

PARTICIPATION AND PERSISTENCE IN CONTINUING LIFELONG LEARNING EXPERIENCES OF THE OHIO COOPERATIVE EXTENSION SERVICE: AN INVESTIGATION USING EXPECTANCY VALENCE

Emmalou Van Tilburg, Assistant Professor
The Ohio State University

Lifelong learning is not a new concept but because the United States is rapidly becoming a nation of adults (in 15 years, the majority of Americans will be middle-aged) (Cross, 1981), the need to provide educational opportunities for continuing lifelong learners has never been as apparent as in these last decades of the twentieth century.

Not only will there be more adult learners, but they will exhibit different needs than previous populations of knowledge-seeking adults (individuals returning to the work force, those in need of retraining, displaced workers, women appearing in the job market for the first time, and adults simply struggling to keep up with life). These adult learners have a new set of needs and problems, thus providers of adult learning opportunities have never been a more needed, yet challenged, resource (Van Tilburg, 1988).

The Cooperative Extension Service is one of the largest adult education organizations in the world. Extension serves a diverse set of publics helping to develop a variety of individual skills that encourage personal growth through experiences, aid in attainment and refinement of problem-solving skills, and provide the acquisition of new information to be used in life-enriching activities (Rossano, 1985). In fact, enriching the quality of life through continuing lifelong learning opportunities has been the Extension mission since its inception in 1914 (Prawl, Medlin, & Gross, 1984).

A basic assumption in adult education and participation theory is that adult learners exhibit different characteristics from traditional students simply because they are adults. Regardless of the myriad of other reasons suggested to be related to participation in adult education programs, the simple fact that adults come with their own unique set of life experiences provides adult learners with a different set of criteria to be used in decision-making than that of traditional students. In addition, the adult individual is more capable of rational thinking and anticipating outcomes of participation and performance behavior than younger, more traditional students (Boshier, 1971; Mezirow, 1971).

Theoretical Model: One approach to understanding the adult learner which fits well into these identified adult characteristics is the use of an instrumental theory of human motivation and participation because the theory emphasizes cognitive ability and individual characteristics and choices. The model emphasizes individual circumstances, abilities and traits, role perceptions, and future anticipated valued rewards (Vroom, 1964).

A more recent modeling using Vroom's (1964) original theory on motivation was directly applied to adult learning theory by Rubenson (1977). He developed a framework with expectancy/valence properties which attempted to account for the competing forces within individuals when making the decision to participate. Rubenson's model de-emphasizes external barriers to participation and emphasizes the internal motivational factors at work in the participation phenomenon. In a sense, the model is taking a positive rather than negative approach to participation. External barriers are included in the model, however, Rubenson rather implicitly suggests that real barriers are not important; perceptions of barriers are the factors influencing participation. Rubenson's model served as the inspirational framework for the study which investigated the process by which an adult learner chooses to participate in an educational program.

Encouragers and Barriers to Participation: A number of authors (Scanlon, 1986; Johnstone & Rivera, 1965; Larson, 1980; Darkenwald, 1980; Boshier, 1971; Houle, 1961) have identified categories of factors that act as barriers or encouragers to adult participation. Johnstone and Rivera (1965) used terms such as situational barriers (time, money, child care, transportation, weather) institutional barriers (factors pertaining to the educational service provider) sociodemographic barriers (age, sex, race, income, educational level, and geographic location) and dispositional factors (self-esteem, group participation) in describing adult responses.

Other authors have identified specific factors related to participation such as: involvement with a formal organization which encouraged adult participation (Darkenwald & Merriam, 1982), people

with broad and diverse leisure activities are more likely to participate in adult educational activities (London, Wenkert, & Haggerstrom, 1963), and individuals with high levels of income are more likely to become involved with additional educational experiences (Johnstone & Rivera, 1965).

In summary, there have been a multitude of studies which have tried to identify specific categories of barriers and motivators to participation. Very few studies have looked at how factors may take on both the role of the barrier and the encourager depending on how the individual perceives it.

Purpose and Objectives

The major purpose of the study was to investigate factors related to participation and persistence with specific focus on the differences between factors affecting participation versus persistence and in turn how those factors affected satisfaction (one important, desired end result in adult participation). Research questions used to guide the study included:

1. What are the factors (barriers/encouragers) that are related to participation and persistence?
2. Are those factors different for the decision to participate and the decision to persist?
3. What are the outcomes of participation and persistence?
4. What are the best predictors of satisfaction with participation and persistence?

Procedures

This study was correlational allowing the researcher to investigate relationships between variables.

The target population was Ohio Cooperative Extension Service (OCES) adult clientele who had participated in any multi-session Extension program during 1986-87. Through interviews with OCES administration an estimated target population of 20,000 was determined. Lists of clientele participating in multi-session programs were solicited from all county agents in Ohio. A total of 599 names were offered and this list became the sample. An extensive demographic comparison (age, gender, race, place of residence) between the sample and the target population using OCES records was conducted to help alleviate external validity threats (see discussion in data collection).

The instrument used to gather data was a mail questionnaire with two forms: one used to collect data on the decision to participate and the other used to collect data on the decision to persist. The instruments were field-tested for content validity using selected OCES advisory committee members ($n = 15$). Construct validity was confirmed using factor analysis. Cronbach's alphas of factors ranged from .73 to .92. Likert-type items used to measure barriers/encouragers (51 items) were scaled as follows: 1 = discouraging to 7 = encouraging. Outcomes were measured using a similar 4-point scale (1 = strongly disagree to 4 = strongly agree; 25 items) and satisfaction was a simple 5-response choice item. Likert-type items were assumed to produce interval level data as supported by Adams, Fagot and Robinson (1965).

Data was collected during October-November 1987 following the Dillman procedure for mail questionnaire administration (1978). The sample was randomly divided into two groups; one received the "participate" questions, the other, the "persist" questions. All answered the outcomes and satisfaction information.

A total data sample of 276 (46%) was obtained. This number included 114 who attended agricultural-related programs, 52 from home economics, 5 from 4-H, 27 from community and natural resource development and 81 who listed "other" types of programs. A follow-up telephone interview was conducted with a random sample of 10% of the non-respondents; no differences were found, thus, results were generalized to the entire sample of 599. Readers may want to consider the non-randomness of the total sample before generalizing to the target population even though, based on demographic comparisons, there is little reason to believe that the sample is not representative of the target population.

Analysis using principal-component factor analysis on the SPSS-X statistical package was used to identify factors related to participation and persistence as well as to reduce outcome items to meaningful factors. Orthogonal varimax rotation of the matrix was used to increase interpretability of the factors. To identify factor components, factor loading of .5 and greater was included. Multiple regression and simple Pearson correlation coefficients were used to determine relationships between variables and best predictors.

Results

Five factors emerged which related to the decision to participate: anticipated quality of information, anticipated social involvement, anticipated difficulties with arrangements, commitment to the organization (OCES), and internal motivation (total variance explained = 58.6%) (Table 1). With the exception of commitment, these factors are consistent with previous research; the commitment factor appeared to be unique to the Cooperative Extension Service. The factor rated the highest in encouragement was the anticipated quality of the information ($x = 5.85$, $sd = .80$) but means of all five factors were between 5 and 6 on the 7-point scale. The factors which related to the decision to persist (not drop out) were essentially the same as those related to participation, but the commitment factor was replaced by the quality/personality of the teacher (55.9% of the variance explained) (Table 2). This finding might suggest that the individual transfers the initial commitment from the organization to the teacher after becoming involved. The factor which appeared to be the most encouraging to persistence was also the quality of information ($x = 6.17$, $sd = .66$). The mean scores went as low as 5.05 (the social factor mean).

Table 1
Factor Analysis Summary for the Decision to Participate

Factor ^a	X	SD	# of Items ^b	Eigen Value	% of Variance
Information	5.85	.80	5	9.75	34.8
Social	5.69	.86	5	2.09	7.5
Arrangements	5.71	.89	4	1.82	6.5
Commitment to Organiz.	5.37	.86	4	1.44	5.1
Internal Motivation	5.36	.88	4	1.32	4.7

^a Factor loadings < .50 were omitted

^b Items with NA > 25% were removed from analysis

(Removed factor matrix varimax converged in 17 iterations)

Table 2
Factor Analysis Summary for the Decision to Persist

Factor ^a	X	SD	# of Items ^b	Eigen Value	% of Variance
Teacher	5.94	.88	5	9.91	31.0
Internal Motivation	5.66	.81	5	2.74	8.6
Information	6.17	.66	5	2.27	7.1
Social	5.05	.91	4	1.67	5.2
Arrangements	5.57	.96	3	1.28	4.0

^a Factor loadings < .50 were omitted

^b Items with NA > 25% were removed from analysis

(Removed factor matrix varimax converged in 13 iterations)

Three factors emerged which related to actual outcomes of participation and persistence in a program: negative experiences, self-improvement, and social involvement (total variance explained = 48%) (Table 3). The inference was that even though individuals participated and persisted partially because they needed the information, the outcomes they received were more closely related to the actual experiences they had and the internal reward of self-improvement. Means for these three factors (on a 4-point scale) were 3.24 ($sd = .41$), 3.05 ($sd = .33$) and 1.82 ($sd = .40$), respectively.

Table 3
Factor Analysis Summary for Outcomes

Factor ^a	X	SD	# of Items ^b	Eigen Value	% of Variance
Negative Experiences	1.82	.40	8	6.37	33.5
Self-Improvement	3.24	.41	5	1.65	8.7
Social Involvement	3.05	.33	4	1.09	5.8

^a Factor loadings < .50 were omitted

^b Items with NA > 25% were removed from analysis
(Removed factor matrix varimax converged in 9 iterations)

The stepwise multiple regression produced four factors as the members of the set of best predictors, accounting for 22% of the variance in the satisfaction measure: "self-improvement" outcome factor (13%), the decision to participate "arrangements" factor (4%), the decision to persist "teacher" factor (3%), and the "negative experiences" outcomes factor (2%). The model appeared as follows: $Y' = .235 + .139X_1 + .062X_2 + .048X_3 - .069X_4$ (Table 4).

Table 4
Regression of Satisfaction with Participation on Selected Variables (stepwise entry)

Independent Variables Entered in Stepwise in Equation	Multiple R	R ²	R ² Increment	b	F
Self-Improvement Outcomes Factor	.3667	.1344	.1344	.139	46.75*
Decision to Participate Arrangements	.4180	.1747	.0403	.062	31.76*
Decision to Persist Teacher	.4503	.2028	.0281	.048	25.35*
Negative Outcomes Factor	.4704	.2213	.0185	-.069 (.235)	21.17*
(Constant)					

* $p < .05$ $Y' = .235 + .139X_1 + .062X_2 + .048X_3 - .069X_4$.

Conclusions and Recommendations

Most factors which related to participation and persistence appeared to be the same (information, social, arrangements, internal motivation); thus, the Ohio Cooperative Extension Service (OCES) and similar organizations should market educational programs emphasizing these components (to encourage participation) and should be sure to incorporate them into the programming effort (to encourage persistence). A factor encouraging initial participation and appearing to be unique to Cooperative Extension Service was that of commitment to the organization (known by its reputation). The OCES should concentrate marketing efforts to include this quality reputation.

Individuals are most satisfied when they experience self-improvement, do not have negative learning experiences, have the initial worry of arranging participation solved, and like the teacher. Because satisfaction with participation is one clear indicator of continued involvement in lifelong learning activities, the best predictors for this study's population should be noted and highlighted in the planning and conducting of future programs for similar audiences.

Even though the sample for this study appeared to be representative, a replication using truly random procedures could better explore possible hypotheses suggested by the results of this study.

References

- Adams, E.W., Fagot, R.F., & Robinson, R.E. (1965). A theory of appropriate statistics. Psychometrika, 30(2), 99-127.
- Boshier, R. (1971). Motivational orientations of adult education participants: A factor analytic exploration of Houle's typology. Adult Education, 21(2), 3-26.
- Cross, K.P. (1983). Adults as learners: Increasing participation and facilitating learning. San Francisco, CA: Jossey-Bass.
- Darkenwald, G.C. (1980). Continuing education and the hard-to-reach adult. In G.G. Darkenwald & G.A. Larson (Eds.), Reaching hard-to-reach adults. San Francisco, CA: Jossey-Bass.
- Darkenwald, G.G., & Merriam, S.B. (1982). Adult education: Foundations of practice. New York: Harper & Row.
- Dillman, D. (1978). Mail and telephone surveys: The total design method. New York: John Wiley and Sons.
- Houle, C.O. (1961). The inquiring mind. Madison, WI: University of Wisconsin Press.
- Johnstone, J., & Riviera, R. (1965). Volunteers for learning: A study of the educational pursuits of American adults. Chicago, IL: Aldine.
- Larson, G.A. (1980). Overcoming barriers to communication. In G.G. Darkenwald & G.A. Larson (Eds.), Reaching hard-to-reach adults (pp. 27-38). San Francisco, CA: Jossey-Bass.
- London, J., Werkert, R., & Haggerstrom, W.C. (1963). Adult education and social class (Cooperative Research Project 1017). Berkeley, CA: Research Center, University of California.
- Mezirow, J. (1971). Toward a theory of practice. Adult Education, 28(3), 135-147.
- Prawl, W., Medlin, R., & Gross, J. (1984). Adult and continuing education through the Cooperative Extension Service. Columbia, MO: Extension Division, University of Missouri-Columbia.
- Rossano, E. (1985). Factors associated with the turnover intentions of Ohio Cooperative Extension county agents. Unpublished doctoral dissertation, The Ohio State University, Columbus.
- Rubenson, K. (1977). Participation in recurrent education: A research review. Paris: Center for Educational Research and Innovation Organization for Economic Cooperation and Development.
- Scanlon, G.L. (1986). Identifying and addressing deterrents to participation in adult education. Unpublished manuscript.
- Van Tilburg, E. (1988). A comparison of advantaged and disadvantaged populations of adult learners using the expectancy-valency paradigm of motivation and adult learner participation, Final report. Unpublished staff study, Ohio Agricultural Research and Development Center, The Ohio State University, Columbus.
- Vroom, V.H. (1964). Work and motivation. New York: John Wiley & Sons.