

Adult educators have yet to consider the value of borrowing knowledge from other disciplines . . . tunnel vision exists.

The Nature of the Knowledge Base of Adult Education: The Example of Adult Education Participation

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The published theory and empirically founded literature of adult education has shared with other fields of study an unprecedented expansion in recent years. Nevertheless, the literature of the field is marred in several aspects. Instead of reflecting genuine interdisciplinary perspectives, much of the writing suffers from a narrowness common to much of the writing within the individual social sciences. Substantive progress in developing the unique body of knowledge of adult education is hampered by a predominant pattern of non-cumulativeness and non-integration of previous theory and research on given aspects of the field. These problems could be resolved if adult education theorists and researchers were to link the phenomena of particular interest with other information available both in the literature of adult education as well as that of parallel fields of study.

The primary purpose of this paper is to examine the unitary and disparate nature of the adult education literature by drawing on the body of theory and research relative to the phenomenon of participation in adult education. A secondary purpose is to conduct a critical review of the theory and research literature on adult education participation which has been generated in the last 20 years or so.

The Problem

Adult educators still refer to their field of study as an "emerging discipline." To support this claim they point to the growing body of knowledge "unique to the field." Almost two decades ago Jensen (1964) taught that if the discipline

were to mature, adult educators would have to effect an expansion of that unique body of knowledge by drawing from two sources. One source would be the knowledge generated by adult education practitioners in the course of their work. Dissemination of information about such experience would enable the elaboration of generalizations and principles of value to other practitioners facing similar circumstances. Knowledge based on practice, however, would probably not be adequate for the solution to all problems in the field of practice.

A second source of knowledge unique to adult education, therefore, would be knowledge which has originated in other disciplines. When faced by problems of practice beyond the scope of available knowledge, adult educators would have to employ a process of "borrowing and reformulating knowledge from other disciplines whereby they (1) determine the basic elements of the problem at hand; (2) search the literature of relevant social sciences for theoretical and/or empirically based conceptualizations of these basic elements; (3) borrow and, where necessary, recast (reformulate) that knowledge to explain more adequately the adult education situation at hand; (4) construct and test hypotheses of possible outcomes of certain courses of action suggested by the literature of the relevant social science; and (5) disseminate the findings of the applications. An extension of Jensen's perspective is that adult education would achieve maturity when it has a sufficiently large body of unique knowledge as to preclude having to draw on other disciplines for the solutions to the problems of practice.

Since Jensen outlined the above steps for attainment of disciplinary maturity, the distinctive body of knowledge identified with adult education has mushroomed. The annual output of adult education master's and doctoral theses and dissertations has doubled and trebled, as have the graduate programs of study. The membership of the Commission of Professors of Adult Education has multiplied sevenfold. Outlets for publication of theoretical and research writing on adult education have also increased. To replace the most recent previous single volume **Handbook of Adult Education** (Smith, Aker and Kidd, 1970) of almost two decades ago, 10 handbooks were published in 1980-81. Within the literature of adult education, a definite trend toward proportionately less reliance on non-adult education sources has also been noted.

Notwithstanding the exponential rise in the volume of knowledge generated each year, the actual meaning of such expansion may not necessarily be an unequivocal cause for rejoicing. Despite the encouraging *amount* of knowledge now being generated yearly in adult education, close examination of the *kind* of knowledge being produced may reveal some characteristics that may be less than optimal—characteristics which, upon being identified, may trigger healthy corrective action.

Much of the theory and research in adult education which purports to reflect an *interdisciplinary point-of-view*, for example, meets this criterion only to the extent to which the phenomena is of interest to adult education, as one discipline, are illumined by the light of constructs and propositions borrowed from a single social science. So-called interdisciplinary research in adult education is often limited to an intersection of concepts originating in no more than one social science with ongoing phenomenological or practice-related problems in adult education. In fact, seldom does the interdisciplinary nature of the literature in adult education refer to a confluence of concepts and constructs from two or more disciplines to form a comprehensive view of

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adult education-related phenomena. This limited view suggests that adult educators have yet to consider the value of borrowing knowledge from other disciplines. Indeed, it would appear that adult education theorists and researchers have followed the narrow and discipline-bound perspectives of most social scientists whose work suggest the insufficiency of explanations within the parameters of a single social science discipline.

Because the contributors to the unique body of knowledge in adult education tend to overemphasize and overly depend upon psychology in particular as the basis of their theoretical and empirical work, the North American literature demonstrates a condition which might be referred to as "psychological reductionism." Indeed, we find a remarkable predilection to explain adult education behaviors in terms of the relative salience of a cluster of psychological variables, with only passing reference to one or more social background (sociological) variables, usually selected to stand as proxy measures for more substantive variables excluded from the analysis. One result of the pervasive "tunnel vision" is that the magnitude of the variance accounted for in most research has not kept pace with the actual number of studies being reported (Smith, 1980). Though the magnitude of the variance in the dependent variable is not usually estimated in adult education research, the same question of quality vis-a-vis quantity may lead to similar conclusions with respect to the still emerging discipline of adult education.

Another consequence of the single social science "tunnel vision" with which adult education research appears to be afflicted is that the *uniqueness* of the corpus of knowledge of adult education may be more *apparent* than *real*. In following Jensen's counsel to find one's relevant variables within a single social science, adult educators have overlooked knowledge which has been generated not only in various social science disciplines, but they have also overlooked knowledge which has been generated in reference to other (even related) fields of practice.

These characteristics of adult education theory and research—psychological reductionism and lack of cumulativeness and comprehensiveness—are perhaps nowhere more evident than in the literature which has emerged in the past three decades with respect to the phenomenon of participation in adult education. In the following section, the salient features of that literature, first in terms of the research and second in terms of the theory, are critically examined.

Adult Education Participation Research

During the past three decades, the research of the phenomena subsumed by the term *adult education participation* developed two divergent traditions. One tradition, based on surveys of randomly selected samples of the U.S. population, stressed participation in organized adult education activities and was exemplified by the landmark study of voluntary learning by Johnstone and Rivera (1965), a replication of that study by Carp, Roelfs, and Peterson (1974), and an application of similar methodology in a Canadian context by Waniewicz (1975). Generating numerous frequency distributions and contingency tables to portray suspected and real relationships between participation and both characteristics of program and client, these participation studies have provided valuable inventories and comparative data on different categories of participants. Because these studies did not include theoretical explanations for their finding, it appears that adult education researchers followed a pattern of research not dissimilar to the sociolo-

gist "fact-finders" of past decades who also emphasized collection, tabulation, and presentation of data devoid of guiding theoretical paradigms.

Crucial to an understanding of each of these studies is the fact that, depending upon the wording of the questions which elicited information from respondents about their participation, the rate of such involvement in all adult education activities ranged from 22 (Johnstone and Rivera, 1965) to 31 percent (Carp, Roelfs, and Peterson, 1974). None of these studies employed statistical analysis of the relationships noted between participation and a variety of social and demographic characteristics of respondents. With only slight variation, the overall conclusions of the three sets of researchers could be stated thus:

The adult education participant is just as often a woman as a man, is typically under 40, has completed high school or more, enjoys an above-average income, works fulltime and most often in a white-collar occupation, is married and has children, lived in an urbanized area but more likely in a suburb than a large city, and is found in all parts of the country, but more frequently in the West than in other regions (Johnstone and Rivera, 1965, p. 8).

The second research tradition emphasized individual participation in the full range of adult education activities, including those that were self-planned and self-directed (outside as well as inside formal educational and group settings). The principle research focus of Allen Tough, the foremost proponent of this alternative research tradition, has been on the number and nature of "learning projects." His principle method of data collection was in-depth probing interviews in which respondents were asked to recall not only all of their learning projects for the previous 12 months, but also the numbers of hours spent in each project. After 1970 numerous researchers corroborated the extent of adult learning projects across adult populations differentiated by such factors as geography, occupation, age, and formal education attainment. With the exception of a national probability sample study of adult learning projects (Penland, 1977), however, the vast majority utilized weak sampling strategies, measures of unknown reliability and validity, descriptive rather than analytical research procedures, and precipitated only minor additions to the findings originally reported by Tough (1968). Summarizing the findings of more than 30 studies which followed in the wake of this original work, Tough reported that

approximately 90 percent of all adults were engaged in at least one learning project per year. Additionally, the typical learner conducts five quite distinct learning projects in one year. He or she learns five distinct areas of knowledge and skill. The person spends an average of 100 hours per learning effort—a total of 500 hours per year. Almost 10 hours per week (Tough, 1968, p. 192).

Examination of the adult education participation research in the two traditions leads to the inescapable conclusion that the incidence of participation in an adult population is largely a function of divergent definitions of adult education and consequently different data collection strategies. When participation is defined in such a way that emphasis is given to institutionally sponsored programs, reported participation rates tend to be low (22–31 percent). When participation is defined in terms of the "totality" of all learning efforts, reported participation rates tend to be high (as much as 90 percent), although the number of learning projects recorded can vary considerably according to the interviewer's understanding and skill, data collection

method, and interviewee's recall (Tough, 1977, p. 192). The extent to which "response set" and the tendency of respondents to supply what they perceive to be socially desirable answers represent confounding factors in such research has yet to be determined.

Two basic weaknesses of studies in both research traditions is a preponderant emphasis on atheoretical description and, with the exceptions of the Penland study, eschewal of multivariate (or even univariate) statistical analyses. Although formal education attainment, socioeconomic status, and age have each been shown to be covary significantly with adult education participation, in the absence of any guiding theory and meaningful statistical analysis, research has yet to be designed to explain these relationships. Having exhausted for the time being the meaning to be derived from merely descriptive studies, the research on adult education participation thus now needs to go beyond mere "fact finding." It must be designed, conducted, and analyzed in the light of sound theoretical explanation. Attempts to develop such explanations are reviewed in the following section.

Models of Adult Education Participation

To explain why men and women engage in various forms of educational activity, several theoretical models have been proposed. Though couched in different terms, most of these models describe participation as a function of motivation resulting from interactions between adults and either their internal or external environment.

In one of the earliest explanations, Miller (1967) proposed a model of participation/non-participation behavior as a function of one's position relative to Maslow's (1954) hierarchy of human needs and the particular configuration of countervailing positive and negative forces (Lewin, 1974) attendant to one's life space. As socioeconomic status increases, low-level basic needs are met, higher needs are activated, the ration of negative to positive forces declines accordingly, and both internal and external conditions become more conducive to participation. Although this model was published two decades ago, few researchers have attempted to test its adequacy. Perhaps the apparent lack of attention is due to the model's considerable ambiguity associated with application of socioeconomic status vis-a-vis both the needs hierarchy and the configuration of countervailing forces.

As drawing on Lewin's force-field theory, Rubenson (1977) conceptualized participation as an outcome of motivation which comprised both (1) expectancy and (2) valence. Expectancy, in turn, results from the product of (a) expectations of success in learning and (b) expectations of positive consequences of such success. Valence is the sum total of all positive and negative values the individual assigns to a given activity. The strength of the motivation to participate is determined by the interaction of both expectancy and valence which, in turn, are affected by an individual's previous experiences, the social environment, and personal needs. People who participate in adult education tend to see themselves capable of learning, value and anticipate outcomes of such learning, and view such participation as related to their personal needs. One of the major contributions of this Lewinian framework is that it draws attention to the importance of not only the impact of the individual's social experiences, but also on the individual's perceptions (valence and expectancies) formed by those social experiences.

According to Boshier's "Congruence Model" (1973), motivation to participate in adult education results from in-

teraction between internal psychological and external environmental variables. Motivation to participate tends to correspond to the level of congruence between the self-concept and the nature of the educational program. The model leaves unanswered basic questions about the impact of external and non-educational program environments. The emphasis placed on education environments bespeaks a pro-educational institutional bias, overlooks the potential contribution to the formation of participation-motivation to be made from informal, extra-educational institution, self-directed, and natural societal learning contexts. Such bias is perhaps understandable in light of the fact that Boshier's Education Participation Scale to date has been administered solely to adults already enrolled in formal adult education programs.

Incorporating selected elements of the theoretical frameworks advanced by Miller, Rubenson, and Boshier, Cross (1981) devised a "Chain-of-Response (COR) Model" to accommodate existing and new research on adult education participation. This seven-stage "stream of action" model began with (a) the learner's own self-evaluation which influences and is influenced by (b) the learner's attitude toward education. Both (a) and (b) impact upon (c) motivation to learn defined in terms of "the importance of goals, and expectations that participation will meet goals." Motivation to learn is also influenced by (d) life transitions, i.e., the adult's participation relative to the life cycle. From c, the response process extends to (e) opportunities and barriers which are also affected by (f) information. Reflecting a predominantly psychological orientation, Cross stipulates that although the reciprocal relations among the variables, the primary path of the chain-response begins with the individual and proceeds to the external environment. If responses along this chain are overwhelmingly positive, the result will be (g) a decision to participate in a given learning activity. As with previous models, the COR Model combined both external environmental factors (life transition, access to information, and barriers and opportunities) and internal psychological factors (self-concept, attitudes toward education, and motivation) which interact to produce the behavioral outcomes of participation. One contribution of the model to the ongoing participation theoretical discussion is its introduction to the factors of position in life cycle, information, access (opportunities and barriers), and educational attitudes.

Proceeding from the premise that "participation research in adult education, with a few notable exceptions, has given scant attention to theory, and the social sciences have neglected theory building in the more general domain of social participation," Darkenwald and Merriam (1982, pp. 141ff) advanced their own "Psychosocial Interaction Model." According to this view, the probability of participation is a function of the following variable sequence: (a) early individual and family characteristics, (b) preparatory education and socialization, (c) socioeconomic status, (d) learning press (the extent to which one's total current environment requires or encourages further learning), (e) perceived value and utility of adult education, (f) readiness to participate, (g) participation stimuli, and (h) barriers to participation. Besides the inclusion of more social factors than previous models, perhaps the most important contribution of this model was the attention given to "learning press" which comprises other forms of social participation, occupational complexity, and life-style. However, as a comprehensive model of participation in the totality of adult learning activities, the model fell short. As with the previous models, it restricted the focus to *organized* adult educa-

tional participation. However, unlike the four models previously reviewed which emphasized psychological factors, it excluded such factors "not because individual traits and attitudes are unimportant but because less is known about their influence on participation" (1982, p. 142).

Each of these five models constituted efforts by their respective authors to delineate the process whereby adults come to participate in adult education activities. With the exception of the "Psychosocial Interaction Model," they reflected a predominantly psychological rather than a sociological or interdisciplinary perspective. The first four models reviewed posited participation as a function of motivation which, in turn, was treated as a consequent of complex interactions between certain psychological and external environmental factors. Notwithstanding their common understanding of the importance of the two categories of interacting factors, the five sets of authors differed significantly in the choice of factors within each category. Of the 18 factors identified by one or more of the five models, seven factors were named in two, and 10 factors were named in different single models. It may be concluded, on the basis of this comparison, that the models constituted virtually independent and unrelated efforts to provide explanations—rather than incrementally developed formulations moving toward a more comprehensive explanation of adult education participation.

It is interesting to note that relatively few of the factors listed by these five models have been researched as plausible "predictors" of participation. Of the psychological variables, none has been so examined. Of the environmental factors, only current socioeconomic status (SES) and formal education attainment as a component of SES, and position in life cycle (limited to inferences on the basis of age and marital status) have been studied and then only superficially. No research to date has been designed to understand the nature of relationships between these variables and participation. The relative importance of any of these factors, in terms of the amount of variance contributed to participation, remains to be determined.

A Comprehensive Theoretical Framework

If progress is to be made in closing the gap between the research and theory of adult education participation, a more comprehensive framework which is capable of guiding future research efforts must be developed. Drawing on the experience of researchers and theorists on the broader phenomenon of *social participation*, such a model, the *inter-disciplinary, sequential specificity, time-allocation, life-span (ISSTAL) model* of social participation (Smith, 1980) was applied to all previous theoretical and research efforts relative to adult education participation (See Cookson, 1986). According to this model, adult education participation (as one manifestation of social participation) is the behavioral outcome of the joint linear influence of six sets of independent variables. In two studies conducted by the author in Vancouver, British Columbia, one or more variables in each of five of the six categories of independent variables specified in the ISSTAL model were examined for the magnitude of their impact on adult education participation. **Social positional characteristics**, because of the relatively greater ease of measurement, were represented more adequately than other variable categories. *Personality characteristics* were represented by four of the same personality factors reported in several national studies of the effects of certain work conditions on psychological function (Kohn, 1969; Kohn and Schooler, 1969). *Attitudinal dispositions* included attitudes about religious activity and about the job, as well

as the magnitude of interest in further learning activities. *Beliefs and opinions* included three factors based on a multiple item measure constructed by the author of opinions regarding the appropriateness of teacher-directed vis-a-vis learner-directed learning activities and a single item measure of the belief that the respondent's job contributed to humanity. *Definition of the situation* variables comprised perceptions of the extent of personal energy available in discretionary time to expend on (a) non-work obligations and on (b) leisure.

To avoid the trap of converting adult education participation to a dichotomous or trichotomous variable, the Litchfield (1965) Leisure Activities Scale (Short Form) was chosen to measure the criterion variable. The Leisure Activities Survey takes into account the continuous nature of adult education participation in both organized and natural societal settings. Scores for the individual items generated in the study based on questionnaire responses from 386 night school participants were subjected to factor analysis. For the respondents in both the questionnaire study and a study based on face-to-face interviews with 50 randomly selected employed male household heads in a low income urban area, the following four learning-related factors, comprising the sum of all pertinent item factor loadings, were computed: *Informative Meeting Attendance, Non-fictional Book Reading, Magazine Reading, and Informative Television Watching*.

Although the limitations of space preclude summarization of the findings of the two studies, suffice it to say that the relationships between the independent variables within the five ISSTAL categories and the outcome variable of adult education participation were examined. In general, few relationships were found to be significant. A detailed discussion of the results of multiple regression analyses of the hypothesized relationships was reported elsewhere (Cookson, 1987). The tentative nature of these findings, however, precludes definitive conclusions at this time.

Conclusions

The characteristics of adult education research, i.e., is disciplinary-boundedness, unawareness of parallel streams of research in other fields of study, its lack of a theoretical base, and its notable lack of "cumulativeness," may be cited as reasons for the absence of more substantive progress in the generation of new knowledge in adult education. However, they may also be viewed as symptomatic of a more basic problem: the absence of comprehensive, integrative theories or models which enable categorization and explanation of relationships between adult education-related behavior and a full range of possible independent or dependent variables. What theories do exist tend to be "mini-theories" which suffer from a view that is narrow, incomplete, discipline-bound, and usually restricted to a psychological view of reality.

With respect to one area of consistent attention in the adult education literature—adult education participation—a step in the direction of such a comprehensive theory has been the positing of the relevance of the ISSTAL model. This theoretical construct has been shown by Cookson (1986) to subsume not only all theoretical explanations, but at the same time *all* previously published research. Although the model has yet to be tested outside the Vancouver, British Columbia context, further applications of the ISSTAL model, as well as possible counterpart theoretical models concerned with other sets of adult education phenomena, could have the following results: separate and disparate strands of adult education theory and research can be

brought together; commonalities among adult education studies and parallel fields could be discerned; gaps in existing theoretical and empirically based knowledge could be identified; and efforts could be mounted to close systematically those gaps through genuinely cumulative, innovative, and interdisciplinary research. New contributions to the unique body of knowledge of adult education could be made which more precisely and accurately resemble the innumerable realities affecting and comprising adult education behavior.

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