



Research in Brief

A Study of Municipal Recreation Personnel in Ontario with Implications for Continuing Education. Charles A. Griffith. Bloomington, Indiana: Indiana University, 1969. [Available from: University Microfilms, 300 N. Zeeb Road, Ann Arbor, Michigan 48106. Order number: 70-1699. Price: MF \$3.00, Xerox \$10.35.]

The goal of this study was to determine the characteristics and continuing education needs of municipally employed recreation personnel in Ontario. A questionnaire, consisting of a list of duties, a rating scale, and sections designed to secure data about the problem, was developed and then administered on a personal basis at 18 regional meetings. Completed questionnaires from a total of 108 individuals representing 58 municipalities were obtained.

Of the 108 respondents: 23 hadn't received any formalized education, 85 had completed 2 years of recreational education, and 3 out of the 85 had completed 4 years of university study. The personnel, regard-

less of previous education, recognized the need for continuing education programs that would emphasize personnel management, planning and research, public interpretations, finance, relationships between schools and municipal recreation, programing areas, and facilities. Recommendations included: (1) that the municipalities be encouraged to provide continuing education opportunities for employed personnel and (2) that research be initiated on the present methods and procedures involved in the certification of personnel.

P. Boyle

Needs—of People and Their Communities—and the Adult Educator. Ernest E. McMahon. Syracuse, New York: Syracuse University, 1970. [Order number: ED 038 551. Price: MF 50¢, HC \$4.40.]*

Focusing on community education and development, this literature review analyzes: the problem of determining community and individual needs; the issue of relevance

to the community; the meaning of need (as opposed to interests or desires); and the use of community studies, listening posts, surveys, and power structure with respect to teaching versus action, disciplines versus the interdisciplinary approach, static programs, and the setting of program objectives.

P. Boyle

A Systems Approach to New Careers: Two Papers. Six Steps to New Careers. A Systems Approach to Manpower Development in Human Services. Wretha W. Wiley and Sidney A. Fine. Kalamazoo, Michigan: Upjohn Institute for Employment Research, 1969. [Order number: ED 039 446. Price: MF 25¢, HC \$2.25.]*

These two papers concentrate on criteria for judging nonprofessional jobs or new careers for the poor, steps in developing a career advancement plan, and the systems approach to manpower development in the human services. Attention is given to the need for meaningful and challenging assignments, flexibility in recruitment and program planning, appropriateness of procedures to local conditions, and consistent job descriptions. Six steps in planning are: state long-term agency goals, set specific objectives, identify subsystems, define tasks, organize them into jobs, and organize jobs into career ladders.

The second paper briefly discusses the nature, requirements, and uses of the systems approach. The

document includes a typology of functions (data, people, things), levels of complexity, detailed scales of worker functions, and three scales of general educational development.

P. Boyle

The Comparative Academic Achievement of Women Forty Years of Age and Over and Women Eighteen to Twenty-Five Years of Age. Irma T. Halfter. Chicago, Illinois: University of Chicago, Department of Education. [Available from: Department of Photoduplication, University of Chicago Library, Swift Hall, Chicago, Illinois 60637.]

This study shows that, even after long absence from formal study, some older learners (209 women, 40 and older at 2 universities) can achieve at least as well as young learners (women aged 18-25) in the same vocational and cultural undergraduate college credit degree courses.

These were among the major findings: (1) older women showed overall performance superior to that of younger women except for mathematics and natural science courses at one of the universities, (2) older women with average and above average high school achievement were similarly average and above average in their undergraduate courses, (3) older women with above average high school records contributed disproportionately to superior performance within their

age bracket, and surpassed younger women of similar background, and (4) older women with average high school records performed slightly better than younger women.

C. Cunningham

Older People as Consumers of Education. Alan Knox. New York, New York: Columbia University, Teachers College, 1966. [Order number: ED025 716. Price: MF 25¢, HC \$1.20.]*

Knox reviewed many research articles on education for the aging to support his major points: (1) the primary influences on the learning of older adults are *learning abilities* and *interests* and (2) the secondary influences include a number of societal and personal factors about adults such as health, available income, and personal goals.

Current studies on adult learning (Knox and Sjogren)¹ support earlier studies that adults can and do learn as well as younger people. The best accepted-learning curve is one that shows rapid learning from birth to age 20 and a more gradual increase from age 20 to 50. Although it's hard to draw an exact conclusion, adults do improve their level of performance on information received, comprehension, and verbal items while their performance in perceptual and timed items decreases.

The lack of continued participation in educational activities leads to less ability to learn.

In a study of adults over 65,

Hendrickson and Barnes found that nearly one-fourth had no interest in studying any topic.² Religion, problems of older years, gardening, travel, physical fitness, and good grooming were the topics most frequently selected by the senior citizens in the urban study mentioned. Few wanted to travel to a community center for formal classes.

A definite change from vocational to cultural interests was shown in the Johnstone and Rivera study.³ Those with higher educational attainment also expressed more interest than those with lower educational attainment.

Social and *personal* influences that affect interest and learning include: (1) meeting the adult's needs at that particular time in his life, (2) adjusting to limited money available, and (3) meeting the adult's desire for less formal education.

Knox lists five points to consider in planning for adult learning:

1. The most influential variables on adult learning include levels of education, intelligence, and socioeconomic status.
2. Poor health can reduce learning ability.
3. Learning ability can decline with time from lack of relevant practice.
4. Learning at too rapid a pace places an older person at a disadvantage.
5. Older people have different incentives than younger adults.

The first two points should guide us in grouping adults, while

the third suggests remedial activity for some adults. The last two suggest that we must consider the pacing and motivating of adults.

¹ Alan B. Knox and Douglas D. Sjogren, "Achievement and Withdrawal in University Adult Education Classes," *Adult Education*, XV (Winter, 1965).

² Andrew Hendrickson and Robert F. Barnes, *The Role of Colleges and Universities in the Education of the Aged* (Columbus, Ohio: The Ohio State University, 1964), p. 231.

³ John W. C. Johnstone and Ramon J. Rivera, *Volunteer for Learning* (Chicago, Illinois: Aldine Publishing Company, 1965).

C. Cunningham

Adult Psychology. Ledford Julius Bischof. New York, New York: Harper & Row, Publishers, 1969.

"The two comprehensive theories of human nature most influencing psychology until recently have been the Freudian and the experimental-positivistic-behavioristic."¹ The history of human thought is studded with attempts to develop holistic psychologies of man. Comprehensive works in experimental psychology have followed two avenues of organization: child development and thematic. Psychology has been able to operate effectively with children because of the ample opportunities to observe children and to control independent variables.

On the other hand, when the experimental psychologist generalizes about adult behavior, he must restrict his hypotheses so that generalizations drawn from research

based on a narrow sample population (usually college students or institutionalized adults) appear to be valid.

Bischof writes from within the context of the experimental-positivistic-behavioristic theory. *Adult Psychology* is a new approach. Apparently his starting point is the success of child development psychology and more recently gerontology. The logical conclusion is that the human life can be viewed as developmental from birth to death. Bischof's particular area of interest within this wide spectrum is those adults who haven't yet reached "old age."

He deals with a number of complex issues. Psychologists lack definitive categories or concepts to deal with humans after adolescence. He discusses the work of Havighurst, Erikson, Buhler, Jung, and Maslow, among others. But the categories of these writers are based on personal observation and intuition rather than experimental data. Bischof is left with several sociological/physiological categories: adult, mature, middle age, etc. The data he's able to marshal are far too scattered to operationalize his choice of *adult psychology*.

A second area of issues with which Bischof continually wrestles is the problems of methodology in adult psychology. Many of the tools for research are based on child psychology and aren't adequate. Bischof points out the absurdities in much adult intelligence testing. The age bias of the experimenter seems

unavoidable and thoroughly annoying. To gain any substantial validity, Bischof feels that adult psychological research may need to be both cross-sectional and longitudinal. He cites the work of Terman, Cumming, Henry, and Bromley. Effective experimental research on adults requires massive and complex efforts. To further research, Bischof suggests a number of researchable questions at the end of each chapter.

Unfortunately, he doesn't discuss his rationale for the organization of *Adult Psychology*. Apparently he has employed a mixture of pragmatic concern—what research is available or might become available—and his own understanding of what constitutes the sum and parts of the adult human life in Western culture. Rather than divide adult psychology into a developmental or chronological schema, Bischof has used arenas of activity—self image, marital status, parents and family, vocations and avocations, friends and fellow citizens—plus two other categories—the body, the brain, and behavior and the next steps (aging). Possibly Bischof's most significant contribution in *Adult Psychology* is his definition of these particular categories. His approach is realistic . . . at least from my perspective.

It's easy to read Bischof when he has made the effort to sort out the noteworthy research and discuss, in more than one sentence, the findings. The research of Masters and Johnson on human sexual response receives the most substantial

review—eight pages. However, some areas of Bischof's schematic have had little reputable work reported on them (childless marriages, working women, adult play, service clubs, single adults). Bischof's thought appears to parallel that of Birren, Neugarten, Williams, Tibbits, and others who have written in the field of gerontology.

After reading *Adult Psychology*, I'm left with some nagging feelings: Will the experimental-positivistic-behavioristic approach provide us with knowledge of adults that will be congruent with our finest insights into what human life is all about? Experimental, scientific investigations by definition require the control and manipulation of variables. Maybe our greatest need isn't to learn any more about controlled and manipulated human beings. Many will value the experimental research findings which are useful in their own fields, but will decry the depersonalization of the whole enterprise. I find that this is a dreadfully inconsistent position to be in.

¹ Abraham H. Maslow, *Toward a Psychology of Being*, 2nd ed. (Princeton, New Jersey: D. Van Nostrand Company, Inc., 1968), p. ix.

R. Kleis and W. Mielke

"An Analysis of Changes in Critical Thinking Ability, Open-Mindedness, and Farm Policy Opinions of Participants in the Kellogg Farmers Study Program." Lowell F. Rothert. Ph.D. dissertation, Michigan State University, East Lansing, 1969.

Study of some outcomes of an extensive continuing education program involving young farmers starting programs in 1965, 1966, and 1967. Each three-year program featured study institutes, travel seminars, and independent study. Results indicate the program had little success in helping develop critical thinking skills, reading skills, greater open-mindedness, and skills in identifying agricultural alternatives. The highly educated had higher initial critical thinking ability and open-mindedness, but the less educated made higher gains during the course. Participants did become better able to identify realistic solutions to farm policy problems.

M. Miller

Influences on Adult Learning in the Evening College. William W. Kitchin. Chapel Hill, North Carolina: University of North Carolina, University Extension Division, 1970.

Two hundred people at the University of North Carolina were surveyed with a personal information sheet, an adjective check list, and three questionnaires. Conclusions: Students wanted learning for its own sake. More students chose lecture-discussions than all other methods combined. Accepting and interactive teachers were preferred. Student satisfaction with teaching methods was related to academic achievement. Teaching style seemed more important to student satisfaction and performance than did teaching methods. Satisfaction with teaching

styles was more related to student performance than were personality traits. Women seemed to have greater succorance needs than men.

M. Miller

"4-H Project Leader Roles: Perception of Extension Agents and Volunteer Leaders in Fourteen Tennessee Counties." Hubert E. Lambert. Master's thesis, Tennessee University, Agricultural Extension Service, Knoxville, 1969.

Questionnaires were received from 225 project leaders and 27 agents. Findings: The number of project leaders in a county didn't influence the number of 4-H tasks performed by leaders. An average of 40 percent of the leaders were performing each of 55 tasks listed. Some 71 percent of the leaders and 86 percent of the agents thought leaders should perform the tasks. Some 57 percent of the leaders and 18 percent of the agents believed leaders were qualified to perform the tasks. Agents thought leaders were best qualified to perform the planning tasks and least qualified to perform the teaching tasks of 4-H project work.

M. Miller

Graduate Instruction Via Telephone. Homer, New York: Supplementary Education Center, 1968. [Order number: ED 032 767. Price: MF 25¢, HC \$1.05.]*

Sixty-nine teachers in 14 school districts were taught reading

diagnosis by telephone. Sixty-one were tested against 15 others who received instruction in the conventional manner. Students taught by telephone did as well as others. Even though they were disturbed because they couldn't see the instructor, they felt this disadvantage was offset by the convenience of the telephone system. The instructor reported having few difficulties after initial technical troubles were eliminated.

M. Miller

Characteristics of Low and High Project Leader Task Performance and Task Qualified Groups in Selected Tennessee Counties. Extension Study No. 2. Anna B. Lucas and Cecil E. Carter. Knoxville, Tennessee: Tennessee University, Agricultural Extension Service, 1969.

High-task performance leaders were females, teachers, housewives, laborers, or professionals. Leaders with more leadership experience and training were more likely to be high-task performers than those with little or no leadership experience or training. Leaders with more training more often felt qualified to perform more tasks. How often Extension agents had given leaders information didn't significantly affect the percentage of high-task performance leaders per agent.

M. Miller

"Interpersonal Communication and the Adoption of Innovations Among Strawberry

Growers in the Lower Fraser Valley." E. Patrick Alleyne. Master's thesis, British Columbia University, Vancouver, 1968.

A study of the adoption behavior of 100 strawberry growers. Extension contact was the chief variable showing a significant, positive association with adoption. Local opinion leaders were mostly early adopters. Adoption of the 6 selected practices averaged about 70 percent, with innovators and early adopters indicating 100 percent adoption of all innovations. Some 74 percent of the respondents with more than 8 years of education, and 47 percent of those with less, were in the higher adoption categories. Participants in agricultural adult education courses tended to be innovators, early adopters, or early majority. Farm size and value, agricultural income, total income, and age (especially ages 20-34) correlated strongly with adoption.

M. Miller

Personal Contacts and the Adoption of Innovations. Rural Sociology Monograph No. 4. E. Patrick Alleyne and Coolie Verner. Vancouver, British Columbia: British Columbia University, Department of Agricultural Economics, 1969.

Another report on strawberry growers in the Fraser Valley. Although adoption generally was high, the higher adoption levels were among those with larger farms and higher incomes, those who were

younger, better educated, and had better educated wives. The study concludes: (1) personal contacts were far more effective than impersonal sources of information in effecting the adoption of innovations, (2) Extension tends to concentrate on personal contacts with a few farmers and use impersonal contacts for the majority, and (3) Extension's use of group instruction and local opinion leaders can extend the range of personal contacts and thus more effectively encourage innovation.

M. Miller

"Task Difficulty, Relaxation, and Anxiety Level During Verbal Learning and Recall." James H. Straughan and Dufort W. Henry. *Journal of Abnormal Psychology*, LXXIV (October, 1969), 621-24.

It seems that relaxation instructions help the recall of verbal material by anxious persons, but hinder the recall by nonanxious ones. These results were obtained from 121 people during their performance on the anxiety scale of the Minnesota Multiphasic Personality Inventory (MMPI). They were given either 10 easy or 10 difficult paired associations under 4 conditions of relaxation: no relaxation, relaxation to acquisition, relaxation before delayed recall, or relaxation before both acquisition and delayed recall.

M. Miller

"Effectiveness of Cooperative Extension Service Newsletters

with Different Formats Received by Dairymen in Pennsylvania." Homer F. Mazer and Emory J. Brown. Paper presented at the Adult Education Research Conference, Minneapolis, Minnesota, February 27-28, 1970.

Subject matter of the newsletters was harvesting, storing, and feeding of high-moisture corn. Studied were dairy farmers in seven counties who attended a five-week clinic relating to herd health and management. In addition to a control group, there were groups receiving these treatments: pictorial (one letter weekly for three weeks), outline (one letter weekly for three weeks), conventional paragraph (one letter weekly for three weeks), and combination of three letters received at one time.

There was no significant difference in knowledge gained among dairy farmers receiving the newsletter with different formats. There was a significant difference in knowledge scores, with the dairymen receiving the letters scoring higher than those who didn't. Younger dairymen showed a higher gain than older ones.

M. Miller

"Clientele Differences of a Cooperative Extension Program as Related to Area of Organization." John G. Gross. Ph.D. dissertation, Nebraska University, Lincoln, 1969.

Conducted in Nebraska and Missouri. Compared clientele of an

area specialist dairy testing program with clientele of generalized county-based programs. Findings: Area specialist clients were younger, operated smaller farms, milked fewer cows, and had lower gross receipts. Area specialist clients also ranked dairy specialists higher as information sources.

M. Miller

"Air Force Nurses' Participation in Programs of Continuing Education as Related to Selected Criteria." Leland R. Bennett. Ed.D. dissertation, Boston University, Massachusetts, 1968.

Studied 589 nurses including 211 who hadn't been involved in continuing education during the past 5 years. Participation was significantly related to educational levels, but not to nurses' effectiveness as officers. Age, rank, marital status, and years of service didn't correlate significantly with participation. Nurses didn't feel that participation in continuing education helps with promotions or effectiveness. Although goal orientation was related to participation, the nurses' major learning orientation was need fulfillment. Major barriers to participation were the nurses' own attitudes, perceptions of supervisor attitudes, and lack of counseling.

M. Miller

Report on Research into the Effectiveness of Medical Television Programmes, February, 1966-July, 1967. London, En-

gland: London University Institute of Education, Association for Study of Medical Education, Glasgow University Television Service, 1968. [Order number: ED 023 752. Price: MF 25¢, HC \$2.75.]*

Study of a post-medical education TV program for practicing doctors in Britain. High quality programs presenting new medical knowledge. Aimed at general practitioners working away from centers of medical sciences. Study showed a remarkably low number (7% to 21%) tuned in the programs.

M. Miller

"Adult Education by Means of Telephone." Bernadine H. Peterson. Paper presented at the Adult Education Research Conference, Minneapolis, Minnesota, February 27-28, 1970.

The University of Wisconsin Educational Telephone Network was used for a graduate credit and noncredit home economics course. Findings: Participants and program lecturers need preparation for the mechanical aspect of such experiences. Certain types of individuals function better with articulated media than others do. Visual aids in telephone instruction enhance presentations and ease remoteness. Certain skills can be learned enabling people to increase their effectiveness under telephone instruction. Telephone instruction is useful for persons scattered over wide geographical areas.

M. Miller

"A Study of Persistence of Adult Students in the Fundamental Learning Laboratories of the North Carolina Community College System." William David Killian. Ed.D. dissertation, North Carolina University, Raleigh, 1969.

The North Carolina State Board of Education in 1963 had instigated an "open-door policy," opening institutions to all adults regardless of prior educational experience. The learning labs are centers in the community colleges offering instruction of either a programmed or self-directed nature toward high school equivalency or high school diploma tests, preparation for entrance to a community college, college preparation, upgrading in specific subject areas, and study of a subject for personal satisfaction. Persistence was found to correlate positively with age and with years since attending school, but no significant correlation was found with academic ability, social adjustment, job-related objectives, or employment status.

M. Miller

"An Experimental Investigation of the Effectiveness of Group Listening, Discussion, Decision, Commitment, and Consensus in Indian Radio Forums." Navin Chand Jain. Ph.D. dissertation, Michigan State University, East Lansing, 1969.

Seventy-four adult farmers were divided into 2 groups after lis-

tening to a 25-minute radio program on new methods of storing food grains. About half the listeners from each village were assigned to discussion groups. Treatments involving decision making and commitment were then given through oral instructions.

Among the major findings: Group radio listening plus group discussions were more influential than group listening alone in bringing changes in knowledge, beliefs, attitudes, and intentions to adopt. Group discussions and group decision making were more influential than group discussions plus group listening. Public commitment was more influential in the listening-plus-discussion group than in the listening group without discussion. The usefulness of private commitment and of group consensus wasn't shown.

M. Miller

"Dropouts in High School and After High School." Janet Combs and W. W. Cooley. *American Educational Research Journal*, V (No. 3, 1968), 343-64.

How do high school dropouts differ from their contemporaries? How do they feel about dropping out of school? How well do they fair in the job market after school? These are some of the questions answered by Combs and Cooley using data from the 1960 Project TALENT.

The subjects for this study were ninth graders who were tested

as part of Project TALENT in 1960 and who later dropped out of high school. The TALENT test battery consisted of tests of I.Q., aptitudes and abilities, interests, self-perceptions, socioeconomic environment, school curriculum, and career plans. A follow-up survey in 1964 determined the students' status and feelings after dropping out of school.

The control group, with whom the dropouts were contrasted, consisted of random subsamples from the same grade as the dropouts. However, this control group didn't drop out of high school or enter college. The control group responded to the TALENT test battery at the same time as the dropouts—when in ninth grade in 1960, and also to the follow-up survey in 1964.

The controls scored significantly higher ($p = .01$) than dropouts on all 19 Project Differential Ability Tests. The differences between controls and dropouts were larger on verbal tests than on non-verbal ones. However, not all of the dropouts scored below the controls. In academic performance, 20 percent of male and 26 percent of female dropouts ranked in the upper half of their class.

In the area of interests, male dropouts scored higher on labor skills, skill trades, and musical skills while controls scored higher on sports and physical science. Female dropouts had higher scores on the more masculine interest scales such as labor skills, skill trades, mechanical and technical, hunting and fishing. Female controls were higher on

social service and bio-medical areas. Boys expressing an interest in sports were less likely to drop out.

In the area of self-perceptions, male dropouts scored higher in leadership and impulsiveness than controls. Both male and female controls perceived themselves as more tidy, calm, vigorous, self-confident, cultured, mature in personality, and sociable than did the dropouts. Dropouts reported a greater frequency of dating and more difficulty in studying and concentrating on their classwork than did the controls.

There appeared to be no differences in the social and economic level of the boys who dropped out and those who graduated. However, female controls were more likely to rank in the upper social and economic level than were the dropouts.

Over 55 percent of both male and female dropouts regretted not graduating.

With respect to employment, male dropouts were employed at the same rate as controls, but they earned slightly more. Female controls were more likely than dropouts to be employed in 1964, to hold higher level jobs, and to earn more.

Almost three-fourths of the female dropouts reported marriage as their reason for leaving school. In 1964, the percentage married among female dropouts was almost twice that of controls.

D. Stormer

Training and Staff Development. Special Report No. 18.
George P. Rowe, ed. Colum-

bia, Missouri: University of Missouri, Extension Education Department, 1970.

Between 1965 and 1970, 54 Missouri Extension youth agents resigned their positions or accepted other assignments with the Missouri Extension Division. This represents an annual turnover rate of 17 percent for the 5-year period.

Early in 1970 a questionnaire was mailed to these 54 former youth agents including 19 who had left Extension and 31 who had changed to another position. Fifty of the 54 former youth agents returned the questionnaires. Here are the findings:

1. Two-thirds (66%) of the respondents indicated they felt their opinions had little or no effect on policy decisions made by Extension administration.
2. Nearly two-thirds (64%) indicated they felt their opinion had little or no effect on program decisions made by the state youth staff.
3. Almost three-fifths (58%) viewed the youth position as a stepping stone to other positions in Extension.
4. Slightly over half of the youth agents indicated they were working in a geographical area of the state in which they didn't want to live.
5. Nearly half of the respondents felt their formal education didn't provide the academic background needed for the job. They would have preferred more graduate courses in the behavioral sciences.
6. Nearly half of the respondents indicated they had a poor understanding of the duties and responsibilities of a youth agent at the time they were employed.
7. Over two-fifths (42%) of the respondents indicated they would rather have been working in another position in Extension at the time they started to work as a youth agent.

D. Stormer

Evaluation of Educational Television in University Extension Youth Programming. Research Report No. 67. John F. Thompson, Sidney Bjorkman, and Norman O. Everson. Madison, Wisconsin: The University of Wisconsin, College of Agriculture and Life Sciences, Research Division, 1970.

Extension faculty have used mass media as a means of education and promotion since the inception of the Extension idea. Television is a more recent addition to the portfolio of Extension methods.

The most extensive and earliest use of TV as an educational medium by Extension faculty was in the Consumer Marketing Program. Both agriculture and home economics phases of Extension have employed TV to a lesser degree. Only recently has the 4-H phase of Extension been programed to youth through television. The research summary that follows is a report of

an evaluation project conducted in Wisconsin to assess the effectiveness of the 4-H TV Action series on emergency preparedness.

The key finding in this research is that upper elementary youth who watched the 4-H TV Action series acquired new knowledge of emergency preparedness.

The procedure for collecting the data utilized a pre-test, post-test, control group design. The experimental group was 99 classrooms involving 2,473 fourth-, fifth-, and sixth-grade youths in La Crosse County, Wisconsin. The control group consisted of 159 fourth-, fifth-, and sixth-grade youths in Polk County, Wisconsin, which was out of the broadcast range of the television station airing the series of programs. The treatment for the experimental group consisted of 10 television programs (known as the 4-H TV Action Series) shown over a commercial television station located in La Crosse.

Knowledge scores for the TV watching group increased by 20 percent from the pre-test to the post-test. The knowledge gain in the control group was 10 percent from the pre-test to the post-test. Subtracting the change in the control group from that of the TV watching group results in a net knowledge gain of 10 percent for the TV watching group. This increase is attributed to the effect of the television series.

Other findings include:

1. Youths in fourth grade responded more favorably to the

program than did those in the fifth and sixth grades. However, youths in grades five and six learned more.

2. Educational activities, in addition to television watching, increased learning.
3. Participation declined rapidly until the fourth program, after which the general level of participation was maintained.

D. Stormer

"The Development of Criteria for the Evaluation of the On-Going Job Performance of County Extension Employees." Lawrence Joseph Cox. Ed.D. dissertation, North Carolina State University, Raleigh, 1970.

Performance evaluation of Extension personnel has been a controversial subject since the passage of the Smith-Lever Act in 1914.

That controversy exists is evidenced by the fact that numerous formal evaluation programs initiated by state Extension offices over the years have been abandoned.

Performance evaluation is and always has been an integral part of supervision, and employees can't escape it. If evaluation isn't done formally, it'll be done informally.

The fact that most performance evaluation in Extension is done informally suggests that most formal evaluation programs have been inappropriate or misused.

If formal personnel performance evaluation is to be useful in Extension, it must be based on carefully selected criteria arrived at jointly by

those who will be doing the evaluating and those to be evaluated.

With this basic concept in mind Lawrence Cox developed criteria for the evaluation of job performance of county Extension employees in Kansas.

These criteria were based on two things: (1) job descriptions for Kansas county Extension personnel and (2) close collaboration with colleagues, advisors, and others. These criteria were then submitted to a panel of 16 judges—experienced Extension employees—to determine which of the criteria and/or their dimensions should be kept or discarded, which needed adjustments or changes in wording for those that were kept, and what suggestions for other criteria and/or dimensions should be added.

The panel of judges supported the suggested 9 criteria and 52 dimensions at or above the 75 percent level. Suggestions made, however, resulted in some changes in wording and the addition of two new dimensions.

The revised criteria and their dimensions were then submitted to all district supervisors and county Extension agents from a stratified random sample of 15 counties in Kansas. Each respondent was asked to indicate the degree of importance that should be placed on each dimension and to rank the suggested criteria, one through nine, in the order of their importance. As a result of this survey, one of the criteria was dropped from the list.

In assessing the importance of

the criteria and their dimensions, the weighted mean and discriminative power were calculated from each dimension. The correlation coefficients between each dimension and all dimensions within each criterion also were determined, and rank order correlations were made between and among the various respondent subgroups.

The weighted means for the criteria ranged from 2.73 to 3.30 on a 0- to 4-point scale. The range for the dimensions was 2.38 to 3.82. Thirty-one of the 52 dimensions (57%), received a weighted mean of 3.00 or above, thus being rated important or of major importance. On discriminative power, all dimensions appeared to have the ability to separate the "highs" from the "lows," with discriminative power ranging from 0.75 to 2.33. All but one of the correlation coefficients were significant at the .01 level.

For the rank ordering of the criteria by the 5 subgroups of Extension employees, Kendall's coefficient of concordance, $W = .51$, was significant at the .01 level.

Based on the results of the study, an evaluation instrument that included 8 criteria and 30 dimensions was proposed.

The criteria for evaluating job performance of county Extension employees minus specific dimensions suggested by Cox are as follows:

Criterion 1: Develops and maintains good public relations.

Criterion 2: Keeps up to date in subject matter and adult educa-

tion teaching methods.

Criterion 3: Gives people specific information on agriculture, home economics, youth work, and related areas.

Criterion 4: Performs or assists with such administrative functions as budgeting, reporting, coordinating, and office management necessary to the operation of a county Extension office.

Criterion 5: Recruits and trains leaders to assume responsibility for directing activities of Extension-related groups.

Criterion 6: Directs the planning of annual and ongoing programs.

Criterion 7: Serves as a resource person to influential groups concerned with community development.

Criterion 8: Uses a systematic procedure for continuous evaluation of Extension programs and procedures.

Cox proposes a working performance evaluation instrument

encompassing the eight criteria, but cautions other state Extension Services in its use. He points out that the criteria and dimensions developed were based on job descriptions for county employees in the Kansas Extension Service and may not be appropriate for other states.

C. Trent

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