series of educational television programs entitled "Extension Cords." Each program is 30 minutes in length and focuses on a single topic in horticulture, home economics, marine science, urban wildlife, or 4-H youth. This effort was initiated and implemented by the staff in a local county office, but, as with any major Extension program in Florida, the endorsement and support of state administrators was requested. It was easily obtained.

Initially, each program was aired three times per day, Monday through Friday, on the Pinellas County Government Access Cable Channel which was available to 88,500 subscriber households in the county. Times chosen for cablecasting were 10:30 a.m. (after game shows and before soap operas), 12:30 p.m. (for noon time viewing) and 5:30 p.m. (before the evening news). Three years later, three cable companies with more than 200,000 subscriber households are airing the programs four times per day, seven days per week. A 7:30 p.m. air time was added for the convenience of evening viewers.

In 1987, a local Public Broadcast Station, WUSF TV, began broadcasting these programs twice weekly to 14 adjacent counties with a total population of almost 3 million persons in 1.2 million households. The same program is broadcast twice each week at 9:00 a.m. on Wednesday and at 5:00 p.m. on Saturday.

There has never been any paid advertising for the cablecast programs; the primary source of advertising for these programs has been through free newsletters distributed to Extension clientele and through video text listings on the cable channels which air the programs. The P.B.S. broadcast programs are listed as "Extension Cords" in the weekly newspaper guides to television programming, but the program topic is not published.

Study Made to Determine Audience Size

After "Extension Cords" had been airing for 16 months, a study was done to determine the size of the viewing audience (Smith & Yates, 1986). Even after such a short period of time, it was found that more people were watching than would have been expected from them tuning in on a chance basis; i.e., estimates were that at least one person each in more than 7,700 subscriber households had watched "Extension Cords" at least once during the survey period and more than 3,700 had watched three or more times (Smith & Yates, 1988).

Over the 16 months, 66 programs were shown that, in turn, stimulated 115 calls to the PCCES office for more information on those same topics. In 1987-88, the same number (66) of cablecast programs generated 559 calls. An additional 383 calls were received in response to 49 programs presented through the public broadcast station. (The public broadcast station began airing the programs 17 weeks into the final study period.)

In four years' time, the cablecast potential viewing audience increased by 125% (from 88,500 to 200,000) and the number of calls generated by programs to this audience increased by 386% (from 115 to 559); i.e., from an average of 1.74 calls per program to 8.47. If the cable audience viewing "Extension Cords" increased in proportion to the increase in number of calls for additional information, then as many as 37,400 (original 100% + 386% = $4.86 \times 7,700$) may have watched at least once and 18,000 ($4.86 \times 3,700$) three or more times.

When the information on the 49 programs aired on public broadcast are included, the number of calls per program increased 836% from the first 66 programs aired until the last 49—from 1.74 per program to 16.3. We do not have data on the public broadcast audience, but if the number of calls from this audience represents the same number of viewers as for the cablecast audience, as many as 72,000 (original 100% + 836% increase = $9.36 \times 7,700$) may have watched the series at least once and 34,600 ($9.36 \times 3,700$) may have watched three or more times.

The above figures represent the "best case" scenario for number of viewers since any one person could have called more than once. We cannot know for sure how many persons are watching without another audience survey. However, based on the cablecast data, alone, the conclusion would be that the actual viewing audience has increased, since the number of calls per program increased more rapidly (386%) than did the size of the potential audience (125%).

At the present time, more than 200 "Extension Cords" programs have been produced. On a pilot basis, 30 of these have been placed in a local retail nursery store and another 30 in the city library for free loan. In the first 3 months of this pilot program, 250 persons checked out an "Extension Cords" program for viewing at home. The most popular programs for these 3 months were on subject matter relating to agriculture and natural resources, e.g. urban horticulture, marine science and wildlife. Because of the newness of this effort,

little data has been collected on the number of phone calls generated by the rental tapes. Since both leading locations indicate that customers are using the videotapes, plans are now under way to expand the free rental program to many other locations in the county.

In addition to the free rental program, many of the videos are used on an ongoing basis as supplements to training for Extension clientele such as Master Gardeners, Homemaker Club members, 4-H leaders and Pest Control Applicator licensees.

Conclusions

Based on the experience in Pinellas County, Florida, and evidence presented by a number of other authors, television can be viewed as an effective delivery method for Extension programming. People do spend a lot of time watching TV; they do consider TV an appropriate way to acquire information; they do learn and change their practices as a result of watching TV; and nearly any subject can be presented over TV. And, according to the PCCES study, many adults will and do watch Extension-produced educational programs and check out copies of the programs for later viewing.

Although not a new technology *per se*, television does offer possibilities as a new technology for Extension education. The payoffs are valuable:

1. A much larger audience can be reached with the same size staff, possibly a more diverse audience than those that Extension educators often reach.
2. By airing programs more than once and by establishing video lending libraries, the production costs per contact can be lowered substantially.
3. Education via television may have the added benefit of serving as a public relations/advertising tool for an Extension office, generating visibility that can play a role in funding support.

Also, there are important issues which need to be addressed by those who consider using television as a delivery method for Extension education.

1. While video education can be very cost effective, it also is capital intensive, so the issue of funding for equipment must be considered.
2. Although costs per contact may be lowered, we need to ask ourselves about the quality of the contact. Education via video may not be better than personal instruction, but neither, necessarily, is it always less preferable. If the initial contact via video can result in a person attending live educational programs, we may have the "best of all worlds."
3. To be received well, a video program must be a quality production. Training needs for staff must, also, be a priority consideration.
4. Because of costs and training needs, a system of collaboration and cooperation would be advisable to avoid duplication of costs and efforts on the part of those involved in video education.
5. Some system of review and evaluation should be devised and implemented in order to insure the success of the program as a whole.
6. More research is needed to determine the results of Extension education via video delivery methods.

While television should not and will not become a substitute for person-to-person educational delivery methods for Extension professionals, as a supplemental educational delivery method it offers new and expanded possibilities for reaching local clientele. It would serve Extension well if its home economists, agriculture agents, and 4-H agents could become visible as television authorities on our subject matter. If we don't do it, someone else will.

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Backlighting beaker dramatizes "Virus 3" potato plantlets grown from tissue culture in this award-winning photograph. A South American graduate student with the crop science department, Oregon State University, Corvallis displays the experiment. Photographer David A. King, electronic media specialist at Oregon State, received a Superior Award in the 1987 ACE Critique and Awards Program in the color transparency class for his entry. King also is ACE Director for the Western Region.