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RELATIONSHIPS BETWEEN MOTIVATIONAL ORIENTATIONS AND
PARTICIPANT SATISFACTION WITH INSTRUCTIONAL ENVIRONMENTS

by

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ABSTRACT

The literature on motivational orientations suggests that participants' reasons for taking courses possibly have an impact on their subsequent perceptions of and behaviour in those courses. Yet few studies have empirically investigated this relationship. Previous motivational orientation research has focused instead on variables that "predict" participation. The purpose of this study was to investigate the extent to which participant satisfaction with instructional environments is predicted by their motivational orientations.

Subjects were 222 participants enrolled in general interest and largely non-credit courses in four institutions in lower mainland British Columbia. At the beginning of each course subjects completed the Education Participation Scale (EPS) which measures motivational orientations and a questionnaire eliciting socio-economic information. Toward the end of each course, most of which were eight to thirteen weeks long, participants completed a modified Personality and Educational Environment Scales (PEES) which measured their "satisfaction" with five aspects of their instructional environments: Other Adult Education Students; Myself; My Instructor; Course Content; and Course Setting.

PEES ratings were factor analyzed to yield three factors resembling those produced by Boshier (1973): Sociability; Intellectual Potency; and Conventionality. Scores on each of these factors for each of the five environmental concepts were used as the dependent variables in multiple regression equations where six EPS factor scores and socio-economic data were independent. Univariate and bivariate analyses were performed as well.

The results of the analyses gave rise to the following conclusions. All the predictor variables accounted for less than eighteen percent of the variability in participant satisfaction with their instructional environments. This suggests that participants' motivational predispositions do not strongly determine satisfaction. If motivation and other "internal" psychological variables are not strong predictors of participant satisfaction, substantial amounts of variance must lie elsewhere. In speculating about sources of unexplained variance (in satisfaction) it is probable that the quality of instruction is a powerful determinant; a good instructor can induce high (or low) levels of satisfaction irrespective of participant motivation. Other external variables such as physical setting, climate, and so on, probably have minimal effects compared to those associated with the quality of instruction and the characteristics of the instructor. If correct, this conclusion suggests a need for behaviouristic, rather than mentalistic studies of participant satisfaction.

In general, the variables employed did not explain large amounts of variability in satisfaction. However, satisfaction with "things" in the instructional environment was easier to explain than satisfaction with "persons." Theoretically, the study questioned the utility of trying to explain participant satisfaction in terms of internal variables. Practically, the study appeared to suggest that satisfaction largely stems from the influence of external (instruction-related) variables in interaction with internal variables. These external variables are probably under the control of the instructor.

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CHAPTER I

BACKGROUND TO THE PROBLEM

Introduction

Adult educators have long been concerned with facilitating participation. The concept of lifelong education proposed with foresight in the 1919 Report rings true today amidst widespread concern over the increasing obsolescence of traditional systems of education in a rapidly changing world. Organizations like the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and the Club of Rome have sponsored reports (Faure, et al., 1972; Botkin, Elmandjra, and Malitza, 1979) which call for the elimination of barriers to participation and the development of "participatory learning" modes at the individual and societal levels, thereby reinforcing the efforts of adult educators to be responsive to the needs and expectations of participants in programs and instructional environments which they create.

To date, adult educators have generated research on adult learners' reasons for participation in the belief that greater understanding of what "motivates" them will help resolve intransigent problems related to learner dissatisfaction such as dropout. Researchers have assumed that knowledge about the learner's motivational orientations may lead to effective control or tailoring of educational programs and environments to produce a "good fit" with their (the learners') purposes and expectations. This notion of "good fit" further assumes that participants in adult education courses would be more satisfied with this condition than with

"poor fit"; hence they would be less likely to dropout and more likely to participate again in the future.

While previous studies on motivational orientations have produced valid and reliable factors which describe reasons for participation they have revealed comparatively little about the underlying psychological, motivational, and environmental forces which may impel such orientations (Boshier, 1976). As Boshier (1980) noted, motivational orientations should not be thought of as "motives" in the psychological sense, but only as clusters of reasons for participation. A number of studies (Haag, 1976; Riddell, 1976; Blakley, 1979) which did focus on internal psychological and motivational variables that "predict" reasons for participation added to understanding by increasing the proportion of explained variability in motivational orientations.

However, future research should be directed toward person/environment interactions and not just to the investigation of variables that arise within the person. To date, few studies have examined the impact of motivational orientations (at their present level of theoretical development) on the behaviour or perceptions of participants in environments created by adult education instructors. Yet without this knowledge adult educators can only guess about relationships between reasons for participation and the experience of learners in courses.

The literature on motivational orientations frequently suggests that participants' reasons for taking a course (antecedent factors) are likely to be significantly related to their subsequent perceptions of it. Yet, for the most part, such statements have remained untested and without any explicit theoretical rationale. One exception to this was Boshier's

(1973; 1977) model (Figure 1) concerning factors related to dropout.

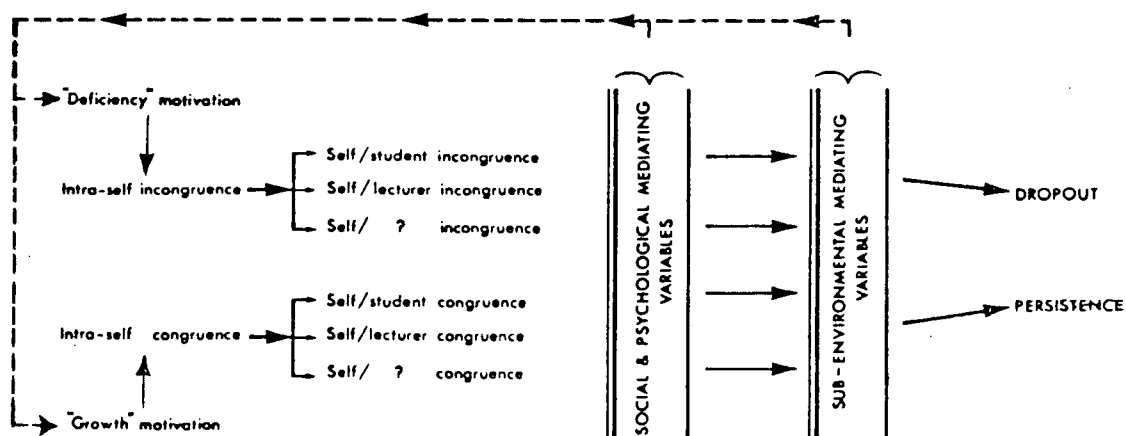


Figure 1. Model detailing hypothesized relationships between motive for attendance, congruence, mediating variables and dropout from adult education (Boshier, 1977).

Based on a factor analytic investigation of Houle's (1961) typology of adult learners and drawing on Haag's (1976) study on the psychological underpinnings of motivational orientations, Boshier attempted to link the motivational orientation factors of his Education Participation Scale (EPS) with neuroticism and self-actualization scores which resembled Maslow's (1954) description of deficiency and growth motivation. Boshier's model shows "deficiency" motivation leading to states of intra-self incongruence and subsequently to inter-self incongruence between self/others, self/instructor, and potentially self/non-personological factors such as institution and course content. It depicts "growth" motivation as leading to states of intra-self and inter-self congruence. Where the likelihood of incongruence in the learner is high, Boshier suggested that participant dropout is more probable, due to the effects of "mediating" variables

which precipitate this behaviour. Thus, motivational orientation (EPS) factors which correlated with estimated measures of either "deficiency" or "growth" motivation were acting as potential predictors of participation behaviour in Boshier's model of dropout.

Although some of the relationships within Boshier's model have been tested, he did not empirically investigate the impact of motivational orientations which approximate deficiency and growth motivation on participants' feelings of "goodness of fit" or overall satisfaction with the courses for which they enrolled. What is of particular interest to this study is that untested part of Boshier's model which displays person/environment interactions where environment consists of personological and non-personological factors to which participants relate in terms of their own motivational orientations. This study attempts to add to tested knowledge about participation in adult education by directly investigating the relationship between motivational orientations and instructional environments conceptualized in terms of both persons and things.

Much of adult education literature considers that person/person interactions (e.g. participant/instructor) account for a significant amount of the "goodness of fit" between participants and courses. However, as Verner (1962) was careful to point out, distinctions should be made among methods, techniques, and devices as possible sources of influence and adjustment within instructional settings. Techniques and methods refer to person/person interactions (e.g. participant/instructor and participant/other participants). While Verner viewed devices as subsidiary to techniques of instruction his descriptions concerning the uses of devices

clearly refer to person/thing interactions.

Knowles (1970) also referred to person/thing interactions in the learning environment. For both the program planning and management of instruction levels he proposed that the first concern is to establish a climate conducive to adult learning. A substantial part of this step is the creation of a physical environment which puts adults at ease. Knowles proposed that the distinctive characteristics of adult learners, particularly an adult's self-concept, give rise to certain expectations about how they want to be treated by adult educators. He made the point that physical environments should be congruent with those expectations in order to facilitate adult learning. Otherwise, a poor physical environment might impede learning.

Boshier, Verner, and Knowles have each, in his own way, acknowledged that there are both "person" and "thing" dimensions in instructional environments. Additional support for this view comes from environmental psychology. Little (1976) proposed in "Specialization and the Varieties of Environmental Experience" that "persons", "things", and "self" constitute the primary objects of environmental specialization in personality psychology. According to Little, individuals construe or perceive the environment differently, thereby manifesting a generalized disposition to be oriented towards persons or things, sometimes both persons and things, or to neither persons nor things. He labelled these four primary specialist groups Person Specialist, Thing Specialist, Generalist, and Non-Specialist respectively (Figure 2).

This investigation incorporated measures relating to the more general distinction between person--psychological and thing--physicalistic

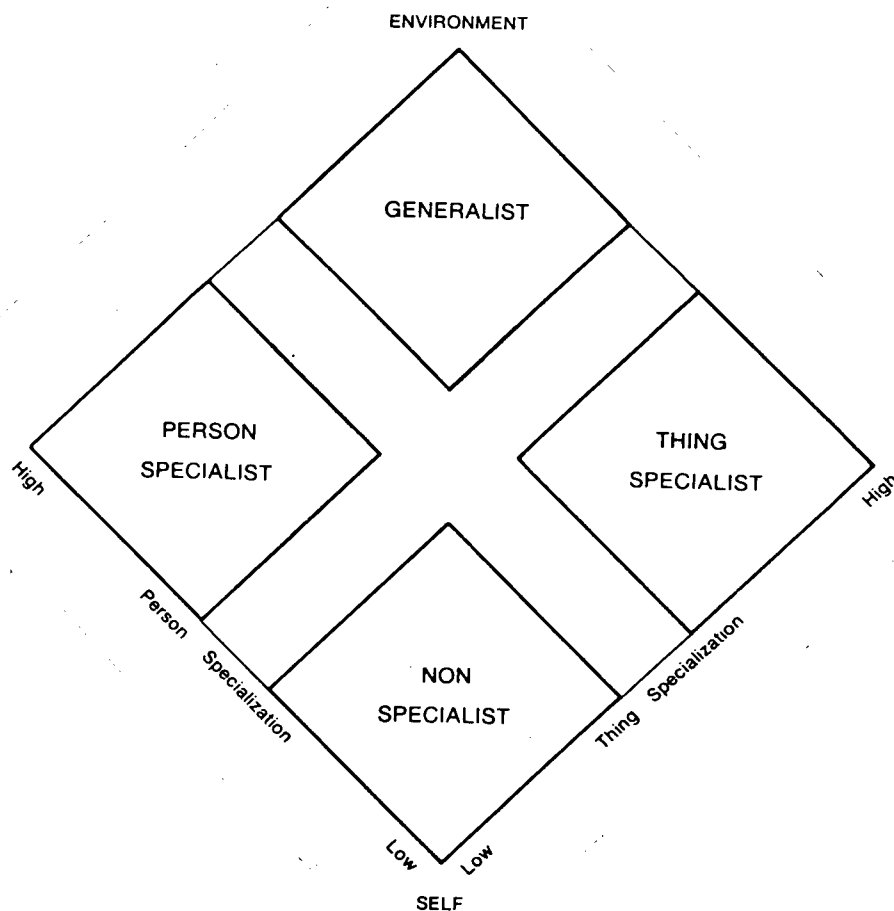


Figure 2. Schematic representation of the four primary specialist groups--nonspecialists, person-specialists, thing-specialists, and generalists (Little, 1976).

orientations. After taking into account dimensions within instructional environments, this study investigated participant satisfaction with five aspects, three of which are "person" concepts and two of which are "thing" concepts. The "person" concepts used to measure satisfaction were Other Adult Education Students, Myself, and My Instructor. The "thing" concepts were Course Content and Course Setting. Course Content underlies program planning and needs assessment. Course Setting, as Knowles (1970) indicated, is fundamental to the first event of instruction.

The present study was designed to relate motivational orientations with participant satisfaction. Rather than correlating motivational orientations with "general" satisfaction, it was felt that understanding would be enhanced if a distinction was made between "person" and "thing" elements of instructional environments.

Approaches to the Study of Motivational Orientations

Two different approaches have characterized the research on motivation for participation in adult education. The bulk of research has focused on reasons for participation which existed prior to actual participation. Table 1 lists the studies related to both lines of research on motivation for participation. Clearly, very little research has

TABLE 1

Studies Directed Toward Two Lines of Research
on Motivation for Participation

Motivational Factors Antecedent to Participation	Motivational Factors Related to Behaviours Consequent to Participation
Houle (1961)	Boshier (1973)
Sheffield (1964)	Potvin (1978)
Douglah (1970)	
Boshier (1971)	
Burgess (1971)	
Sovie (1972)	
Grabowski (1972)	
Morstain & Smart (1974)	
Dickinson & Clark (1975)	
Haag (1976)	
Zack (1976)	
Riddell (1976)	
Denney (1978)	
Baker (1978)	
Blakley (1979)	

investigated the relationships between factors antecedent to participation

and the consequent factors arising from participation. The purpose of this section is to review these two lines of research.

Research on Motivational Factors Antecedent to Participation

The study of motivational orientations or reasons given for participation began with Houle's (1961) report, The Inquiring Mind. On the basis of interviews with 22 continuing learners he proposed that adult learners typically exhibit one of three types of motivational orientations. According to Houle, every individual possessed one orientation more strongly than the other two. He suggested that goal-oriented learners have an explicit purpose or goal to achieve which accounts for their participation. Activity-oriented learners were thought by him to participate more for reasons of social contact and activity than interest in a particular course content. Learning-oriented participants appeared to be those who had a primary interest in seeking knowledge for its own sake. Houle's three factor typology of motivational orientations has spawned much additional research concerned with testing its validity.

Sheffield (1964) constructed the Continuing Learning Orientation Index (CLOI) consisting of 58 items. Factor analysis of response data yielded five factors which he labelled societal-goal, personal goal, need fulfillment, sociability, and learning orientations. Other researchers have employed this instrument (Sovie, 1972; Dickinson and Clark, 1975). Burgess (1971) constructed the 70 item Reasons for Educational Participation scale (REP) which yielded seven factors similar to those of Sheffield with the exception of the factor "to reach a religious goal." Unlike Burgess, other researchers have not incorporated religious items in their

instruments. Boshier (1971) constructed a 48 item Education Participation Scale (EPS) with which he measured motives for participation for adult learners in New Zealand. Subsequent modification of the instrument reduced the number of items to 40. Other researchers have employed this instrument (Morstain and Smart, 1974; Haag, 1976; Riddell, 1976; Denney; 1978; Baker, 1979; Blakley, 1979). The Education Participation Scale yields six factors labelled Professional Advancement, Social Welfare, Escape/Stimulation, Social Contact, Cognitive Interest, and External Expectations which have been shown to be stable over time and place (Boshier, 1977). Grabowski (1972), Dickinson and Clark (1975), and Zack (1976) investigated the motivational orientations of different groups of participants. Boshier (1976) assessed the growth and sophistication of previous motivational orientation research and proposed that future research should focus on identifying psychological and motivational variables which underlie these orientations.

Douglah (1970) sought to relate levels of participation with psychological characteristics measured by the California Test of Personality. Haag (1976); Riddell (1976), Blakley (1979), and Boshier (1980) each attempted to relate various measures of psychological characteristics with the Education Participation Scale.

Research on Behaviours Consequent to Participation, and their Relation to Motivational Factors

Psychological and social forces underpinning reasons for participation have been investigated but few studies examine the relationship between motivational orientations and the perceptions and experiences of enrollees in adult education courses. Boshier's (1973) theoretical model of forces which impel drop-out proposed that different motivational

orientations reflect either "growth" or "deficiency" motivation in participants and ultimately result in their persistence or drop-out respectively.

Potvin (1978) completed an empirical study which measured and compared the motivational orientations and perceived benefits of adult part-time students over the duration of courses in three types of institutional setting: university credit settings; university non-credit settings; and business or industrial settings. He found that significant differences ($p < .05$) in both motivational orientations and perceived benefits existed according to setting.

To date then, very little is known about the effect of initial "motivation" on the consequent experience of participants. This situation led to the formulation of a research question which formed the basis of the study.

Statement of the Problem

Each variable needed to be operationalized in order to permit data collection. Appropriate measuring instruments were required for each variable. The selection and development of these instruments is taken up in detail in the next chapter. The data generated by each of the instruments was subjected to multivariate analysis. The research question guiding this investigation concerns the extent to which participant satisfaction with educational environments is predicted by their motivational orientations and socio-economic characteristics.

Having regard to the foregoing, the problem investigated in the present study concerned the nature of relationships between motivational orientations and participant satisfaction. To what extent does :

participant satisfaction at the end of a course vary as a function of "motives" which impelled them to participate?

CHAPTER II

INSTRUMENT SELECTION AND DEVELOPMENT

This chapter describes the selection and development of the three instruments used in this study. These instruments are: 1) a Socio-economic Questionnaire; 2) the Education Participation Scale (EPS); and 3) the Personality and Educational Environment Scales (PEES). The adaptation of the PEES, and its resulting factor structure and reliability will be discussed.

Socio-economic Questionnaire

This questionnaire was developed by the researcher to measure the characteristics of the sample population. Previous studies have indicated the importance of such variables as occupation, amount of education, income, and age to participation in adult education. Economic data collected on this questionnaire were personal income, family income, and occupation. The Blishen scale (Blishen and McRoberts, 1976) was used to code occupation data. Demographic data collected included sex, age, and years of education. The data collected on this instrument were used to determine the extent to which they predicted PEES factor scores.

The Education Participation Scale (EPS)

An instrument was required to measure the motivational orientations of the sample population. Of the three best known measures of motivational orientations, the Continuing Learning Orientation Index (CLOI), the

Reasons for Educational Participation (REP), and the Education Participation Scale (EPS), the EPS was chosen because it has been shown to be factorially stable over time and place, factorially pure, economical and free of passenger items (Boshier, 1977). It has also been shown to be reliable (Boshier, 1971; Morstain and Smart, 1974), and valid (Morstain and Smart, 1974; Haag, 1976). Standardization and normative data for English speaking participants are available (Boshier and Collins, in press). In addition, Boshier (1973; 1977; 1980) attempted to relate its factor structure to the notions of "deficiency" and "growth" motivation, first espoused by Maslow (1954), and 16 PF scores. Through association (Haag, 1976) with one direct and another indirect measure of deficiency and growth motivation, two concepts central to Boshier's (1973; 1977) notion of congruence/incongruence, motivational orientations have demonstrated predictive potential concerning participants' feelings of "goodness of fit" with courses. The EPS consists of 40 items cast on a four point scale from "No influence" to "Much influence" like this:

To increase my job competence	No influence	Little influence	Moderate influence	Much influence
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Each scale is scored by assigning a numerical value of 1 through 4 to the "No influence" through to the "Much influence" categories respectively. The EPS yields six factors labelled Professional Advancement, Social Welfare, Escape/Stimulation, Social Contact, Cognitive Interest, and External Expectations.

Professional Advancement includes items like "To increase my job competence", and "To meet formal requirements". Social Welfare includes

items like "To become more effective as a citizen", "To gain insight into my personal problems", and "To prepare for community service." Escape/stimulation includes items like "To get relief from boredom", "To overcome the frustration of day to day living", and "To provide a contrast to the rest of my life." Social Contact includes items like "To fulfill a need for personal associations and friendships" and "To participate in group activity." Cognitive Interest includes items like "To seek knowledge for its own sake" and "To satisfy an inquiring mind." External Expectations includes items like "To carry out the recommendation of some authority" and "To comply with instructions from someone else."

The Personality and Educational Environment Scales (PEES)

In order to test relationships between antecedents to participation and consequents to participation across different settings and courses, a third instrument was required. It measured participant's feelings of satisfaction, a consequent of participation. Satisfaction is an amorphous concept that could easily be tied to a specific context with little generalizability across different situations. For this reason an instrument was needed to provide a measure of satisfaction without being bound by a specific context (e.g. time, culture, content). Boshier (1973) had developed such an instrument.

The original form of the PEES developed by Boshier consisted of fifteen Semantic Differential scales (e.g. stimulating...boring) each of which was used to rate three concepts associated with educational environments -- Myself, My Adult Education Lecturer and Other Adult Education Students. The same three factors emerged from the ratings for each concept in Boshier's study and accounted for over 80 percent of the variance

in each analysis. These three factors were: I -- Personal Warmth; II -- Conventionality; and III -- Personal Effectiveness. Factor I, Personal Warmth, was a measure of sociability. Factor II, Conventionality, was a measure of conservatism. Factor III, Personal Effectiveness, measured the "activity/potency" of the person named in the concept. Taken together, scores on the PEES scales constituted a measure of participant satisfaction with three concepts associated with the adult education environment.

My Instructor

By instructor we mean the person who teaches your class. If you are in more than one class keep in mind the instructor for this class. We are interested in how you view the instructor for this class. Be frank.

stimulating	1	2	3	4	5	6	7	8	9	10	11	boring
sympathetic	1	2	3	4	5	6	7	8	9	10	11	unsympathetic
strong	1	2	3	4	5	6	7	8	9	10	11	weak
conventional	1	2	3	4	5	6	7	8	9	10	11	eccentric
rational	1	2	3	4	5	6	7	8	9	10	11	irrational
unfriendly	1	2	3	4	5	6	7	8	9	10	11	friendly
active	1	2	3	4	5	6	7	8	9	10	11	passive
optimistic	1	2	3	4	5	6	7	8	9	10	11	pessimistic
scholarly	1	2	3	4	5	6	7	8	9	10	11	non-scholarly
warm	1	2	3	4	5	6	7	8	9	10	11	cold
organized	1	2	3	4	5	6	7	8	9	10	11	disorganized
lively	1	2	3	4	5	6	7	8	9	10	11	dull
conservative	1	2	3	4	5	6	7	8	9	10	11	liberal
sociable	1	2	3	4	5	6	7	8	9	10	11	unsociable
conformist	1	2	3	4	5	6	7	8	9	10	11	non-conformist

Figure 3. Fifteen PEES Semantic Differential scales.

In view of the discussion in Chapter I on the "person" and "thing" dimensions of instructional environments, there was a need to expand the range of PEES measures of participant satisfaction to include the concepts of Course Content and Course Setting in addition to the three existing personological concepts. In order to approximate the original factor structure, the same fifteen scales as originally employed by Boshier (1973) were used to rate the three original and two additional concepts. Figure 3 presents the fifteen Semantic Differential scales used to rate each of the five concepts associated with instructional environments. My Adult Education Lecturer was changed to My Instructor to reflect the Canadian context.

Factor Analysis of the Adapted PEES

A factor analysis was performed on PEES questionnaires completed by 222 participants. Individual concept ratings were factor analyzed separately to avoid scale/concept interaction. The number of iterations required for the final communalities estimates varied from concept to concept. The factor matrix was constructed using factors with eigenvalues in excess of unity, except for the concepts Other Students and Course Setting. Subsequent to the final communalities estimates, both of these concepts gave rise to only two factors with eigenvalues greater than unity. An additional control command then required the computer to create a factor matrix for the three principle factors in both cases as each had a third factor with an eigenvalue approaching unity. Thus, in anticipation of factor scoring, a comparable factor structure was maintained across all concepts as the remaining three concepts each gave rise to three factors. The matrix for each concept was then rotated to achieve orthogonality.

Table 2 .

Factor Loadings of PEES on Five Concepts
After Orthogonal Rotation

Scales	Other Students	Myself	My Instructor	Course Content	Course Setting	
Warm / Cold	83	41	47	93	70	
Lively / Dull	76	56	63	53	74	
Optimistic / Pessimistic	52	52	54	60	63	
Sociable / Unsociable	77	31	25	67	74	FACTOR I
Active / Passive	59	62	56	46	50	Sociability
Sympathetic / Unsympathetic	42	34	54	46	34	
Friendly / Unfriendly	45	18	23	60	52	
Strong / Weak	74	21	18	72	73	FACTOR II
Stimulating / Boring	36	34	27	63	78	Intellectual
Organized / Disorganized	40	32	29	41	26	Potency
Scholarly / Non-scholarly	57	17	20	33	32	
Conventional / Eccentric	61	77	69	77	69	
Conformist / Non-conformist	63	72	76	73	65	FACTOR III
Conservative / Liberal	32	62	59	52	49	Conventionality
Rational / Irrational	35	39	27	57	46	

Table 2 presents scales and factor loadings for the five concepts. The same basic three factors emerged from the ratings for each concept, and accounted for more than 57 percent of the variance in ratings of each concept. The first factor, Sociability, contains scales concerned with the outgoing warmth of persons and things. The second factor, Intellectual Potency, contains scales concerned with the success of persons and things in the adult education situation. The third factor, Conventionality, is a measure of conservatism. These factors strongly resemble the three that emerged from Boshier's (1973) factor analysis of the original PEES. Boshier

noted that his Factors I (Personal Warmth) and III (Personal Effectiveness) were related in both meaning and empirical terms. Similarly, their counterparts in this analysis, Factors I (Sociability) and II (Intellectual Potency) are related to each other. Despite the lower factor loadings exhibited by the scales composing Factor II (Intellectual Potency) and several scales in Factor I (Sociability), they were grouped in their respective factors on the basis of compatible meaning.

Reliability of the PEES

In view of modifications made to the PEES instrument it was necessary to establish its reliability. Boshier (1973) had previously established test-retest mean item correlations for Myself ($\bar{X}=.76$) and Other... Students ($\bar{X}=.67$). In the present study test-retest correlation and measures of internal consistency (coefficient alpha) were used to estimate reliability.

The test-retest procedure was employed with nineteen members of a credit seminar in the Department of Adult Education at the University of British Columbia. This group was separate from the main study and did not complete the socio-economic and EPS questionnaires. They were not told of the purpose of their participation regarding the completion of the PEES instrument in order to reduce the effect of testing (Campbell & Stanley, 1963). Two weeks separated the first and second administration of the PEES.

Table 3 presents the results of both the test-retest procedure and measures of internal consistency. The highest test-retest correlations (highest concept) were all significant at the .01 level of significance or better, with the exception of the scale "optimistic/pessimistic" which was significant at the .02 level. All but three of the scales were

significant at the .05 level of significance or better when the average correlation for all concepts was taken. These results suggest that most of the scales were statistically reliable for the test-retest sample. However, one of the shortcomings with test-retest procedures is that real changes in respondents will jeopardize reliability. Thus, a more comprehensive estimate of the reliability of an instrument can be achieved by obtaining a measure of internal consistency.

TABLE 3
Test-Retest and Internal Consistency
Measures of PEES Reliability

Factor	Item	N = 222	N = 19	
		Mean Coeff. alpha	Single T-R r (p<.01) (Highest Concept)	Mean T-R r (All Concepts)
Sociability	1	.70	.75	.57 (p<.02)
	2	.72	.83	.71 (p<.01)
	3	.68	.54*	.41 (p<.10)
	4	.72	.66	.52 (p<.05)
	5	.69	.78	.41 (p<.10)
	6	.61	.73	.48 (p<.05)
	7	.64	.78	.55 (p<.02)
Intellectual Potency	8	.66	.71	.49 (p<.05)
	9	.73	.76	.65 (p<.01)
	10	.65	.84	.57 (p<.02)
	11	.67	.83	.49 (p<.05)
Conventionality	12	.67	.90	.55 (p<.02)
	13	.61	.88	.74 (p<.01)
	14	.64	.89	.58 (p<.01)
	15	.70	.72	.36**

* p<.02

** p>.10

The measures of internal consistency for the PEES were obtained from the main sample of respondents since power is associated with sample

size. The high mean coefficient alpha values for each scale suggest a significant degree of consistency in the patterns of response ratings for each of the scales across the five concepts. Table 4 presents the coefficient alphas for each of the three PEES factors. Thus, when both test-retest and coefficient alpha measures of reliability are considered, the adapted PEES instrument appeared to have provided a statistically consistent measure of participant satisfaction with five instructional environment concepts.

TABLE 4

Reliability Values (Coefficient alpha)
For Three Satisfaction Factors

Factor	Coefficient alpha
Sociability	.77
Intellectual Potency	.74
Conventionality	.71

The instruments described above were developed to investigate relationships between initial motives for participation and satisfaction with aspects of the instructional environment. The EPS was administered at the beginning of courses to measure participant motivation; the PEES was administered near the end of courses to ascertain participant satisfaction. Scores from the two instruments were subsequently associated through simple correlation and multivariate procedures. The following chapter describes in detail how these instruments were employed to investigate the research problem.

CHAPTER III

METHODOLOGY

This chapter describes the two phases involved in the creation and implementation of this study. Phase 1, the Preparation Phase, reports on the initial steps taken by the researcher in order to set up this study, including contact with administrators in a number of institutions and the selection of subjects for this study. Phase 2, Data Gathering, describes the distribution, completion procedures, and collection of the research instruments. The data on the instruments were subsequently coded, key-punched, and analyzed. The final steps in this phase involved reporting the results, their interpretation and some possible implications for adult education.

The Preparation Phase

Preliminary Contact with Institutions of Adult Education

The researcher decided to contact administrators in a number of institutions which offer courses for adults. As the study was primarily correlational it was felt that a greater variety of socio-economic characteristics (and thus variance) would be exhibited among subjects drawn from institutions which vary in the amount of tuition charged, the size of the community served, and in the range of courses offered. Consequently, administrators in the Continuing Education Division of Vancouver Community College -- Langara Campus, the Centre for Continuing Education of the

University of British Columbia, and the Community Education Division of the Surrey School District No. 36 were contacted. The two centres contacted in the Surrey School district were the Queen Elizabeth Adult Education Centre and the White Rock Elementary Community School.

The researcher initially telephoned each of the administrators to introduce himself and to arrange a personal interview with each one in order to explain the purposes and scope of this study. All administrators readily gave their permission for the researcher to contact instructors in courses selected for this study. In addition, each one offered to notify instructors in their institutions of their approval for this study. In one case, this notification took the form of a memo distributed to all instructors in the institutions. The remaining administrative contacts either spoke to certain instructors by telephone or in person. It was agreed that individual instructors would have the right to refuse to participate in the study, though none did.

Subject Selection

Having received permission to proceed with the study, the researcher set about choosing courses in the various institutions suitable to the nature of the study. The bulk of courses offered by the institutions were non-credit, with the exception of the Queen Elizabeth Adult Education Centre which offered many academic courses for Grades 11 and 12 equivalency. Two such courses from that Centre were selected because they had a low proportion of regular day division high school students who were enrolled for the purposes of making up credits. The criteria employed in selecting courses included the number of sessions for each course, the level of course content, the course content area. A minimum of eight sessions per

course was thought to be necessary in order to allow the administration of instruments on two separate occasions. Where possible, introductory level courses were chosen, for example introductory language and calligraphy courses, in preference to those at a more advanced level. Advanced courses were excluded because they represented a more specialized range of interests on the part of participants. A wide variety of courses was chosen to capture the broadest possible spectrum of participant interests.

The Data Gathering Phase

In most cases advance arrangements were made with instructors regarding the particular class time in which the instruments would be administered. In the remaining cases, data collection was permitted by instructors who could not be reached in advance of class time but to whom some form of notification about this study had been given by the administrative contact.

Instrument Administration

Due to the nature of the study, instruments were administered on two separate occasions in each course, once in the opening few sessions and again in the closing sessions. A standardized procedure was followed on each occasion. The researcher first introduced himself to the instructor and participants and then explained the purpose of the study. He informed participants that a summary of results would be available to anyone interested. The instrument was then distributed and directions for completing the instrument were reviewed orally. These were the same directions printed on the form.

With the exception of the course on yoga, all classes agreed to

complete the instrument immediately. Stamped, self-addressed envelopes were left with the yoga class and the few participants in any other classes who were unable to complete the instrument within approximately fifteen minutes. A very small number of enrollees across all courses declined to complete the instruments. Once completed, the instruments were collected by the researcher, the participants were thanked and questions were answered. Those who had yet to complete the instrument were urged to do so at home and return it by mail as soon as possible. At the end of the administration and collection for the first instrument participants were informed that the researcher would return in several weeks' time with a different instrument for them to complete.

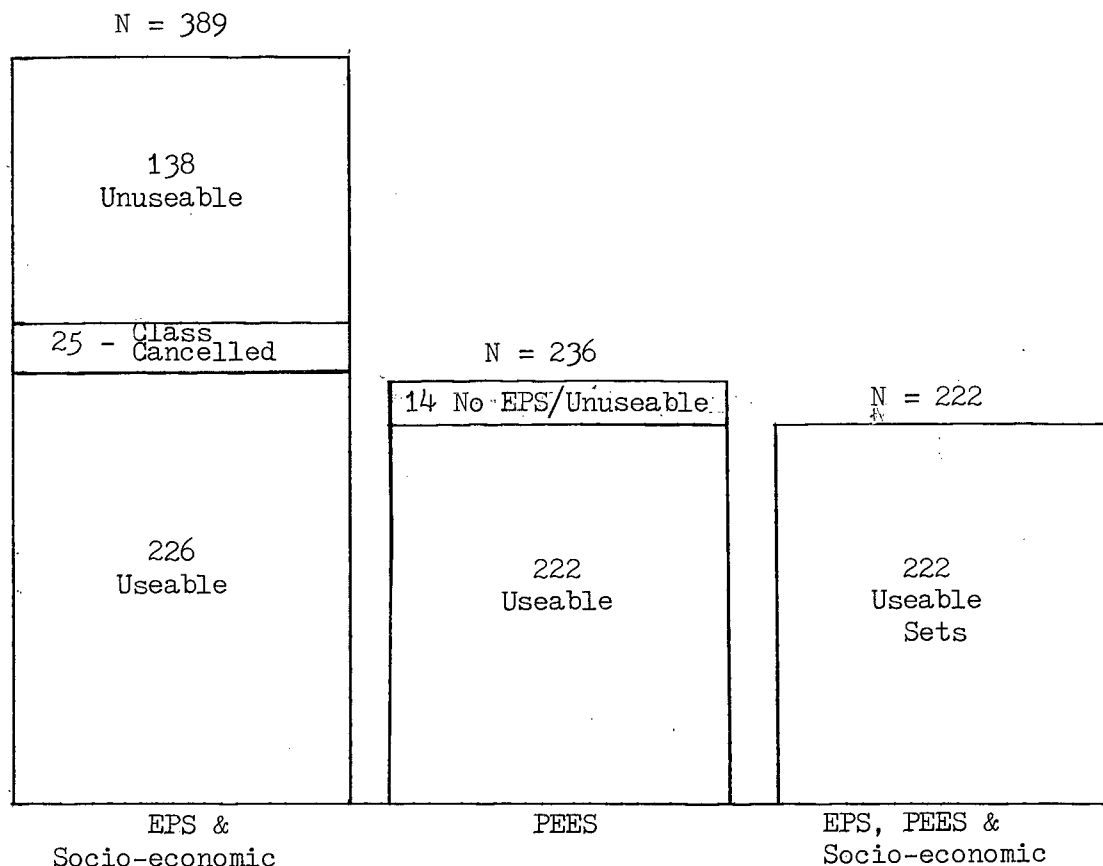


Figure 4. Proportion of completed instruments included in analyses.

Of 389 EPS and socio-economic forms distributed to 28 classes on the first occasion (and completed), 138 were unuseable. Of the 236 PEES forms distributed to 25 classes and completed on the second occasion, fourteen were unuseable because they were not filled out correctly, or had no matching EPS form. In all, 222 complete sets of socio-economic, EPS, and PEES instruments were assembled. Figure 4 shows the proportion of completed instruments included in the analysis, compared to the total number of instruments distributed.

Analysis of the Data

The same procedure was applied to the data obtained from all three instruments. Item responses on each of the questionnaires were coded and then transferred to IBM coding forms. The data on these coding forms were punched and verified at the University of British Columbia Computer Centre.

All variables were scaled as ordinal or interval with the exception of sex, and employment status which were dichotomous, but amenable to analysis with both the ordinal and interval variables. For ease of coding, all EPS scales were coded uniformly left to right in columns from low to high numerical value. A recode card was employed to reverse the values assigned to every odd-numbered item. A second recode card was inserted so that the computer would read blank spaces as missing data with no value.

The Statistical Package for the Social Sciences (SPSS) programs were employed for all analyses. Basic statistical information such as means, standard errors, standard deviations, range, frequency counts, etc. was obtained on all variables. A correlational matrix was produced for

all the variables on the three questionnaires. Finally, regression analysis was performed using the PEES factor scores as the dependent variables.

In order to verify that the data in the computer files matched the raw data, factor scores for several respondents on both EPS and PEES instruments were summed over by hand. The scores calculated by hand for both instruments matched those from the computer data files.

EPS, PEES, and socio-economic data were collected for the purpose of investigating relationships between "motives" and "satisfaction." The following chapter describes the results of analyses undertaken to investigate these relationships. This involved the production of uni, bi, and multivariate statistics.

CHAPTER IV

RESULTS

This chapter describes the socio-economic characteristics of the respondents, presents Pearson product-moment correlations for the PEES factor scores, motivational orientations (EPS factor scores) and socio-economic variables, and finally, the results of the multiple regression equations employing EPS and socio-economic variables as the predictors of participant satisfaction (PEES factor scores). The fourth and final section discusses the more salient findings of the preceding sections.

Characteristics of the Respondents

A total of 222 subjects met the criteria for inclusion in this investigation. Of these, 121 subjects (54.5 percent) were enrolled in courses at Langara Continuing Education, Vancouver Community College. Another 58 subjects (26.1 percent) were enrolled at the White Rock Elementary Community School and 17 others (7.7 percent) at the Queen Elizabeth Adult Education Centre in Surrey, British Columbia. A further 26 subjects (11.7 percent) were enrolled at the Centre for Continuing Education, The University of British Columbia. In all, 171 subjects (77.0 percent) were female and 51 subjects (23.0 percent) were male. The average age of the subjects was 37.8 years (S.D. = 15.36).

Some 145 subjects (65.3 percent) had completed twelve years of formal education. The average number of years of formal education was 11.7 years (S.D. = 1.31 years). One hundred and twenty-nine subjects

(58.1 percent) had completed one or more years of full-time post-secondary education. The average number of years of full-time post-secondary education for these subjects was 2.2 years (S.D. = 2.08). In addition, 84 subjects (37.8 percent) had completed one or more years of part-time post-secondary education. For these individuals the average number of years of part-time post-secondary education was 1.9 years (S.D. = 4.45).

Of the total, 156 subjects (70.3 percent) indicated that they were presently working for an income while 63 subjects (28.4 percent) indicated that they were not. Rated on the Blishen Scale (Blishen and McRoberts, 1976), the average present or previous occupational rating of the subjects was 51.99. The average personal income of the 202 subjects who reported was \$15,322.00 (S.D. = \$9,006.00). Of these, 81 subjects (36.5 percent) reported personal incomes of \$10,000.00 or less. For the 118 subjects who reported family income the average was \$31,780.00 (S.D. = \$13,968.00).

The socio-economic variables indicate that the subjects in this investigation were generally in the middle class and thus "typical" of adult education participants. Though the average age, income, years of formal and post-secondary education, and occupational ratings may be higher than those for the general population in British Columbia, the findings for these variables are consistent with the results of previous participation related studies in British Columbia (Haag, 1976; Blakley, 1979).

Correlates of Participant Satisfaction

The basic investigation concerned relationships between participant satisfaction with instructional environments on the one hand, and reasons

for participation and socio-economic characteristics on the other hand. "Satisfaction" was measured with the Personality and Educational Environment Scales (PEES) consisting of five concepts (Other Adult Education Students, Myself, My Instructor, Course Content, Course Setting) rated on fifteen Semantic Differential scales. Earlier in Chapter II, the factor structure of PEES was described. It consists of Sociability, Intellectual Potency, and Conventionality factors which accounted for over 57 percent of the variance in each analysis.

For the purposes of this part of the analysis it was necessary to compute PEES factor scores; these were derived by summing over responses made on each eleven point scale (e.g. stimulating 1 2 3 ... 10 11 boring) encompassed by each factor. Thus, on Factor I, Sociability, the maximum possible factor score was 77, the minimum was seven. High summed-over PEES scores on Factor I, Sociability, and Factor II, Intellectual Potency, indicated low participant satisfaction on these factors. High scores on Factor III, Conventionality, indicated that participants rated a concept as less rather than more "conventional."

EPS factor scores were derived by summing over items as clustered in the "standard" six factor solution used by Boshier (1977). This solution consists of six factors, each containing six items. The larger the summed-over EPS factor score, the more influence that factor had as a respondent's reason for participating.

The resultant factor scores for PEES and EPS instruments were then used along with socio-economic data in Pearson product-moment correlations. Table 5 presents the correlation matrix for all independent and dependent variables. While simple correlation does not lead to statements concerning

TABLE 5

Correlation Matrix for Satisfaction Factors
with Socio-economic and EPS Variables

Independent Variables	"Person" Concepts									"Thing" Concepts					
	Other Students			Myself			My Instructor			Course Content			Course Setting		
	Factors I II III	Factors I II III	Factors I II III	Factors I II III	Factors I II III	Factors I II III	Factors I II III	Factors I II III	Factors I II III						
Sex . . . . .	.10	.08	.08	.03	-.05	.11	.12	.05	.07	.09	.02	-.03	.11	.04	.06
Age	-.09	-.09	-.08	.01	-.05	-.23**	-.11	-.10	-.15*	-.16*	-.17*	-.14*	-.15*	-.15*	.01
Years of formal education . . .	.06	.03	-.02	.00	-.09	-.04	.11	.01	.03	.04	.07	.05	.05	.06	.00
Years of full-time post-second education . . .	.12	.15*	.02	-.02	-.07	-.04	.07	.09	.03	.14	.07	.01	.10	.13	.11
Years of part-time post-second education . . .	-.01	-.05	.02	.01	-.04	-.01	-.04	-.02	.10	.02	-.02	.01	.16 ^v	.11	.09
Currently Employed	-.06	-.09	-.12	-.06	.08	-.11	-.04	-.03	-.17*	-.11	-.08	-.07	-.20**	-.20**	.11
Occupation . . .	.05	.03	-.02	.00	-.06	-.11	.06	.09	.02	.09	.07	.11	.13	.18*	.10
Personal Income	-.01	.00	.02	.04	-.11	-.03	.03	.08	.01	-.01	.00	.02	.18*	.18*	.09
Family Income .	-.04	.07	.00	-.01	-.06	.10	-.06	.04	.01	.08	.15	.13	.26 ^{xx}	.23 ^{xx}	.19 ^x
Professional Advancement . .	.08	-.08	.05	-.02	-.08	.05	.08	-.08	-.05	.02	-.13	-.08	-.02	-.08	-.17
Social Welfare .	-.03	-.12	-.01	.02	.01	.02	.00	-.06	.02	-.14	-.22**	.04	-.08	-.10	-.08
Escape/ Stimulation . .	-.12	-.17*	-.06	.00	-.03	-.11	-.03	-.01	.02	-.10	-.22**	.01	-.06	-.21**	.11
Social Contact .	-.13	-.16*	.03	.01	-.04	.07	.00	.00	.00	-.11	-.09	.09	-.10	-.10	.00
Cognitive Interest	-.06	-.07	-.12	.01	-.06	-.02	-.08	-.11	.08	-.11	-.20**	.12	-.08	-.09	-.03
External Expectations . .	-.02	-.03	.08	-.02	-.06	-.17*	-.05	-.07	-.17*	-.10	.04	-.05	-.07	-.08	.01

* $r > .138$, $df=200$, $p < .05$ ** $r > .181$, $df=200$, $p < .01$ xx $r > .174$, $df=125$, $p < .05$ xx $r > .228$, $df=125$, $p < .01$ v $r > .15$, $df=150$, $p < .05$

causality, they do indicate the existence of significant associations between variables. Recalling from Chapter I that the purpose of this study was to investigate the extent to which participant satisfaction with instructional environments is predicted by their motivational orientations and socio-economic characteristics, these simple correlations play an important role by identifying likely predictors of participant satisfaction.

Earlier, in Chapter II, the distinction was made between PEES concepts oriented toward "persons" and those oriented toward "things." On Table 5 there are twice as many statistically significant correlations under the "things" concepts as under the "persons" concepts. The statistically significant correlations (Table 5) between the PEES factor scores and the other variables and factor scores are presented and discussed below.

Education Participation Scale Scores

Under the "person" concepts there are four significant correlations. Participants with higher scores on Escape/Stimulation ($r = -.17$, $df = 200$, $p < .05$) or on Social Contact ($r = -.16$, $df = 200$, $p < .05$) were more satisfied with "intellectual potency" in other adult education students than were those with lower scores on either factor. Participants scoring high on External Expectations were more likely to perceive themselves as "conventional" than those with low External Expectations scores ($r = -.17$, $df = 200$, $p < .05$). Moreover, participants with high External Expectations scores were more likely to perceive their instructors as "conventional" than those who had low scores ($r = -.17$, $df = 200$, $p < .05$).

Under the "things" concepts there are five significant correlations. Participants with high scores on Social Welfare ($r = -.22$, $df = 200$, $p < .01$), Escape/Stimulation ($r = -.22$, $df = 200$, $p < .01$), or Cognitive Interest ($r = -.20$, $df = 200$, $p < .01$) were more satisfied with "intellectual potency" in the

course content than those with lower scores on any of those three factors. Participants who scored high on Escape/Stimulation were also more satisfied with "intellectual potency" in the course setting than those with lower Escape/Stimulation scores ($r = -.21$, $df = 200$, $p < .01$). Those participants with higher Professional Advancement scores were more likely to perceive the course setting as "conventional" than those with lower scores on this factor ($r = -.17$, $df = 200$, $p < .05$).

Socio-economic Variables

Under the "person" concepts there are four significant correlations. Participants with the greatest number of years of full-time post-secondary education were more dissatisfied with "intellectual potency" in other adult education students than those with fewer years ($r = .15$, $df = 200$, $p < .05$). Older participants were more likely to perceive both themselves ($r = -.23$, $df = 200$, $p < .01$) and their instructors ($r = -.15$, $df = 200$, $p < .05$) as "conventional" than younger participants. Participants who were not employed (no wages or salary) were more likely to perceive the instructor as "conventional" than those who were employed ($r = -.17$, $df = 200$, $p < .05$).

Under the "things" concepts there are fourteen significant correlations. Older participants were more satisfied with "sociability" in course content ($r = -.16$, $df = 200$, $p < .05$) and course setting ($r = -.15$, $df = 200$, $p < .05$), and with "intellectual potency" in course content ($r = -.17$, $df = 200$, $p < .05$) and course setting ($r = -.15$, $df = 200$, $p < .05$) than younger participants. In addition, older participants were more likely to perceive course content as "conventional" than younger participants ($r = -.14$, $df = 200$, $p < .05$). Participants with the greatest number of years of part-time post-secondary education were more dissatisfied with "sociability" in course setting than

those with fewer years of part-time post-secondary education ($r=.16$, $df=150$, $p<.05$). Participants who were not employed (no wages or salary) were more satisfied with "sociability" ($r=-.20$, $df=200$, $p<.01$) and "intellectual potency" ($r=-.20$, $df=200$, $p<.01$) in course setting than those who were employed. Participants with higher occupational ratings were more dissatisfied with "intellectual potency" in course setting than those with lower occupational ratings ($r=.18$, $df=200$, $p<.01$). Participants reporting larger personal incomes were more dissatisfied with "sociability" ($r=.18$, $df=200$, $p<.05$) and "intellectual potency" ($r=.18$, $df=200$, $p<.05$) in course setting than those who reported smaller personal incomes. In addition, those participants who reported larger family incomes were more dissatisfied with "sociability" ($r=.26$, $df=125$, $p<.01$) and "intellectual potency" ($r=.23$, $df=125$, $p<.01$) in course setting than were participants who reported smaller family incomes. Finally, participants reporting higher family incomes were more likely to perceive the course setting as less "conventional" than those who reported lower family incomes ($r=.19$, $df=200$, $p<.05$).

In summary, 13 of the 15 independent variables correlated significantly with PEES factor scores. Of the 225 possible correlations between PEES factor scores and independent variables, 27 were statistically significant. Of these 27 statistically significant correlations eight occurred with the three "person" concepts while nineteen occurred with the two "thing" concepts. These eight significant correlations with "person" concepts while nineteen occurred with the two "thing" concepts. These eight significant correlations with "person" concepts accounted for only six percent of the 135 total possible correlations with those three concepts. On the other hand, the nineteen significant correlations with "thing" concepts accounted for 21 percent of the 90 possible correlations with

those two concepts. In all, eighteen significant correlations were calculated between PEES scores and socio-economic variables, twice as many as the nine significant correlations with EPS factor scores. However, those eighteen significant correlations between PEES factors and socio-economic variables represented only thirteen percent of the 135 possible correlations between those sets of variables. In addition, the nine significant correlations between PEES and EPS factors represented ten percent of the 90 possible correlations, much closer to parity with socio-economic variables than the two-to-one ratio of absolute frequency of occurrence suggests.

Age correlated significantly with PEES factor scores seven times, more than twice as often as any other single variable. Older participants saw themselves and their instructor as "conventional" and were more satisfied with "sociability" and "intellectual potency" in both course content and course setting than were younger participants.

No significant correlations occurred between EPS factors and "sociability" in any PEES concept. Looking at the significant EPS correlates of PEES factors, high scorers on Professional Advancement and External Expectations were more likely to perceive "conventionality" in course setting, in themselves, and in their instructors respectively while low scorers on these two EPS factors were more likely to view these PEES factors as "unconventional." Scores on the EPS factors Social Welfare, Escape/Stimulation, Cognitive Interest, and Social Contact correlated significantly with the PEES factor "intellectual potency." Participants with high scores on these EPS factors were more satisfied with "intellectual potency" in one or several of the five PEES concepts than those with lower scores. For example, participants with high Social Welfare scores were more likely to be satisfied with "intellectual potency" in course content than those with

lower scores. High scorers on Escape/Stimulation were more satisfied with "intellectual potency" in other students, in course content, and in course setting than lower scorers on the same EPS factor.

The relationships reported thus far are simple correlation coefficients and revealed a striking absence of significant relationships, especially between "person" concepts and the independent variables. Recalling Boshier's (1973) theoretical model of drop-out from Chapter I, it appears that participant satisfaction with the instructional environment is more likely to be determined by the interaction of variables rather than by any one factor acting in isolation. Although the relationships of socio-economic and EPS variables with PEES factors have been considered separately, many studies have shown that they are related to each other--they act together (e.g. age with Professional Advancement). Thus, in order to assess the combined effect of socio-economic and EPS variables on participant satisfaction, a more powerful multivariate procedure known as multiple correlation was required.

Multiple correlation, the result of regression procedures, has several advantages over simple correlation. It finds how well the "best" linear weighting of a number (>2) of independent variables predicts a single dependent variable (e.g. "sociability" of course content). To find this maximum possible positive correlation between the dependent variable and any linear combination of independent variables multiple regression removes from each one any contaminating effects of other independent variables before entering them forward into the regression equation. Next it accumulates the effects of the best-weighted composite of variables which account for variation in the dependent variable.

Multivariate Foundations of Participant Satisfaction

Multiple regression analysis was performed on the three "satisfaction" factors (i.e. factor scores for each of the five PEES concepts) to determine which combination of the fifteen predictor variables were the best predictors. The dependent variable in each regression equation was a score on a "satisfaction" factor for one of five PEES concepts. The independent variables were sex, years of formal education, age, years of full-time post-secondary education, years of part-time post-secondary education, currently employed, occupation, personal income, and family income (socio-economic); Professional Advancement, Social Welfare, Escape/Stimulation, Social Contact, Cognitive Interest, and External Expectations (EPS factors).

The results of the regression equations are presented below. Only those regression equations will be summarized that are marked with an asterisk on Table 6. The six equations not being summarized had multiple R values below .25 for the place in the regression equation above which all variables added close to or more than one percent to the cumulative variability (R^2). As such, their predictive power was considered to be insufficient to warrant additional consideration. For each of the nine regression equations with multiple R values equal to or greater than .25 where R^2 change values ≥ 1 , a summary table and discussion of its principal results will be presented. Results will be presented and discussed in terms of multiple R's (cumulative multiple correlation coefficient), R^2 (cumulative variability), simple r's (Pearson's r), and Beta's (predictive coefficient of each variable on dependent variable) for the most powerful independent variables.

TABLE 6

Summary of Multiple R's for
Fifteen Regression Equations

Satisfaction Factors	Instructional Environment Concepts				
	"Person" Concepts			"Thing" Concepts	
	I Other Adult Education Students	II Myself	III My Instructor	IV Course Content	V Course Setting
Sociability	.20(.26) ¹	.06(.10)	.21(.26)	*.27(.34)	*.35(.38)
Intellectual Potency	*.25(.30) ²	.17(.23)	.20(.27)	*.35(.40)	*.39(.40)
Convention- ality	.18(.22)	*.35(.38)	*.32(.35)	*.27(.31)	*.26(.33)

1. Number in parentheses = total R for each equation.

2. * indicates $R \geq .25$ where R^2 change ≥ 1 .

Regression Summary Tables for Participant Satisfaction

These regression summary tables for participant satisfaction represent the third and final phase of the analysis employed in this study. The preceding two steps involved descriptive statistical analysis and simple correlation. The following regression equations disclose the combined predictive power of socio-economic and EPS variables on the dependent variable of participant satisfaction with instructional environments. The regression summary table for participant satisfaction with "intellectual potency" in other adult education students is presented in Table 7.

"Intellectual potency" was measured by responses to four Semantic Differential scales consisting of items like "strong...weak" and "stimulating...boring". In general, it was expected that EPS factor scores would act as better predictors, both collectively and individually, of participant

satisfaction than the socio-economic variables. Table 7 shows Escape/Stimulation and years of full-time post-secondary education to be the most important variables. Escape/Stimulation accounted for the largest correlation ($R=.17$) and the greatest amount of variability in this satisfaction score ($R^2=.03$). The higher the score on Escape/Stimulation, the more satisfied the respondent was with "intellectual potency" in other participants. The more years of full-time post-secondary education participants had the more likely they were to be dissatisfied with the "intellectual potency" in other participants ($R^2=.05$): On the other hand, participants with more years of part-time post-secondary education were more likely to be satisfied with "intellectual potency" in other participants ($R=.24$, $R^2=.06$). Years of full-time post-secondary education ($Beta=.16$) was the most powerful predictor of participant satisfaction with "intellectual potency" in other participants.

TABLE 7

Socio-economic and Motivational Predictions of
Participant Satisfaction with the
"Intellectual Potency" of Other Participants

Independent Variables	Multiple R	R^2	Simple r	Beta
Escape/Stimulation	.17	.03	-.17	-.10
Years of full-time post-secondary education	.22	.05	.15	.16
Years of part-time post-secondary education	.24	.06	-.05	-.08
Respondent's sex	.25	.06	.08	.11

The respondent most likely to be satisfied with "intellectual potency" in other participants was female, motivated to participate for reasons of Escape/Stimulation, with fewer years of full-time post-secondary education than her fellow participants but with perhaps more years of part-time post-secondary education. The person least likely to be satisfied with "intellectual potency" in other participants was male, scored low on Escape/Stimulation, with more years of full-time but fewer years of part-time education than his fellow respondents.

Only six percent ($R=.25$) of the variability in satisfaction with "intellectual potency" in other adult education students was accounted for by the variables in Table 7. Of this, three percent was explained by socio-economic variables, three percent by an EPS factor.

Table 8 summarizes the regression equation for participant perceptions of "conventionality" in themselves. "Conventionality" was measured by response to four Semantic Differential scales of such items as "conventional...eccentric" and "conformist...non-conformist."

TABLE 8

Socio-economic and Motivational Predictions of
Participant Perceptions of the
"Conventionality" of Myself

Independent Variables	Multiple R	R^2	Simple r	Beta
Respondent's age	.23	.05	-.23	-.22
External Expectations	.30	.09	-.16	-.20
Respondent's sex	.32	.10	.11	.12
Occupation	.33	.11	-.11	-.06
Escape/Stimulation	.35	.12	-.11	-.16

The most important variables shown on Table 8 are age and External Expectations. Age accounted for the largest correlation ($R=.23$) and the greatest amount of variability in "conventionality" ($R^2=.05$). Older respondents perceived themselves as more "conventional" than not. The higher the score on External Expectations, the more "conventional" the respondents were ($R=.30$, $R^2=.09$). Women were more likely than men to see themselves as "conventional" ($R=.32$, $R^2=.10$). The higher the occupational rating on the Blisshen scale, the more likely respondents were to perceive themselves as "conventional" ($R=.33$, $R^2=.11$). High scorers on Escape/Stimulation were likely to perceive themselves as "conventional" ($R=.35$, $R^2=.12$). The most powerful predictors of participant "conventionality" were age ($\text{Beta}=-.22$) and External Expectations ($\text{Beta}=-.20$).

The person most likely to perceive herself as "conventional" was female, older than average for her group of participants, motivated to participate by External Expectations and Escape/Stimulation factors, with a higher than average occupational rating. The person least likely to perceive himself as "conventional" was a younger man with a lower occupational rating than average for his group, and low scores on External Expectations and Escape/Stimulation.

Twelve percent ($R=.35$) of the variability in "conventionality" of Myself was accounted for by the variables included in Table 8. Seven percent of it was explained by socio-economic variables, the remaining five percent by EPS factors.

Table 9 summarizes the regression equation for participant perceptions of "conventionality" in the instructor. The most significant variables in this equation were External Expectations, currently employed,

age, and years of part-time post-secondary education. External Expectations accounted for the most variability in "conventionality" of the instructor ($R^2=.03$). Participants with high scores on External Expectations were likely to perceive the instructor as "conventional." Those respondents who were not employed for salary or wages were likely to perceive the instructor as "conventional" ($R^2=.06$). Older participants were also likely to view the instructor as "conventional" ($R^2=.07$). The most powerful predictors of instructor "conventionality" were years of part-time post-secondary education (Beta=.21) and currently employed (Beta=.19).

TABLE 9

Socio-economic and Motivational Predictions of
Participant Perceptions of the
"Conventionality" of the Instructor

Independent Variables	Multiple R	R^2	Simple r	Beta
External Expectations	.17	.03	-.17	-.17
Currently employed	.24	.06	-.17	-.19
Respondent's age	.26	.07	-.15	-.17
Years of part-time post-secondary education	.29	.09	.10	.21
Family income	.31	.10	.01	-.07
Cognitive Interest	.32	.10	.08	.06

The person most likely to perceive the instructor as "conventional" was motivated to participate for External Expectations reasons, not employed at the time of participation, older with more years of part-time post-secondary education than others in the course. The person least likely to perceive the instructor as "conventional" scored low on External Expectations, was younger, employed, with fewer years of part-time post-secondary

education than average for his group.

In all, only ten percent ($R=.32$) of the variability in participant perception of "conventionality" in the instructor is attributable to the variables in Table 9. Seven percent of it was explained by socio-economic variables, the remaining three percent by EPS factors.

Table 10 provides the regression summary of participant satisfaction with "sociability" in the course content. "Sociability" was measured by responses to seven Semantic Differential scales consisting of such items as "warm...cold", and "friendly...unfriendly."

TABLE 10

Socio-economic and Motivational Predictions of
Participant Satisfaction with the
"Sociability" of the Course Content

Independent Variables	Multiple R	R^2	Simple r	Beta
Respondent's age	.16	.03	-.16	-.15
Years of full-time post-secondary education	.22	.05	.14	.09
Social Welfare	.25	.06	-.14	-.17
Respondent's sex	.27	.07	.09	.12

Age ($R^2=.03$), years of full-time post-secondary education ($R^2=.05$), Social Welfare ($R^2=.06$), and sex ($R^2=.07$) accounted for the most variability in this equation. The person most likely to be satisfied with "sociability" in course content was an older woman with fewer than average years of full-time post-secondary education for her group, motivated to participate for Social Welfare reasons. The person least likely to be

satisfied with "sociability" in course content was a younger male with more years of full-time post-secondary education than average for his group, not motivated to participate for Social Welfare reasons. The most powerful predictors of satisfaction with "sociability" were Social Welfare ($\text{Beta} = -.17$) and age ($\text{Beta} = -.15$). Only seven percent ($R^2 = .27$) of the variability in participant satisfaction with "sociability" in course content is attributable to the variables in Table 10. Six percent of it was explained by socio-economic variables, the remaining one percent by EPS factors.

Table 11 summarizes the regression equation for participant satisfaction with "intellectual potency" in course content. Social Welfare ($R^2 = .05$), age ($R^2 = .08$), Cognitive Interest ($R^2 = .10$), and family income ($R^2 = .12$) accounted for the most variability in this equation. The person most likely to be satisfied with "intellectual potency" in course content was older, motivated to participate for reasons related to Social Welfare or Cognitive Interest, with a lower than average family income for the group.

TABLE 11

Socio-economic and Motivational predictions of
Participant Satisfaction with the
"Intellectual Potency" of the Course Content

Independent Variables	Multiple R	R^2	Simple r	Beta
Social Welfare	.22	.05	-.22	-.17
Respondent's age	.28	.08	-.17	-.16
Cognitive Interest	.32	.10	-.20	-.13
Family income	.34	.12	.15	.21
Personal income	.35	.12	.00	-.17

The person least likely to be satisfied with "intellectual potency" in course content was younger, not motivated to participate for either Social Welfare or Cognitive Interest reasons, with a higher than average family income. The best predictors of satisfaction with "intellectual potency" in course content were family income ($Beta=.21$), Social Welfare ($Beta=-.17$) and personal income ($Beta=-.17$).

In all, the variables in Table 11 accounted for twelve percent ($R=.35$) of the variability in participant satisfaction with "intellectual potency" in course content. Socio-economic variables accounted for five percent of this variability, EPS factors for the remaining seven percent.

Table 12 summarizes the equation for participant perceptions of "conventionality" in course content.

TABLE 12.

Socio-economic and Motivational Predictions of
Participant Perceptions of the
"Conventionality" of the Course Content

Independent Variables	Multiple R	R^2	Simple r	Beta
Respondent's age	.14	.02	-.14	-.16
Occupation	.20	.04	.11	.17
Cognitive Interest	.24	.06	.12	.13
Professional Advancement	.25	.06	-.08	-.12
Social Welfare	.28	.07	.04	.09

Age ($R^2=.02$), occupation ($R^2=.04$), and Cognitive Interest ($R^2=.06$) accounted for the most variability in this equation. The person most likely to perceive the course content to be "conventional" was older, with a lower than average occupational rating, motivated to participate for

reasons relating to Cognitive Interest or Social Welfare and not to Professional Advancement. The person least likely to perceive the course content to be "conventional" was younger, with a higher than average occupational rating, motivated for reasons of Professional Advancement, but not for Cognitive Interest or Social Welfare. The best predictors of course content "conventionality" were occupation ($\beta=.17$) and age ($\beta=-.16$).

The variables in Table 12 accounted for only seven percent ($R=.28$) of the variability in participant perceptions of "conventionality" in course content. Socio-economic variables accounted for four percent of this, while EPS factors explained the remaining three percent.

Table 13 summarizes the equation for participant satisfaction with "sociability" in course setting. Family income ($R^2=.07$), currently employed ($R^2=.09$), years of part-time post-secondary education ($R^2=.10$) and age ($R^2=.12$) accounted for the greatest amount of variability in the equation. The person most likely to be satisfied with "sociability" in course setting was older, with a lower than average family income for the group, not employed for salary or wages, with fewer than average years of part-time post-secondary education, and a lower occupational rating than the group average. The person least likely to be satisfied with "sociability" in course setting was younger, with a higher than average family income, employed, with more than the average occupational rating. The best predictors of participant satisfaction with "sociability" in course setting were family income ($\beta=.17$) and age ($\beta=-.17$).

In all, the variables in Table 13 accounted for twelve percent ($R=.35$) of the variability in participant satisfaction with "sociability"

in course setting. Socio-economic variables accounted for all twelve percent of this variability, EPS factors accounted for none.

TABLE 13

Socio-economic and Motivational Predictions of
Participant Satisfaction with the
"Sociability" of the Course Setting

Independent Variables	Multiple R	R^2	Simple r	Beta
Family income	.26	.07	.26	.17
Currently employed	.30	.09	-.20	-.12
Years of part-time post-secondary education	.32	.10	.16	.15
Respondent's age	.34	.12	-.15	-.17
Occupation	.35	.12	.13	.11

Table 14 summarizes the equation for participant satisfaction with "intellectual potency" in course setting. Family income ($R^2=.05$), Escape/Stimulation ($R^2=.10$), currently employed ($R^2=.11$), occupation ($R^2=.13$), and age ($R^2=.15$) accounted for the most variability in the equation. The person most likely to be satisfied with the "intellectual potency" of the course setting had a lower than average family income, was motivated to participate for Escape/Stimulation reasons, was not employed for salary or wages, had a lower than average occupational rating, and tended to be older. The person least likely to be satisfied with "intellectual potency" in course setting was younger, with a higher than average occupational rating and family income, employed, and not motivated to participate for reasons related to Escape/Stimulation. The best predictors of participant satisfaction with "intellectual potency" in course setting were Escape/Stimulation (Beta=-.23), occupation (Beta=.17, and age (Beta=-.17).

TABLE 14

Socio-economic and Motivational Predictions of
Participant Satisfaction with the
"Intellectual Potency" of the Course Setting

Independent Variables	Multiple R	R ²	Simple r	Beta
Family income	.23	.05	.23	.14
Escape/Stimulation	.31	.10	-.21	-.23
Currently employed	.34	.11	-.19	-.14
Occupation	.36	.13	.18	.17
Respondent's age	.38	.15	-.15	-.17
Social Contact	.39	.15	-.10	.08

The variables in Table 14 accounted for fifteen percent ($R=.39$) of the variability in participant satisfaction with "intellectual potency" in course setting. Socio-economic variables explained ten percent of this variability, EPS factors explained five percent.

Table 15 summarizes the equation for participant perceptions of "conventionality" in the course setting.

TABLE 15

Socio-economic and Motivational Predictions of
Participant Perceptions of the
"Conventionality" of the Course Setting

Independent Variables	Multiple R	R ²	Simple r	Beta
Family income	.19	.04	.19	.21
Professional Advancement	.25	.06	-.17	-.20
Currently employed	.26	.07	-.11	-.14

Family income ($R^2=.04$), Professional Advancement ($R^2=.06$), and currently employed ($R^2=.07$) accounted for the greatest amount of variability in this equation. The person most likely to perceive the course setting as "conventional" had a lower than average family income, was not employed for salary or wages and motivated to participate for reasons related to Professional Advancement. The person least likely to perceive the course setting as "conventional" had a higher than average family income, was employed and not strongly motivated to participate for reasons of Professional Advancement. The most powerful predictors of "conventionality" in course setting were family income (Beta=.21) and Professional Advancement (Beta=-.20).

The variables in Table 15 accounted for only seven percent of the variability in participant perceptions of "conventionality" in course setting. Socio-economic variables accounted for five percent of this variability, EPS factors for the remaining two percent.

Predictive Contributions of Socio-economic and EPS Variables

Age enters significantly into seven of the nine equations, more than any other single variable. Age was both an important predictor and accounted for a significant proportion of the variability in participant satisfaction with the "sociability" and "intellectual potency" of the course content and participant perceptions of "conventionality" in themselves (Myself), the instructor, and the course content. Older participants in general tended to be more satisfied with those aspects of the instructional environment and to perceive greater "conventionality" than younger participants. Family income was also an important predictor and accounted for a significant amount of variability in participant

satisfaction with "sociability" and "intellectual potency" in the course setting. The higher the family income, the less satisfied participants were and the less "conventionality" they perceived in course setting.

Escape/Stimulation accounted for a significant amount of variability in participant satisfaction with "intellectual potency" in both course setting and other adult education participants and was an important predictor in the equation on course setting. The higher the scores on Escape/Stimulation, the more satisfied the respondents were with "intellectual potency" in setting and others. External Expectations was a relatively important predictor and accounted for a significant amount of variability in participant perceptions of their own "conventionality" and that of their instructors. The higher the scores on External Expectations, the more "conventionality" the respondents attributed to themselves and the instructor. Social Welfare was an important predictor and accounted for a significant proportion of the variability in satisfaction with the "intellectual potency" of the course content. The higher the scores on Social Welfare, the more satisfied the respondents were.

Overall, socio-economic variables acted as significant predictors of the dependent variables in the nine regression equations -- twice as often as EPS factors. This was true for "person" and "thing" concepts. "Thing" concepts were significantly predicted almost twice as frequently as "person" concepts by both socio-economic and EPS variables. Table 16 shows the proportion of the total variability in all fifteen regression equations explained by socio-economic and EPS variables. The nine equations summarized and reported are marked with an asterisk. The percent of variability given in Table 16 represents the total amount of variability in each

equation explained by all significant and non-significant independent variables. In general, socio-economic variables accounted for a greater proportion of the variability in most equations, especially those which were important. The amount of variability accounted for is noticeably higher in several equations related to "thing" concepts. Participant satisfaction with "intellectual potency" in course content and setting, and their perceptions of "conventionality" in themselves and the instructor were the most strongly predicted of all dependent variables. Even so, with these equations and less powerful ones especially, the explained proportion of the total variability in each dependent variable is markedly low.

TABLE 16

Percent of Variability in Three "Satisfaction" Factors
Explained by Two Categories of Independent Variables

	Other Adult Education Students	Myself	My Instructor	Course content	Course Setting
FACTOR I -					
Sociability					
Socio-economic Variables	3	1	5	8*	13*
EPS Factors	4	0	2	3	1
Totals	7%	1%	7%	11%	14%
FACTOR II -					
Intellectual Potency					
Socio-economic Variables	5*	2	3	7*	11*
EPS Factors	4	3	4	9	5
Totals	9%	5%	7%	16%	16%
FACTOR III--					
Conventionality					
Socio-economic Variables	2	9*	8*	6*	6*
EPS Factors	3	5	4	4	5
Totals 5	5%	14%	12%	10%	11%

Summary of Multivariate Analysis

The purpose of this study was to investigate the extent to which motivational orientations "predict" participant satisfaction with adult educational environments. It was expected that motivational orientation factors would be more powerful predictors (singly and collectively) of participant satisfaction than the socio-economic characteristics of subjects in this study. The nine regression equations chosen previously as the most significant are discussed below in terms of both expected and actual results.

When considering the collective contribution of the two types of variables to the total explained variability in each equation, all but one of the nine significant equations resulted in the largest proportion of variability being predicted by socio-economic variables. The exception was the "intellectual potency" of the "course content" equation. Social Welfare accounted for the most variability in the perceived potency of "course content"; EPS factors collectively accounted for more than half of the total explained variability.

Individuals motivated by Social Welfare or Cognitive Interest were more satisfied with "intellectual potency" in the course content than low scorers on these factors. These individuals were also likely to be older than average for their group and to have smaller than average family incomes.

Although the collective contributions to the explained variability in the remaining equations was greater for socio-economic variables, single EPS factors accounted for the largest individual percent of variability in three of these equations. For example, in the equation predicting participant satisfaction with the "intellectual potency" of other adult education

students, Escape/Stimulation accounted for the single greatest amount of variability. Individuals motivated by Escape/Stimulation were more satisfied with the "intellectual potency" of the other participants. Escape/Stimulation was also one of the two variables accounting for the most variability in participant satisfaction with "intellectual potency" in the course setting. Individuals motivated by Escape/Stimulation were more satisfied with the "intellectual potency" of the course setting.

In the equation predicting participant perceptions of "conventionality" in the instructor, External Expectations was one of two variables that accounted for the largest amount of variability. Individuals motivated by External Expectations perceived more "conventionality" in the instructor than low scorers on this EPS factor.

In the remaining five equations socio-economic variables accounted for the largest proportion of variability both singly and collectively. Age accounted for the single largest amount of variability in three equations, level of family income for the most variability in the other two. In general the older the respondents were, the more satisfied they were and the more "conventionality" they perceived in certain aspects of the educational environment. In general, the higher the family income the more dissatisfied the respondents were and the less "conventionality" they attributed to certain aspects of the instructional environment.

CHAPTER V

SUMMARY, CONCLUSIONS AND DISCUSSION

This final chapter begins with a summary of the most salient findings of the study. From these findings four principal conclusions are drawn and discussed. Finally, the significance and implications of these findings for adult education research and practice will be considered.

Summary

This study had as its main purpose the investigation of the relationship of socio-economic and motivational characteristics to participant satisfaction with instructional environments. A research question formulated to guide the investigation asked: To what extent is satisfaction with instructional environments predicted by their motivational and socio-economic characteristics? As tested knowledge regarding the nature of relationships identified by the research question is very incomplete, the multivariate analysis employed in this study was exploratory in nature.

Three instruments were used in the course of this study; a socio-economic instrument; the Education Participation Scale (EPS); and the Personality and Educational Environment Scales (PEES). The EPS measured the motivational orientations of respondents.

The PEES measured participant satisfaction with instructional environments. The three personological concepts to be rated on the original PEES were supplemented by two additional thing-related concepts to produce a revised PEES instrument consisting of five instructional environment

concepts, each to be rated on the same scales. Factor analysis and reliability procedures were conducted on the PEES. The three factors which emerged were I -- Sociability, II -- Intellectual Potency, and III -- Conventionality. The PEES appeared to be reliable.

In all, 28 mainly general interest courses were included in the study. Courses were selected from four different institutional providers of adult education. They were Vancouver Community College -- Langara Campus, the While Rock Elementary Community School, the Queen Elizabeth Adult Education Centre in Surrey, and the Centre for Continuing Education at the University of British Columbia. From them, 222 complete sets of data were obtained. Socio-economic and EPS questionnaires were administered in one of the opening few sessions of each course. The PEES instrument was administered in one of the closing sessions for each course. The researcher administered the instruments to all courses. Descriptive, correlational, and multivariate statistical techniques were used to analyze the data.

A total of fifteen independent variables were used to predict participant satisfaction with five educational environment concepts. Of these, nine were socio-economic variables and six were motivational orientation factors. Of fifteen multiple regression equations, the nine most important were discussed in detail.

1. In the equation predicting participant satisfaction with the "intellectual potency" of other adult education students, the variables accounting for the most explained variability were Escape/Stimulation, years of full-time post-secondary education, years of part-time post-secondary education, and sex. Together they explained six percent of the variability in satisfaction with "intellectual potency" in other students.

2. The most powerful variables in the equation predicting participant perceptions of "conventionality" in themselves were age, External Expectations, sex, occupation and Escape/Stimulation. Together they explained twelve percent of the variability in perceptions of "conventionality" in themselves.

3. The most powerful variables in the equation predicting participant perceptions of "conventionality" in their instructor were External Expectations, currently employed, age, years of part-time post-secondary education and family income. Together they explained ten percent of the variability in perceptions of "conventionality" in their instructor.

4. The most powerful predictors of participant satisfaction with the "sociability" of the course content were age, years of full-time post-secondary education, Social Welfare and sex. Together they accounted for seven percent of the explained variability in satisfaction with the "sociability" of course content.

5. The most powerful predictors of participant satisfaction with the "intellectual potency" of the course content were Social Welfare, age, Cognitive Interest, family income, and personal income. Together they explained twelve percent of the variability in satisfaction with "intellectual potency" in the course content.

6. The most powerful predictors of participant perceptions of "conventionality" in course content were age, occupation, Cognitive Interest, Professional Advancement and Social Welfare. Together they explained seven percent of the variability in perceptions of "conventionality" in course content.

7. The most powerful predictors of participant satisfaction with the "sociability" of the course setting were family income, currently employed,

years of part-time post-secondary education, age, and occupation. Together they accounted for twelve percent of the explained variability in satisfaction with "sociability" in the course setting.

8. The most powerful predictors of participant satisfaction with the "intellectual potency" of the course setting were family income, Escape/Stimulation, currently employed, occupation, and age. Together they explained fifteen percent of the variability in satisfaction with "intellectual potency" in the course setting.

9. The most powerful predictors of participant perceptions of "conventionality" in course setting were family income, Professional Advancement, and currently employed. Together they explained seven percent of the variability in perceptions of "conventionality" in course setting.

The most powerful single variables in the preceding nine regression equations were age, family income, External Expectations and Social Welfare. Older participants were more likely than younger participants to be satisfied with and to perceive as "conventional" specific instructional environment concepts. Respondents with higher than average family incomes were less satisfied on certain concepts and perceived less "conventionality" than those with lower family incomes. Respondents more highly motivated by Escape/Stimulation or Social Welfare were more likely to be satisfied on certain concepts. Respondents more highly motivated by External Expectations were more likely to perceive certain concepts as "conventional."

In general, socio-economic variables accounted for a greater proportion of the variability in most equations, especially those nine which were more important. The two "thing" concepts were significantly predicted almost twice as frequently as the three "person" concepts by both socio-economic and EPS variables.

Conclusions

The results of this study give rise to four main conclusions.

1. All the predictor variables accounted for very little variability in participant satisfaction. Over 83 percent of the variability in participant satisfaction was unexplained. Several explanations could account for these results.

One possibility is that a more potent relationship exists between motivational orientations and participant satisfaction but this study failed to capture it. However, this would be more likely if the reliability and validity of the instruments were inadequate. Since this and other studies have shown the EPS and PEES instruments to be reliable and valid, this first explanation is unlikely.

The second possibility is that this study did measure the true extent of relationship between motivational orientations and participant satisfaction with instructional environments. Rather than decisively accounting for participants' feelings of satisfaction, these antecedent variables left over 83 percent of the variability unexplained. This strongly suggests that it is not participants' predispositions which determine their satisfaction but other variables identified below.

2. Having regard to the amount of participant satisfaction explained, it appears that "thing"-related satisfaction is easier to explain than "person"-related satisfaction. Twice as many regression equations on "thing" concepts were judged to be significant. For all fifteen regression equations, predictor variables accounted for an average of thirteen percent of the variability on "thing"-related satisfaction versus an average of seven percent for "person"-related satisfaction. It may be that this difference is the result of a greater readiness by participants to rate

the non-personological factors in the instructional environment. Even if this was the case, these results confirm the different effects (measured in this case by ratings based on perceived or indirect effects) of personological and non-personological attributes of the instructional environment.

3. Overall, it appeared that socio-economic variables were more powerful predictors of participant satisfaction than motivational orientations. Socio-economic characteristics are known to be associated with the notion of developmental tasks. Thus, adult educators should employ programming models that draw their theoretical foundations from the literature on developmental tasks and related notions. Programming in this way would increase the changes of "fitting" courses with the developmental tasks of adults through their known socio-economic characteristics.

Motives for participation are related to socio-economic variables but are ineffective predictors of participant satisfaction. Several exceptions to this pattern were Escape/Stimulation, which was a consistently important predictor of participant satisfaction with "intellectual potency" in other students and course setting, and External Expectations which consistently predicted participant perceptions of "conventionality" in themselves and their instructors. In the case of high Escape/Stimulation motivation, respondents were more satisfied with "intellectual potency." This appears to indicate that these persons were "satisfied" by the act of participating and cast a less critical eye at students and course setting. In the case of high External Expectations motivation, respondents perceived more "conventionality" in themselves and their instructors than low scorers. It is not surprising that persons who participated in order to meet the expectations of another person saw themselves and their instructors as

"conventional." This relationship, as well as the preceding one, makes sense in view of the types of motivational orientations which gave rise to them.

4. No common profile emerged for a "typical" respondent across all regression equations. In other words the "significant" variables that predicted satisfaction with course content were not the same as those associated with course setting, other students, and so on. This suggests that there is no pervasive tendency to be satisfied or dissatisfied irrespective of the "target" of the discontent. In other words, each element of the environment (setting, content, students, instructor and so on) was crucial. The only "internal" participant variable prominent in predicting satisfaction with several aspects of the environment was age, and to a lesser extent, family income. Results concerning this aspect of the study suggest that people behave rationally; if an element of the environment is defective (e.g. the instructor or the setting) they become dissatisfied with it. Their dissatisfaction has less to do with internal participant characteristics than with the objective reality with which they are confronted. In other words, a poor instructor or setting per se induces dissatisfaction. It has little to do with participant characteristics. Direct measures of instructional environment variables might correlate more highly with satisfaction than "internal" participant variables.

Discussion

This study is significant for participation research and adult education practice in several ways. Given the minimal impact of socioeconomic and motivational characteristics on participant satisfaction program planners and instructors should be more critical of strategies

based upon accommodation of learner characteristics which were investigated in this study. Motivational orientations in particular have little impact on participant satisfaction. The quality of instruction is possibly a more powerful determinant of participant satisfaction.

In some respects, the fact that motivational orientations largely failed to account for participant satisfaction is a heartening result for adult education practitioners but challenges fundamental beliefs. Adult educators appear to believe that programs and environments tailored to the needs, motives and expectations of learners will result in higher levels of participant satisfaction than programs involving minimal consultation between learners and "teachers". The present study suggests that participant satisfaction is largely independent of initial motives that impelled that person to participate. In other words, a good instructor can induce high (or low) levels of satisfaction irrespective of participant motivation.

Fundamental to this assertion is the distinction between program planning and instruction. This distinction is central to Verner's (1962) differentiation between method (programming) and technique (instruction). Writers such as Knowles and Houle do not make this distinction. Indeed, in Knowles' (1970) seven-step model, programming and instruction steps are interspersed with each other; thus climate setting, an instructional process, precedes the establishment of a structure for planning, a step in the program planning process.

A failure to distinguish program planning from instruction has led some writers to conclude that internal participant variables (such as motivational orientations) have powerful effects during all phases of the adult education process. The present study highlights a problem associated

with the failure to distinguish program planning from instruction. Motivational orientations are apparently associated with the participation behaviour of people (when choosing programs) but, according to this study, have little impact on their overall satisfaction with people and things in the instructional environment. In short, participants largely appear to leave their motivational orientations outside the classroom door; they have little influence on satisfaction with the instruction provided.

In some respects adult instruction may actually be impeded by instructors who "blame" faulty participant motivation for dissatisfaction and an inability to learn. This study showed that while some satisfaction with "things" in the environment is related to initial motives for participation, large amounts of satisfaction variance are unexplained. According to Knowles (1970), adults allegedly have an "independent" self-concept, a broad experiential base and an "immediate" time perspective. This requires that instruction for them be "adult" oriented. It is the "adult" characteristics that largely provide the rationale for "adult education".

Motivational orientations represent only a small fragment of the adult "characteristics" so prominent in adult education. Nevertheless, they have occupied considerable research attention and appear to be crucial to the program planning process. Their minimal impact on participant satisfaction, if confirmed in subsequent research, suggests that the sources of variance in satisfaction lie elsewhere -- such as in other internal or, more probably, external variables. It may be, for example, that good instruction is simply good instruction and that "adult" characteristics have little to do with it. Proponents of lifelong education (e.g. Dave, 1976) who want to dismantle boundaries between "adult" and other segments of the education "system" would argue that similarities between people outweigh

differences associated with age or "adulthood."

If, as this study appears to suggest, satisfaction is not associated with "internal" participant variables (of which motivational orientations is one of the more crucial) then other sources of variance need to be considered. Participants are known to become dissatisfied with uncomfortable furniture, adverse weather, mindless bureaucratic requirements and so on. But these variables probably have minimal effects compared to those associated with the quality of the instruction and the characteristics of the instructor. As Boshier (1980) and Knox (1977) have suggested, satisfaction probably stems from an interaction of participant, instructor and course content variables. In this transaction, variables under instructor control are crucial. Moreover, one suspects that almost any participant, regardless of "motivation" or other psychological states, will be satisfied with high-quality instruction. Thus, future research concerning participant satisfaction might focus on instructor behaviour and the educational environment.

Theoretically and practically, this study has several possible implications for future work. If motivational orientations are broadly representative of learner characteristics (as is often asserted) this study suggests they have little influence on satisfaction. Thus, future research which tries to explain or predict satisfaction (or related variables such as dropout) merely on the basis of internal variable effects may lack predictive power. Researchers may be disappointed by the lack of relationship between "learner" and satisfaction variables. However, if motivational orientations represent only a fragment or sub-set of a larger domain of learner characteristics then it is possible that other "internal" variables may satisfactorily predict satisfaction, even when relationships with

motivational orientations are weak. Until researchers more fully understand the correlates and antecedents of motivational orientations and conduct studies relating other internal variables to satisfaction, it will not be possible to establish the extent to which other internal variables have effects separate from those of motivational orientation.

With regard to the foregoing it appears that satisfaction stems from an interaction of internal and external variables. However, in considering the relative contributions of internal and external variables to satisfaction, it appears that external variables, particularly the quality of the instruction, have a greater influence than internal psychological variables. As social learning theorists have noted, the human organism is not a passive recipient of environmental cues and reinforcers, but interacts with and shapes the nature of external variables. Future research and theorizing should stem from a recognition of the fact that few adult education outcomes stem from the effects of single variables.

Thus, further testing of Boshier's congruence model would require an examination of instructor and instruction related variables. In presenting and developing this model Boshier adopted a phenomenological stance; he maintained that perception precedes action. For example, if participants perceive an instructor to be boring, behaviour would flow from that perception. Thus participants' perceptions of the instructional environment are measured by PEES. Although this is an attractive and widely adopted theoretical stance, future researchers might consider the possibility of measuring aspects of the instructional environment more directly. Implicit in this suggestion is the need for a behaviouristic (quantifiable) model of instructor behaviour. Such a model would enable researchers to

measure instruction directly; they could rely on objective rather than subjective participant measures of instructor behaviour. Within the literature of adult education are a number of works (e.g. Chamberlain, 1960; Aker, 1963; Verner, Dickinson, et al, 1970; Campbell, 1976) which propose certain qualities and competencies intended to characterize "good" instructors. The theoretical and empirical thrust of these and related works should be incorporated into future research on participant behaviour (e.g. satisfaction, drop-out, persistence) to assess the significance of the instructor's role and personal characteristics in relation to other environmental forces (e.g. social, physical) and internal states (e.g. motivational orientations) acting on participants.

Another possibility is that satisfaction is a "general" state which pervades one's perception of many persons and things. For example, grumpy people are grumpy per se. In other words they may be generally dissatisfied with the government, their children, the weather, their garden, job, adult education class and so on. If this conjecture is correct, one can reasonably assume that generally dissatisfied people would be doubly annoyed if subjected to poor instruction in an adult education class.

In the meantime, it appears that participant satisfaction can be partly explained by variables such as those employed in the present study. If adult educators continue to believe their prime mission is to satisfy the needs of adult learners (and, by implication, communities, societies, and nations) they will want to know how to create conditions that result in participant satisfaction. This study has theoretical significance in that it casts doubt on the extent to which one type of variable -- motivational orientations -- can satisfactorily explain participant satisfaction.

Practically, it has optimistic but challenging implications. In view of the fact that motivational orientations appear to have little to do with satisfaction, the burden appears to reside with instructors who control the conditions for learning.

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