Enrollment:
A Decision Making Perspective

by
Musa B. Musa

B.A. (Educ.), Ahmadu Bello University, Zaria, 1974
M. Ed., University of Lagos, 1979

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF EDUCATION
in
THE FACULTY OF GRADUATE STUDIES
(Adult Education)

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA
July 1982
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Department of Administrative, Adult and Higher Education

The University of British Columbia
1956 Main Mall
Vancouver, Canada
V6T 1Y3

Date 14 June 1982
ABSTRACT

Adult enrollment rates in continuing education are low. This constitutes a major concern for program providers since financing of programs is based on enrollment. Adult education researchers have investigated the global concept of participation neglecting the question of enrollment decision making. Participation -- the act of taking part in a specific program is distinguished from enrollment--the process of deciding whether to pre-register in a program. This study examined what combination of selected personal and environmental variables "best" predicted enrollment decision making.

Beginning with Vroom's (1964) force and valence propositions, modifications were made using the concept of importance (Parker and Dyer, 1976) and adding contextual variables to produce expressive-force and instrumental-valence models. The modified models provided the schema for testing the following hypotheses: (i) the predictive accuracies of the expressive-force, instrumental-valence and multiplicatively combined expressive-force and instrumental-valence model are equal and (ii) the predictive accuracies of the additive and multiplicative forms of the combined expressive-force and instrumental-valence model are equal for predicting an individual's enrollment decision making in a formal educational program.

Mailed questionnaires were sent to 133 enrollees and 400 non-enrollees. Of these numbers, 95 and 114 respectively, were returned. Eighty-eight questionnaires were useable in each group. The data were analysed using SPSS Discriminant analysis computer
Results showed that suitability of the scheduled time of a program and a potential participant's perception of his employer's attitude regarding his intention to participate were the primary predictors of enrollment decision making in the four modified models. Predictive accuracy was augmented marginally by valence in the additive model and, for each of the remaining models by the respective multiplicative combination of the expectancy variables. The mailed brochure was the promotional device most reported as the principal source of information about the program.

To improve the likelihood of potential participants making positive enrollment decisions, programmers were urged: (i) to work closely with employers of their clientele to ensure the suitability of the timing of their programs; and (ii) to provide for expressive and instrumental objectives. The paramount importance of using contextual variables in enrollment decision making research was emphasized.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>ix</td>
</tr>
<tr>
<td>CHAPTER I: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Differentiating The Concepts Of Participation And Enrollment</td>
<td>5</td>
</tr>
<tr>
<td>Conceptual Systems Used To Investigate Decision Making Behavior</td>
<td>9</td>
</tr>
<tr>
<td>The Problem</td>
<td>15</td>
</tr>
<tr>
<td>Research Questions</td>
<td>17</td>
</tr>
<tr>
<td>Organization Of The Dissertation</td>
<td>18</td>
</tr>
<tr>
<td>CHAPTER II: ENROLLMENT DECISION MAKING: REVIEW OF ADULT EDUCATION LITERATURE</td>
<td>19</td>
</tr>
<tr>
<td>The Inadequacy Of The Conceptual Premise Of Participation Research</td>
<td>20</td>
</tr>
<tr>
<td>Participation Research Bearing On Enrollment Decision Making</td>
<td>23</td>
</tr>
<tr>
<td>Summary</td>
<td>34</td>
</tr>
<tr>
<td>CHAPTER III: PSYCHOLOGICAL APPROACHES TO MOTIVATION: THE FRAMEWORK FOR ANALYSIS</td>
<td>36</td>
</tr>
<tr>
<td>A Review Of Three Psychological Orientations To Motivation</td>
<td>36</td>
</tr>
<tr>
<td>Vroom's Valence And Force Propositions</td>
<td>41</td>
</tr>
<tr>
<td>Modifications To The Valence And Force Models</td>
<td>45</td>
</tr>
<tr>
<td>Adaptation Of The Modified Force And Valence Models</td>
<td>50</td>
</tr>
</tbody>
</table>
Hypotheses ................................................................. 57
Summary .......................................................................... 57

CHAPTER IV: INSTRUMENT DEVELOPMENT ......................... 59
Circumstances That Necessitated The Development Of The Instrument ................................................................. 60
Determining Objectives For Use In Expectancy Theory Research ................................................................. 60
Review Of Previous Measurement Of Expectancy Theory And Adult Education Variables ......................................... 63
Determining Objectives Pertinent To The Context Of Chautauqua By The Pacific ............................................ 71
Determining Instrument's Comprehensibility ................. 77
Operational Definitions Of The Predictor Variables ........ 79
Draft Instrument ............................................................. 85
Pilot Test ........................................................................ 86
Post Pilot Study Amendments To The Questionnaire .......... 93
Summary .......................................................................... 96

CHAPTER V: DESIGN OF THE STUDY .................................. 98
Context Of The Study ..................................................... 98
Population ........................................................................ 102
Samples ........................................................................... 103
Data Collection ............................................................... 108
Data Analyses .................................................................... 109

CHAPTER VI: RESULTS AND DISCUSSION ......................... 112
Response Rate ............................................................... 112
Socio-demographic And Educational Characteristics Of Enrollees And Non-enrollees ........................................... 114
Reliability Of The Instruments Used To Measure The
Expectancy Variables In The Expressive-Force And Instrumental-Valence Models ........................................122
Comparative Predictive Accuracies Of The Expressive, Instrumental And The Multiplicatively Combined Expressive-Force And Instrumental-Valence Models ..........................................................124
Predictive Accuracies Of The Additive Versus Multiplicative Forms Of The Combined Expressive-Force And Instrumental-Valence Model ............................................................140
Summary ..........................................................................................................................142

CHAPTER VII: SUMMARY AND CONCLUSIONS, LIMITATIONS AND IMPLICATIONS .................................................................145
Summary And Conclusions .........................................................................................146
Limitations Of The Study .........................................................................................152
Implications Of The Study ......................................................................................156

BIBLIOGRAPHY ........................................................................................................169

APPENDIX A: CORRESPONDENCE SEEKING APPROVAL TO CONDUCT STUDY AND INSTRUMENT DEVELOPMENT .................................................................174

APPENDIX B: QUESTIONNAIRE PACKAGE MAILED TO RESPONDENTS ......206

APPENDIX C: MEANS AND STANDARD DEVIATIONS OF THE PREDICTOR VARIABLES FOR THE ENROLLEE AND NON-ENROLLEE SAMPLES ......230

APPENDIX D: ADDITIVE VERSUS MULTIPLICATIVE COMBINATION OF THE COMBINED EXPRESSIVE-FORCE AND VALENCE MODEL .............233
LIST OF TABLES

Table 1: Summary Of Models Proposed ........................................ 56
Table 2: Judges' Classification Of Objectives ............................... 74
Table 3: Expressive Objectives: Pilot Test ................................. 78
Table 4: Instrumental Objectives: Pilot Test ............................... 79
Table 5: Pilot Study: Socio-demographic And Educational Characteristics Of Enrollees And Non-enrollees ..................... 88
Table 6: Pilot Test: Means, Standard Deviations, And Reliabilities Of The Expectancy Theory Components Of The Models ......................................................... 93
Table 7: Chautauqua By The Pacific Enrollment History, 1973-1981 ............................................. 100
Table 8: Stages In The Mail-out Of Questionnaires To Enrollees .................. 105
Table 9: Non-enrollees Sampling Chart ........................................ 106
Table 10: Socio-demographic And Educational Characteristics Of Enrollees And Non-enrollees ................................. 115
Table 11: Means, Standard Deviations, And Reliabilities Of The Expectancy Theory Variables In The Expressive-Force And Instrumental-Valence Models ........................................ 123
Table 12: Multiple And Zero Order Correlations Between Predictor Variables And Decision To Enroll ........................................ 125
Table 13: Correlations Between The Predictor Variables ................ 127
Table 14: Summary Statistics Discriminant Function Analysis: Expressive-Force Model ......................................................... 131
Table 15: Classification Results Of Enrollees And Non-
Table 16: Summary Statistics Discriminant Function Analysis: Instrumental-Valence Model ...........................................134

Table 17: Classification Results Of Enrollees And Non-enrollees Based On Time, Employer And The Instrumental-Valence Score: Expectancy Theory Variables ..................136

Table 18: Summary Statistics Discriminant Function Analysis: Multiplicatively Combined Expressive-Force And Instrumental-Valence Model .................................137

Table 19: Classification Results Of Enrollees And Non-enrollees Based On Time, Employer And The Score Of The Multiplicatively Combined Force And Valence Model ..........139
ACKNOWLEDGEMENT

I would like to express my indebtedness to the chairman of my doctoral committee, Dr. William S. Griffith, and to committee members, Dr. Vincent D'Oyley and Dr. W. Todd Rogers for their guidance and constructive suggestions from the conceptualization of the problem to the final form of this dissertation. My gratitude also goes to my academic mentor Professor Lalage Bown for her support and encouragement.

Appreciation is also extended to Jindra Kulich, Director of the University of British Columbia Centre for Continuing Education and Elayne Harris, Program Director of Chautauqua by the Pacific, 1981, for access to Chautauqua clientele and for sharing the questionnaire postage costs. The continuing cooperation and assistance of the staff of the Education Graduate Programs Office, Faculty of Education, directed by Dr. L. B. Daniels, is also acknowledged. Thanks is due to MarDell C. Parrish and Jackson C.S. Hui for word processing the document.

I wish to express my gratitude to the Federal Government of Nigeria for awarding me the scholarship to undertake this study and to the University of Lagos for granting me a paid leave of absence.

Formost, I am grateful to my wife, Maryamu, and children Msirali, Hurku and Suwang for their patience in tolerating my absence during my academic sojourn in Vancouver. Finally, my gratitude is extended to others who were helpful but too numerous to name.
CHAPTER I

INTRODUCTION

Adult enrollment rates in continuing education are low. For example, in Canada and the United States less than two percent of the under-educated adult population choose to enroll in Adult Basic Education programs (Cross, 1980). Similarly, where labour unions have negotiated contracts allowing for paid educational leave or tuition assistance programs, less than two percent of the eligible members take advantage of available educational opportunities (Peterson, 1980). And at least 50% of practicing professionals do not voluntarily enroll in continuing professional education programs provided by universities and other professional societies (Cross, 1981).

These consistently low enrollment figures, particularly among the undereducated, have concerned directors and programmers of continuing education organizations (Waniewicz, 1976). Efforts by researchers who have examined this issue have given rise to what is known in the field of adult education as the participation literature. Variables that have been examined include the characteristics of participants such as gender, age, level of education, employment status and place of residence (Johnstone and Rivera, 1965); the reasons for participation (Houle, 1961); and the learning environment in which participation occurs (Havighurst 1964; Marcus 1976).
Johnstone and Rivera (1965) carried out a national survey of 12,000 American households in which they attempted to determine among other things "What are adult education participants like?". They concluded that:

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

Cross (1980) made a synopsis of the findings of more than 30 large-scale surveys in which the preferences and characteristics of adult learners within the last decade were examined. She found a profile similar to that reported by Johnstone and Rivera (1965).

Houle (1961) interviewed 22 continuing learners enrolled in educational programs to determine why they had decided to participate. He identified three motivational orientations: (i) the goal-oriented who learn to achieve specific objectives; (ii) the activity-oriented who learn to develop social contacts and relationships with others; and (iii) the learning-oriented who learn for the joy of acquiring knowledge for its own sake. Subsequently, a number of factor analytic studies have been performed to verify and expand his typologies. Burgess (1971), for example, identified seven factors: (i) the desire to know; (ii) the desire to reach a personal goal; (iii) the desire to reach a social goal; (iv) the desire to reach a religious goal; (v) the desire to escape; (vi) the desire to take part in an
activity; and (vii) the desire to comply with formal requirements. Similarly, Morstain and Smart (1974) identified five adult learner types: (i) non-directed learners; (ii) social learners; (iii) stimulation-seeking learners; (iv) career-oriented learners; and (v) life change learners.

Cross (1981), summing up the research efforts that attempted to further investigate Houle's typology, concluded that:

The more sophisticated statistical studies purporting to test Houle's three-way typology have illuminated rather than changed Houle's basic conclusions. Typically, they include Houle's categories but add between two and five factors, often sub-dividing one of Houle's categories but rarely adding a completely new dimension. (p. 96)

Besides research efforts directed at understanding the characteristics of the "typical" adult learner as well as what motivates him to participate in a learning program, other studies have focused on what occurs in the learning environment. Havighurst (1964) suggested that the objectives which an individual perceives he could achieve by participating in a continuing education program could be classified as either "instrumental" or "expressive". He went on to explain that:

Instrumental education means education for a goal which lies outside and beyond the act of education...the learner as a young adult studies in his vocational field so as to get a promotion, or studies cooking so as to become a better housewife. Instrumental education is thus a kind of investment of time and energy in the expectation of future gain. Expressive education means education for a goal which lies within the act of learning, or is so closely related to it that the act of learning appears to be the goal....For example, the learner studies arithmetic for the pleasure of learning about numbers and quantities. The learning of arithmetic is its own
reward....Expressive education is a kind of consumption of time and energy for present gain. (pp. 17-18)

Marcus (1976), using Havighurst's notion of expressive and instrumental objectives, found, as had been posited by Havighurst, that:

Adult education participants do tend to discriminate perceptually between the concurrent (expressive) usefulness of their participation and its deferred (instrumental) usefulness. (p. 257)

Marcus' conclusion is also consonant with the findings of motivational orientation researchers that indicated that individuals take part in educational programs for different reasons (Houle, 1961; Cross, 1981).

Taken together, the literature on participation encompasses different aspects of the adult learner already participating in a specific educational program. The question of how potential adult learners decide to enroll in a specific continuing education program, the focus of the present study, has received comparatively little attention from adult education researchers.

Most investigators who have attempted to examine the issue of enrollment decision making (Miller, 1967; Mezirow, 1971; Rubenson, 1976; Morstain and Smart, 1977; Cross, 1981) have done so in the absence of empirical evidence. For example, Morstain and Smart (1977), in their discussion of the reasons why adult students enroll in university programs, noted that:

With respect to research in this area, increased attention has focused on the motivations of adults which are thought to influence their participation in educational programs and courses of study. This is a
welcome development, since most institutions have very little empirical information on the reasons underlying adult learners' decisions to enroll in educational activities. (p. 666)

The research referred to by Morstain and Smart pertains to the participation literature which deals specifically with adults already in the context of learning. They suggested that findings from such research will facilitate knowledge regarding the "reasons underlying adult learners' decisions to enroll in educational activities" (1977, p. 666). However, extrapolation of findings based on studies of actual participants to potential participants regarding enrollment decision making presents a major conceptual problem. To facilitate the clarification of this issue, it is first necessary to distinguish between the concepts of participation and enrollment.

Differentiating the Concepts of Participation and Enrollment

In this section participation is first differentiated from enrollment followed by a discussion of the importance of pre-registration data for a continuing education programmer.

Participation and Enrollment

The concept of participation has been treated in the adult education literature as a unitary act. Individuals are simply described in one of two categories: participants who take part in a particular program of interest, and non-participants who do not. Participation is not, however, a single act. It is a sequence of decisions and actions. For example, an individual may choose whether or not to enroll for a program (i.e.
deciding in advance of the scheduled date in which a program would be conducted if he will or will not pre-register). Assuming he decides to pre-register and follows through with actual registration (enrollment), he still has to decide whether or not he will actually take part in the program (i.e. participate in the specific program for which he has pre-registered). Having chosen initially to take part in the program and having been present for the first part, which may consist of a single class meeting or an extended series of classes, he still has to decide whether to continue to take part (persist) or to discontinue his involvement (drop out). Those who continue or discontinue have been studied extensively by researchers who are concerned with persistence and dropout (Boshier, 1973). There is, however, a lack of research which attempts to deal with the making of the decision to enroll as a discrete step in the sequence of processes which together constitute the concept of participation.

At a general level, every individual can be designated as a potential learner. All individuals will at some time in the course of their daily life experience the need to achieve some desired objective(s) which they perceive will give them mastery over their environment. A potential participant is a potential learner who has been made aware of the existence of a specific educational program.

Institutional providers identify a segment of the population in a given society and design specific educational
programs which they believe will be perceived by their target population (potential participants as indexed by the fact that such individuals are on the institutional mailing list) as those which will facilitate the achievement of their desired objectives. Various promotional techniques (mailed brochures and flyers) are usually used to convey the existence of such programs to potential participants. A potential participant receiving promotional material has the choice to enroll or not in the program (no claim is made here that the choice is dependent upon the promotional material). Individuals who pre-register for the program are designated as enrollees. Potential participants who make a negative enrollment decision and those who fail to pre-register for any other reasons are classified as non-enrollees.

The enrollee category contains two subgroups consisting of those who enroll and actually take part in the program and those who enroll but subsequently do not take part as they had anticipated. Accordingly, this approach refines and elaborates the conventional dichotomous classification of participant or non-participant into further subclassifications which reflect the complexity of the phenomenon of participation more precisely than is possible with a simple dichotomy.

The Importance of Pre-registration Figures

From the perspective of an adult educator planning a program, it is often essential to make a decision about whether or not a program which has been planned and advertised will
actually be conducted or if it will be cancelled to avoid incurring costs which cannot be met from the anticipated revenue. In calculating the anticipated revenue the adult educator attempts to obtain the best possible estimates of the number of people who will actually be taking part in a program. To obtain an estimate he will arrange for pre-registration, that is to have potential participants indicate their intentions to take part several days or weeks in advance of the beginning date of the program he has advertised. Such pre-registration figures will give him a sound basis for making his estimate of the number of participants.

It should further be noted that while a potential participant might make a positive enrollment decision he may or may not follow this up with actual registration. Experience in the administration of adult education programming, however, seems to suggest that relatively few people actually pre-register and then fail to appear for the specific program (Griffith, 1982).

Accordingly, the practising adult educator is interested in the number of people who pre-register because that information is useful for calculating the estimated profit or loss for a given planned and promoted program. This information will enable him to decide whether or not to proceed to conduct the program or to cancel it to control his anticipated losses in the event of low pre-registration. This process by which potential participants choose whether or not to pre-register may be called
enrollment decision making.

Where, however, the enrollment decision making of the individuals who receive the promotional material on a program does not result in an adequate number of positive decisions to enroll (i.e. pre-registrations) to cover the anticipated costs of the program, the planner may cancel the program, resulting in an apparent anomaly, that is, a situation in which individuals have made a decision to enroll but in such limited numbers that the program for which they have enrolled is cancelled. Accordingly, it is both conceptually and practically sound to consider enrollment decision making as a discrete process within the larger construct of participation.

**Conceptual Systems Used to Investigate Decision Making Behavior**

Decision making in areas such as economics, mathematics, and psychology has been studied extensively. In economics and mathematics, decision making under conditions of risk has been examined within the framework of the dominant normative theory of the subjectively expected utility (SEU) model (Edwards, 1954; 1961; Slovic, et al., 1977). With this model, it is assumed that people seek to maximize the sum of the product of the utility and the probability of alternative means of achieving desired outcomes. The adequacy of the SEU model has been questioned; empirical evidence indicates that there is an interaction between utilities and probabilities and that preferences are stochastic rather than deterministic (Edwards,
Furthermore, this model has also been criticized for not taking into account situational factors (Kunreuther 1976).

Vroom (1964), working in the area of individual and organizational psychology, presented a valence and a force proposition respectively. In the first proposition, the instrumentality and valence for each outcome in a series are first multiplied and then summed across the outcomes of the series. This yields what Vroom called the predictor score of the valence proposition which predicts the valence of outcomes (p.18). Similarly, in the force proposition, the expectancy and valence for each outcome in a series are first multiplied and then summed across the outcomes of the series. This yields the predictor score of the force proposition which predicts the force toward behavior or action to achieve those outcomes (p.19). According to Vroom (1964) the term action refers "to behavior which might reasonably be expected to be within the repertoire of the person ... while the term outcomes (refers to) more distant events which are less likely to be under complete behavioral control " (p.19). In this regard, Mitchell (1974) defined outcomes as "simply anything an individual might want to attain " (p.1053).

According to Vroom (1964), the valence of an outcome for a person refers to the person's affective orientations (which could be positive or negative) toward the particular outcome. The cognized instrumentality of a given outcome is defined conceptually as the degree to which an individual perceives the
outcome in question as facilitating the attainment of other outcomes. According to Vroom (1964), the valence proposition therefore predicts the extent to which an individual perceives the attainment of outcome B to be dependent on having attained outcome A.

The force proposition specifies how valences and expectancies combine in determining choices of action. In this proposition, a force is conceptualized as a hypothetical cognitive factor that controls behavior (Vroom, 1964). The valence of an outcome was defined above. Expectancy is "a momentary belief concerning the likelihood that a particular act will be followed by a particular outcome" (Vroom, 1964, p. 17). Together, valence and expectancy are used to predict the force toward behavior.

Unlike the SEU model, the expectancy theory propositions presented by Vroom (1964) deal less with the development of axioms of normative choice behavior and more with describing, explaining and predicting real life or actual choice behavior, whether it is rational in the normative sense or not (Wahba and House, 1974).

Since Vroom (1964) made his original presentation, researchers working within the expectancy theory research tradition have made a number of conceptual and methodological modifications to his framework. Vroom's valence and force propositions have been designated as models; and the components of the valence and the force models have been combined to
predict the valence of job effort (Mitchell, 1974, pp.1053-1055). The question of which form of mathematical combination (additive or multiplicative) of the components of the models has more predictive accuracy has also been raised (Wahba and House, 1974; Mitchell, 1974; 1981). Parker and Dyer (1976) have suggested the need to make a conceptual distinction between valence of outcomes and the importance of those outcomes. Furthermore, attempts have been made to extend the valence and force models using environmental or contextual variables to predict behavior (Mitchell and Knudsen 1973; Parker and Dyer, 1976), and the need to continue research in this area has been suggested (Parker and Dyer, 1976).

Extensions of Vroom's models in terms of personal and environmental variables are relevant to the context of the present investigation. Researchers in adult education have suggested that the following variables influence the participatory behavior of adults in continuing education: (i) a potential participant's perceived expectations of significant others such as friends, family and employer (Miller, 1967; Peterson, 1980; Cross 1981); (ii) educational efficacy--a potential participant's belief in education as a means of gaining mastery over his environment (Knox, 1977); (iii) educational efficacy expectation --a potential participant's beliefs about his ability to execute a program content (Bandura 1977a) and (iv) the suitability of the scheduled time of a program (Clarke, 1971; Houle, 1972; Carp, et al. 1974; Waniewicz, 1976).
For example, a potential enrollee learns about a program through a brochure. Among a range of issues that he might likely consider in the process of his enrollment decision making, is how his decision to enroll might affect the regular routine of his family. The potential participant's decision to enroll could entail relatively little or no disruption to his family or it might call for a great deal of temporary reorganization. The potential participant's enrollment decision could be influenced by his perception of his family's expectations and his motivation to comply with those perceived expectations.

Furthermore, before deciding to enroll in a program, a potential participant will very often seek further information on a variety of issues among which is the extent to which experience in the program will enable him to attain the objectives he currently desires. He may enquire for more information from the providing institution. Should he have friends who have had experience with the program or institution, he may seek their opinion about the program. Accordingly, the potential participant's enrollment decision making might be influenced by his perception of his friend's expectations, and his motivation to comply with those perceived expectations.

Similarly, an employer may be aware of a program that might enhance an employee's professional development. The employer may suggest participation to the employee (assuming participation is not mandatory). If it occurs that the
employee's expectation of what participation in the specific program will enable him to accomplish is at variance with the expectation of his employer, then the extent to which he will be motivated to comply with his employer's expectations will be influenced accordingly. Furthermore, for an employee to be able to make a positive enrollment decision, he would need to be assured of a favorable disposition on the part of his employer to enable him to take time off to participate.

Every individual at some point is faced with the need to achieve some objectives which he expects will enable him to exist more comfortably in his environment. Participation in an educational program is one means which the potential participant might consider as likely to facilitate the achievement of his desired objectives. However, whether or not he decides to enroll in a program as a means of achieving his objectives will be influenced by the extent to which he believes that through participation in the program he can gain mastery of his environment (educational efficacy).

An adult considering whether or not to enroll in an educational program as a means of achieving his desired objectives is known to be concerned about his ability to perform while participating in the program (educational efficacy expectation). Consequently, his enrollment decision making will be influenced by the extent to which he believes he can execute the program content.

Most individuals have a range of commitments to which they
must attend in the course of their daily lives. Such engagements might include job requirements, family responsibilities and socializing with friends. Consequently, the time at which a program is scheduled has to be convenient for him to attend in light of his other commitments. Accordingly, his enrollment decision making will be influenced by the suitability of the scheduled time of the program.

The Problem

The focus of the present study was upon enrollment decision making as indexed by pre-registration for a specific continuing education program. The understanding of the factors that influence adult enrollment decision making are of major concern to programmers in institutional settings. This proposition is premised on the fact that the decision to either finance the introduction of a new program or to continue providing an existing one tends largely to be based on the number of individuals who pre-register in a program before its scheduled commencement date (Clark, 1958; Mezirow, et al., 1975). Consequently, the problem addressed in this study was that of determining what combination of selected expectancy theory variables and personal and environmental variables considered simultaneously served best to distinguish between potential participants who subsequently enrolled in an adult education program and those who did not. Identification of such variables would enable institutional program planners to be more effective in their promotional activities.
Following Havighurst (1964), the valence model modified by importance (Parker and Dyer, 1976) and augmented with selected personal and environmental variables, was referred to as the instrumental-valence model. Similarly, following Havighurst (1964), the force model modified by importance (Parker and Dyer, 1976) in concert with selected personal and environmental variables, was called the expressive-force model. The multiplicatively combined components of the instrumental-valence and expressive-force models, as suggested by Parker and Dyer (1976), analysed simultaneously with contextual variables was called the multiplicatively combined expressive-force and instrumental-valence model; while its additively combined variant was called the additively combined expressive-force and instrumental-valence model.

The contextual variables examined were: i) potential enrollee's perceived expectation of his friends, family, and employer, regarding his possible decision to enroll in an educational program, and his motivation to comply with those perceived expectations; ii) educational efficacy—the potential enrollee's belief that through participation in the program he could gain mastery of his environment; iii) educational efficacy expectation—the extent to which the potential enrollee believed he had the ability to execute the program content; and iv) suitability of time—the extent to which the suitability of the scheduled time of the program influenced the enrollment decision making of the potential participant.
Research Questions

A principal and a secondary research question were addressed in the present study.

Principal Research Question

Which of the three models expressive-force, instrumental-valence and the multiplicatively combined expressive-force and instrumental-valence model best predicts an individual's decision to enroll in a formal continuing education program?

Secondary Research Question

Which form of mathematical combination (additive versus multiplicative) of the combined expressive-force and instrumental-valence model is a better predictor of an individual's decision to enroll in a formal continuing education program?

The continuing education program considered in the present study was Chautauqua by the Pacific 1981. This program is an annual week long professional development program conducted by the adult education section of the University of British Columbia Center for Continuing Education (UBC/CCE) for adult educators. The target population for this program consisted of approximately 10,000 professional adult educators in Canada and the United States of America. Brochures and flyers had been mailed to these potential participants and those who pre-registered were the enrollees used in this study. A sample drawn from those who did not pre-register made up the group of non-enrollees. The Chautauqua by the Pacific was selected as
the context for this study because (1) the organizers were willing to cooperate and (2) the population of potential participants was appropriate for obtaining data for the examination of the relative impact of the variables considered.

**Organization of the Dissertation**

The remainder of this dissertation consists of six chapters. Chapter II is a review of pertinent adult education literature on enrollment decision making. Chapter III is a discussion of the literature on psychological approaches to motivation and the choice of the conceptual framework that was adapted for this study. In Chapter IV, the procedures employed to develop the instrument used in the study are presented. Chapter V describes the design of the study. In Chapter VI, the results of the study are presented and discussed. Chapter VII, the final one, includes a summary of the findings, a statement of the conclusions, and comments about the limitations and implications of the findings.
CHAPTER II

ENROLLMENT DECISION MAKING: REVIEW OF
ADULT EDUCATION LITERATURE

The phenomenon of adults participating in educational programs to achieve their desired objectives has been considerably researched over the years. In this regard, studies undertaken, particularly in the course of the last three decades, have generally been done under the rubric of participation research. Participation researchers have largely focused their attention on determining the characteristics of the adult participant, reasons why adults take part in educational programs and why some participants persist while others drop out from such programs.

In the practise of continuing education however, while the findings of participation researchers have been of considerable usefulness, program providers still do not have a sound way of predicting who will enroll in their programs. The present study, therefore, focused on the process of enrollment decision making. The organization of this chapter is as follows: first, the inadequacy of the conceptual premise of participation research is examined. Then, participation research studies with a direct bearing on enrollment decision making are reviewed. Finally, the conclusions which can be drawn from this literature review are presented.
The Inadequacy of the Conceptual
Premise of Participation Research

At least since 1816 adult educators have attempted to understand the process adults go through in deciding whether or not to enroll in specific educational programs. Underscoring the problem, Pole (1816) noted that while:

...children are sent (to school) under the authority of parents; they are themselves not convinced of the advantages they are subsequently to derive from what they then regard as a task, and have too seldom any ideas associated with what they are taught. The contrary is the case with those in advanced life: they attend the schools from their own desire to learn; they understand the value of the work in which they engage; they keep its end in view, and therefore assiduously apply the means for its attainment. (1816, p. 17)

The heart of the problem, as is evident from Pole's observation, is that an adult usually has the choice to decide whether or not to enroll in an educational experience. When he decides to enroll in a specific educational program, it is usually for the attainment of some objectives (Havighurst, 1964; Miller, 1967; Mezirow et al. 1975; Morstain and Smart, 1977; Cross, 1981). This fact highlights the complexities of the phenomenon, because it is well documented in the literature that almost every potential participant has more than one reason for engaging in a single learning experience (Houle, 1961; Johnstone and Rivera, 1965; Cross, 1981). In this regard, Cross (1981) noted the "inappropriateness of trying to find a single reason for adult learning" (p. 84).

Researchers who have been working in the area of
participation have mostly conceptualized the complex phenomenon of adults deciding whether or not to enroll in a specific educational program (enrollment decision making), and for those who enroll, whether or not to take part in the program (i.e. engage in a specific learning process) and whether those who decide to take part will continue to do so (persist) or drop out into studies of participants or non-participants (Boshier, 1973; Burgess, 1977). Other researchers have employed the construct of learning and classified adults as learners and would-be learners (Carp, et al. 1974; Morstain and Smart, 1977) or learners, would-be learners and non-learners (Waniewicz, 1976).

The tendency to classify adults into participants and non-participants with regard to their participatory behavior in educational programs is to reduce a complex phenomenon into a simple dichotomy which does not facilitate rigorous empirical investigation. While there is need to have information on what distinguishes participants from non-participants, because of the broad conceptual base on which such studies are premised, other equally important and conceptually discrete processes that come under the global construct of participation are obscured. Consequently, despite the fact that studies reported in the participation literature are conceptualized from the perspective of participants and non-participants, the authors discuss simultaneously and in a mixed fashion such distinct processes as: potential participants who subsequently enroll (enrollees) and those who do not (non-enrollees); those who enroll and take part in a specific learning experience (participants in that
specific aspect of study) and those who do not (non-participant in that specific aspect of study); those who continue to take part in some or all aspect of a program (persisters) and those who discontinue their involvement in some or all aspects of a specific program (dropouts).

Similarly, classifying the adult population into learners, would-be learners and non-learners (Carp, et al. 1974; Morstain and Smart, 1977; Waniewicz, 1976), while discussing the phenomenon of adults participating in educational programs, is not an adequate conceptual system for rigorous empirical research. The concept of learning addresses the question of how an individual interacts with program content material in order to gain mastery; this is of course not even to mention other components of the concept of learning such as the ability to learn and one's own perception of his ability to learn. Consequently, to employ such a concept as learning and then to extrapolate the findings to discuss the global construct of participation is misleading.

Thus, because researchers have examined the phenomenon of the participatory behavior of adults in continuing education programs by conceptualising their studies using either the global construct of participation or the narrow concept of learning to discuss the larger construct of participation, such studies were considered not to be of direct usefulness in the conceptualization of this study. Because the present study dealt specifically with the process adults engage in when
deciding whether or not to enroll in a specific program, participating or learning was not of direct interest. The studies pertaining to the participation of adults in continuing education have been well reviewed elsewhere (Marcus, 1976; Aslanian and Brickell, 1980; Cross, 1981). Consequently, they will be examined here only insofar as their findings have some bearing on the central concern of this study, namely the enrollment decision making of potential adult participants.

Participation Research Bearing on Enrollment Decision Making

Despite the plethora of empirical studies on different aspects of adult participation in continuing education, studies of enrollment decision making as a separate process prior to actual participation are conspicuously lacking. Although nearly every author who writes on the subject of participation at some point concedes that the central issue is that of decision making, adult education researchers have mostly tended to note the seeming non-existence of a satisfactory conceptual framework for investigating the phenomenon (Knox and Videbeck, 1963; Miller 1967; Mezirow, 1971; Boshier, 1978; Cross, 1981). In this regard for example, Gordon G. Darkenwald, an Imogene Okes
Award winning author* 1, used the occasion of the 1980 Conference of the Commission of Professors of Adult Education at St. Louis to present a list of "suggestions for advancing research and the theory on participation in adult education" in which he noted, inter alia, that:

Despite the importance of social and other contextual variables, participation is ultimately a function of individual decision-making. Thus various decision-making models need to be identified and tested if we are to advance fundamental knowledge of participation behavior. [Emphasis added] (Darkenwald, 1980)

The preceding is a succinct restatement of the nature of the fundamental problem which has been recognized since the turn of the last century. The search for an explanatory conceptual framework to guide research in this area has continued to be a subject of interest to scholars in continuing education. Progress at efforts to explain the phenomenon has been impeded, this author believes, not only by a lack of an adequate theoretical system to guide investigation, but also more fundamentally by a lack of conceptual clarity as to the problem.

Knox and Videbeck (1963) proposed that participation be viewed "as the result of the interaction between an individual

1 *The Imogene Okes Award is a yearly recognition by the Commission on Research of the Adult Education Association in North America of the adult education scholar(s) whose piece of research has made the most outstanding contribution to the discipline in the continent.
and his environment", which is a significant conceptual contribution to the adult education literature. They highlighted the need for researchers to consider the relative impact of internal and external factors acting separately and in concert on an adult learner's participatory role within the context of an educational experience. They further emphasized that the psychological:

...orientations of an individual toward participation consist of subjective traits that reflect need dispositions, cognitive style, perceptions of opportunities for participation, and relative value placed by the individual on various elements in his network of social activities. At a given point in time, subjective orientations toward participation operate within the objective organization of behavioral settings contained within an individual's life space consisting of both the unique configuration of roles and statuses that provide vehicles for social interaction, and the available community resources and facilities relative to participation. (Knox and Videbeck, 1963, p. 105)

A number of elements in the Knox and Videbeck conceptualization are noteworthy for the purpose of the present discussion. The readiness with which an individual opts for engagement in an educational experience is related to the individual's "need disposition". What he does to bring about the realization of those needs is influenced by elements in his network of social activities and the value he places on such forces. A potential adult participant might consider the possibilities of enrolling in an educational program as a result of his desire to achieve objectives related to the pressures arising out of his environment. The route he eventually chooses may be influenced to some extent by his significant others.

Although Knox and Videbeck did not state that they were
operating within a Lewinian conceptual schema, they were using such Lewinian concepts as "life space" and behavior being a result of the "interaction" between a person and his environment, thus, implicitly suggesting the relevance of Lewin's (1938) multiplicative model of behavior being a function of the interaction between a person and his environment. This Lewinian schema as it relates to Vroom's (1964) expectancy-valuation theory is examined further in Chapter III where the discussion of the pertinent literature related to the conceptual framework of this study is taken up.

Miller (1967) made another significant conceptual contribution to the literature with his study Participation of Adults in Education: A Force Field Analysis in which he sought to represent various configurations of forces which determine people's level of participation in continuing education. While noting the atheoretical nature of the previous studies, he highlighted the need for "a guiding framework that would suggest in advance what phenomena we should be looking for" (p. 1). In this regard he emphasized the need to focus on the two tasks of "making tentative predictions about future trends in participation,...and developing plans for increasing participation in desirable educational activities" (Miller, 1967, p. 2). Miller undertook his study, adopting "Lewin's force-field analysis as...the main structural device" (p.2) to increase the powers of adult educators to deal with the two tasks he identified. Within the Lewinian conceptual framework, Miller developed his diagramatic positive-negative press model
depicting participative behavior as a resultant of the interaction between personal needs and social forces and the extent to which they are mutually supportive regarding the decision to engage in continuing education.

Miller's analysis was significant not only because he drew attention to the need for a holistic consideration of the reasons that predispose an individual toward deciding to participate in a continuing education program, but also because he attempted to determine the relative influence of internal and external variables. In this connection he attempted to demonstrate that an increase in forces pressing toward, or a decrease in forces resisting participation, would influence the level of participation in an educational program. Miller's force-field analysis, while an important conceptual contribution, has apparently not as yet given impetus to much empirical research possibly because he did not operationalize his variables or suggest how it could be done.

The next major contribution to the literature that attempted to conceptualize the phenomenon of enrollment decision making was made by Rubenson (1976) who proposed what he called an expectancy-valence paradigm for investigating the question of recruitment in adult education. Symbolically, Rubenson presented his model as:

\[ K = f[\Sigma (V_i \times F_i)] \]

where

\( K \) = force conducive to an action;

\( V_i \) = valence for the expected consequences of the action;
Rubenson's model was an attempt to apply a modified version of Vroom's (1964) original presentation of expectancy theory to adult education.

Discussing the purpose of his presentation, Rubenson (1976) cautioned that:

The purpose of the paradigm is not to produce a mathematical description of recruitment in adult education but to give a general indication of the relation between different variables. In this way the paradigm can constitute a plan of future research and serve as a basis for the interpretation and collation of previous research. (p. 50)

Rubenson's presentation has been of considerable conceptual aid to the present study particularly for having made the linkage between the central topic of this investigation, namely enrollment decision making, and a theoretical system that addresses the issue of choice behavior, namely Vroom's (1964) expectancy-valence models, the components of which have been the subjects of considerable empirical research.

In the chapter "Toward a Model of Adult Motivation for Learning" in her book Adults as Learners, Cross (1981) made a conceptual presentation which she called the Chain-of-Response (COR) Model. She stressed the need to take cognizance of the dynamic context in which the decision to engage in learning takes place and how that decision is influenced by the existential situation of the individual. Cross also stated that "participation...is not a single act", which would lead one to assume that a distinct decision making process would be required
for each act. The notion of participation as the product of a series of composite activities underscores the point that participation as a construct requires redefinition because its present umbrella usage fogs up the literature and thus hampers investigation.

Expounding her model further, Cross made the point that:

Attitudes toward education [which is the second variable in her model] arise directly from the learner's own past experience and indirectly from the attitudes and experiences of friends and "significant others". (1981, p. 125)

Although Cross notes that her presentation "is still far from the kind of theory that can be used to predict who will participate in which adult learning activities" (1981, p. 126), the impression is given that prediction is her ultimate goal. If that impression is correct, one would wonder why in presenting her second variable, "attitudes about education", she should begin with a discussion of the "learners", namely individuals already participating. The preliminary discussion one would have expected however would have been that relating to the potential participants whose attitudes toward education would partly facilitate the prediction of the result of their enrollment decision making.

Miller (1967) has suggested that the unstable work and family life of people of lower socioeconomic groups has a negative influence on their perception of education as a means of achieving their desired objectives. According to Miller, the values of people in the lower socioeconomic class encourage...

...an action - and excitement-orientation, a belief in
luck and fate, and an absorption in the immediate present. To all of these values, education is inimical because it requires a strong enough belief in a future payoff to give up present gratifications. (p.9)

Houle (1972), in discussing the "decision points and components of an adult educational framework" in the "fundamental system" of program planning which he proposed, noted in the fifth component "the format is fitted into larger patterns of life" that, "the learning activities of men and women must ordinarily be introduced with some care into a complex milieu which includes work, home, civic and other responsibilities" (p. 53). He further indicated that:

Since participation in adult education usually depends heavily on voluntary choice by the learners, interpretation plays an important part in most situations. A man needs to make it clear to his wife and family why he wants to be away from home one evening a week.... Collaborative arrangements among associations or organizations need to be explained to their memberships or constituencies. Sometimes proper interpretation is crucial to the success of learning activities; sometimes it is merely facilitative or tension reducing.... (p.54)

Similarly, Cross (1981) noted that:

Attitudes about education also arise indirectly through the attitudes of reference groups and membership groups. The widespread failure of members of the United Auto Workers to use educational benefits, for example, is frequently attributed to indifferent or negative attitudes toward adult education on the part of fellow workers. (p 126)

Taken together therefore, it would appear that the degree to which a potential participant is likely to make a positive enrollment decision will be influenced by the extent to which he perceives his family, friends and employer to be favorably
predisposed to his participating in a given program.

Knox (1977) suggested that "one attitudinal characteristic that is associated with higher participation rates than anticipated is a sense of educational efficacy" (p. 186). Educational efficacy refers to the extent to which an individual perceives the utility of education in a global sense as a means of gaining mastery over his environment. This concept apparently has not been empirically investigated. However, it seems reasonable to assume that in order for a potential participant to consider enrolling in an educational program, he must believe that education has practical consequences and utility. In addition, the potential participant must perceive himself capable of executing the program content to facilitate the realization of the objectives he expects to achieve as a result of participating in the program.

Bandura (1977a) made a conceptual distinction between an outcome expectancy and an efficacy expectation. He defined an outcome expectancy "as a person's estimate that a given behavior will lead to certain outcomes" and efficacy expectation as "the conviction that one can successfully execute the behavior required to produce the outcomes" (p. 193). Bandura further argued that:

Outcome and efficacy expectations are differentiated, because individuals can believe that a particular course of action will produce certain outcomes, but if they entertain serious doubts about whether they can perform the necessary activities such information does not influence their behavior. (p. 193)
Hence he concluded that "perceived self-efficacy influences choice of behavioral settings" (p.193). In this regard, McClusky and Jensen (1959), Kidd (1973), and Knox (1977) have also suggested that adults, contemplating whether or not to engage in continuing education, tend to be quite concerned with their ability to perform.

As further noted by Bandura (1977a),

Expectations of personal efficacy do not operate as dispositional determinants independently of contextual factors. Some situations require greater skill and more arduous performances and carry higher risk of negative consequences than do others. Expectations will vary accordingly. Thus, for example, the level and strength of perceived self-efficacy in public speaking will differ depending on the subject matter, the format of the presentation, and the types of audiences that will be addressed. The social learning approach is therefore based on a microanalysis of perceived personality traits or motives of effectance. (p 203)

Consequently, the predictive accuracy of efficacy expectation would be considerably enhanced if it is assessed in terms of a specific activity (for example, deciding whether or not to enroll in a specific educational program).

Miller (1967) in his conceptualization of his positive-negative force model, noted that participation in educational activities "represents a person's commitment of time and energy in competition with his desire to participate in a number of other activities" (p.3), for example, such as spending time with ones' family, friends or employment situation. Consequently, for a potential enrollee to decide to enroll in an educational program, the scheduled time of the program must be such that he
should find it suitable relative to his other commitments.

In this regard, Clarke (1971), attempted to find out the reasons why previous participants in educational programs conducted by the University of British Columbia, Centre for Continuing Education, did not re-enroll in subsequent programs. To undertake his study, Clarke drew a sample of 100 subjects from a population of 900 potential participants that had previously participated in one or more programs offered by the institution. He found that of the 244 reasons given for not re-enrolling, 107 (43.9%) were related to time considerations. Clarke reported that:

lack of time because of business commitments is evidently the most important single factor operating to keep those in the sample from once again attending, followed by lack of time because of family commitments, involvement in courses elsewhere, lack of time because of other clubs or groups, the inability to schedule time on a regular basis. (p.56)

Clarke's (1971) finding that 43.9% of the reasons given by the subjects of his study for not re-enrolling were time related is similar to reports of other studies. Carp, et al. (1974) reported that when they asked their 3001 sample of would-be learners to select from a list of twenty-four reasons those that they felt were important in keeping them from "learning what they want to learn", 46% of the respondents indicated "not enough time" as their second most important "potential obstacle" (pp.45-47). Similarly, Waniewicz (1976) reported that out of his sample of 817 would-be learners, 37% indicated "too busy" as their major obstacle to learning (p.122). Thus, it would appear that the suitability of time could be an important influence in
the enrollment decision making of potential enrollees. However, it is important to note that none of the authors (Clarke, 1971; Carp, et al. 1974 and Waniewicz, 1976) reported how they assured the validity of their subjects' responses with regard to "lack of time" as a reason for their failure to enroll in an educational program. This issue of the validity of the data regarding lack of time is raised because it has been suggested that potential participants tend to use the excuse of lack of time as a face saving device (Griffith, 1982).

Summary

From the preceding discussion, the following benchmarks were established as building blocks in the present study:

i) Adults decide to enroll in a specific educational program to achieve a variety of objectives;

ii) Specific measurement instruments could not be found for the variables selected from the participation literature which were considered pertinent to this study;

iii) The decision making frameworks found in adult education literature are mainly conceptual presentations without the necessary accompanying mechanics for their operationalization.

Consequently, it was considered necessary to identify a conceptual system from the literature of other disciplines that had the capabilities of explaining how the variables of this
study relate to each other, such as to facilitate the prediction of enrollment decision making of potential enrollees. This task is taken up in the next chapter.
CHAPTER III

PSYCHOLOGICAL APPROACHES TO MOTIVATION:

THE FRAMEWORK FOR ANALYSIS

A review of the adult education participation literature showed multiple reasons why a given individual might decide to enroll in a specific program. Consequently, in conceptualising the issue of enrollment decision making, the problem was that of determining the personal and environmental factors which influenced the enrollment decision making of an individual as he considered the objectives he desired to achieve. In light of the psychological nature of the problem, it was considered important to anchor the present investigation in a psychological theoretical scheme.

In the present chapter, three psychological orientations to motivation are reviewed. This is then followed by presentation of Vroom's valence and force propositions, modifications to these valence and force propositions and adaptation of the modified valence and force propositions. The hypotheses for the study are then given, followed by a summary.

A Review of Three Psychological Orientations To Motivation

A review of the psychological literature revealed several major classifications of the theoretical approaches to motivation. In his classification, Vroom (1964) distinguished three orientations, namely: early theories based on the principle of hedonism; drive and reinforcement theories, and
cognitive theories.

The Principle of Hedonism

The origins of most contemporary theories of motivation can be traced to some extent to the principle of hedonism—the doctrine that voluntary behavior is guided by the pursuit of pleasure and the avoidance of pain. According to Vroom (1964), the adherence to this principle, albeit within an empirical theoretical system designed to explain human behavior, is still evident today. Steers and Porter (1979), have also indicated that "Hedonism assumes a certain degree of conscious behavior on the part of individuals whereby they make intentional decisions or choices concerning future action" (p. 9). Thus, theoretically an individual would be expected to decide on a rational basis to opt for a course of action that he believes will maximize his chances of attaining his desired objectives.

According to Vroom (1964), by the close of the nineteenth century, "the philosophical principle of hedonism, despite its simplicity and widespread appeal,...presented many problems for those who saw in it the foundation for a theory of behavior" (p.10). As Vroom (1964) further noted, "the hedonistic assumption had no empirical content and was untestable (given that) any form of behavior could be explained, after the fact, by postulating particular sources of pleasure or pain, but no form of behavior could be predicted in advance" (p. 10). Efforts to bridge the gap between philosophical theorizing and testable psychological theory resulted in the emergence of drive
and reinforcement theories, each attempting to demonstrate empirically verifiable relationships among sets of variables which could be used to predict and explain behavior.

**Drive and Reinforcement Theories**

Drive theories are grounded in biology and physics and draw on a physiological research tradition (Atkinson, 1964; Rubenson, 1976). Thorndike (1932) and Hull (1943) were among the early proponents of this research tradition. They employed such constructs as instincts, drives, habit and incentives to explain the origin, control and persistence of behavior which they described in stimulus-response chains.

The stimulus-response conceptual system assumes that an individual reacts best if he has been conditioned to respond according to a preprogrammed response pattern irrespective of available behavioral alternatives. Accordingly, future actions of an individual are predictable. This orientation ignores the fact that individuals in their daily lives are normally under a complex set of pressures and find themselves having to make choices to maximize their chances of attaining their desired objectives. Given the dynamic nature of the interaction between a person and his environment, it is not possible to establish a priori stimulus-response chains for all conceivable choice situations for any normal individual. An individual, confronted with the same or different problem situations at various times, will react differently, reflecting not only his unique personality, but also the circumstances that originated the
problem situation. The strategies any individual chooses to employ to achieve his objectives at any given time will depend to a great extent on the importance of the issues at stake and the strength of the individual's desire to attain his objectives.

Enrollment in an adult educational program is essentially a voluntary undertaking. An individual has a set of objectives he wants to achieve. Based on the extent of the desirability of attaining each of these objectives and their relative importance in the context of his overall dominant concerns, he decides on a feasible method of realizing his objectives. It is more than a stimulus-response connection. Consequently, drive and reinforcement theories were considered inadequate to explain how personal and environmental forces can influence the choice of a course of action from a range of possibilities. In this regard, cognitive theories have examined how the interaction between personal factors influence the course of action which an individual chooses. Researchers working within the cognitivist research tradition are beginning to focus their interests on how the interaction of personal and environmental variables might be better predictors of the course of action an individual might choose as opposed to using only personal considerations.

Cognitive Theories

Psychologists working within the cognitive school of thought, while accepting the empirical evidence underlying Thorndike's (1932) law of effect, contend that the stimulus-
response-reinforcement theories do not adequately explain the more complex aspects of choice behavior. The early Thorndike version of the stimulus-response (S-R) association theory stated that the stimulus provides the impetus to choose among alternatives, and that which is chosen is a function of the strength of the S-R connection developed as a result of differential rewards in the past. Thus for example, the satisfaction experienced as a result of previous participation is posited to be a strong impelling force to enroll in the future in a continuing education program. In this regard, the role of history is important.

The cognitivists hold that the beliefs and expectations individuals have concerning future goal-objects are major determinants of human behavior. Behavior is viewed as purposeful, goal directed, and based on conscious intentions to attain positively valent goals and avoid negatively valent goals. Tolman (1932) and Lewin (1938) are two of the earliest proponents of the cognitivist school of thought. Both wanted to explain the behavior of an organism from the perspective of the interaction of contemporaneous influences impinging upon the organism. This theoretical orientation is largely ahistorical in contrast to the historical nature of drive theory.

According to Atkinson (1964),

Contemporary decision theory represents a formal statement of the kind of theory of motivation of performance that Tolman and Lewin had proposed, using different terms to designate, on the one hand, the strength of expectancy that an act will lead on to some consequence and, on the other, the subjective value of the consequence. (p 211)
One of the decision making theories that has developed from the cognitivist research tradition is expectancy theory. According to Wanous (1972),

Expectancy theory is basically a rational model of how individuals develop preferences and make choices. The theory states how cognitive (instrumentality) and affective (valence) components of an individual's environment combine to yield an index of overall feeling about a referent object or course of action. (p. 154)

Vroom (1964) is one of the scholars who has presented an expectancy based theory of motivation.

**Vroom's Valence and Force Propositions**

Vroom (1964) presented a cognitive model premised on two propositions which he posited as predicting the valence of outcomes and the force toward behavior. Subsequent expectancy theory researchers have generally designated Vroom's propositions as models: namely a valence and a force model (Mitchell, 1974, p.1053). According to Mitchell and Beach (1976), "an outcome is simply anything an individual might want to attain" (p 234).

**Valence Model**

The valence model expresses a relationship between valence and instrumentality. Valence assumes that people have preferences for alternative states of nature. It refers to the strength of a person's desire for, or attraction toward outcomes. An outcome is said to be:
...positively valent when the person prefers attaining it to not attaining it (i.e., he prefers x to not x). An outcome has a valence of zero when the person is indifferent to attaining or not attaining it (i.e., he is indifferent to x or not x), and it is negatively valent when he prefers not attaining it to attaining it (i.e., he prefers not x to x). It is assumed that valence can take a wide range of both positive and negative values. (Vroom, 1964, p. 15)

The strength of a person's desire or aversion for alternative outcomes is based not on the intrinsic properties of the outcomes but on the anticipated satisfaction or dissatisfaction associated with the outcomes.

According to Vroom (1964), instrumentality refers to a person's perception of an outcome leading to the attainment of other outcomes. It is an outcome-outcome relationship (p. 18). For example, an individual may decide to enroll in a continuing education program because he anticipates that participating will enable him to attain ends (e.g., credits, skills, make new acquaintances) that will facilitate his chances of securing a job; or enable him to enhance his chances of promotion on the job; or make new friends that will help him practically or psychologically to maintain mental or material balance in his daily life; or help him improve relationships with his family.

In effect what is being posited is that:

If an object is believed by a person to lead to desired consequences or to prevent undesired consequences, the person is predicted to have a positive attitude toward it. If, on the other hand, it is believed by the person to lead to undesired consequences or to prevent desired consequences, the person is predicted to have a negative attitude toward it. (Vroom, 1964, p. 16)
The relationship hypothesized by the valence model is expressed in the following proposition: "The valence of an outcome to a person is a monotonically increasing function of the algebraic sum of the products of the valences of all other outcomes and his conceptions of its instrumentality for the attainment of these other outcomes" (Vroom, 1964, p.17). In other words, a person might decide to enroll in a specific educational program because he believes that the objectives he achieves consequent upon his engagement in that learning experience will facilitate his attainment of other desirable objectives outside the immediate context of learning. Symbolically, the proposition has been represented by Mitchell (1974) for an individual as follows:

\[ V_j = \sum_{k=1}^{n} (V_k I_{jk}) \text{ } j \neq k \]

where

- \( V_j \) = The valence of outcome \( j \);
- \( I_{jk} \) = The cognized instrumentality of outcome \( j \) for the attainment of outcome \( k \);
- \( V_k \) = The valence of outcome \( k \); and
- \( n \) = The number of outcomes. (1974, p 1054)

**Force Model**

According to Vroom (1964), force is the hypothetical cognitive factor that controls behavior. It is the product of valence and expectancy and consequently controls the resultant behavior. Valence has already been defined.
According to Vroom (1964), expectancy refers to an individual's belief that a given action will be followed by the attainment of a desired outcome. Expectancies, he further postulated, may be described in terms of their strength. In this regard, maximal strength is indicated by subjective certainty that the act (e.g. enrollment) will be followed by the desired outcome, (e.g., meet new friends), while minimal or zero strength is indicated by the subjective certainty that the act will not be followed by the desired outcome. The strength of the force to act one way rather than another to achieve a desired outcome is posited by Vroom (1964) to be "a monotonically increasing function of the product of valences and expectancies" (p. 18). This functional relationship is expressed by the following proposition: "The force on a person to perform an act is a monotonically increasing function of the algebraic sum of the products of the valences of all outcomes and the strength of his expectancies that the act will be followed by the attainment of these outcomes" (Vroom 1964, p. 18).

Symbolically, this proposition has been expressed in the form of the following equation (Mitchell, 1974, p. 1054).

\[ F_i = \sum_{j=1}^{n} E_{ij}V_j \]

where

- \( F_i \) = The force on the individual to perform act i;
- \( E_{ij} \) = The strength of the expectancy that act i will be followed by outcome j;
- \( V_j \) = The valence of outcome j; and
- \( n \) = The number of outcomes.
Modifications to the Valence and Force Models

A number of conceptual and empirical modifications have been made to the force and valence models. The utility of extending the models using relevant personal and environmental non-expectancy theory variables to improve the predictive power of the models has been attempted, the force and valence models have been combined, and a distinction has been made between valence and importance. The empirical issue of whether or not the components of the models should be multiplicatively or additively combined has also been raised.

Extension of the Force and Valence Models

It has been argued that when expectancy theory is used to predict behavior, such behavior is likely to be influenced by environmental factors with which the expectancy theory does not deal (Mitchell and Knudsen 1973; Parker and Dyer 1976).

Mitchell and Knudsen (1973) used the following extended valence model to predict 106 students' occupational choices:

$$B = \sum_{i=1}^{n} IV_i + EXP_{MCp} + EXf_{MCf}$$

where

- **B** = Behavior (e.g., occupational choice);
- **IV** = Instrumentality valence;
- **EXP** = The perceived expectations of peers;
- **MCp** = The motivation to comply with the perceived expectations of one's peers;
- **EXf** = The perceived expectations of one's family;
- **MCf** = The motivation to comply with the perceived expectations of one's family; and
\[ n = \text{The number of outcomes. (pp. 43-44)} \]

Separately, the terms \(\text{EXpMCp}\) (the perceived expectations of peers multiplied by the motivation to comply) and \(\text{EXfMCf}\) (the perceived expectation of family multiplied by the motivation to comply) correlated 0.45 and 0.43 respectively with occupational choice \((p<.01)\) (p.46).

Parker and Dyer (1976), employing a combined force and valence model, used the perceived opinions of wife and immediate family and the influence of those perceived opinions in their study of the decision of Naval Officers to retire from service. They reported that the wife/family index correlated 0.47 with retirement status, whereas the correlation between the expectancy theory variables (predictor score) and retirement status was 0.46, which was significant at the 0.05 level (p. 109). Accordingly, the wife/family index entered the regression equation first, yielding a \(R\) of 0.47 which increased to 0.57 when the predictor score realised from the expectancy theory variables entered. Consequently, they suggested further research with non-expectancy theory variables to determine which variables are appropriate, and why these variables are not accounted for by the basic expectancy formula, noting that "a good deal of future practical utility of expectancy theory may hinge on the results of this research" (p.115).

**Combination of the Force and Valence Models**

Mitchell (1974; 1981) in his reviews of the expectancy theory literature noted that while Vroom's (1964) original valence model has remained essentially the same, a number of
modifications in the force model (as it relates to job effort) have occurred. Citing the work of Galbraith and Cummings (1967), he noted that one of the modifications that has been made is based on the distinction (first made by Vroom 1964; then by Lawler and Porter, 1967) between first- and second-level outcomes. A first level outcome is one that has a valence which the investigator is interested in predicting (e.g. performance on the job or in a learning situation), while the second level outcomes are events to which the first level outcomes are expected to lead (e.g. promotions on the job). He noted that while there are some differences in terms of the specific evolution of the modified version, in general the equation for a combined force and valence model is as follows:

\[ W = E \left( \sum_{j=1}^{n} I_{ij} V_{j} \right) \]

where

- \( W \) = Effort;
- \( E \) = The expectancy that effort leads to performance;
- \( I_{ij} \) = The instrumentality of performance for the attainment of second level outcomes;
- \( V_{j} \) = The valence of the second level outcomes;
- \( n \) = The number of outcomes. (1974, p. 1055)

Accordingly, Mitchell (1974) noted that:

Thus, the original effort and valence models presented by Vroom were combined. Job effort was being predicted from the expectancy that a given level of effort led to a given level of performance weighted by
the valence of that performance level. The valence of this performance level was then determined by examining the degree to which it was instrumental for the attainment of second-level outcomes weighted in turn by their valence. We have \( E \) (E IV) as opposed to \( I \) EV. (p 1055).

Differentiating Valence and Importance

Based on the results Parker and Dyer (1976) obtained from their investigation of the retirement decision making of 702 Naval Officers using a 25 outcomes model, the authors suggested that the concept of valence be conceptually modified by adding a separate measure of importance of outcomes. They reported that the accuracy of their model to predict whether or not the officers retired improved from 62.2\% when they used all 25 outcomes to 68.3\% when the eight outcomes ranked by the subjects as most important in their retirement decision making were used. Hence they suggested that "it would appear to be not only conceptually accurate, but also methodologically useful, to make distinctions between outcome valence and outcome importance in expectancy theory research" (Parker and Dyer, 1976, p. 112). Accordingly, the authors proposed the following combination of the force and valence model for further investigation:

\[
F_i = \sum_{j=1}^{10} E_{ij} \prod \text{Imp}_j \times V_j \times I_{jk} \quad j \neq k
\]

where

- \( F_i \) = The force on the individual to perform act \( i \);
- \( E_{ij} \) = The strength of the expectancy that act \( i \) will be followed by outcome \( j \);
Impj = The importance of outcome j;
Vj = The valence of outcome j;
Ijk = The cognized instrumentality of outcome j for the attainment of outcome k; and
n = The number of outcome. (p.112)

**Empirical Issue**

One of the empirical issues that has engaged the attention of expectancy theory researchers is the question of whether instrumentality, valence and expectancy scores should be combined multiplicatively or additively to predict motivation (Mitchell, 1974; Wahba and House, 1974; Mitchell, 1981). According to Wahba and House (1974), "some studies have supported multiplicative combinations ... none of the research has compared the two methods of combining the independent variables to determine which is the most predictive of motivation" (p. 142). In this regard, Mitchell (1981) referenced his conclusion from his review of expectancy theory based studies (Mitchell, 1974) that have used either of the two forms of combining the components of the force and valence models and noted "that the additive models often did as well or better than the multiplicative ones" (1981; p. 17). It would therefore seem that the question of which of the two forms, additive or multiplicative, has greater predictive accuracy when employed in the same study has yet to be determined. To facilitate such a comparative analysis, the additive version of the multiplicative form of the combined force and valence model (Parker and Dyer, 1976) can be posited as follows:
\[ \text{CH/ENROLL} = \sum_{j=1}^{10} E_{ij} + \sum \text{Impj} + \sum I_{jk} + \sum V_j \quad j \neq k \]

where

\begin{align*}
\text{Ch/Enroll} & = \text{Choice to enroll;} \\
E_{ij} & = \text{The strength of the expectancy that act } i \\
& \quad \text{will be followed by outcome } j; \\
\text{Impj} & = \text{The importance of outcome } j; \\
V_j & = \text{The valence of outcome } j; \\
I_{jk} & = \text{The cognized instrumentality of outcome } j \\
& \quad \text{for the attainment of outcome } k; \\
n & = \text{The number of outcomes.}
\end{align*}

\section*{Adaptation of the Modified Force and Valence Models}

In developing the models for use in this research, the author drew upon the suggestions of various writers on expectancy theory and made his own modifications to the existing formulas as well. Two major adaptations were the incorporation of the concept of importance (Parker and Dyer, 1976) and the inclusion of contextual variables (Mitchell and Knudsen, 1973; Parker and Dyer, 1976). Contextual variables are commonly referred to in the expectancy literature as "non-expectancy variables" (Parker and Dyer, 1976, p. 109). In this research, each expectancy variable in the adapted expressive-force model took the form of the sum, taken across objectives, of importance multiplied by expectancy multiplied by valence. Each expectancy variable in the adapted instrumental-valence model also took the
form of the sum, taken across objectives, of importance multiplied by instrumentality multiplied by valence.

The present study attempted to discriminate enrollees from non-enrollees as indexed by pre-registration with the providing institution. The modified force and valence models incorporating the concept of importance (Parker and Dyer, 1976) were further extended using selected personal and environmental variables (Mitchell and Knudsen, 1973; Parker and Dyer, 1976). The variables used to extend the models were the respective products of each of the following six doublets: the perceived expectation of friends and the motivation to comply (EXfrMCfr); the perceived expectation of family and the motivation to comply (EXfMCf); the perceived expectation of employer and the motivation to comply (EXeMCe); educational efficacy and influence on decision to enroll (EEelnf); educational efficacy expectation and influence on decision to enroll (EEexpInf); and suitability of time and influence on decision to enroll (STInf). These variables were chosen because they had been reported in the motivational orientation literature to have significant influence on the participatory behavior of adults in continuing education.

The force and valence models modified by importance and extended by selected personal and environmental variables were adapted and designated as the expressive-force and instrumental-valence models respectively in this study. With regard to the expressive-force model, the objectives which are attainable
within the immediate context of learning were used (Havighurst 1964). Symbolically, the expressive-force model can be stated in the form of the following equation:

\[
\frac{\text{Ch/ENROLL}}{\text{ENROLL}} = \sum_{j=1}^{n} (\text{Impj} \times \text{Eij} \times \text{Vj}) + \text{EXfrMCfr} + \text{EXfMCf} + \text{EXeMCe} + \text{EEeInf} + \text{EEexpInf} + \text{STInf}
\]

where

- \text{Ch/Enroll} = Choice to enroll
- \text{Eij} = The strength of the expectancy that act i will be followed by outcome j;
- \text{Impj} = The importance of outcome j;
- \text{Vj} = The valence of outcome j;
- \text{EXfrMCfr} = Perceived expectations of friends x motivation to comply;
- \text{EXfMCf} = Perceived expectations of family x motivation to comply;
- \text{EXeMCe} = Perceived expectations of employer x motivation to comply;
- \text{EEeInf} = Educational efficacy x influence on decision to enroll;
- \text{EEexpInf} = Educational efficacy expectations x influence on decision to enroll;
- \text{STInf} = Suitableness of scheduled time of program x influence on decision to enroll; and
- \( n \) = The number of outcomes.

The instrumental-valence model deals with objectives which are attainable outside the immediate context of learning.
consequent upon having participated in an educational program (Havighurst, 1964). Symbolically, the instrumental-valence model can be stated in the form of the following equation:

\[
\text{Ch}/\text{ENROLL} = \sum_{j,k} (\text{Imp} j x I j k x V j) + \text{EXfMCfr} + \text{EXfMCf} + \text{EXeMCe} + \text{EEeInf} + \text{EEexpInf} + \text{STInf} j \neq k
\]

where

- \text{Ch/Enroll} = \text{Choice to enroll}
- \text{Imp} j = \text{The importance of outcome } j
- I j k = \text{the cognized instrumentality of outcome } j \text{ for the attainment of outcome } k
- V j = \text{The valence of outcome } j
- \text{EXfMCfr} = \text{Perceived expectations of friends x motivation to comply}
- \text{EXfMCf} = \text{Perceived expectations of family x motivation to comply}
- \text{EXeMCe} = \text{Perceived expectations of employer x motivation to comply}
- \text{EEeInf} = \text{Educational efficacy x influence on decision to enroll}
- \text{EEexpInf} = \text{Educational efficacy expectations x influence on decision to enroll}
- \text{STInf} = \text{Suitableness of scheduled time of program x influence on decision to enroll} \text{ and }
- \text{n} = \text{the number of outcomes.}

The decision to use expectancy theory in the context of adult education research stems from the kind of questions researchers working with the theory are asking now. According
to Mitchell (1981) the focus has shifted from "asking if expectancy theory is true or not" to that of determining "the conditions or environments in which an expectancy type analysis is likely to be helpful" (p. 22). Mitchell further suggested that future expectancy theory based studies will have to take cognisance of the following boundary conditions within which the theory seems to work best: (1) the behavior is under the control of the subject, (2) the rewards are in fact contingent upon specific behaviors, (3) the behavior-outcome links are unambiguous, and (4) there is little delay between the assessment of predictors and observations of the criterion.

These four conditions are largely met in the enrollment decision making context of continuing education. The decision to enroll or not in an educational program is normally considered to reside ultimately with a potential participant. However, if an individual is employed in an organization, it is likely that his enrollment decision making would be influenced by his perception of his employer's attitude regarding his (employee's) intention to enroll in the program. Consequently, in this study, one of the goals was to find out the extent to which the enrollment decision making of employed subjects was influenced by their perception of their employers' expectations regarding their possible enrollment in the 1981 Chautauqua by the Pacific.

Secondly, desired objectives that involve a learning need (e.g., the need to acquire specific competencies, extend one's social network or such intrinsic objectives as learning for the
sake of learning) are for the most part contingent upon enrollment for an individual who believes that participating in an educational program is the best means to achieve his desired objectives at that time. Thirdly, it is usually relatively clear to the participant whether or not he is achieving his desired objective. In case of dissatisfaction, the option is normally open to him to continue or withdraw from that learning context. Finally, both the assessment of the predictors and observation of the criterion (i.e., whether or not a specific individual enrolled) can usually be done within the first week of registration. A summary of the models proposed for the present study is presented in Table 1.
### Table 1
Summary of Models Proposed

<table>
<thead>
<tr>
<th>Model</th>
<th>Author</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressive-force model</td>
<td>As proposed in this study</td>
<td>$\text{Ch/ENROLL} = \sum (\text{Imp}<em>j x \text{E}</em>{ij} x \text{V}_j) + \text{EXfrMCfr} + \text{EXfMCf} + \text{EXeMCe} + \text{EEelnf} + \text{EEexpInf} + \text{STInf}$</td>
</tr>
<tr>
<td>Instrumental-valence model</td>
<td>As proposed in this study</td>
<td>$\text{Ch/ENROLL} = \sum (\text{Imp}_j x \text{I}_jk x \text{V}_j) + \text{EXfrMCfr} + \text{EXfMCf} + \text{EXeMCe} + \text{EEelnf} + \text{EEexpInf} + \text{STInf}$</td>
</tr>
<tr>
<td>Multiplicatively combined expressive-force and instrumental-valence model</td>
<td>As proposed in this study</td>
<td>$\text{Ch/ENROLL} = \prod (\text{Imp}<em>j x \text{E}</em>{ij} x \text{V}_j) + \text{EXfrMCfr} + \text{EXfMCf} + \text{EXeMCe} + \text{EEelnf} + \text{EEexpInf} + \text{STInf}$</td>
</tr>
<tr>
<td>Additively combined expressive-force and instrumental-valence model</td>
<td>As proposed in this study</td>
<td>$\text{Ch/ENROLL} = \sum \text{E}_{ij} + \sum \text{Imp}_j + \sum \text{I}_jk + \sum \text{V}_j + \text{EXfrMCfr} + \text{EXfMCf} + \text{EXeMCe} + \text{EEelnf} + \text{EEexpInf} + \text{STInf}$</td>
</tr>
</tbody>
</table>

where

- $\text{Ch/Enroll}$ = Choice to enroll
- $\text{Imp}_j$ or $k$ = The importance of outcome $j$ or $k$;
- $\text{E}_{ij}$ = The strength of the expectancy that act $i$ will be followed by outcome $j$;
- $\text{I}_{jk}$ = The cognized instrumentality of outcome $j$ for the attainment of outcome $k$;
- $\text{V}_j$ or $k$ = The valence of outcome $j$ or $k$;
- $\text{EXfrMCfr}$ = Perceived expectations of friends $x$ motivation to comply;
- $\text{EXfMCf}$ = Perceived expectations of family $x$ motivation to comply;
- $\text{EXeMCe}$ = Perceived expectations of employer $x$ motivation to comply;
- $\text{EEInf}$ = Educational efficacy $x$ influence on decision to enroll;
- $\text{EEexpInf}$ = Educational efficacy expectations $x$ influence on decision to enroll;
- $\text{STInf}$ = Suitableness of scheduled time of program $x$ influence on decision to enroll.

Note: All sums taken over $j$. 
Hypotheses

A principal and a secondary hypotheses were tested in the present study. In the primary hypothesis, it was posited that the predictive accuracies of the expressive-force, instrumental-valence, and multiplicatively combined expressive-force and instrumental-valence models (see Table 1) are equal when predicting an individual's enrollment decision making in a formal continuing education program.

The secondary hypothesis tested concerned the controversy regarding which mathematical form (additive or multiplicative) of combining the components of the expectancy theory variables was a better predictor of choice behavior. Following Mitchell (1981), it was posited that the predictive accuracies of the additive and multiplicative forms of the combined expressive-force and instrumental-valence model (See Table 1) are equal when predicting an individual's enrollment decision making in a formal continuing educational program.

Summary

A review of adult education literature failed to yield an operational conceptual framework to guide the present study. This led to a review of the psychological literature that deals with choice behavior. Consequent upon this survey, the force and valence models were first modified by the addition of importance (Parker and Dyer, 1976) and then extended (Mitchell

In the next chapter, the process of instrument development is discussed.
CHAPTER IV

INSTRUMENT DEVELOPMENT

A review of the expectancy theory literature revealed that the verbal and numerical definitions of the theory's component variables were under considerable debate. Consequently, it was not possible to locate a standard instrument with established reliability and validity that dealt with decision making within an expectancy theory perspective. Personal communication with Vroom and with Mitchell, who had recently completed a review of the expectancy theory literature, suggested that probably such a published standard instrument did not exist. Similarly, an examination of the adult education literature revealed that standardized instruments have not been developed for measuring the personal and environmental variables selected for investigation. Accordingly, it was necessary to draw upon the various definitions of the concepts in constructing the questionnaire used in this study.

The development of the instrument used in this study is discussed in this chapter in the following order: circumstances necessitating instrument development; determining objectives for use in expectancy theory research; measuring of variables as found in published literature; determining objectives pertinent to Chautauqua by the Pacific; determining the instrument's comprehensibility; defining the predictor variables operationally; draft instrument; conducting the pilot test and
revising the questionnaire.

**Circumstances that Necessitated the Development of the Instrument**

Two research questions were addressed in this study. The primary question addressed the issue of whether or not the predictive accuracies of the three models: expressive-force, instrumental-valence and the multiplicatively combined expressive-force and instrumental-valence models, were equally accurate in predicting an individual's decision to enroll in a formal continuing education program. The ancillary question examined whether or not the predictive accuracies of the mathematical forms (additive versus multiplicative) of the combined expressive-force and instrumental-valence models were equally accurate in predicting an individual's decision to enroll in a formal continuing education program.

To investigate these two questions, an instrument had to be developed that measured each of the variables.

**Determining Objectives for Use in Expectancy Theory Research**

The measurement of expectancy theory variables (expectancy, valence, instrumentality and importance) is contingent upon the nature of the objectives being used. Expectancy refers to the expectation an individual has regarding taking action now and achieving the objectives he desires immediately (expressive
objectives). Instrumentality refers to an individual's expectations regarding how the achievement of objective A will facilitate the realization of objective B later (instrumental objectives). Valence refers to a potential participant's assessment of the desirability of achieving a set of given objectives, while importance deals with the priority he gives to achieving those objectives at the time. The controversy surrounding the objectives used in expectancy theory research centers around two issues: how the objectives are to be selected (by the researcher or by the subjects) and how many objectives are to be used.

In a pointed discussion on the number and selection of outcomes, Mitchell (1974) noted that determining the number and the actual mode of selection of outcomes presents expectancy theory researchers with an "unsolvable dilemma:"

Letting each subject list his...own outcomes...is theoretically best but presents numerous practical problems. When the investigator generates a list (either a composite from subject's responses or one based on the investigator's own knowledge), he...runs the risk of hurting the prediction with a long list or missing important outcomes with a short list. (p. 1063)

Matsui and Ikeda (1976) compared the effectiveness in obtaining expectancy theory measures between objectives generated by researchers (standard list) and those generated by the subjects (self-generated list). Using two sets of questionnaires, they obtained motivation measures for studying hard from 77 senior high school girls who were required to generate five outcomes resulting from studying hard, while a
standard list of 10 outcomes was administered to a second group of 69 girls. The daily hours spent by the subjects for their home studies was used as an index of effort, and the subjects' grades at the latest examinations served as an index of performance. The authors reported mean effort scores of 2.53 (SD = .76) for the subjects' own outcome group and 2.41 (SD = .87) for the standard list group; while mean performance scores were 37.06 (SD = 5.97) for subjects' own outcome group and 36.14 (SD=5.50) for the standard list group. The differences between the mean effort scores, the mean performance scores, and the standard deviations for both groups were not significant.

Similarly, the difference in correlations of effort with performance between both groups was not significant. In this regard they reported that EV and effort correlated .44 (p<.001) for the subjects' own outcome group, versus .28 (p < 0.05) for the standard list group; EV and performance correlated .36 (p < .01) for the subjects' own outcome group, versus .23 (p<.05) for the standard list group (pp 291-292). Although Matsui and Ikeda (1976) did not compare satisfactorily the difference in correlations between the two groups, that computation performed using Fisher's Z transformation revealed that there was no significant difference between the groups. Thus, it would appear that the source of objectives did not significantly affect the predictive accuracy of expectancy and valence measures obtained in expectancy theory research.

Schwab, et al. (1979) conducted "a statistical review of 32 expectancy theory based studies aimed at accounting "for
variation in the strength of the relationship observed in other studies (ie. variance explained as the dependent variable) between force to perform and performance or effort as a function of characteristics of the effort, performance, and force-to-perform measures (i.e. the independent variables)" (p. 140). The authors reported that "variance explained in these studies was greater when...10-15 outcomes were included in the force measure rather than a greater or smaller number of outcomes" (p.139). In light of the Schwab et al. (1979) results, Mitchell (1981) noted that at least "one point is relatively clear: large numbers of outcomes decrease predictability"(p.14). This generalization, he argued, made sense because less important outcomes would probably add more error than substance to the force prediction.

Review of Previous Measurement of Expectancy Theory and Adult Education Variables

The definitions and measurements of the components of the expectancy theory variables as well as selected variables from the adult education literature are now presented.

Expectancy

According to Vroom (1964), "expectancy is a momentary belief concerning the likelihood that a particular act will be followed by a particular outcome" (p. 17). It is an action-outcome association. It is an anticipation, usually aroused by situational cues, that a given behavior will lead to a specific consequence. In the context of this study it refers
specifically to the belief of an individual that registering in a continuing education program at a given moment will provide him with the best opportunity to achieve his desired objectives.

The expectancy variable conceptualized as a behavior-outcome relationship has generally been rated subjectively using various scale ranges. For example, Matsui and Ikeda (1976) used a 5-point scale ranging from 4 (most highly possible) to 0 (impossible), while Parker and Dyer (1976) used a 10-point scale varying from 0 (certainty) to 10 (no chance).

Valence

Valence refers to the desire for, or attraction toward, some desired objectives by an individual, and is related to the anticipated satisfaction that the attainment of the desired objectives will give.

In the expectancy theory literature controversy over valence has centered around two issues, namely its verbal and numerical definition. With regard to its verbal definition, Vroom (1964), as noted earlier, defined valence as indicating anticipated satisfaction. Both Mitchell (1974) and Connolly (1976) (cited in Schwab, et al., 1979, p.141) have noted that many studies anchored their verbal valence scales with importance, which they contended potentially represents an alternative construct. Consequently, Connolly (1976) argued that unless the use of importance can be justified in variance-explained, "there is a good argument for returning to the original conception of valence as anticipated satisfaction, or a close analogue such as attractiveness, desirability, or
anticipated utility" (cited in Schwab, et al., 1979, p.40). Schwab, et al. (1979) found "studies that scaled valence only positively and that used desirability--undesirability as verbal anchors resulted in more variance explained than alternative formulations of valence" (p.145).

The second area of disagreement regarding valence relates to the range of rating scales used. As pointed out by Mitchell (1974) the most frequently used scales are those with (5-, 7- or 9- points) in the positive value range. Other researchers have also used scales with values that range from negative to positive, for example -4--maximum undesirability to +4--maximum desirability (Parker and Dyer 1976). Schwab, et al. (1979) reported data which showed that while importance measured on a negative-positive scale explained five percent of the variance, when measured on a positive scale it explained eight percent of the variance. Similarly, while desirability measured on a negative-positive scale explained seven percent of the variance, it explained 16 percent when measured on a positive scale only. Although these values are relatively low, the variance explained by measures of importance-desirability measured on positive scales consistently explained slightly more variance than measures taken with negative-positive scales. In light of the Schwab, et al. (1979) findings, Mitchell (1981) observed that there now is some agreement on the issue of the valence measure with more variance being explained when the term is measured as degree of desirability and numerically scaled with positive numbers only.
Importance

Parker and Dyer (1976), as noted earlier, used a 25-outcomes model to predict the retirement of 702 Naval Officers with 68% accuracy. They made a conceptual distinction between outcome valence and outcome importance. Outcome valence was equated with outcome desirability while outcome importance was equated with the notion of significance of the outcome to the retirement decision. They argued that it "was quite possible for a respondent to see certain outcomes as highly desirable (or undesirable), but of little or no importance to his retirement decision or, conversely, of considerable importance to his decision but as being only moderately desirable (or undesirable)" (p. 106).

The authors measured outcome importance by having each respondent choose and rank order from a list of 25 outcomes eight which were most important to him as he made his decision to retire. They reported not only that the outcomes chosen by the subjects as most important had the most predictive accuracy, but also that the two assessments of valence and importance were significantly different for a number of outcomes.

Instrumentality

As has been explained previously, instrumentality refers to the extent to which an individual perceives the attainment of outcome B to be dependent on outcome A. Hence, according to Vroom (1964), it is an "outcome-outcome association" which can take on "values ranging from -1, indicating a belief that
attainment of the second outcome is certain without the first outcome and impossible with it, to \( +1 \), indicating that the first outcome is believed to be a necessary and sufficient condition for the attainment of the second outcome" (p. 18).

Considerable controversy exists also in the expectancy theory literature regarding the verbal and numerical anchorage of instrumentality. This debate is similar to that surrounding the valence concept discussed earlier. Mitchell (1974) noted in his review that "most investigators treated the instrumentality measure as a probability. The subjects estimate the relationship between good performance and some outcome on 5-point, 7-point, or 10-point scales. Other techniques used are rank orders, paired comparisons, and forced distributions" (p. 1064). He argued that it was important to treat the variable in the manner suggested by Vroom, namely varying from -1.00 to +1.00. But given that Schwab, et al. (1979) have demonstrated empirically that valence measured on a positive scale only weighted by a desirability-undesirability measure accounted for more variance than one scored on a positive and negative scale, it would seem that instrumentality can also be scored on a positive scale.

**Perceived Expectations of Friends, Family and Employer**

The perceived expectations of friends and family were suggested by Miller (1976) and Cross (1981) to be important variables that influenced the participatory behavior of adults in continuing education. These variables have not been employed in empirical research in adult education. Hence the issue of
how to measure them is yet to be addressed.

Among expectancy theory researchers, situational variables such as perceived expectations of friends, family and employers had not as yet been the focus of intense investigations. Hence their measurement is not as controversial. However, Mitchell and Knudsen (1973) have investigated the relative impact of the perceived expectations of peers and family regarding the choice of business as an occupation among psychology and business students. The authors used a single item question: To what extent do your friends (or family) expect you to go into business? They measured the responses of their subjects on a 7-point bipolar scale i.e. very much—very little (p 46). Similarly, the authors rated the motivation of the respondents to comply with the perceived expectations of their peers and family on one 7-point bipolar scale i.e. very important—very unimportant.

Parker and Dyer (1976) investigated the influence of wife and family on the retirement decision making of Naval Officers. They measured the influence of wife and family separately using four questions, one each to elicit the subject's perceptions of the attitude of his wife and family toward his retirement and one each to assess how much importance the subject placed on these perceived attitudes. The attitude scale points ranged from -4 --strongly favored retirement through 0 --no opinion or don't know to +4 --strongly favored continued active duty. The importance of the attitudes of wife and family to the
respondent's retirement decision making was measured on scales ranging from 0 --very unimportant to +8 --very important. Each perceived opinion measure was multiplicatively combined with the analogous importance value and the resulting two scores were summed (p. 106).

**Efficacy Expectation**

Knox (1977) suggested that educational efficacy, which refers to an individual's belief in education in a global sense as a means of gaining mastery over his environment, was associated with high participation rates. Further empirical examination of this variable is yet to be done by adult education researchers. Consequently, there was no precedent on which to base the measurement of the variable. However, because educational efficacy was perceived as a mental disposition based on one's perception of means to ends, the measurement of the variable was done based on self report as commonly used in level of aspiration literature where 5-; 7-; and 10-point rating scales are commonly used (Battle, 1965).

**Educational Efficacy Expectation**

Bandura (1977) argued that the global measurement of expectancy has tended to yield weak results because of the failure to distinguish conceptually between one's expectation (expectancy) and one's perception of his ability to perform (self-efficacy expectation). He further suggested that more variance is likely to be explained by examining the separate contributions of the two variables in research activities
employing both when the two variables are used as one (expectancy). Bandura (1977a) using adult snake phobics, measured self-efficacy and behavioral change by getting his subjects to designate on a list of 18 performance tasks ranked in order of increasing threat those tasks they considered themselves capable of executing. Subjects rated the strength of their expectations for each of the tasks on a 100-point probability scale arranged in 10-unit intervals from great uncertainty to complete certainty. The author found that the greater the increase in self-perceived efficacy, the greater the changes in behavior.

Suitability of Time

Clarke (1971) examined previous participants' reasons for not re-enrolling in non-credit university continuing education programs. He used a list of 30 reasons people did not re-enroll. He requested his subjects to select from the list those that influenced their not returning for further courses. He found that suitability of time was an important consideration. Clarke's study, it would seem, is the only one that has reported on time relative to re-enrollment in the adult education literature.

A potential participant engages in the process of enrollment decision making in light of his expectations of achieving certain objectives which he desires. Consequently, the assessment of the variables that could influence an
individuals' enrollment decision making have to be done in light of specific objectives. Accordingly, in the next section, how the objectives used in the context of the 1981 Chautauqua by the Pacific were determined is discussed.

**Determining Objectives**

**Pertinent to the Context of Chautauqua by the Pacific**

The first step in developing an appropriate measurement instrument was to assemble objectives, the attainment of which are known to be sought by adults. Two types of objectives were needed: those attainable within the context of learning (expressive) and those that can be achieved outside the context of the educational experience following participation (instrumental).

The 15 expressive and 15 instrumental objectives developed and validated by Marcus (1976) were considered initially. He reported an Expressive/Instrumentality (E/I) ambiguity ratio of 0.07 for the 30 items (p. 328). He further arranged the 30 items in alternate order, the odd numbered items being expressive, the even numbered instrumental. He reported a split-half reliability corrected by the Spearman-Brown formula for each of the two subscales of .90 based on the responses of 400 persons.

In the preliminary stages of the development of the instrument for this study, all 15 of Marcus' expressive objectives were used as were 13 from his instrumental objectives subscale. The two objectives that were deleted from the
original 15 instrumental objectives were "to complete a required step in earning a degree, diploma or certificate", and "to meet some formal requirements of the school or a licensing authority". These objectives were not relevant in the context of this study. They were replaced by the following two objectives: 1) to maintain or improve the social position that I have and 2) to learn things to talk about. Both of these objectives were obtained from Marcus' original pool of 100 items.

The 30 objectives were arranged following Marcus (1976), with the odd numbers being expressive and the even numbers instrumental. These objectives were then rated by a panel of 10 judges chosen for their expertise in the content area of adult education. The membership of this validation panel consisted of two professors from the Division of Adult Education of the Faculty of Education, University of British Columbia; three staff members from the University of British Columbia Centre for Continuing Education who were also members of the 1981 Chautauqua by the Pacific organizing committee, and five students in the second year of their doctoral programs in adult education in the Division of Adult Education, University of British Columbia. Seven of the judges also cooperated in a follow up interview conducted at the time the rating sheets of objectives were collected as well as at subsequent points in the instrument development.

The panelists were given a "Now-Later Satisfaction Rating Sheet" (Appendix A). The "Now" designated expressive objectives
which were attainable within the immediate context of learning while "Later" represented instrumental objectives which were attainable outside the immediate context of learning. The panelists were asked to rate each objective according to the time of satisfaction. The following five point nominal scale was used: satisfaction now subdivided into two categories: with doubt and without doubt; and satisfaction later subdivided into two categories: with doubt and without doubt. The fifth category was to be used for those objectives considered to be ambiguous.

The results of the panelists' ratings are summarized in Table 2 for each objective. A discussion of how the panelists' reactions to the objectives influenced the selection of the set of objectives that were used in the instrument pilot tested is presented in Appendix A.
Table 2
Judges' Classification of Objectives

<table>
<thead>
<tr>
<th>REASON FOR ENROLLING</th>
<th>SAT. NOW -D</th>
<th>SAT. LATER +D</th>
<th>AMB -D</th>
<th>AMB +D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To learn just for the sake of learning.</td>
<td>9</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ 2. To secure advancement in my present job or occupational career.</td>
<td></td>
<td></td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>+ 3. To satisfy my curiosity about the subject taught in this course or program.</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4. To acquire knowledge or skills that will help me in other educational courses which I intend to take.</td>
<td></td>
<td></td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>5. To prove to myself that I am capable of learning the subject or skill taught in this course or program.</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. To prepare myself to be able to serve others in a particular way.</td>
<td></td>
<td></td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>+ 7. To learn about the subject taught in this course or program for its own sake.</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>8. To carry out a step in a plan I have made for myself aimed at achieving a particular goal.</td>
<td></td>
<td></td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>* 9. To escape an unhappy relationship by having something in particular to do with my time.</td>
<td></td>
<td></td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 2 -- Continued

<table>
<thead>
<tr>
<th>REASON FOR ENROLLING</th>
<th>SAT. NOW</th>
<th>SAT. LATER</th>
<th>AMB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-D</td>
<td>+D</td>
<td>-D</td>
</tr>
<tr>
<td>* 10. To get ready for a government examination in a particular field.</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>+ 11. To enjoy the sensation of intellectual activity.</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>* 12. To catch up to others, such as my spouse, friends, relatives, business associates or competitors.</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>13. To fulfill a need to be with other people.</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. To improve my general ability to serve mankind.</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>* 15. To share a common interest in the subject with one or more other people (such as spouse or friends) who are studying the same subject at the same time.</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>* 16. To qualify for membership in a group I want to join.</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>+ 17. To learn something or engage in an activity which I particularly enjoy.</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>+ 18. To maintain or improve the social position that I have.</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>* 19. To achieve the thrill of mastering the particular subject or skill taught in this course or program.</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>* 20. To get accepted by others who will respect me more provided I learn the subject or skill taught in this course or program.</td>
<td>7</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 -- Continued

<table>
<thead>
<tr>
<th>REASON FOR ENROLLING</th>
<th>SAT. NOW</th>
<th>SAT. LATER</th>
<th>AMB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-D</td>
<td>+D</td>
<td>-D</td>
</tr>
<tr>
<td>+ 21. To break the routine of home or work.</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* 22. To learn new things to talk about.</td>
<td></td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>* 23. To attend because that is what I am being paid to do.</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>24. To increase my competence to achieve my goals.</td>
<td></td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>* 25. To do something, such as read, write, experiment, or exercise, that I like to do.</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>26. To learn the subjects or skills taught in this course or program so that I will be able eventually to share a common interest with other persons.</td>
<td></td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>* 27. To kill time which I don't know what to do with otherwise.</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>* 28. To learn to make my position in life more secure.</td>
<td></td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>* 29. To search for truth.</td>
<td></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>* 30. To prepare myself better so that I can escape the frustrations of the way I live now.</td>
<td></td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Odd numbers= expressive objectives; Even numbers= instrumental objectives.

where

SAT. NOW = Satisfaction Now
SAT. LATER= Satisfaction Later
-D= Without Doubt
+D= With Doubt
AMB= Ambiguous
+= change of format
*= dropped
Determining Instrument's Comprehensibility

Categorizing Objectives

The following three decision rules were used to determine which objectives to retain, reformulate or eliminate.

i) There must be ten objectives in each category. This decision was based on the study by Schwab, et al., (1979) noted earlier in which they found that studies that used 10-15 objectives tended to have a higher predictive accuracy than those that used more or less.

ii) Objectives with at least one ambiguous rating are to be further confirmed in the follow up interviews. An item was considered ambiguous if it had more than one meaning, or if its meaning was uncertain.

iii) Objectives must be relevant and not offensive. Such objectives were scrutinized and dropped if concerns were raised by the judges interviewed. This refining exercise was executed irrespective of the degree to which the objective in question had been rated as belonging clearly to one category or the other.

Employing these three criteria, objectives 9, 15, 19, 23, 25, 27 and 29 were dropped from the set of expressive objectives and 10, 12, 16, 20, 22, 28 and 30 were rejected from the instrumental set. Objectives 2, 3, 7, 11, 17, 18 and 21 were reformulated (see Table 2 and Appendix A -- instrument development). The deletion of seven objectives from each set meant that both the expressive and instrumental objectives were
short of the required 10 by two. Consequently, two objectives were added to both sets: objectives g and h for the expressive objectives (see Table 3) and objectives i and j for the instrumental objectives (see Table 4). The second draft of the two sets of objectives was used in the pilot test performed.

Table 3

Expressive Objectives: Pilot Test

a. Learn for the sake of learning
b. Satisfy my curiosity about the subjects or skills taught in the programs.
c. Prove to myself that I am capable of learning the subjects or skills taught in the programs.
d. Become a better informed person about adult education.
e. Participate in an enjoyable intellectual activity.
f. Fulfil a need to be with other people.
g. Visit Vancouver while participating.
h. Break the routine of home
i. Break the routine of work.
j. Engage in an activity which I particularly enjoy.
Table 4
Instrumental Objectives: Pilot Test

a. Enable me to advance in my present occupational career.
b. Help me in other educational courses which I intend to take.
c. Prepare me to be able to serve others in a particular way.
d. Enable me to carry out a step in a plan I have made for myself aimed at achieving a particular goal.
e. Enable me to improve my general ability to serve mankind.
f. Enable me to improve the social position that I have.
g. Enable me to increase my competence to achieve my goals.
h. Enable me to learn the subjects or skills taught in the programs so that I will be able eventually to share a common interest with other persons.
i. Give me an opportunity to make contacts for possible job openings.
j. Give me an opportunity to reflect on my practice.

Operational Definitions of the Predictor Variables

In this section the operational definitions of the following variables are described: desired objectives,
Using Desired Objectives to Derive the Scores of Variables

Twenty objectives—10 expressive and 10 instrumental—were developed and used for this study (see Tables 3 and 4). The 20 objectives were used to obtain the scores for each variable relative to each model: expectancy, valence and importance for the expressive-force model and instrumentality, valence and importance for the instrumental-valence model. For example, an individual's expectancy score was obtained by deriving the sum of the ratings he gave to the 10 expressive objectives each measured on a 5-point rating scale.

Expectancy

Measures of expectancy for each individual on each of the 10 expressive objectives were obtained using a 5-point Likert-type scale. One equalled certain that enrollment will not result in the attainment of the objective and 5 represented
certain that enrollment will result in the attainment of the objective.

Valence

A 5-point bipolar desirability scale was constructed to measure valence relative to each of the 10 objectives of the two models. One represented very undesirable while 5 represented very desirable.

Importance

Importance was measured on a 5-point bipolar scale where 1 meant that the specific objective under consideration was of lowest priority in the subject's enrollment decision making and 5 meant that it was of the highest priority. An importance measure was obtained for each of the 10 expressive and 10 instrumental objectives considered.

Instrumentality

Measures of instrumentality for each individual relative to each of the 10 instrumental objectives were obtained using a 5-point bipolar scale where 1 equalled very strong belief that the attainment of the objective was entirely independent of enrollment and 5 represented very strong belief that the attainment of the objective was entirely dependent upon enrollment.
Perceived Expectation of Friends, Family and Employer

The measurement of perceived expectation of friends, perceived expectations of family, and perceived expectations of employer was done by requesting each subject to respond to a single item question for each of the component variables. A 5-point bipolar scale ranging from 1--very discouraging to 5--very encouraging was used. This response provided an indication of a respondent's perception of his friend's, family's and employer's expectations regarding his intention to participate in the 1981 Chautauqua by the Pacific.

Motivation to Comply

To measure motivation to comply, each subject was requested to indicate the importance to his enrollment decision making of his perceived expectations of his friends, family and employer regarding his intention to enroll in the specific continuing education program. These ratings were made using a 5-point bipolar scale ranging from 1--strong negative influence to 5--strong positive influence.

Educational Efficacy

Educational efficacy referred to the extent to which a respondent believed in education as a means to ends in a global sense. This variable was measured using a 5-point bipolar scale ranging from 1--strongly disbelieve to 5--strongly believe.

The influence of educational efficacy on enrollment decision making was measured as importance with scales ranging
Educational Efficacy Expectation

Educational efficacy expectation referred to the respondent's estimation of his ability to execute the program. Subjects responded to a single item question measured on a 5-point bipolar scale ranging from 1—in capable to 5—extremely capable.

Similarly, the influence of educational efficacy expectation on enrollment decision making was measured as importance with scales ranging from 1—lowest priority to 5—highest priority.

Suitability of Time

In this study, the suitability of time referred to the suitableness of the time to the enrollee the Chautauqua by the Pacific was being offered. Each subject was requested to provide an estimate of the influence the suitableness of the time the program was being offered had on his enrollment decision making. Two questions were used to elicit this information:

a) Is Chautauqua by the Pacific 1981 scheduled at a time suitable for you to attend? The response was anchored numerically on a 5-point scale where 1 equalled unsuitable and 5 extremely suitable.

b) To what extent did the scheduling of the 1981 Chautauqua by the Pacific influence your enrollment
decision? The response to this question was elicited as an importance measure on a 5-point scale as indicated above.

In addition to measures of the variables already described, the following socio-demographic and educational data were collected: gender, age, employment status, source of knowledge about Chautauqua by the Pacific 1981, highest educational qualification and time since last participated in a continuing education program.

One component of the expressive-force and instrumental-valence models described in chapter III and summarized in Table 1 concerned a respondent's perception of the influence friends, family and employers had on his possible participation in the 1981 Chautauqua by the Pacific. Consequently, data were collected along with the socio-demographic and educational variables to determine whether or not respondents had close contact with their friends and families and if such persons influenced their decisions.

In addition to the data described above, three questions were asked about the fees charged for the 1981 Chautauqua by the Pacific (see Appendix B, questionnaire section I, items 5, 6 and 7). These questions were included in response to a request from the organizers of the program who wanted to know what the opinions of the subjects were regarding the fees. Given that the information on fees was not part of the conceptualization of this study, it was not included in the final analysis.
**Draft Instrument**

The draft instrument pilot tested consisted of nine parts. Section one had 10 items made up as follows: items one and two asked about age and gender, three—level of education, four—recency of participation in an education program, five, six and seven—fees, eight—contact with friends, nine—contact with family and ten—employment status. Section two had 12 items. Two items were used to determine the extent to which each of the following six variables influenced the enrollment decision making of the subjects: friends, family, employer, educational efficacy, educational efficacy expectations, and suitability of time. Sections three, four and five dealt with expectancy, valence and importance respectively with each variable being measured using ten items (10 expressive objectives). Sections six, seven and eight were related to instrumentality, valence and importance respectively with each variable being measured using ten items (10 instrumental objectives). In section nine respondents were requested to list objectives or other reasons not included in the questionnaire which influenced their enrollment decision making. A copy of the instrument without section nine (see p. 96: post pilot study amendments to questionnair
Pilot Test

The instrument was pilot tested with twenty individuals, 10 of whom had pre-registered for the 1981 Chautauqua by the Pacific by May 15 and 10 of whom had not. These 20 individuals were administered the instrument in the week of May 17-23, 1981. Members of both samples were drawn on the basis of their residence in the Vancouver Mainland area. This criterion was used to forestall the difficulties that would have resulted if the sample had been randomly drawn from the entire Chautauqua by the Pacific mailing list of approximately 10,000 persons living in all areas of Canada and the United States. Furthermore, another added advantage of adopting the sampling strategy employed during this pilot stage was to ensure that known groups in terms of their enrollment decisions were used.

The ten pre-registered subjects were randomly drawn from the list of 111 persons who had enrolled by May 15, 1981. The other 10 subjects were made up of individuals whom the investigator, in consultation with the UBC/CCE staff members connected with the Chautauqua by the Pacific 1981 organization, believed were most likely not to enroll. Nine of the 10 subjects were drawn from the list of 12 members of the University of British Columbia Division of Adult Education Field Advisory Committee 1980-81 who were connected with the organization of the Chautauqua by the Pacific. The remaining three of the 12 members were from outside Vancouver, hence their cooperation could not be utilised within the time the pilot test
was conducted. It was recognized that the selected nine individuals were likely not to be a representative sample of non-enrollees because of their unique relationship with the program. It was nonetheless decided to pilot test the instrument with this group given that it was necessary to test the instrument with known groups and the fact that, at the time of the pilot test, it was not possible to predict with certainty who was not going to enroll for the program. The tenth subject was randomly drawn from the mailing list of Chautauqua by the Pacific potential enrollees.

A package containing a questionnaire was personally delivered by the investigator to each of the respondents on the 19th and 20th of May 1981, and the completed instruments were collected on the 21st and 22nd of May 1981. Of the 20 questionnaires administered, 16 (80%) were collected duly completed with equal numbers from each group. A thank you letter (Appendix A) was written to all twenty subjects of the pilot study in appreciation of their willingness to cooperate in filling out the instrument at such short notice.

Analysis of Pilot Data

A socio-demographic and educational description of the pilot test samples was obtained using the following variables: age, gender, educational background, employment status, source of knowledge of Chautauqua by the Pacific and social influences. The results of this analysis are presented in Table 5.
### Table 5
Pilot Study: Socio-demographic and Educational Characteristics of Enrollees and Non-enrollees

<table>
<thead>
<tr>
<th>SOCIO-DEMOGRAPHIC AND EDUCATIONAL VARIABLE</th>
<th>ENROLLEES (n=8)</th>
<th>NON-ENROLLEES (n=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-34</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>35-39</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>40-44</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>45-49</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>50 or more</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>GENDER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>Women</td>
<td>6</td>
<td>75.0</td>
</tr>
<tr>
<td><strong>SOURCE OF KNOWLEDGE ABOUT PROGRAM</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>8</td>
<td>100.0</td>
</tr>
<tr>
<td>Checked</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Newsletter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>8</td>
<td>100.0</td>
</tr>
<tr>
<td>Checked</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Resource Person</td>
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<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>8</td>
<td>100.0</td>
</tr>
<tr>
<td>Checked</td>
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<td>0.0</td>
</tr>
<tr>
<td>Flyer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>8</td>
<td>100.0</td>
</tr>
<tr>
<td>Checked</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>SOCIO-DEMOGRAPHIC AND EDUCATIONAL VARIABLE</td>
<td>ENROLLEES (n=8)</td>
<td>NON-ENROLLEES (n=8)</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>----------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>SOURCE OF KNOWLEDGE ABOUT PROGRAM</td>
<td></td>
<td></td>
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<tr>
<td>Mailed Brochure</td>
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<td>Not Checked</td>
<td>2</td>
<td>25.0</td>
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<tr>
<td>Checked</td>
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<td>75.0</td>
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<tr>
<td>Aquaintance</td>
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<td>Not Checked</td>
<td>6</td>
<td>75.0</td>
</tr>
<tr>
<td>Checked</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>Friend</td>
<td></td>
<td></td>
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<tr>
<td>Not Checked</td>
<td>7</td>
<td>87.5</td>
</tr>
<tr>
<td>Checked</td>
<td>1</td>
<td>12.5</td>
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<tr>
<td>Colleague</td>
<td></td>
<td></td>
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<tr>
<td>Not Checked</td>
<td>6</td>
<td>75.0</td>
</tr>
<tr>
<td>Checked</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>Can't Remember</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
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<td>100.0</td>
</tr>
<tr>
<td>Checked</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Others</td>
<td></td>
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</tr>
<tr>
<td>Not Checked</td>
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<td>100.0</td>
</tr>
<tr>
<td>Checked</td>
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<td>0.0</td>
</tr>
<tr>
<td>Highest Educational Qualification</td>
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<tr>
<td>Other Tertiary Qual.</td>
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<td>12.5</td>
</tr>
<tr>
<td>Partial University</td>
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<td>12.5</td>
</tr>
<tr>
<td>University Degree</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>University Degree Plus</td>
<td>3</td>
<td>37.5</td>
</tr>
</tbody>
</table>
Table 5 -- Continued

<table>
<thead>
<tr>
<th>SOCIO-DEMOGRAPHIC AND ENROLLEES</th>
<th>ENROLLEES (n=8)</th>
<th>NON-ENROLLEES (n=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Time Since Last Participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 to 10 Years</td>
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</tr>
<tr>
<td>3 to 5 Years</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>1 to 2 Years</td>
<td>3</td>
<td>37.5</td>
</tr>
<tr>
<td>Less Than 1 Year</td>
<td>4</td>
<td>50.0</td>
</tr>
<tr>
<td>Employment Status</td>
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<td></td>
</tr>
<tr>
<td>Self-employed</td>
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<td>0.0</td>
</tr>
<tr>
<td>Employed by Organization</td>
<td>8</td>
<td>100.0</td>
</tr>
<tr>
<td>Having Friends With Whom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Discuss Participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Chautauqua</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>100.0</td>
</tr>
<tr>
<td>Friends' Influence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Decision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>75.6</td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>Having Close Contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With Family Members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>Yes</td>
<td>6</td>
<td>75.0</td>
</tr>
<tr>
<td>Family Influence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Decision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>87.5</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Socio-demographic Variables

The first section of the questionnaire (Appendix B) contained four items related to the socio-demographic characteristics of the samples. The variables included were age, gender, educational background and employment status.
is evident from Table 5, the two samples were each made up mostly of professionals employed in organizations, in their middle ages, of above average educational backgrounds, and to a large extent constantly utilizing continuing educational facilities.

Socio-educational Variables

Source of knowledge about Chautauqua by the Pacific. Of the 13 alternative responses that were provided (see Table 5 and Appendix B) mailed brochured was the main source from which the samples (enrollees 75% and non-enrollees 50%) obtained information about the program.

Social Influences. One of the questions advanced for verification in this study was whether or not potential enrollees had any subjective perception of their enrollment decision making being influenced by such significant others as friends, family and employer and the extent to which these persons influenced their decisions. As shown in Table 5, all the individuals in each of the samples had friends but for the majority of the samples (enrollees 75% and non-enrollees 63%), these friends did not influence their decisions. Similarly, the respondents in each of the two samples indicated that they did have close contact with their families. However, it would seem that while family members did not influence the decisions of the enrollees (87%), the influence of such family members on the decisions of the non-enrollees was moderate (50%).
Taken together therefore, it would seem that friends and family members do not significantly influence the decision making of potential participants to a program.

**Reliability of Instrument: Expectancy Theory Variables**

Item analyses of the expectancy theory variables in the tests of the expressive-force and instrumental-valence models were performed separately for the enrollees and non-enrollees. The means, standard deviations and internal consistencies computed using LERTAP (a computer program written to perform item analysis [Nelson, 1974]) are presented in Table 6.
Table 6

Pilot Test: Means, Standard Deviations, and Reliabilities of the Expectancy Theory Components of the Models

<table>
<thead>
<tr>
<th>Test</th>
<th>Number of Items</th>
<th>Enrollee (n=8) Mean (SD)</th>
<th>Internal Consistency</th>
<th>Non-enrollee (n=8) Mean (SD)</th>
<th>Internal Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectancy</td>
<td>10</td>
<td>38.38 (3.66)</td>
<td>.02 a</td>
<td>18.88 (8.01)</td>
<td>.91 a</td>
</tr>
<tr>
<td>Valence</td>
<td>10</td>
<td>37.00 (3.70)</td>
<td>.39</td>
<td>22.38 (8.25)</td>
<td>.89</td>
</tr>
<tr>
<td>Importance</td>
<td>10</td>
<td>26.53 (6.91)</td>
<td>.84</td>
<td>15.75 (7.30)</td>
<td>.90</td>
</tr>
<tr>
<td>Instrumentality</td>
<td>10</td>
<td>28.13 (2.64)</td>
<td>.00 a</td>
<td>23.63 (7.46)</td>
<td>.94 a</td>
</tr>
<tr>
<td>Valence</td>
<td>10</td>
<td>35.63 (6.19)</td>
<td>.88</td>
<td>27.88 (8.25)</td>
<td>.93</td>
</tr>
<tr>
<td>Importance</td>
<td>10</td>
<td>26.13 (9.22)</td>
<td>.80</td>
<td>8.75 (9.54)</td>
<td>.92</td>
</tr>
</tbody>
</table>

a = Hoyt's Estimate of Reliability (1941)

Of the 12 internal consistency coefficients, nine were greater than or equal to 0.80. Examination of the scores for the remaining three tests: expectancy, valence and instrumentality obtained from the enrollees revealed that most of the subjects in the group tended to check consistently the same alternatives relative to the 10 objectives of the respective variables, thereby reducing the variability among responses.

Post Pilot Study Amendments to the Questionnaire

In addition to giving the instrument to twenty potential participants, the investigator distributed it at the same time to seven of the judges for further scrutiny. Together with the pilot test data, the responses of the seven judges were used to further
amend the questionnaire (Appendix B). The changes that were made, beginning with section I, were as follows:

In Section I, General Information, one change was made. Question number 3 had read "What is the highest educational qualification you hold? (check only one)", and had a range of seven possibilities. The problem here was that a few of the respondents made some cancellations in answering that question. A discussion with two of the subjects who went through that process before checking only one showed that they had somehow overlooked the (check only one) request. Hence in the revised final form of the instrument the request (CHECK ONLY ONE) was capitalized.

Four changes were made to Section II, Extent of Perceived Social Influences on Decision to Enroll:

a) Item 4(a) referred to the extent to which an individual believed education to be a mechanism for gaining mastery over his life. The issue raised here was that the former sub-title "Self" did not adequately prepare one mentally to comprehend the question. This was changed to "Educational Utility".

b) Item 5(a) had read "To what extent do you consider yourself capable of benefiting intellectually from participation in Chautauqua by the Pacific 1981?" The variable that this item was attempting to measure was educational efficacy expectation, namely the extent to which an individual perceived himself intellectually capable of accomplishing the objectives of a particular learning experience. The question as stated above was considered not to be exactly on target. Consequently, the following was suggested: "To what extent do you think you are capable of mastering the skills to
be presented at Chautauqua by the Pacific 1981?" The seven judges agreed that this wording was superior in terms of conceptual anchorage to the former. It was accordingly adopted. Following this change its sub-title, which had been "Benefit", was changed to "Personal Ability" to appropriately reflect its new definitional connotation.

c) Section II had six variables, namely friends, family, employer, educational utility, personal ability and time. Each of these variables was presented as a statement to which respondents were requested to indicate the strength of their attitude. These variables were each weighted by a second component designed to determine the extent to which the nature of the strength of attitude expressed with respect to each of the first variables influenced each individual's enrollment decision making. The problem therefore was that if each of the first six variables had their scales fully labelled 1 through 5 while the second component of each variable had only their two poles labelled with the intervening 2, 3 and 4 unlabelled, it could therefore be assumed erroneously that they had the same meaning as their labelled preceding counterparts. To eliminate this possible confusion, it was decided to label all the scales in this section 1 through 5.

Section IV and VIII, Desirability of Achieving Objectives as they related to the expressive or instrumental models respectively, referred to the degree to which an individual wanted to achieve an objective because of the anticipated satisfaction he believed it would give to him. A problem with the anchored scale was noted. One judge wondered how anticipated satisfaction could be
undesirable. The alternative suggested was "anticipated achievement of the objective is undesirable." The remaining six judges concurred with the suggestion. Accordingly, it was adopted.

In sections III, IV and V, two of the judges suggested items in the set of expressive objectives be changed to read "participate in an enjoyable intellectual activity." The remaining five judges agreed; thus this change was adopted.

Section IX, Unique Reasons for Participation, was inserted to enable the investigator to find out if there were pertinent reasons that influenced the sample's enrollment decision making that were not included among the variables used in the pilot test instrument. It was hoped that if there were, and the same reasons were repeated across subjects, such objectives would be included in the final questionnaire. Since no such additional reasons emerged from the pilot test, this section was deleted from the instrument, reducing the number of sections to eight.

With the preceding amendments made, the instrument as it appears in Appendix B, was used in the main study.

Summary

The lack of an established instrument to measure the variables of this study necessitated the development of the one presented in Appendix B. The process included both the determination of objectives pertinent to the 1981 Chautauqua by the Pacific and the assessment of the instrument's comprehensibility.
The expertise of 10 judges was used to classify the objectives into expressive and instrumental categories as well as to evaluate the instrument as a composite whole. In this regard, the suggestions of seven of the 10 judges who cooperated in follow up interviews were utilized considerably. The instrument was then pilot tested after which further amendments were made to the questionnaire. In Chapter V, the method used in the data collection is discussed.
CHAPTER V

DESIGN OF THE STUDY

As was indicated in the preceding discussion, the purpose of this study was to determine what combination of selected expectancy theory variables and personal and environmental factors considered simultaneously served best to distinguish between potential participants who subsequently enrolled in an adult education program and those who did not.

To address this problem of enrollment decision making, it was necessary to work with a population that allowed for a design where data could be collected from persons who had made the decision to enroll in an educational program prior to its commencement and a comparative set of data from persons who had not registered by the start of the program. This chapter discusses the processes used in carrying out this study. First, the context of the study is described. This is followed by identification of the population of interest and the procedures used to select representative samples. The data collection procedures used are then described, followed by a discussion of the data preparation and analyses.

Context of the Study

To undertake this study, it was necessary to locate an educational program with: (i) a large mailing list of potential participants, (ii) an active promotional strategy, and (iii) program organizers that were willing to cooperate in the study.
The Chautauqua by the Pacific program, with a mailing list of approximately 10,000 names, satisfied these three conditions.

Chautauqua by the Pacific

General Description. In the 1981 brochure mailed to the potential participants by the organizers of the program, Chautauqua by the Pacific was described as "a week long program of professional development for adult and continuing educators. It consists of one-day institutes, and two, three and five-day workshops designed to appeal to adult educators in a variety of settings" (UBC/CCE, p.2, 1981). As a way of providing a historical perspective, the organizers noted that:

"Chautauqua" is an historically significant educational institution which originated in 1874 in New York State as a summer school for training of Sunday School Teachers. In time it became a broad educational activity, primarily for adults, and made up of a number of events occurring simultaneously. (UBC/CCE, p.2, 1981)

Enrollment History UBC/CCE. The first Chautauqua by the Pacific conducted by the University of British Columbia Centre for Continuing Education (UBC/CCE) was in 1973. The UBC/CCE has continued to conduct the program each year since then. The Adult Education Section of the UBC/CCE, which conducts the program, uses brochures as its principal promotional device. Although the organizers of Chautauqua by the Pacific invest much effort in their promotional activities annually, enrollments in the program have experienced a fluctuating history over the last five years, and have declined during the last two years (see Table 7).
Table 7
Chautauqua by the Pacific Enrollment History
1973-1980

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Enrollees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>152</td>
</tr>
<tr>
<td>1974</td>
<td>197</td>
</tr>
<tr>
<td>1975</td>
<td>158</td>
</tr>
<tr>
<td>1976</td>
<td>80</td>
</tr>
<tr>
<td>1977</td>
<td>175</td>
</tr>
<tr>
<td>1978</td>
<td>122</td>
</tr>
<tr>
<td>1979</td>
<td>97</td>
</tr>
<tr>
<td>1980</td>
<td>75</td>
</tr>
</tbody>
</table>

In 1976, the program had 80 enrollees, a drop in enrollment of about 50 percent relative to the first three years. In 1977, however, the enrollment figures rose sharply to 175. The subsequent three years, however, witnessed another downward trend in the number of enrollees with figures of 122, 97 and 75 for the years 1978, 1979 and 1980 respectively. The uncertainty regarding the number of enrollees to be expected in any given year was noted by the organizers of the program to be of considerable concern to them and particularly so as they considered the prospect of conducting the program in 1981. The maximum number of "places" available was 200, yet, as illustrated, appreciably fewer than 200
people attend. Consequently, the planners of Chautauqua by the Pacific 1981 embarked on a concerted effort to improve upon the 1978 to 1980 enrollment figures by pursuing a more extensive advertisement policy than had been followed in previous years. In addition to sending brochures to all persons listed on their mailing list, which the promoters indicated had grown in size relative to the previous years, the programmers employed additional promotional techniques such as advertising in journals and newsletters, and enclosing flyers with the brochures of other program areas within the UBC/CCE. It was also assumed by the Chautauqua by the Pacific organizers that word about the program would be disseminated in other ways such as by resource persons in other program areas, acquaintances, friends and colleagues of potential participants who themselves might have come to know of the program through any of the aforementioned means or as a result of participation in previous Chautauquas by the Pacific.

Program Objectives 1981. As stated in the brochure mailed to the potential participants on its mailing list, the organizers of the program stated that the 1981 program was designed for adult educators interested in:

- acquiring or refining knowledge and skills to further your development as an educator
- a choice among 13 programs, allowing you to design a week appropriate to your needs and interests
- resource people selected for their content and training expertise
- joining a vibrant learning community
- interacting with colleagues from all over Canada and the U.S.
- recharging your batteries and giving undivided attention to your own learning and development
- an opportunity to browse in adult education literature in the UBC libraries, including the Coolie Verner
Memorial Reading Room at the Adult Education Division - visiting one of the world's most beautiful campus sites. (UBC/CCE, p.2, 1981)

Workshops Conducted in 1981. Thirteen workshops were conducted in 1981. These workshops were: the systematic design and management of instruction; managing the business of continuing education; polishing your training skills: for experienced trainers; continuing education in the profession: a workshop for practitioners; organizational consulting skills; adult education and policy; community development-concepts and theories; institutional based learning-only the tip of the adult learning iceberg?; linking social action, change agents and learning; developing performance planning, coaching and review skills in managers; holistic approaches to adult education; counselling adult learners and significant developments in adult learning theory. A description of the thirteen workshops, including a statement of each workshop's specific objectives and a synopsis of the content of each and the time at which each was conducted is provided in Appendix B.

Population

The population from which the samples for this study were drawn consisted of approximately 10,000 potential enrollees to the 1981 Chautauqua by the Pacific. These people were included on the mailing list compiled for the 1981 conference. The mailing list consisted of:

a) Participants in at least one of the previous eight Chautauquas by the Pacific;
b) People included on the UBC/CCE Adult Education Section regular mailing list on professional development;

c) Persons listed in Community Development Society (CDS) file (800 names) and the National University Continuing Education Association (NUCEA) file (1,100 names); and

d) Groups judged by the coordinator of the Chautauqua by the Pacific to be engaged in adult education, but who may not designate themselves as such (e.g., audio visual aids technologists).

An initial description of the total population was determined by examining the occupations and addresses listed for the people on the mailing list. The examination revealed that the people were mainly professionals working in various continuing education organizations. The fact that they were on the mailing list was taken as an indication that they likely had a history of utilizing continuing education as a means of achieving their desired objectives. Therefore, these people who were part of a large target population of potential participants to a specific educational program to whom brochures have been sent, provided a suitable population from which to obtain the samples for this study.

Samples

Two subpopulations of subjects were sampled. The first subpopulation consisted of enrollees. The second consisted of non-enrollees.
Determination of Sample Size

Enrollees. The eligible subjects for this sample consisted of the anticipated two percent of the population who were expected to have pre-registered for the 1981 Chautauqua by the Pacific. Two percent represents a total of 200 people of the 10,000 contained on the mailing list. The final sample included people who had pre-registered for the program by June 12, 1981, thus, allowing for the mailing of the instruments to the subjects and for them to respond before coming to the program on June 22. The questionnaires were mailed to those enrollees who had not taken part in the pilot study described earlier. Altogether, there were 133 such individuals.

Non-enrollee. The desired sample size for non-enrollees was set at 400. This number was determined as follows: first it was assumed that, although there were 133 persons in the initial sample of enrollees, not all would complete and return the questionnaires which were to be mailed to them. Taking into account that they had, however, enrolled for the program, it seemed reasonable to assume a 65 percent rate of response. Thus, given the initial sample size of 133, the planned sample size for the enrollee sample was 86. Secondly, it seemed likely that for the non-enrollee group a lower rate of response could be expected. This value was set at 22 percent, or approximately one third of that expected for the enrollees. Thus to obtain a sample of non-enrollees equal to the expected size of the enrollee sample, a sample of 400 non-enrollees was drawn.
Sampling Procedures

Enrollees. Enrollees were not sampled. Questionnaires were mailed to all individuals when they pre-registered, (See Table 8).

Table 8
Stages in the Mail-out of Questionnaires to Enrollees

<table>
<thead>
<tr>
<th>DATE</th>
<th>MAILING NUMBER</th>
<th>NUMBER OF QUESTIONNAIRES MAILED OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-5-81</td>
<td>1</td>
<td>101</td>
</tr>
<tr>
<td>1-6-81</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>5-6-81</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>12-6-81</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Total Enrollees</td>
<td></td>
<td>133</td>
</tr>
</tbody>
</table>

Non-enrollees. Since the mailing list was organized alphabetically in paper files and not computerized, it was decided to select the sample in two stages. Stage 1 corresponded to the selection of files, while stage 2 corresponded to the selection of names within the sampled files.

Stage 1. That part of the UBC/CCE mailing list corresponding to past participants to Chautauquas by the Pacific was organized in alphabetically ordered files. There were two unalphabetized files corresponding to the CDS and NUCEA files. Alphabetical sampling was used at stage 1 to select a sample of files. Initial examination of the files revealed that files I, J, Q, and X
contained comparatively fewer names than others. For example, file Q contained only five names while file B contained 581 names. Consequently, to maintain nearly equal size clusters, files I and J were combined, as were files Q and R and X and Y. Thus, the total number of alphabetic files was reduced to 23. From the total of 25, 10 files were selected using a simple random sampling without replacement. The selected files are shown in Table 9.

Table 9

<table>
<thead>
<tr>
<th>NO.</th>
<th>FILE</th>
<th>NUMBER of Individuals</th>
<th>% OF 3,297</th>
<th>Proportion of 400</th>
<th>Final Number Sampled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Q&amp;R</td>
<td>343</td>
<td>10.40</td>
<td>41.60</td>
<td>42</td>
</tr>
<tr>
<td>2</td>
<td>K</td>
<td>252</td>
<td>7.64</td>
<td>30.56</td>
<td>31</td>
</tr>
<tr>
<td>3</td>
<td>I&amp;J</td>
<td>201</td>
<td>6.09</td>
<td>24.36</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>V</td>
<td>56</td>
<td>1.69</td>
<td>6.76</td>
<td>07</td>
</tr>
<tr>
<td>5</td>
<td>W</td>
<td>349</td>
<td>10.58</td>
<td>42.34</td>
<td>42</td>
</tr>
<tr>
<td>6</td>
<td>S</td>
<td>530</td>
<td>16.07</td>
<td>64.28</td>
<td>64</td>
</tr>
<tr>
<td>7</td>
<td>M</td>
<td>408</td>
<td>12.37</td>
<td>49.48</td>
<td>50</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>581</td>
<td>17.62</td>
<td>70.48</td>
<td>70</td>
</tr>
<tr>
<td>9</td>
<td>D</td>
<td>296</td>
<td>8.97</td>
<td>35.88</td>
<td>36</td>
</tr>
<tr>
<td>10</td>
<td>G</td>
<td>281</td>
<td>8.5</td>
<td>34.00</td>
<td>34</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10</td>
<td>3297</td>
<td>99.93</td>
<td>399.00</td>
<td>400</td>
</tr>
</tbody>
</table>

Note: Each alphabetic file contained names and addresses of both individuals and institutions. Only individuals were sampled.
Stage 2. The names in each of the 10 selected files were then numbered 1, 2, 3...n, where n equalled the total number in each file (see Table 9, column 3). Only individuals were numbered; institutions were excluded. The sample size for each file was then determined as follows:

1) The total number of individuals in each file was expressed as a percentage of the total number of individuals in the 10 sampled files, (Table 9, column 4).

2) The number of subjects to be drawn from each file was set proportional to the percentages computed in step 1 and rounded off as shown in Table 9, column 6. The final sample size for file M was rounded up to compensate for the downward roundoff of several of the remaining files. File M was rounded upwards because it had the highest fraction of one out of the other files which by rounding, were previously adjusted downwards (files I and J, W and S). A table of random numbers was then used to draw a simple random sample from each file.

Instrumentation

The questionnaire used to collect data from each of the sampled individuals was discussed in Chapter IV. A copy of the final instrument is presented in Appendix B.
Data Collection

Questionnaires were mailed to all subjects who had enrolled by June 12, prior to the beginning of the 1981 Chautauqua by the Pacific. Four mailouts reflecting the enrollment on each of four dates (see Table 8) were made. Similarly, questionnaires were also mailed to the sample of 400 non-enrollees on June 19, at which time it was assumed that they had made the decision not to enroll in the 1981 program.

Each questionnaire was accompanied by an introductory explanatory letter in which the purpose of the study was explained and the subject's cooperation sought. As well, an approval letter from the UBC/CCE signed by its Director and the Associate Director of the Adult Education Section was included with each questionnaire. To further refresh the subjects' minds regarding the specific program under consideration, a copy of the program announcement flyer which had earlier been sent to all of them by UBC/CCE, was also enclosed in each package. A copy of each of the materials included in the mailout is provided in Appendix B.

It was not possible to complete a follow-up study or send reminder notes following the initial mailouts because of the inside postal workers of Canada strike, which lasted from June 29 through August 10. This period corresponded to the time during which the sampled individuals would have received the first set of questionnaires, completed and returned them. Reasonable preliminary data upon which to base a follow up study were not available until August 24 (two weeks following termination of the
postal strike). Because the 1981 Chautauqua by the Pacific had ended on June 26, it was felt that sending a reminder to either groups would be perceived by them as somewhat irrelevant. Accordingly, the decision was made not to send follow-up questionnaires to the non-respondents.

**Data Analyses**

In this section, the strategies employed in the preparation and editing the data for analyses as well as the techniques used in the data analyses are discussed.

**Data Preparation and Editing**

As each questionnaire was received it was checked to determine whether or not all its sections had been completed by the respondent. Any questionnaire that was incomplete was discarded. The data contained in each questionnaire were coded on a Fortran Coding Form with 100 percent verification. The data were then keypunched and the keypunched cards verified against the entries on the Fortran Coding.

**Analytic Techniques**

**Description of Samples.** Basic descriptive frequency tabulations were computed separately for the enrollee and non-enrollee samples on the four socio-demographic variables as well as the 14 socio-educational variables (See Appendix B, Questionnaire Section 1). These tabulations were prepared using the **SPSS: Statistical Package for the Social Sciences** (Nie, et al. 1975). The resulting information was used to describe and compare the socio-
demographic and educational characteristics of the enrollees and non-enrollees. The comparative analysis was further augmented by computing chi-square statistics.

**Internal Consistency of Expectancy Theory Tests.** Internal consistency coefficients were computed using Hoyt's (1941) analyses of variance for each of the six tests (expectancy, valence and importance; instrumentality, valence and importance). The computer program LERTAP (see p.92) was used to execute these analyses.

**Predictive Accuracies of Models.** In addition to establishing the internal consistencies of the tests, the extent to which each of the variables was correlated with the decision to enroll was also determined. The subprogram SPSS Pearson Correlation was used to compute zero-order product-moment correlation coefficients. Similarly, the extent to which all of the variables were correlated with each other was determined.

The SPSS Discriminant subprogram was used to determine which of the models investigated in this study served maximally to discriminate between the groups. These were the expressive-force model, the instrumental-valence model, the multiplicatively combined expressive-force and instrumental-valence model and the additively combined expressive-force and instrumental-valence model (See Table 1). A stepwise solution employing the minimum Wilks' Lambda criteria ($p < .05$) was employed to control the order in which the variables were entered or deleted from the analysis as a function of their relative discriminating power. As well, the resulting functions were used to classify the subjects into two groups (enrollees and non-enrollees) based on the values obtained.
by each on the discriminating functions that maximized their differentiation, and the confusion matrix examined for misclassifications.

The results of these analyses, together with a description of the final samples realized are presented in Chapter VI.
CHAPTER VI

RESULTS AND DISCUSSION

The main purpose of the present study was to find out what combination of selected expectancy theory and contextual variables analysed simultaneously "best" predicted a potential participant's decision regarding enrollment in a given program. The results are presented and discussed in this chapter. First, the results of descriptive data regarding the response rate, socio-demographic and educational characteristics of enrollees and non-enrollees, and the reliability of the instrument used to measure the expectancy theory variables in the expressive-force and instrumental-valence models are presented. The next section deals with determining the extent to which all the variables are correlated with the decision to enroll and with each other. This is followed by the results of the principal and secondary hypotheses tested, namely findings regarding the comparative predictive accuracies of the expressive-force, instrumental-valence and the multiplicatively combined expressive-force and instrumental-valence models and findings comparing the predictive accuracies of the multiplicative versus additive forms of the combined expressive-force and instrumental-valence model. The chapter concludes with a summary.

Response Rate

In this section, the response rates of the enrollees and non-enrollees are presented.
Enrollees' Response Rate

Ninety five (71.4%) of the 133 questionnaires mailed to the subjects in the enrollee group were returned. Of this number, 88 (92.6%) were usable. The seven (7.4%) discarded questionnaires were either partially incomplete or totally blank.

Non-enrollees' Response Rate

Each of the 400 randomly sampled non-enrollees was mailed a questionnaire on June 19. As indicated in the preceding chapter, the reason for sampling a larger number of non-enrollees than enrollees (400 versus 133) was to ensure that, in light of an expected lower response rate, a sufficient number of responses from the non-enrollee group would be obtained to make comparative analyses of the two groups statistically possible and meaningful. Consequently, it was decided that when 88 useable non-enrollee questionnaires were received (the same number as the useable enrollees' questionnaires), data collection would be stopped.

Fifty-five (14.3%) of the questionnaires were received prior to the Canadian postal strike. A further 15 (36%) were returned undelivered which reduced the potential sample size to 385. During the strike, four more (1.0%) responses were returned by hand. Between the end of the strike and the termination of the data collection on August 26 an additional 55 (14.3%) responses were received. Thus, the total number of returned questionnaires was 114 (29.6%). Each of the 114 questionnaires was examined as it was received to determine whether or not all sections were correctly completed; 88 were useable. The remaining 26 (22.8%) that were
considered non-useable had the following problems: 23 were only partially completed and three had been returned blank.

**Socio-demographic and Educational Characteristics of Enrollees and Non-enrollees**

The frequency and percentages for each of the socio-demographic and educational variables considered are presented in Table 10 separately for the enrollees and non-enrollees. Chi-square analysis was performed to determine whether or not there were any significant differences (p<.05) between the distributions of the samples on the variables.
Table 10
Socio-demographic and Educational Characteristics of Enrollees and Non-enrollees

<table>
<thead>
<tr>
<th>SOCIO-DEMOGRAPHIC AND EDUCATIONAL VARIABLE</th>
<th>ENROLLEES (n=88)</th>
<th>NON-ENROLLEES (n=88)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.  %</td>
<td>Freq.  %</td>
</tr>
<tr>
<td>AGE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>2 2.2</td>
<td>0 0.0</td>
</tr>
<tr>
<td>25-29</td>
<td>8 9.1</td>
<td>9 10.1</td>
</tr>
<tr>
<td>30-34</td>
<td>22 25.0</td>
<td>19 21.6</td>
</tr>
<tr>
<td>35-39</td>
<td>22 25.0</td>
<td>18 20.4</td>
</tr>
<tr>
<td>40-44</td>
<td>11 12.6</td>
<td>12 13.5</td>
</tr>
<tr>
<td>45-49</td>
<td>6 6.8</td>
<td>10 11.4</td>
</tr>
<tr>
<td>50-54</td>
<td>10 11.2</td>
<td>11 12.4</td>
</tr>
<tr>
<td>55-59</td>
<td>5 5.6</td>
<td>5 5.6</td>
</tr>
<tr>
<td>60-64</td>
<td>2 2.2</td>
<td>3 3.4</td>
</tr>
<tr>
<td>65 or more</td>
<td>0 0.0</td>
<td>1 1.1</td>
</tr>
<tr>
<td>GENDER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>37 42.0</td>
<td>48 54.5</td>
</tr>
<tr>
<td>Women</td>
<td>51 58.0</td>
<td>40 45.5</td>
</tr>
<tr>
<td>SOURCE OF KNOWLEDGE ABOUT PROGRAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>88 100.0</td>
<td>87 98.9</td>
</tr>
<tr>
<td>Checked</td>
<td>0 0.0</td>
<td>1 1.1</td>
</tr>
<tr>
<td>Newsletter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>84 95.5</td>
<td>85 96.6</td>
</tr>
<tr>
<td>Checked</td>
<td>4 4.5</td>
<td>3 3.4</td>
</tr>
<tr>
<td>Resource Person</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>83 94.3</td>
<td>86 97.7</td>
</tr>
<tr>
<td>Checked</td>
<td>5 5.7</td>
<td>2 2.3</td>
</tr>
<tr>
<td>Flyer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>80 90.9</td>
<td>77 87.5</td>
</tr>
<tr>
<td>Checked</td>
<td>8 9.1</td>
<td>11 12.5</td>
</tr>
</tbody>
</table>
Table 10 -- Continued

<table>
<thead>
<tr>
<th>SOCIO-DEMOGRAPHIC AND EDUCATIONAL VARIABLE</th>
<th>ENROLLEES (n=88)</th>
<th>NON-ENROLLEES (n=88)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>SOURCE OF KNOWLEDGE ABOUT PROGRAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mailed Brochure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>32</td>
<td>36.4</td>
</tr>
<tr>
<td>Checked</td>
<td>56</td>
<td>63.6</td>
</tr>
<tr>
<td>Aquaintance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>75</td>
<td>85.2</td>
</tr>
<tr>
<td>Checked</td>
<td>13</td>
<td>14.8</td>
</tr>
<tr>
<td>Friend</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>86</td>
<td>97.7</td>
</tr>
<tr>
<td>Checked</td>
<td>2</td>
<td>2.3</td>
</tr>
<tr>
<td>Colleague</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>70</td>
<td>79.5</td>
</tr>
<tr>
<td>Checked</td>
<td>18</td>
<td>20.5</td>
</tr>
<tr>
<td>Can't Remember</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>88</td>
<td>100.0</td>
</tr>
<tr>
<td>Checked</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Checked</td>
<td>88</td>
<td>100.0</td>
</tr>
<tr>
<td>Checked</td>
<td>0</td>
<td>0.0</td>
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<tr>
<td>Highest Educational Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No Formal Qualification</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>High School Graduation</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>Other Tertiary Qual.</td>
<td>13</td>
<td>14.8</td>
</tr>
<tr>
<td>Partial University</td>
<td>5</td>
<td>5.7</td>
</tr>
<tr>
<td>University Degree</td>
<td>16</td>
<td>18.2</td>
</tr>
<tr>
<td>University Degree Plus</td>
<td>51</td>
<td>58.0</td>
</tr>
</tbody>
</table>
Table 10 — Continued

<table>
<thead>
<tr>
<th>SOCIODEMOGRAPHIC AND EDUCATIONAL VARIABLE</th>
<th>ENROLLEES (n=88)</th>
<th>NON-ENROLLEES (n=88)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Time Since Last Participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don't Know</td>
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<td>0.0</td>
</tr>
<tr>
<td>30 Plus</td>
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<td>0.0</td>
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<tr>
<td>21 to 30 Years</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>11 to 20 Years</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>6 to 10 Years</td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>3 to 5 Years</td>
<td>7</td>
<td>8.0</td>
</tr>
<tr>
<td>1 to 2 Years</td>
<td>17</td>
<td>19.3</td>
</tr>
<tr>
<td>Less Than 1 Year</td>
<td>61</td>
<td>69.3</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>2</td>
<td>2.3</td>
</tr>
<tr>
<td>Self-employed</td>
<td>7</td>
<td>8.0</td>
</tr>
<tr>
<td>Employed by Organization</td>
<td>79</td>
<td>89.8</td>
</tr>
<tr>
<td>Having Friends With Whom To Discuss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation In Chautauqua</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>80</td>
<td>90.9</td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>9.1</td>
</tr>
<tr>
<td>Friends' Influence On General Decision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
<td>22.7</td>
</tr>
<tr>
<td>Yes</td>
<td>68</td>
<td>77.3</td>
</tr>
<tr>
<td>Having Close Contact With Family Members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>75</td>
<td>85.2</td>
</tr>
<tr>
<td>Yes</td>
<td>13</td>
<td>14.8</td>
</tr>
<tr>
<td>Family Influence On General Decision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No</td>
<td>36</td>
<td>40.9</td>
</tr>
<tr>
<td>Yes</td>
<td>52</td>
<td>59.1</td>
</tr>
</tbody>
</table>

Note: Chi square analyses were performed using those cells for which the expected cell frequency exceeded the recommended minimum value of 10 when the degrees of freedom was one and five where the degrees of freedom was greater.

* p < .05
Socio-demographic Characteristics

The socio-demographic variables considered were age, gender, educational background and employment status.

Age. Most of the individuals in each of the groups (enrollees 81% and non-enrollees 79%) clustered within the age range of 30-54 years. There was no significant difference found between the age distributions of the samples.

Gender. The enrollees sampled consisted of 37 (42.0%) men and 51 (58.0%) women. The non-enrollee group had 48 (54.5%) men and 40 (45.5%) women. This difference in the distribution of gender between the groups was not significant.

Educational background. The majority of the individuals in each group (enrollees 82% and non-enrollees 86%) had attempted some form of university education or had more than a university degree. No significant difference was found between the groups on their educational background.

Employment status. The respondents in each group (enrollees 90% and non-enrollees 96%) were mostly professionals employed by organizations. Similarly, there was no significant difference found between the groups regarding their relative employment status.

Taken together, there were no significant differences between the groups regarding the socio-demographic characteristics considered.

Socio-educational Characteristics

The socio-educational variables considered were source of
knowledge about the program, recency of participation in educational programs, discussing participation with friends, friends influence on decisions, contact with family and influence of family on decisions.

**Source of Knowledge About Program.** Ten alternatives were provided regarding the sources of knowledge about Chautauqua by the Pacific. Respondents were requested to check those which were applicable to them. Eight of the sources (journal, newsletter, resource person, flyer, mailed brochure, acquaintance, friend and colleague) had been used by the organizers of the Chautauqua by the Pacific to disseminate information about the program. Two other alternatives, can't remember and others, were included to provide choices for those who might have forgotten how they heard of the program, or the means by which they had learned about it had not been identified as an alternative. The findings regarding each of these sources were presented in Table 10.

Chi-square analysis revealed that the enrollees differed significantly (p<.05) from the non-enrollees for mailed brochure (63.6% versus 77.3%) and colleague (20.5% versus 3.4%). The 32 (36.4%) enrollees who reported not having received mailed brochures heard of the program through the following sources: colleague, acquaintance, flyer, resource person, newsletter and friends (see Table 10). Furthermore, given that the addresses used to mail the questionnaires for the present study were the same as those used to mail the brochures, it was suspected that those respondents might have forgotten they had received brochures earlier.

**Recency of Participation.** As was expected, given the
respondents' educational background and the fact that most of the respondents were working in educational settings, the proportion of the subjects who had participated in an educational program in the previous two years was high: 78 (88.6%) of the enrollees and 69 (78.5%) of the non-enrollees. Chi-square analysis performed on these data revealed that recency of participation was a significant (p<0.05) characteristic of the potential participants. This finding agrees with those previously reported in the adult education literature that recency of previous participation in an educational program is a good indicator of who is likely to participate in a future program.

**Discussing Participation with Friends.** The question posed to the respondents was "Do you have friends with whom you might discuss participation in Chautauqua?" The overall responses of the groups would seem to suggest that while they do have friends, which is evident from the next question about having friends that influence their decision, these friends were not of the sort with whom they normally discuss whether or not to participate in an educational program such as Chautauqua by the Pacific. This disposition was more pronounced among the enrollees (91%) as against (40%) of the non-enrollees (p<0.05).

**Friend's Influence on Decision.** A different response pattern was found to be operating when respondents were asked whether or not they had friends who generally influenced their decisions. Approximately 60 percent of the non-enrollees reported that they were influenced by their friends not only when they were considering participating in an educational program, but also
generally in other situations that called for decision making. Although 91 percent of the enrollees reported that they would likely not discuss participating in Chautauqua by the Pacific with their friends, most (77.3%) were generally open to being influenced by their friends on broader situations that called for decision making. This difference between the two groups was significant (p<.05).

**Family Contact.** The question posed was "Do you have close contact with family members (e.g., spouse, brothers, children, parents, aunts, uncles, etc.)?" For enrollees 85.2% reported not having close contact with members of their families. This finding, while it may appear odd, could be seen as a reflection of the urbanized nature of the communities in which the respondents lived and worked where the dynamics of the extended family are less in operation compared to people living in rural communities. This inference is based on the fact that the examination of the addresses of the potential participants revealed that they were residing or working in urban centres such as Calgary, Halifax, New York, Sydney-Australia, Toronto, Vancouver and Victoria. As with their relationship with their friends, the enrollees appeared to be more independent. This relatively greater independence exhibited by the enrollees (85.2%) vis-a-vis the non-enrollees (51.1%) was found to be significant (p < 0.05).

**Summary.** The analysis of the differences between the distributions of the enrollees and non-enrollees on the socio-demographic and educational variables revealed that age, gender,
educational background and employment status were not significant. The mailed brochure was the principal source through which the respondents had heard of the program. On the whole, it would appear that the enrollees were more independent than the non-enrollees which regard to their relationships with significant others and the amount of influence such persons had on their enrollment decision making.

Reliability of the Instruments used to Measure the Expectancy Variables in the Expressive-Force and Instrumental-Valence Models

Separate item analyses were completed for the enrollee and non-enrollee groups to determine the internal consistency of the tests used to measure the expectancy theory variables included in the four models subsequently tested. The results of these analyses are presented in Table 11.
### Table 11

Means, Standard Deviations, and Reliabilities of the Expectancy Theory Variables in the Expressive-Force and Instrumental-Valence Models

<table>
<thead>
<tr>
<th>Model/Test</th>
<th>Number of items</th>
<th>Enrollee (n=88)</th>
<th>Non-enrollee (n=88)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean (SD)</td>
<td>Internal Consistency</td>
</tr>
<tr>
<td>Expectancy *</td>
<td>10</td>
<td>38.19 (6.81)</td>
<td>.79 a</td>
</tr>
<tr>
<td>Valence *</td>
<td>10</td>
<td>38.40 (5.28)</td>
<td>.79</td>
</tr>
<tr>
<td>Importance *</td>
<td>10</td>
<td>29.20 (5.95)</td>
<td>.73</td>
</tr>
<tr>
<td>Instrumentality *</td>
<td>10</td>
<td>28.51 (6.33)</td>
<td>.81</td>
</tr>
<tr>
<td>Valence *</td>
<td>10</td>
<td>37.05 (4.45)</td>
<td>.75</td>
</tr>
<tr>
<td>Importance *</td>
<td>10</td>
<td>30.98 (6.65)</td>
<td>.79</td>
</tr>
</tbody>
</table>

* (p< .05)

a = Hoyt's Estimate of Reliability (1941)

As shown in Table 11, the means of the enrollee sample exceeded the corresponding non-enrollee means. Hotelling's $T^2$ followed by construction of Roy-Bose simultaneous confidence intervals (Morrison, 1976; pp. 136-141) revealed that these differences were significant (p<.05) on each variable. The corresponding test of homogeneity of variance-covariance was likewise significant (p<.05). Consequently, item analyses were carried out separately for the two samples.

Examination of the point-biserial correlations revealed that for each item in each test the correlations were positive. The internal consistencies shown in Table 11, range from .73 to .81 in the enrollee sample, and from .89 to .94 for the non-enrollees.
The differences between corresponding coefficients was attributable to the differences in variability (Allen and Yen, 1979 p.194-196).

**Comparative Predictive Accuracies of the Expressive, Instrumental and the Multiplicatively Combined Expressive-Force and Instrumental-Valence Models**

The central concern of this study was to determine what combination of selected expectancy theory and personal and environmental variables considered simultaneously best discriminated enrollees from non-enrollees. The subprogram Discriminant of the SPSS computer package was used to test the predictive accuracies of the proposed hypothesized relationships summarised in Table 1 and to determine if all of the variables included in each model were necessary.

The first step in this analysis was to examine the correlation between the component variables and enrollment decision making and the correlation among the component variables themselves.

**Zero Order Correlations**

The Pearson product-moment correlation between each of the predictor variables and the decision to enroll are reported in Table 12.
Table 12
Multiple and Zero Order Correlations between Predictor Variables and Decision to Enroll (n = 176)

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Decision to Enroll</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>0.46 *</td>
</tr>
<tr>
<td>V1</td>
<td>0.48 *</td>
</tr>
<tr>
<td>Impi</td>
<td>0.48 *</td>
</tr>
<tr>
<td>I</td>
<td>0.39 *</td>
</tr>
<tr>
<td>V2</td>
<td>0.50 *</td>
</tr>
<tr>
<td>Imp2</td>
<td>0.56 *</td>
</tr>
<tr>
<td>E Σ Imp2xIxV2</td>
<td>0.53 *</td>
</tr>
<tr>
<td>Σ Imp2xIxV2</td>
<td>0.55 *</td>
</tr>
<tr>
<td>EXfMCf</td>
<td>0.05</td>
</tr>
<tr>
<td>EXfrMCfr</td>
<td>0.12</td>
</tr>
<tr>
<td>EXeMCe</td>
<td>0.60 *</td>
</tr>
<tr>
<td>EEeInf</td>
<td>0.38 *</td>
</tr>
<tr>
<td>EEexpInf</td>
<td>0.36 *</td>
</tr>
<tr>
<td>STInf</td>
<td>0.66 *</td>
</tr>
<tr>
<td>Σ Imp1xExV1</td>
<td>0.54 *</td>
</tr>
</tbody>
</table>

* p < 0.05

Note:
E = Expectancy;
V1 = Expectancy valence;
Imp1 = Expectancy importance;
I = Instrumentality;
V2 = Instrumentality valence;
Imp2 = Instrumentality importance;
E Σ Imp2xIxV2 = Score of expectancy x the sum of importance x instrumentality x instrumentality valence
Σ Imp2xIxV2 = Score of the sum of instrumentality importance x instrumentality x instrumentality valence
EXfMCf = Perceived expectations of family x
From Table 12 it is evident that all but two of the predictor variables, perceived expectations of family multiplied by motivation to comply (EXfMCf) and perceived expectations of friends multiplied by motivation to comply (EXfrMCfr), correlated significantly (p < .05) with the decision to enroll. The highest significant intercorrelation was observed for suitability of time multiplied by influence (STInf) and the decision to enroll; and perceived expectations of family multiplied by motivation to comply (EXfMCf) had the lowest significant intercorrelation with the decision to enroll.

The intercorrelations among the predictor variables are shown in Table 13. The tables of means and standard deviations are contained in Table A, Appendix C.
<table>
<thead>
<tr>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>F6</th>
<th>F7</th>
<th>F8</th>
<th>F9</th>
<th>F10</th>
<th>F11</th>
<th>F12</th>
<th>F13</th>
<th>F14</th>
<th>F15</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>0.73</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>0.55</td>
<td>0.56</td>
<td>1.00</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>F4</td>
<td>0.20</td>
<td>0.25</td>
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<tr>
<td>F6</td>
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<td>0.58</td>
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<td>F7</td>
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<td>0.72</td>
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<td>0.83</td>
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<td>F8</td>
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<td>-0.17</td>
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<td>1.00</td>
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<tr>
<td>F10</td>
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<td>-0.04</td>
<td>-0.00</td>
<td>-0.02</td>
<td>0.05</td>
<td>0.08</td>
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<td>-0.07</td>
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<td>0.06</td>
<td>0.03</td>
<td>0.07</td>
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<td>0.14</td>
<td>0.23</td>
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<td>0.22</td>
<td>0.23</td>
<td>0.21</td>
<td>0.22</td>
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</tr>
<tr>
<td>F13</td>
<td>-0.03</td>
<td>-0.01</td>
<td>0.02</td>
<td>0.13</td>
<td>0.09</td>
<td>0.04</td>
<td>0.10</td>
<td>0.12</td>
<td>0.13</td>
<td>0.12</td>
<td>0.07</td>
<td>0.38</td>
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<tr>
<td>F14</td>
<td>0.21</td>
<td>0.19</td>
<td>0.19</td>
<td>0.18</td>
<td>0.04</td>
<td>0.21</td>
<td>0.28</td>
<td>0.24</td>
<td>0.07</td>
<td>0.05</td>
<td>0.09</td>
<td>0.17</td>
<td>0.13</td>
<td>1.00</td>
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<tr>
<td>F15</td>
<td>0.70</td>
<td>0.73</td>
<td>0.84</td>
<td>0.39</td>
<td>0.49</td>
<td>0.60</td>
<td>0.68</td>
<td>0.59</td>
<td>-0.13</td>
<td>-0.03</td>
<td>-0.09</td>
<td>0.11</td>
<td>0.04</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Table 13
Correlations between the Predictor Variables

where

1 = Expectancy (E);
2 = Expectancy valence (V1);
3 = Expectancy importance (Imp1);
4 = Instrumentality (I);
5 = Instrumentality valence (V2);
6 = Instrumentality importance (Imp2);
7 = Score of expectancy x the sum of importance x instrumentality x instrumentality valence (E Imp2xIxV2);
8 = Score of the sum of instrumentality importance x instrumentality x instrumentality valence (I Imp2xIxV2);
9 = Perceived expectation of family x motivation to comply (EXfMCf);
10 = Perceived expectation of friends x motivation to comply (EXfrMCfr);
11 = Perceived expectation of employer x motivation to comply (EXeMCe);
12 = Educational efficacy x influence (EEInf);
13 = Educational efficacy expectations x influence (EEexpInf);
14 = Suitability of time x influence (STInf); and
15 = Score of the sum of expectancy importance x expectancy x expectancy valence (Imp1xExV1).
It is apparent from Table 13 that the intercorrelations among the products of the six doublets of the selected personal and environmental variables are low: perceived expectations of family and motivation to comply (ExfMCf); perceived expectations of friends and motivation to comply (ExfMCfr); perceived expectations of employer and motivation to comply (EXeMCe); educational efficacy and influence on decision to enroll (EEeInf); educational efficacy expectations and influence on decision to enroll (EXexpInf); and suitability of time and influence on decision to enroll (STInf).

Similarly, the intercorrelations between these variables and the expectancy theory variables: expectancy (E), expectancy valence (V1), expectancy importance (Imp1); instrumentality, instrumental valence (V2), instrumental importance (Imp2) are comparatively lower than those among the various combinations of the components of the expectancy theory variables.

Among the contextual variables, the highest intercorrelation (.38) was between EEeInf and EEexpInf, while the highest intercorrelation (.28) between the contextual variables and the expectancy theory variables was between STInf and EΣImp2xIxV2. The results revealed that the personal and environmental variables were in general distinct from the expectancy theory variables. The intercorrelations between the same components of the expectancy theory variables and their various combinations were especially high, ranging from .70 between E and Σ ExImp1xV1 to .95 between EΣImp2xIxV2 and ΣImp2xIxV2.

The intercorrelations among the separate components of the
expectancy theory variables \((E, V_1, \text{Imp}_1, I, V_2\) and \(\text{Imp}_2\)) were, in comparison to those among them and the various combinations of the same variables, moderate (see Table 13). In this regard, the intercorrelations ranged from .44 between \(I\) and \(V_2\) to .73 between \(E\) and \(V_1\). Similarly, the intercorrelations among the separate components of the expectancy theory variables were in general moderate, ranging from .20 between \(E\) and Instrumentality to .58 between \(\text{Imp}_1\) and \(\text{Imp}_2\) as well as between \(I\) and \(V_2\). The comparatively higher intercorrelation among the various forms of the expectancy theory variables vis-a-vis the contextual variables is to be expected given that the expectancy theory variables are the same variables mathematically combined in various forms (additive and multiplicative). Following next are the results of the discriminant function analyses using all the variables (See Table 13) simultaneously as they related to the various hypothesized relationships (See Table 1).

**Discriminant Function Analyses**

To further clarify the relationships among the variables reported in Tables 12 and 13 and to test the main hypothesis that the predictive accuracies of the expressive-force, instrumental-valence, and the multiplicatively combined expressive-force and instrumental-valence models are equal when predicting an individual's decision to enroll in a formal continuing education program, a series of discriminant analyses were performed. The corresponding results are reported in this subsection separately for each model tested. This presentation is then followed by a summary.
The three models (see Table 1) were made up as follows: (1) the expressive-force model (the sum of importance multiplied by expectancy multiplied by valence), (2) the instrumental-valence model (the sum of importance multiplied by instrumentality multiplied by valence), and (3) the multiplicatively combined expressive-force and instrumental-valence model (expectancy multiplied by the sum of importance multiplied by instrumentality multiplied by valence). In each case, the terms perceived expectations of friends multiplied by motivation to comply with perceived expectations of friends; perceived expectations of family multiplied by motivation to comply with perceived expectations of family; perceived expectations of employer multiplied by motivation to comply with perceived expectations of employer; educational efficacy multiplied by influence of educational efficacy; educational efficacy expectations multiplied by influence of educational efficacy expectations; and suitability of time multiplied by influence of suitability of time were included in the analyses.

Expressive-Force Model

The results for the expressive-force model are presented in Table 14. The discriminating variables are listed in the order in which they qualified for inclusion in the function. For each variable, the F value to enter at the stage it either entered (the first three listed variables) or at the termination of the analyses (for the last four listed variables), the value of Wilk's Lambda at each step and the final standardized discriminant weights for
the entered variables are shown.

Table 14
Summary Statistics Discriminant Function Analysis:
Expressive-Force Model

<table>
<thead>
<tr>
<th>Variables in Order of Entry</th>
<th>F. to Enter</th>
<th>Wilks' Lambda</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>STInf</td>
<td>132.69 *</td>
<td>0.57</td>
<td>0.57</td>
</tr>
<tr>
<td>EXeMCe</td>
<td>103.78 *</td>
<td>0.45</td>
<td>0.59</td>
</tr>
<tr>
<td>Σ ImplxExV1</td>
<td>87.57 *</td>
<td>0.40</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Variables not in the Analysis After Step 3

| EXfrMCfr                   | 0.97        |
| EXfMCf                     | 0.20        |
| EEeInf                     | 1.01        |
| EEexpInf                   | 3.10        |

* p< .05

The stepwise analysis of the relative contributions of the seven variables of the expressive-force model resulted in the identification of three significant variables (p<.05). These three variables were in their order of entry:

(i) The suitability of time in which a program was scheduled multiplied by the influence on decision to enroll (STInf).

(ii) The perceived expectations of employer multiplied by the motivation to comply (ExeMce).
(iii) The expressive-force score consisting of the sum of the expectation that participation would result in the achievement of some objectives while participating multiplied by the importance of achieving those objectives multiplied by the desirability of achieving the objectives (Σ Imp1xExV1).

Together, the three variables accounted for 30% of the variance. Wilk's Lambda at the third stage was 0.40. The F ratios to enter for the remaining four variables (see Table 14) were not significant. Consequently, the full expressive-force model with seven terms (see Table 1) was not necessary; instead a shortened model was realized. Written in standardized score form, the model was: .47 Σ Imp1xExV1+.59 EXeM Ce+.57 STInf.

Examination of the intercorrelations between all of the variables and decision to enroll (See Table 12) revealed that the variables EXfrMCfr and EXfMCf, which were among the four variables that failed to enter the discriminant function, did not correlate with decision to enroll. Although the other two variables, EEeInf and EEexpInf, were significantly correlated with decision to enroll, their relative contributions when analysed simultaneously with the three significant variables were reduced after the significant variables entered the discriminant function. Thus, a more parsimonious, three term model was realized.

Using the shortened model, the predicted group memberships for the samples were computed. The results of this analysis are displayed in Table 15.
Table 15

Classification Results of Enrollees and Non-enrollees Based on Time, Employer and the Expressive-Force Score: Expectancy Theory Variables

<table>
<thead>
<tr>
<th>ACTUAL GROUP</th>
<th>NUMBER OF CASES</th>
<th>PREDICTED GROUP MEMBERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ENROLLEE</td>
</tr>
<tr>
<td>Enrollee</td>
<td>88</td>
<td>74 (84.1%)</td>
</tr>
<tr>
<td>Non-enrollee</td>
<td>88</td>
<td>7 (8.0%)</td>
</tr>
</tbody>
</table>

Percent of cases correctly classified: 88.1%

Together the overall predictive accuracy of the reduced expressive-force model was 88.1%. On the bases of the three significant predictors, 84.1% of the enrollees, were correctly classified, while slightly more non-enrollees, 92.0%, were correctly identified.

Instrumental-Valence Model

The result of the analysis of the seven variables of the instrumental-valence model are presented in Tables 16 and 17. Shown in Table 16 are the discriminating variables that qualified for inclusion in the function, the F values to enter, Wilks' Lambda
and the standardized discriminant function coefficients.

Table 16
Summary Statistics Discriminant Function Analysis: Instrumental-Valence Model

<table>
<thead>
<tr>
<th>Variables In Order of Entry</th>
<th>F. to Enter</th>
<th>Wilks' Lambda</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>STInf</td>
<td>132.69 *</td>
<td>0.57</td>
<td>0.60</td>
</tr>
<tr>
<td>EXeMCe</td>
<td>103.78 *</td>
<td>0.45</td>
<td>0.55</td>
</tr>
<tr>
<td>I Imp2xIxV2</td>
<td>79.16 *</td>
<td>0.42</td>
<td>0.37</td>
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</tbody>
</table>

Variables not in the Analysis After Step 3

<p>| | |</p>
<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ExfrMCfr</td>
<td>1.51</td>
</tr>
<tr>
<td>ExfMCf</td>
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<tr>
<td>EEeInf</td>
<td>0.71</td>
</tr>
<tr>
<td>EEexpInf</td>
<td>2.80</td>
</tr>
</tbody>
</table>

* p< .05

As shown in Table 16, the simultaneous analysis of the relative contributions of the seven variables of the instrumental-valence model resulted again in the identification of three significant variables (p<.05). These three variables, in the order of entry, were:

(i) The suitability of time in which a program was scheduled multiplied by the influence on decision to enroll (STInf).

(ii) The perceived expectations of employer multiplied by the motivation to comply (ExeMCe).
(iii) The instrumental-valence score consisting of the sum of the expectation that participation would be instrumental in achieving objectives later multiplied by the importance of achieving those objectives multiplied by the desirability of achieving the objectives (EImp2xIxV2).

Together, the three predictor variables accounted for 27% of the variance. Wilks' Lambda at the third stage was 0.42. The F ratios to enter for the remaining four variables (see Table 16) were not significant. Accordingly, the full instrumental-valence model with seven terms (see Table 1) was not necessary. Written in standardized score form, the shortened model was: .37 EImp2xExV2+.55 EXeMCe+.60 STInf.

The examination of the intercorrelations between all of the variables and decision to enroll (see Table 12) revealed as already indicated, that the variables EXfrMCfr and EXfMCf, which were among the four variables that failed to enter the discriminant function, did not correlate with decision to enroll. Although the other two variables, EEeInf and EEexpInf, were significantly (p<.05) correlated with the decision to enroll, their relative contributions to the prediction equation when analysed simultaneously with the three significant variables (see Table 16) were depressed after the significant variables entered the discriminant function.

Using the shortened model, the predicted group memberships for the samples were computed. The results of this analysis are
presented in Table 17.

Table 17

Classification Results of Enrollees and Non-enrollees Based on Time, Employer and the Instrumental-Valence Score: Expectancy Theory Variables

<table>
<thead>
<tr>
<th>ACTUAL GROUP</th>
<th>NUMBER OF CASES</th>
<th>PREDICTED GROUP MEMBERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ENROLLEE</td>
</tr>
<tr>
<td>Enrollee</td>
<td>88</td>
<td>74 (84.1%)</td>
</tr>
<tr>
<td>Non-enrollee</td>
<td>88</td>
<td>7 (8.0%)</td>
</tr>
</tbody>
</table>

Percent of cases correctly classified: 88.1%

Table 17 shows that the predictive accuracy of the shortened model was 88.1%. For the enrollees, 84.1% were correctly classified, while slightly more non-enrollees, 92.0% were identified.

**Multiplicatively Combined Expressive-Force and Instrumental-Valence Model**

The simultaneous analysis of the score of the multiplicatively combined components of the expressive-force and instrumental-
valence model (see Table 1) yielded the summary results presented in Table 18.

<table>
<thead>
<tr>
<th>Variables In Order of Entry</th>
<th>F. to Enter</th>
<th>Wilks' Lambda</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>STInf</td>
<td>132.69 *</td>
<td>0.57</td>
<td>0.60</td>
</tr>
<tr>
<td>EXeMCe</td>
<td>103.78 *</td>
<td>0.45</td>
<td>0.57</td>
</tr>
<tr>
<td>EE Imp2xIxV2</td>
<td>77.65 *</td>
<td>0.42</td>
<td>0.35</td>
</tr>
</tbody>
</table>

Variables not in the Analysis After Step 3

- ExfrMCfr: 1.48
- ExfMCf: 0.23
- EEeInf: 0.85
- EEexpInf: 3.18

* p< .05

As with the two preceding models, the stepwise analysis of the relative contributions of the seven variables of the multiplicatively combined force and valence model resulted in the identification of three significant variables (p< .05). These three variables in the order of entry were:

(i) The suitability of time in which a program was scheduled multiplied by the influence on decision to enroll (STInf).

(ii) The perceived expectations of employer multiplied by the motivation to comply (ExeMCe).
(iii) The score of the multiplicatively combined expectancy variables of the expressive-force and instrumental-valence model consisting of expectancy multiplied by the sum of importance multiplied by instrumentality multiplied by valence \((E \cdot \text{Imp2} \cdot x \cdot I \cdot x \cdot V2)\).

Together, the coefficients of the three predictor variables (see Table 18) accounted for 27% of the variance. Wilks' Lambda at the third stage was 0.42. The F ratios to enter for remaining four variables (see Table 18) were not significant. Consequently, the full multiplicatively combined expressive-force and instrumental-valence model with seven terms (see Table 1) was rejected in favour of the shortened model. Stated in standardized score form, the model was: 

\[ .35 \cdot E \cdot \text{Imp2} \cdot x \cdot I \cdot x \cdot V2 + .57 \cdot \text{EXeMCe} + .60 \cdot \text{STInf} \]

Again, examination of the intercorrelations between all of the variables and decision to enroll (see Table 12) revealed that the variables \( \text{EXfrMCfr} \) and \( \text{EXfMCf} \), which were among the four variables that failed to enter the discriminant function, did not correlate with decision to enroll. Although the other two variables, \( \text{EEeInf} \) and \( \text{BexpInf} \), were significantly correlated with decision to enroll, their relative contributions when analysed simultaneously with the three significant variables (see Table 18) were reduced after the significant variables entered the discriminant function.

Using the shortened model, the overall accuracy of prediction of group membership was 88.6% (see Table 19).
Table 19
Classification Results of Enrollees and Non-enrollees
Based on Time, Employer and the Score of the
Multiplicatively Combined Expectancy Variables of the Expressive-
Force and Instrumental-Valence Model

<table>
<thead>
<tr>
<th>ACTUAL GROUP</th>
<th>NUMBER OF CASES</th>
<th>PREDICTED GROUP MEMBERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ENROLLEE</td>
</tr>
<tr>
<td>Enrollee</td>
<td>88</td>
<td>75 (85.2%)</td>
</tr>
<tr>
<td>Non-enrollee</td>
<td>88</td>
<td>7 (8.0%)</td>
</tr>
</tbody>
</table>

Percent of cases correctly classified: 88.6%

On the bases of the predictive accuracy of the significant (p<.05) variables (see Table 18), 85.2% of the enrollees and 92.0% of the non-enrollees were correctly identified.

The hypothesis tested was that the predictive accuracies of the expressive-force, instrumental-valence and the multiplicatively combined expressive-force and instrumental-valence models were equal when predicting an individual's enrollment decision making in a formal continuing education program. The hypothesis was supported.
Summary. Each of the three postulated models had seven variables (see Table 1). The stepwise analyses of the component variables of each model revealed that in each case there were three significant (p<.05) predictor variables (see Tables 14, 16 and 18). For each of the three models, the first two variables to enter the discriminant function were: (1) the product of suitability of time and influence on decision to enroll (STInf), and (2) perceived expectations of employer and motivation to comply (ExeMCe). Similarly, with each of the three models, the score derived from the multiplicative combination of the type of objectives (expressive or instrumental), the importance and desirability of those objectives entered the analyses at the third stage. Based on the three significant predictor variables for each model, the predictive accuracies of both the expressive-force and instrumental-valence models, was 88.1%, and for the multiplicatively combined expressive-force and instrumental-valence model 88.6% (a negligible difference). Thus it was concluded that the three truncated models were equally effective in discriminating between enrollees and non-enrollees.

Predictive Accuracies of the Additive versus Multiplicative Forms of the Combined Expressive-Force and Instrumental-Valence Model

The secondary hypothesis tested was that the predictive accuracies of the additive and multiplicative forms of the combined expressive-force and instrumental-valence model are equal when predicting an individual's enrollment decision making in a formal continuing education program. The principal hypothesis already tested compared the predictive accuracies of the expressive-force,
instrumental-valence, and the multiplicatively combined expressive-force and instrumental-valence model. The results of the analyses showed that the three models possessed the same predictive accuracy. Therefore, to compare the multiplicative versus the additive forms, it was felt that it was not necessary to repeat the computations for all three models. Consequently, only the predictive accuracy of the multiplicatively combined expressive-force and instrumental-valence model was contrasted with its additive variant.

The hypothesis that the predictive accuracies of the additive and multiplicative forms of the combined expressive-force and instrumental-valence model are equal when predicting an individual's enrollment decision making in a formal continuing education program was supported. The analyses (see Appendix D) revealed that for each model, three significant variables entered the discriminant function. In each case, the following two contextual variables were again the first to enter:

(i) The suitability of time in which a program was scheduled multiplied by the influence on decision to enroll (STInf).

(ii) The perceived expectations of employer multiplied by the motivation to comply (ExeMCe).

These two variables were followed by valence (V) for the additive model; and the score of the expectancy variables of the multiplicatively combined components of the expressive-force and instrumental-valence model consisting of expectancy multiplied by the sum of importance multiplied by instrumentality multiplied by
valence (EIImp2x1xV2) for the multiplicative model (see Tables B, C, D and E, Appendix D).

Together the three significant variables of the shortened additive model accounted for 30% of the variance, while those of the multiplicative model accounted for 27%. Using the shortened version of each of the models, it was revealed that the predictive accuracies were very nearly equal: 89.2% and 88.6% respectively for the additive and multiplicative models. Consequently, there appeared to be no differential advantage between the additively and multiplicatively combined models.

Summary

The comparative analyses of the expressive-force, instrumental-valence, and the multiplicatively combined expressive-force and instrumental-valence model revealed that they were about equal in discriminating between enrollees and non-enrollees. Similarly, the difference in predictive accuracy between the additive versus the multiplicative forms of combining the components of the expectancy theory variables revealed that they were also about the same.

The analyses further revealed that for all four models: three variables were necessary; the remaining variables considered in each model were not significant. In each case, of the three primary predictors to enter the discriminant function analysis, the first two in their order of entry were the product of the suitability of time and influence on decision to enroll; and
perceived expectations of employer and motivation to comply. The predictor score realized from the combination of the following expectancy theory variables entered the discriminant function in the third stage: the sum of importance multiplied by expectancy multiplied by valence (expressive-force model), the sum of importance multiplied by instrumentality multiplied by valence (instrumental-valence model), expectancy multiplied by the sum of importance multiplied by instrumentality multiplied by valence (multiplicatively combined expressive-force and instrumental-valence model) and valence (additively combined expressive-force and instrumental-valence model). The results indicate that where behavior is being predicted (e.g. enrollment decision making as indexed by pre-registration) and relevant personal and environmental variables to the context of the study are analysed simultaneously with expectancy theory variables, the contextual variables would seem to be better predictors than the expectancy theory variables. This finding is in agreement with the results reported by previous investigators (Mitchell and Knudsen, 1973; Parker and Dyer 1976).

Furthermore, when the additive versus the multiplicative combination of the combined components of the expressive-force and instrumental-valence model (Parker and Dyer, 1976) were compared, it was valence (the respondents' desire to achieve the objectives) that entered the discriminant analysis rather than importance (the priority the respondents placed on achieving the objectives). In this regard therefore, the respondents in this study would seem to have placed more significance on the desirability of achieving
given objectives rather than the importance of achieving those objectives.
CHAPTER VII

SUMMARY AND CONCLUSIONS, LIMITATIONS AND IMPLICATIONS

Every individual at some point in his life is faced with the problem of how to achieve objectives which he desires. To achieve such objectives, most individuals tend to consider a range of possible courses of action including participation in an educational program. The action an individual takes to facilitate the achievement of his desired objectives depends on the dynamics of the personal and environmental forces with which he is interacting at the time. Ultimately, action taken by the individual will depend on the relative strength of the forces impinging upon him in light of the desirability and importance of the objectives he wants to achieve.

Consequently, providers of formal adult education programs in institutional settings faced with the problem of low enrollment rates are interested to know what combination of personal and environmental forces tends to significantly influence the enrollment decision making of potential participants. Because this area of inquiry has been neglected by adult education participation researchers, the present study investigated this phenomenon of enrollment decision making. In this regard, the separate and joint impact on such decision making by expectancy theory variables in conjunction with selected personal and environmental variables were examined. In this concluding chapter, a holistic assessment of the
study is presented in which the following topics are discussed: summary and conclusions, limitations and implications of the study.

**Summary and Conclusions**

In conceptualizing the problem of enrollment decision making, a distinction was made between the concepts of participation and enrollment. Participation focuses on an individual already taking part in a specific program of interest. Enrollment decision making examines the relative impact of personal and environmental variables that predispose an individual to pre-register in a program.

To investigate this phenomenon required the use of a decision making theoretical schema that dealt with how people make decisions with regard to achieving their desired outcomes. Modified valence and force models (Mitchell, 1974; Parker and Dyer, 1976) were adapted and designated in this study as the expressive-force and instrumental-valence models respectively.

In adapting the modified models, cognizance was taken of the issue of which mathematical form (additive versus multiplicative) of the combined force and valence model (expectancy, importance, instrumentality and valence, Parker and Dyer, [1976]), was a better predictor of choice behavior. The modified models were extended following Mitchell and Knudsen (1973) and Parker and Dyer (1976) using selected personal and environmental variables suggested in the adult education literature to have some bearing on the participatory behavior of adults in continuing education programs.

The selected personal and environmental variables used in conjunction with the expectancy theory variables were the respective products of: perceived expectations of friends and motivation to comply with perceived expectations of friends; perceived expectations of family and motivation to comply with perceived expectations of family; perceived expectations of employer and motivation to comply with perceived expectations of employer; educational efficacy and its influence on the decision to enroll; educational efficacy expectation and its influence on the decision to enroll and suitability of time and its influence on the decision to enroll. Using the expectancy theory variables in concert with the contextual variables, a principal and a secondary question were investigated.

**Principal Question.** Which of the three models, expressive-force, instrumental-valence and the multiplicatively combined expressive-force and instrumental-valence model, was a better predictor of an individual's decision to enroll in a formal continuing education program?

**Secondary Question.** Which form of mathematical combination (additive versus multiplicative) of the components of the combined expressive-force and instrumental-valence model was a better predictor of an individual's decision to enroll in a formal continuing education program?

The investigation of the problem of enrollment decision making
required a program area with a large population of potential participants who were exposed to the same kinds of promotional devices from which a sample of enrollees and non-enrollees could be obtained. The Chautauqua by the Pacific, an annual week-long professional development program for adult educators which had a mailing list of approximately 10,000 names, not only met these requirements, but also, the organizers of the program were willing to cooperate. Hence the population and program area were selected.

Published measurement instrument(s) with established reliability and validity for the expectancy theory variables as well as for the selected personal and environmental variables used in this study could not be located. Consequently, a composite instrument (Appendix B) was developed and pilot tested (see Chapter IV) for the purpose of this study. The LERTAP subprogram was used to obtain the separate internal consistency estimates for each of the expectancy theory variables of the models, (expectancy, valence, importance for the expressive-force model, and instrumentality, valence, importance for the instrumental-valence model).

Of the 133 questionnaires mailed to individuals who had pre-registered, 95 responses were returned, of which 88 were usable. The responses from the non-enrollees were obtained from the questionnaires mailed to 400 persons randomly drawn from 10 files containing 3297 names from the Chautauqua by the Pacific mailing list using an alphabetic sampling procedure without replacement. Of the 400 questionnaires mailed, 114 responses were returned of
which 88 were found usable. In both groups, the questionnaires that were not usable had not been completely answered.

Descriptive frequency tabulations (SPSS) were computed on the socio-demographic and educational variables (See questionnaire section 1, Appendix B). The SPSS Chi-square subprogram was used to determine if the differences between the enrollees and non-enrollees on the variables were statistically significant (p<0.05). The hypotheses were tested using the SPSS subprogram Discriminant to derive the significant (p<0.05) predictor variables from the simultaneous consideration of all the variables in each of the hypothesized relationships (see Table 1). Following are the results and conclusions of the study.

The mailed brochure was the principal source of knowledge about the program from which both the enrollees (63.6%) and the non-enrollees (77%) heard that Chautauqua by the Pacific would be conducted in 1981. The mailed brochure was augmented by information from colleagues which was indicated by 18 (20.5%) of the enrollees and 3 (3.4%) of the non-enrollees as a significant source of knowledge about the program. Thus it would appear that the mailed brochure was the single most effective promotional device.

The main hypothesis tested was posited as follows: that the predictive accuracy of the expressive-force, instrumental-valence and the multiplicatively combined expressive-force and instrumental-valence model were equal when predicting an individual's decision to enroll in a formal continuing education
program. All three models were found to have about the same predictive accuracies: expressive-force and instrumental-valence 88.1% and the multiplicatively combined expressive-force and instrumental-valence model 88.6%.

For each model the significant predictor variables were: (1) the extent to which a potential participant felt that the scheduled time of the program was suitable for him to attend (2) his perception of his employer's expectations regarding his intention to participate and (3) the extent to which the potential participant felt that a set of objectives was achievable while participating in or as a result of having participated in the program and how desirable and important the achievement of those objectives were to him (see Tables 14, 16 and 18). Because the first two of the three significant variables that contributed most to the predictive accuracies of each of the models were contextual, this finding would seem to indicate the paramount importance of such environmental variables in predicting whether or not an individual will enroll in a given program.

The secondary hypothesis tested was that the predictive accuracies of the additive and the multiplicative forms of the combined expressive-force and instrumental-valence model were equal when predicting an individual's decision to enroll in a formal continuing education program. The hypothesis as posited was supported. The predictive accuracy of the additive form was 89.2%; the multiplicative form 88.6%.

Again, the analyses revealed that in both instances the
following personal and environmental variables were the two primary significant predictors: (1) the extent to which a potential participant felt that the time in which a program was scheduled was suitable for him to participate and (2) his perception of his employer's expectations regarding his intentions to participate. The strength of the prediction was enhanced by the predictor score derived from the multiplicative combination of the expectancy theory variables of the combined expressive-force and instrumental-valence model and valence for the additive form.

Naturally, as it should be expected, the enrollment decision making of a professional adult educator employed in an organization would be influenced by his perception of the attitude of his employer regarding his intention to participate in a given program over and above the extent to which he may desire to achieve a given set of objectives. The attitude of the employer is important because he has to permit the employee to take time off to attend (i.e. if the employee is not on holidays). If a professional development program is to attract a high enrollment rate, it does appear that it would be advantageous if the timing of the program fits conveniently into the potential participant's scheme of things, particularly his work schedule, as this would considerably improve the readiness of his employer to allow him time off to attend.

In sum therefore, if behavior is being predicted (e.g. enrollment decision making as indexed by pre-registration), research efforts should be focussed more on the relative influence
of pertinent personal and environmental variables than on affective or cognitive factors alone such as expectancy theory variables. What is being emphasized therefore, is the need to take cognisance of the fact that even though a person may consider certain objectives desirable and important to achieve, such mentalistic consideration alone will not result in his deciding to enroll in an educational program. The choice made by an individual of the means he expects will facilitate the achievement of his desired objectives will, over and above affective and cognitive considerations, be largely dependent on the favorableness of personal and environmental forces impinging upon him directly at the time. For example, in the case of an employed professional, such contextual forces will include a consideration of his employer's attitude regarding his intention to participate in light of the suitableness of the scheduled time of the program.

Limitations of the Study

The subjects of this study were a select group by virtue of their educational backgrounds and by inference socio-economic status. Consequently, the kinds of objectives they would consider desirable would be expected to reflect the groups' status and would be different from those of people with less or no formal educational backgrounds and possibly unemployed. Similarly, the Chautauqua by the Pacific as a professional development program for adult educators conducted by a university continuing education center, naturally has unique characteristics relative to other types of educational programs ranging from university credit
courses to adult basic education programs. Accordingly, generalization of the findings of the present study to the entire population of adults and to all kinds of adult education programs should be done with great caution.

Questionnaires for the non-enrollee sample were mailed on June 19, 1981. The inside postal workers of Canada went on strike June 29. At the end of the strike August 10, the Chautauqua by the Pacific had been conducted June 22 through 26. Sufficient responses on which to base judgement as to whether or not follow-up work was necessary were not realized until August 24, two weeks after the end of the strike. Consequently, because of the time gap between the end of the program and the end of the postal strike (six weeks) on the one hand, and when data collection for the non-enrollees was terminated on the other (two weeks), follow-up questionnaires or reminder notes were not sent out to the non-enrollee sample. This was because it was felt that the respondents might consider such follow-up material irrelevant. Accordingly, the postal strike may have affected the response rate of the non-enrollees (114 responded out of 385; 29.6%); it also made any follow-up work to increase the response rate unrealistic.

An aspect of the instrument development (see chapter IV) that could not be executed as originally planned had to do with the inability to interview the subjects of the pilot study. Such interviewing would have been ideal in terms of providing an opportunity to cross check the extent to which the respondents gave the same meaning as were intended to the questions asked in the
instrument. However, by the time the instrument was developed and pilot tested (May 17 through 23), this left only four weeks to the commencement date of the program on June 22. Accordingly, it was felt that it would not be practical to conduct interviews and revise the questionnaire, if necessary, in time to mail it to the enrollees and for them to respond before the program. Consequently, a decision was made not to conduct interviews, because to have done so would have made it almost impossible to use the potential participants to the 1981 Chautauqua by the Pacific. Such a development would have meant a delay of one year which the researcher could not afford because of time and financial constrains.

The expressive-force and instrumental-valence models were based on Havighurst's (1964) distinction between expressive and instrumental objectives—a distinction that was further supported by Marcus' (1976) study. In the present study, both models were found to have equal predictive accuracies (88.1%), suggesting that the respondents might not have perceived the two types of objectives differently or that they felt that the desirability of achieving both types of objectives was equal. An ambiguity ratio of .09 was realized for the 30 objectives (15 expressive and 15 instrumental) when the scores incompatible with the classification of the panel of 10 judges, totaling 24, was divided by those consistent with it, totaling 276. The 10 expressive and 10 instrumental objectives (Schwab, et al., 1976) that were finally used in the present study were not resubmitted to the panel of judges for further reclassification before the instrument developed
using the objectives was pilot tested and mailed to the respondents. The reclassification of the objectives could have aided the further establishment of the distinctiveness of the two sets of objectives.

A continuing problem in this and other expectancy theory research is the somewhat idiosyncratic use of a number of terms: behavior, force, outcomes, action, expectancy, performance, cognitive and affective orientations, valence, desirability, importance, intrinsic and extrinsic outcomes, and effort. Formulas, propositions and models are used interchangeably in the literature adding to the complexities of interpretation. Although Vroom's (1964) original treatise had two propositions and treated valence as a component of force, this distinction has become increasingly blurred as dozens of researchers have each sought to build on what they interpreted as Vroom's concepts. The resulting literature which now includes at least ten models, each with its own set of operational definitions, defies rational synthesis into a single comprehensive model. It must be acknowledged that this study of enrollment decision making which involved the construction of an expressive-force and an instrumental-valence model has not contributed to the classification of expectancy variables such that they can be fitted into a single model as this was not the focus of the present study. This investigation however, did reaffirm the importance of contextual variables as determinants in the enrollment decision making process.
Implications of the Study

In light of the findings and conclusions of the present study, the practical implications to adult education program providers will first be presented. This will be followed by implications for theory and research.

Practical Implications

The practical implications that can be drawn from the findings of this study in order of their importance in influencing a potential participant's enrollment decision making are related to a potential participant's perception of his employer's attitude towards his possible enrollment in a program; the suitability of the scheduled time of the program; the desire of potential participants to achieve both expressive and instrumental objectives; and the mailed brochure as the principal promotional device.

Perceived Employer's Attitude. The perception by a potential participant that his employer has an encouraging attitude regarding his possible participation in an educational program does influence the potential enrollee to make a positive enrollment decision. As an employee, even if a potential participant should consider that an advertised program might facilitate the achievement of his desired objectives, but perceive his employer not to be favorably disposed to his taking part at the time because of reasons connected to his work situation, it is unlikely that the potential enrollee will make a positive enrollment decision. Thus, in a professional development program such as Chautauqua by the Pacific,
it is likely to be an effective promotional strategy if program announcement materials are sent through employers in which the advantages to their organizations of having their employees participate are clearly spelt out as already suggested by Houle (1972). Such a marketing strategy would not only make the employers feel that they are been made aware of program areas advantageous to their organizations, but also the fact that the promotional materials are sent through them recognizes their positions of authority thus predisposing them to have a positive attitude with regard to their employees taking part in the program. Such cooperation between program providers and employers will also enable the later to schedule their programs at a time that would be convenient to both the educational institution and its potential participants.

Furthermore, channelling program announcement materials through those who employ large numbers of potential participants will have the advantage of reducing the number of brochures mailed out. This is because cooperating employers would not only officially disseminate the program information (e.g. posting advance program information material on their bulletin boards) but also because they are favorably disposed to the program, they are more likely to create favorable administrative provisions (e.g. indicating their willingness to allow time off for attendance) that would encourage potential participants (their employees) to make positive enrollment decisions.

Suitability of Time. As an employee, the potential
participant has commitments with regard to his work situation as well as in his own personal life. Thus, the likelihood of an employed potential participant pre-registering for a program would be considerably enhanced if the scheduling of the program in which he wants to enroll is suitable for him to take part taking cognisance of his commitments in his "larger pattern(s) of life" (Houle, 1972, p.53). This finding does underscore the need for program providers to work closely with the employers of their target population while scheduling their programs.

Similarly, it might be a useful strategy to send out a short survey questionnaire to a sample of potential participants to an intended program a few months prior to the start of the promotional drive for the program. In such an instrument, respondents would be requested to indicate the time they want the next program scheduled, for how long and which workshops they would most desire to see conducted. Such a preliminary fact finding procedure might enhance the overall programming scheme in such areas as timing of the program and ensuring that the workshops offered are those which the potential participants consider most desirable at the time.

**Desired Objectives.** Enrollees tended to enroll to achieve both expressive and instrumental objectives (See Table 11). The expectation to achieve both types of objectives as a significant influence on a potential participant's enrollment decision making was evident from the fact that both the expressive-force and instrumental-valence models had the same predictive accuracies (88.1%). Consequently, a professional development program that
includes not only courses which are expected to enhance the enrollee's later professional development but also, courses in which he can achieve immediate satisfaction while participating are likely to result in increased enrollment from potential participants.

**Mailed Brochures.** The mailed brochure was the most frequently reported means by which respondents heard of the Chautauqua by the Pacific. Consequently, the joint use of the mail brochure with other promotional devices like advertising in journals, newsletters and the use of flyers which were not significant (p<.05) sources of knowledge of the program, may not actually be necessary since the other significant source of knowledge about the program was information obtained through colleagues. It would therefore seem to be a more efficient promotional strategy in terms of reducing the number of brochures sent out, to mail advance brochures to employers who in turn could be requested to bring such information to the notice of their employees who are likely to participate. Pre-registration packages could then be mailed to such employees if requested by them.

Given that the knowledge obtained about the program through colleagues was also a significant source, it would seem useful to encourage participants to spread word about the next program among their work mates. Thus, potential participants who were non-enrollees for a particular conference are more likely to be among the enrollees in a subsequent conference partly because of the favourable recommendation given to the program by their colleagues who are former participants.
Theoretical Implications

The theoretical implications that can be drawn from the findings of this study by virtue of their contributions to the prediction of enrollment decision making are presented in this section in order of their importance: the use of contextual variables to extend expectancy models; the conceptual distinction between valence and importance and the additive versus the multiplicative combination of the components of the force and valence models.

Contextual Variables. The extention of expectancy models using personal and environmental variables revealed that for the select samples of this study, contextual variables tended to be more highly correlated with the behavior being predicted (decision to enroll) when all of the variables (expectancy and non-expectancy) were considered simultaneously (see Table 13). This finding is similar to those found in previous studies (Mitchell and Knudsen, 1973; Parker and Dyer, 1976). Both studies had also used select samples: psychology and business students and Naval Officers respectively, thus raising the question of what the trend might be with a sample randomly drawn from an adult population.

For the samples of this study, suitability of time and the perception by potential participants of their employer's attitude regarding their intention to take part in a program were the most important predictors when all the variables were considered simultaneously. This leads to the conclusion as was posited in this study, that in predicting behavior, while it is important to
know the mental disposition of a person regarding an intended action, in and of itself, it is not sufficient. There is need to take the totality of the situation into consideration, thus, examining simultaneously the interaction of personal and environmental variables. Accordingly, as was evident from the order in which the significant variables entered the discriminant functions in this study, whether or not a given action is taken by an individual (e.g. enrolling in an educational program) is to a large extent dependent on the favorableness of the contextual factors. Consequently, in expectancy theory research, it would seem to be of paramount importance to give contextual variables more attention than they have been given in the past.

**Conceptual Distinction between Valence and Importance.** Following Parker and Dyer (1976), a distinction was made between valence and importance in this study. The distinction was maintained in both models (see Table 13). The intercorrelations between valence and importance and the decision to enroll were significant ($p<.05$): .48 and .48 (expressive model), .50 and .56 (instrumental model). Although it was valence that emerged as a significant discriminator when both variables were considered simultaneously with selected personal and environmental variables, because both variables (valence and importance) were moderately correlated with each other; .56 expressive model and .57 instrumental model (see Table 13), it would seem that there is need to retain and further investigate this conceptual distinction. Such an investigation is needed because, although contextual variables were the primary determinants of whether or not an
individual would enroll in a given program, the result of such decision making was greatly influenced by the extent to which he considered the objectives he expected to achieve desirable and important.

**Additive versus Multiplicative Combination of Models.** The expectancy force and valence models each modified separately with importance, or both combined and modified with importance (Parker and Dyer, 1976) appear to be versatile schemas around which further study of enrollment decision making in similar and other adult education settings could be anchored. While the conceptual system provided the theoretical anchorage for this study, it does seem that not much was gained in terms of predictive accuracy by either the multiplicative combination of the components of the force and valence models moderated by importance as suggested by Parker and Dyer (1976) or the multiplicative combination of the components of neither of the force and valence models each moderated by importance. This was apparent following the comparative analyses of the predictive accuracies of the additive versus the multiplicative forms of the combined expressive-force and instrumental-valence model. Rather, what was highlighted again was the significant contribution of contextual variables in the enhancement of predictive accuracy.

Thus, it would seem that where behavior is being predicted from an expectancy model in combination with selected contextual variables, it does not matter which form of mathematical combination is used in terms of predictive accuracy. It should
however be noted that with the multiplicative combination of the components of the expectancy theory it is not possible to determine which components of the theory significantly contributed to the predictive accuracy. In contrast, the additive form has some advantage over the multiplicative form as it is possible to determine which of the variables contributed significantly to the predictive accuracy.

Suggestions for Further Research

At the onset of this investigation, it was noted that the phenomenon of enrollment decision making has not yet had the research attention it deserves. While considerable research work has been done on various aspects of the participatory behavior of adults in educational programs, the question of determining the combination of forces that impel potential participants to decide to enroll in educational programs as a means of achieving their desired objectives is yet to be given comparable research attention. Consequently, the present study focused on the phenomenon of enrollment decision making and attempted to determine what personal and environmental variables influenced such decision making. In light of the findings of this study, the following research suggestions are presented in order of their urgency: determining desired objectives relative to different categories of potential participants and a further examination of the contextual variables used in this study relative to different categories of potential participants.
Determining Objectives for Different Potential Participants. The decisions individuals make regarding whether or not they will enroll in an educational program center around their expectation of achieving specific objectives which they want to achieve at any given time. In the literature of adult education, a distinction is made between expressive and instrumental objectives. In the simultaneous presentation of both types of objectives to the respondents of this study in the attempt to determine which set was more important in influencing their enrollment decision making, it was found that the respondents decided to enroll to achieve both kinds of objectives (the predictive accuracy of both models, expressive and instrumental, was 88.1%).

The respondents of this study were mostly professionals employed in various adult education organizations. Hence it was not surprising to see them enrolling for instrumental reasons that could contribute to their professional development as well as enrolling for such intrinsic reasons as learning for the sake of learning. Consequently, the next major research that should be undertaken is to find out for what kinds of objectives the following categories of potential participants are likely to enroll in an educational program: college educated unemployed, underemployed and unemployed "illiterates". The results of such studies will help to compile data with regard to the kinds of objectives to use for prediction purposes relative to the kinds of clientele for which a program is being designed at any given time.

Contextual Variables and Potential Participants. The
suitability of the scheduled time of a program as well as the perception of potential participants of the attitude of their employers regarding their intention to participate in a program were the significant selected personal and environmental variables that differentiated enrollees from non-enrollees. The suitableness of time as a factor in influencing the participatory behaviour of adults in continuing education seems to be emerging as an important variable as demonstrated by previous studies (Clarke, 1971; Carp, et al., 1974; Waniewicz, 1976). The subjects of the present study were mostly employed (92.6%) adult education professionals working in various organizations for whom time must be convenient relative to their job situation if their employers are to permit them to attend. A pertinent question that can be asked is whether or not time will be an important factor among college educated unemployed, underemployed and among unemployed "illiterates".

To the subjects of this study, such persons as friends and family were not significant factors in influencing their enrollment decision making. However, given that friends, work mates and family members have been suggested as important influences in the participatory behaviour of adults of lower socio-economic class in continuing education programs (Miller, 1967; Cross, 1981), the next question would seem to be that of determining empirically the relative influence of such significant others on the enrollment decision making of potential participants of high and low socio-economic status varying for example, such factors as age, gender, level of education and employment status.

Knox (1977) suggested that the belief of potential
participants in education as a means of gaining mastery over their environment (educational efficacy) was associated with high participation rates. The belief in educational efficacy by the subjects of this study did not emerge as a significant discriminator between the samples because both the enrollees (98%) and non-enrollees (90%) believed in the idea. Consequently, for the subjects of this study, the issue of whether or not the belief in education in the global sense as a means of gaining mastery over their environment was an influence in their enrollment decision making might have been an irrelevant question. These people were in the business of education and what education could or could not bring about might not have been an issue to which they gave any specific consideration.

But then, what of people with no formal education who see people with such education in positions of power in their societies whom they tend to identify as oppressors. For such people with little or no education who constitute the masses at the grassroots (i.e., the have-nots), it is suspected that there might be more variations regarding their beliefs in education in a global sense as a means of gaining control of their environment. However, this issue of the belief in education as a means of gaining control over one's environment being associated with high participation rates relative to haves and have-nots in a society by virtue of their education awaits empirical investigation.

The distinction made by Bandura (1977a) between expectancy and self-efficacy is important. For the subjects of this study, the question of their ability to execute the content material of
Chautauqua by the Pacific (educational efficiency expectations) was not an issue in their enrollment decision making; 100% of the enrollees and 99% of the non-enrollees believed that they were capable of executing the program. This was not surprising. By virtue of their level of education, the content material of Chautauqua by the Pacific was not such as would be threatening to them. Chautauqua by the Pacific is a professional development program designed to keep participants abreast with new trends in what they are doing in their work situations. There was no final examination such that the question of passing or failing, the result of which is crucial for their employment, reemployment or promotion was at stake.

However, the fact that other researchers in adult education have noted that in considering whether or not to take part in educational programs, adults tend to be concerned with their ability to learn (McClusky and Jensen, 1959; Kidd, 1973; Knox, 1977) it might be that concerns regarding ability to perform are only attributable to certain kinds of adults in specific educational programs: adult basic education, high school equivalency programs, programs designed for admittance into specific trades or acquiring certification for which success is measured by obtaining a given grade in a criterion standard test. In such a situation, it is suspected that educational efficacy expectations might likely be an issue among the potential participants particularly those who have had a history of failure in the educational system.
In sum, the present study had attempted to determine which among a set of selected personal and environmental variables analysed within an expectancy theoretical schema had the most influence on an individual's enrollment decision making. The results showed that contextual variables had a decidedly more significant influence on enrollment decision making than affective and cognitive variables. Consequently, in future studies of enrollment decision making, the impact of contextual variables should be further investigated in light of expressive and instrumental objectives pertinent to different categories of clientele in various programming catchment areas.


Griffith, W. S. Personal communication, January 15, 1982.

Griffith, W. S. Personal communication, April 23, 1982.


Vroom, V. H. Personal communication, March 5, 1981.


APPENDIX A
CORRESPONDENCE SEEKING
APPROVAL TO CONDUCT STUDY AND
INSTRUMENT DEVELOPMENT
March 18, 1981

Mr. Jindra Kulich, director
Centre for Continuing Education
University of British Columbia

Re: Request to use institution and clientele in the study
Enrollment: A Decision Making Perspective

Dear Mr. Kulich,

I am a second year doctoral student in adult education and I am writing to request your permission to use your institution and potential participants to the 1981 Chautauqua as the context and subjects for my dissertation.

The problem of the investigation stems from the persistent concern of program directors for the inadequate response by potential adult learners to program announcements, despite the tremendous amount of effort and resources expended in promotional activities. It has frequently been suggested in the literature that participation has to do with the relative importance a potential adult learner places on education as a means to achieve specific desired objectives at a given moment. Despite the centrality of the problem to the continuing education enterprise, a fact that is further underscored by the policy of financing being tied to enrollment whose repercussion permeates the issue of staffing, the continuity of any specific program and ultimately the providing institution, it does seem that no empirical study has been undertaken to explore this phenomenon from a decision making perspective.

This study is a first attempt to employ a decision making theoretical framework to determine the relative weights as assessed by potential participants to a specific continuing education program (in this case Chautauqua 1981) of the following factors: expectancy, instrumentality, valence, importance, subjective social norms, educational efficacy, efficacy expectation and suitableness of the scheduled time of the program, in their enrollment decision. Using these factors which have been associated in the literature with high enrollment, three research questions are posited: (i) do the specified variables have any impact on enrollment decision; (ii) to what extent do the perceived expectations of significant others influence enrollment decision; and (iii) which has more impact in influencing a potential adult learner to opt for participation in a specific continuing education program as a means of attaining desired objectives, expressive or instrumental considerations? A copy of my approved proposal and
Instrument Development

The first step was to develop a standard list of 10 expressive and 10 instrumental objectives. Using the sets of objectives, the expectancy theory variables investigated in this study were measured relative to the objectives: expectancy, valence and importance (expressive objectives); and instrumentality, valence and importance (instrumental objectives). Measures were also developed to assess the extent to which the products of each of the following variables influenced the enrollment decision making of the subjects studied: perceived expectations of friends and motivation to comply with perceived expectations of friends; perceived expectations of family and motivation to comply with perceived expectations of family; perceived expectations of employer and motivation to comply with perceived expectations of employer; efficacy expectations and influence of efficacy expectations on decision to enroll; educational efficacy expectations and influence of educational efficacy expectations on decision to enroll; suitability of time and influence of suitability of time on decision to enroll. Finally, pertinent socio-demographic and educational data were collected. The discussion of the processes involved in the instrument development are presented in the following order: determination of desired objectives (expressive and instrumental), and refinement of draft questionnaire.
Expressive Objectives

Beginning with the set of 15 expressive objectives Marcus (1976) developed, the following were deleted from the list for the reasons indicated after each objective (see Table 2) for distribution of judges' reactions relative to each objective):

Objective 9: To escape an unhappy relationship by having something in particular to do with my time.

Comment: Although the 10 judges clearly felt that this objective belonged to the expressive category with 8 classifying it under that section Without Doubt and 2 With Doubt; it was nonetheless rejected because 6 of the 7 judges who cooperated in the follow up interview conducted at the time the rating sheets were collected expressed discomfort with the objective noting that the item was not in good taste, hence the decision to drop it despite its relative high rating.

Objective 15: To share a common interest in the subject with one or more other people (such as spouse or friends) who are studying the same subject at the same time.

Comment: Eight of the 10 judges classified the item as belonging to the Satisfaction Now category Without Doubt; one other panelist assigned it to the same category but With Doubt, while another felt it was Ambiguous. Further discussions with seven of the
judges revealed that four of them who had classified it as being Without Doubt an expressive objective, noted that they as respondents would have preferred not to have to answer the question because they felt that somehow its meaning was not very clear given the context of the present study. Thus they pointed out that the chances of that being a pertinent objective that will significantly influence the enrollment decision of potential enrollees was probably negligible. The objective was eliminated accordingly.

Objective 19: To achieve the thrill of mastering the particular subject or skill taught in this course or program.

Comment: This objective had one ambiguous rating which from the outset precluded its inclusion. The decision to discard it was further strengthened by the fact that although five of the judges rated it Without Doubt under Satisfaction Now, the other four rated it under the same category but With Doubt.

Objective 23: To attend because it is what I am being paid to do.

Comment: Five of the judges rated this item as being Ambiguous while one other jurist classified it under Satisfaction Now with some reservations. This objective was deleted without further examination.

Objective 25: To do something, such as read, write, experiment, or exercise, that I like to do.

Comment: Although seven of the experts classified this
objective under Satisfaction Now, with one other classifying it in the same category With Doubt, two other judges felt that it was Ambiguous. The inadequacy of this item was further underscored in the subsequent follow-up discussions as the seven judges interviewed were on the whole not favorably disposed to the objective given as it was that it had four distinct activities which could negate any meaningful interpretations. The item was eliminated.

Objective 27: To kill time which I don't know what to do with otherwise.
Comment: Despite its high ratings with 9 of the judges designating it as belonging Without Doubt under the Satisfaction Now category, with one other jurist classifying it in the same domain With Doubt, the objective was nonetheless discarded because six of the seven judges interviewed thought the item was not in good taste. They contended that the eventual subjects of the study were professionals for whom it would be hardly appropriate to suggest that not knowing what to do with their time was a meaningful consideration in making their enrollment decision. The objective was dropped.

Objective 29: To search for truth.
Comment: This item was on the whole seen by the judges to be rather vague, hence four of the experts rated it as
Ambiguous, three others classified it under Satisfaction Now, but With Doubt, while the remaining three jurists assigned it to the same category Without Doubt. This item was dropped.

The rejection of objectives 9, 15, 19, 23, 25, 27 and 29 (see Table 2) meant that the set of expressive objectives were short of the required 10 by two. Consequently two more objectives were added namely: "enable me to break the routine of work" derived from the splitting into two of objective 21; and "visit Vancouver" derived from the list of 10 objectives which the organizers of the 1981 Chautauqua by the Pacific suggested could be significant in the enrollment decision making of potential enrollees. Consequently, the following 10 objectives qualified for inclusion in the set of ten expressive objectives used in the instrument which was pilot tested:

1. Participation in Chautauqua 1981 will enable me to learn for the sake of learning.

2. Participation in Chautauqua 1981 will enable me to satisfy my curiosity about the subjects or skills taught in the programs.

3. Participation in Chautauqua 1981 will enable me to prove to myself that I am
capable of learning the subjects or skills taught in the programs.

4. Participation in Chautauqua 1981 will enable me to become a better informed person in adult education.

5. Participation in Chautauqua 1981 will enable me to enjoy intellectual activity.

6. Participation in Chautauqua 1981 will enable me to fulfill a need to be with other people.

7. Participation in Chautauqua 1981 will give me the opportunity to visit Vancouver.

8. Participation in Chautauqua 1981 will enable me to break the routine of home.

9. Participation in Chautauqua 1981 will enable me to break the routine of work.

10. Participation in Chautauqua 1981 will enable me to engage in an activity which I particularly enjoy.

Instrumental Objectives

Like the expressive objectives, the set of instrumental objectives (Marcus 1976) were also subjected to the same screening process with the following results:

Objective 10: To get ready for a government examination in a particular field.

Comment: Despite its high rating as an objective belonging to
a Satisfaction Later category with 9 of the 10 judges classifying it accordingly, the fact that one of the judges felt that it was Ambiguous called the objective into question. The decision to drop the item from the set was further supported in subsequent discussions with seven of the judges who unanimously pointed out that the item was irrelevant in the context of the present study as no such policy exists. The item was accordingly discarded.

Objective 12: To catch up to others, such as my spouse, friends, relatives, business associates or competitors.

Comment: All ten judges classified objective 12 under the Satisfaction Later category with eight doing so Without Doubt and two With Doubt. The item was however discarded because three of the jurists pointed out that the program was not designed to achieve such goals and so potential enrollees with such competitive ambitions will seek enrollment in other forms of credit oriented provisions. This view was supported by four of the other judges.

Objective 16: To qualify for membership in a group I want to join.

Comment: All ten judges classified item 16 as belonging to Satisfaction Later category with eight of them doing so Without Doubt and two With Doubt. In the ensuing follow-up discussions however, five of the experts noted that the item lacked specificity when given a second thought as it does not indicate the group
being referred to. Furthermore, no such policy exists in the practice of adult education. The item was consequently deleted from the set.

**Objective 20:** To get accepted by others who will respect me more provided I learn the subject or skill taught in this course or program.

**Comment:** Although all ten jurists assigned objective 20 to the Satisfaction Later domain with seven of them doing so Without Doubt and three With Doubt, it was nonetheless eliminated as all seven of the judges interviewed observed that it was not a relevant item in the circumstance in which this study was undertaken. Making their point further, they noted that there were no adult education professional bodies known to them for which membership was contingent upon having undertaken a course.

**Objective 22:** To learn about new things to talk about.

**Comment:** Eight of the evaluating panelists classified objective 22 under the Satisfaction Later category with five of them doing so Without Doubt and three With Doubt. While this rating was weak as it was, the fact that two other judges considered it Ambiguous, resulted in its rejection. Besides its ambiguity, other judges noted that the item was too vague to qualify as a meaningful objective.

**Objective 28:** To learn to make my position in life more secure.

**Comment:** Eight of the experts classified the objective under
Satisfaction Later category with seven of them doing so Without Doubt and one With Doubt. Two other raters however considered the item Ambiguous which disqualified it from inclusion in the set.

**Objective 30:** To prepare myself better so that I can escape the frustrations of the way I live now.

**Comment:** Nine of the experts rated objective 30 as belonging to Satisfaction Later category with eight of them doing so Without Doubt and one With Doubt. One other expert, however, considered the item Ambiguous which eliminated it from inclusion in the set.

**Summary:** The rejection of objectives 10, 12, 16, 20, 22, 28 and 30 (see Table 2) meant that the set of instrumental objectives were short of the required 10 by two. As a result two more objectives were added namely: "give me an opportunity to make contacts for possible job openings;" and "give me an opportunity to reflect on my practice" which were derived from the list of objectives the 1981 Chautauqua by the Pacific organizers believed could be important in influencing potential participants enrollment decision making. Consequently, the following 10 objectives qualified for inclusion in the set of ten instrumental objectives used in the questionnaire which was pilot tested:

1. Participation in Chautauqua 1981 will enable me to secure advancement in my
present job or occupational career.

2. Participation in Chautauqua 1981 will help me in other educational courses which I intend to take.

3. Participation in Chautauqua 1981 will prepare me to be able to serve others in a particular way.

4. Participation in Chautauqua 1981 will enable me to carry out a step in a plan I have made for myself aimed at achieving a particular goal.

5. Participation in Chautauqua 1981 will enable me to improve my general ability to serve mankind.

6. Participation in Chautauqua 1981 will enable me to maintain or improve the social position that I have.

7. Participation in Chautauqua 1981 will enable me to increase my competence to achieve my goals.

8. Participation in Chautauqua 1981 will enable me to learn the subjects or skills taught in the programs so that I will be able eventually to share a common interest with other persons.

9. Participation in Chautauqua 1981 will give me an opportunity to make contacts for
possible job openings.

10. Participation in Chautauqua 1981 will give me an opportunity to reflect on my practice now.

Refinement of the Draft Questionnaire

To further improve the comprehensibility of the instrument, the judges, following their classification of the 30 objectives into satisfaction now and satisfaction later categories, were each further presented with a ten section questionnaire made up of 25 pages, with the objectives used being the same 30 they had earlier considered. Each judge's instrument was accompanied by a "Questionnaire Evaluation Sheet" (Appendix A) whose purpose was to communicate to the jurists the instructions contained therein.

Each judge was further advised to ignore the layout of the "Questionnaire Evaluation Sheet" referred to earlier and actually make his observations on the instrument itself alongside those items that each considered needed further examination and to offer alternative suggestions if possible. This approach proved to be convenient to the judges as they were able to make their observations directly as they encountered any issue they considered awkward and to which they wanted to draw attention. Similarly, the investigator found the strategy quite useful as it facilitated easy reference and hence corrections of issues raised by experts after due discussion with the specific jurist, and consultation with the other judges.
Original Questionnaire Layout

The composite questionnaire at this stage comprised of Section I through VI designed to measure each of the variables of the two models (expressive and instrumental). Sections i through III measured expectancy, valence and importance respectively relative to 15 expressive objectives in each instance. Sections IV through VI measured instrumentality, valence and importance respectively relative to 15 instrumental objectives in each instance. The 30 objectives were the same as those the experts had categorized earlier. While expectancy, instrumentality and valence were measured on a 7-point scale ranging from 0 to 6, importance was measured on a 5-point scale ranging from 0 to 4.

Section VII which was designated as "Extent of Perceived Social Influences on Decision to Enroll", was designed to measure a respondents' perception of his friends, family and employers' expectations regarding his possible participation in the 1981 Chautauqua by the Pacific and his motivation to comply with those perceived expectations. While the perceived expectations of friends, family, and employer were each measured on a 7-point scale ranging from 0 through 6, the motivation to comply with the perceived expectations of each of the significant others was measured as importance on a 5-point scale ranging from 0 through 4.

Section VIII was labeled "General" in which information was sought regarding the extent to which an individual's considerations of some personal and environmental factors such as educational efficacy, educational efficacy expectation and suitability of scheduled time of the Chautauqua by the Pacific influenced their
enrollment decision making. Educational efficacy and educational efficacy expectation were measured on a 5-point scale ranging from 0 through 4 including the degree of influence respondents' beliefs regarding these constructs as they relate to them, had on their enrollment decision making. Suitableness of the scheduled time of the Chautauqua by the Pacific was measured as a dichotomous variable, yes/no; while the extent to which respondent's response either yes/no influenced their enrollment decision making was measured on a 5-point scale 0 through 4.

Section IX which was titled "Additional General Information", was designed to obtain the following information:

i) Obtaining socio-demographic and educational data on each respondent;

ii) Obtaining each respondent's opinion regarding the fees charged for the 1981 Chautauqua by the Pacific, as well as

iii) Ascertaining whether or not each respondent had friends, family, and employer.

The information regarding whether or not each respondent had the aforementioned significant others was designed to counter check the relevance of their responses to the questions on Section VII regarding their perception of their friend's, family and employer's expectations about their decision to enroll and how that perception influenced their enrollment decision making.

To ascertain the extent to which the 30 objectives were comprehensive enough with regard embodying the dominant concerns which enrollees and non-enrollees to Chautauqua by the Pacific 1981
would aspire to achieve within, or consequent upon engaging in the educational experience, it was considered useful to accord respondents the opportunity to indicate objectives or other factors that influenced their enrollment decision which were not included in the questionnaire. The intention was to include items so enumerated in the final instrument depending on the extent to which any given objective was mentioned across subjects during the pilot test and to discard the section thereafter. Hence section X was titled "Unique Reasons for Participation."

**Judges' Evaluation of Questionnaire.**

As it was, the judges encountered the objectives they had previously discriminated into satisfaction now and later categories in the form of a composite questionnaire. An examination of the comments made by the jurists showed that they accomplished the following tasks: re-emphasized their previous observations regarding the degree of belongingness of items to a specific category in addition to the relevance and taste of individual objectives; reindicated their concern where they considered an item had expressed more than one idea; and they performed a holistic examination of the 10 section questionnaire in terms of the degree to which the instrument "hung" together as a unit. These three issues are discussed in turn.

The discussion regarding the first task, namely the high degree with which each judge underscored the observations he had made with regard to the belongingness of each objective to either the expressive or instrumental set; relevance of each objective to the context of the study and the extent to which they considered
each objective to be in good taste; will not be repeated. The issues they raised were on the whole a replication of questions they had raised earlier, these issues have been given detailed exposition previously. The judges shed further light with regard to the development of the instrument on two new dimensions namely, the specificity with which each item expressed one idea and the overall consistancy of the instrument.

The presentation of the judges' reactions regarding the specificity with which each item expressed one idea will be discussed in the following order beginning with the expressive objectives, and then the instrumental objectives.

In the set of expressive objectives, numbers 3, 7, 11, and 17 (Table 2). were questioned either for expressing multiple ideas or lack of clarity. Consequently the following amendments were made.

Objective 3: To satisfy my curiosity about the subject taught in this course or program.

Comments: Seven of the judges pointed out that "course or program" were two concepts that could mean a number of things depending on whom one was talking to. Hence they recommended that only one concept be used as this will enhance meaningfulness to respondents, as well as facilitate more pointed data interpretation. Consequently "course" was dropped and "program", as used in the brochures mailed out to potential Chautauqua by the Pacific participants was adopted. The item now read, "to satisfy my curiosity about the subjects or skills taught in the
Objective 7: To learn about the subject taught in this course or program for its own sake.

Comment: Besides raising the issue regarding the confusion that tend to surround the use of the terms course or program already referred to, five of the judges noted that the objective was too similar to item (1) "learn for the sake of learning." Hence two of the judges and the writer proposed the following objective "to become a better informed person about adult education." This was considered by all judges to be more in tune with the spirit of the educational experience that was the subject of concern. The new objective replaced the former number 7.

Objective 11: To enjoy the sensation of intellectual activity.

Comment: Some of the judges wanted the phrase "the sensation of" deleted. This was done and the item then read "to enjoy intellectual activity".

Objective 17: To learn something or engage in an activity which I particularly enjoy.

Comment: This item was queried because the judges pointed out that "to learn something" or "engage in an activity" did not mean the same thing. Hence it was decided to discard the latter phrase and retain the item which then read "to engage in an activity which I particularly enjoy."
Objective 21: To break the routine of home and work.

Comment: It was noted that this objective contained two distinct concepts namely "home" and "work". Judges further observed that it would be interesting to find out the nature of the significance of each concept in enrollment decision making. Consequently, both items were retained but reformulated into two separate objectives namely "to break the routine of work" and "to break the routine of home".

As with their response to the set of expressive objectives, the judges felt that the set of instrumental objectives specifically numbers 2 and 18 required further tidying up. In this regard, the following amendments were made.

Objective 2: To secure advancement in my present job or occupational career.

Comment: It was suggested that the item be made to read "enable me to advance in my present occupational career." This was considered to be clearer with the added advantage of having eliminated the alternative of "job or occupation" which may for different individuals carry varying connotations obscuring the interpretation of the data. The amendment was accordingly made.

Objective 18: To maintain or improve the social position that I have.

Comment: This was simply restructured to read "enable me to
improve the social position that I have" thus minimizing the possibilities of dual meanings suggested by the alternative concept of "maintain".

The critical examination of the instrument in terms of consistency led all of the judges to raise three points: a) the prohibitive length of the questionnaire; b) the differential scaling; and c) the overall layout. With regard to each area in which they expressed concern, they made a number of useful suggestions which were fully utilized.

a. On the question of length, the judges expressed concern that the 25-page, ten-section questionnaire could prove psychologically prohibitive and thus might affect the response rate. They suggested cutting down introductory explanations given that the intended subjects of the study by virtue of their relatively high educational backgrounds might find over-extended introductory explanations superfluous.

b) Raising the issue of differential scaling, they cautioned that besides the question of reliability, the lack of uniformity of scaling might present formidable analytical problems with the data. To achieve this uniformity the decision was made to measure all items on a 5-point scale ranging from 0 through 4.

c) With regard to the layout format, the judges noted that it was usually helpful to arrange the sections
in such a way as to lead the respondents into the flow of the questionnaire gradually such that before they realized it, to quote one of the judges, "they are hooked" into completing the questionnaire. This suggestion was adopted and in the ensuing reorganization sections VII, VIII and IX, the Extent of Perceived Social Influences on Decision to Enroll; General; and Additional General Information respectively became Sections I, II, and III in the revised version. While former sections I, II, III, IV, V, and VI namely Degree of Certainty of Achieving Objectives as a Result of Participation in the 1981 Chautauqua by the Pacific; the Degree of Desirability of Achieving Objectives; Importance of Objectives in Enrollment Decision; Instrumentality of Participation in Achieving Other Objectives; The Degree of Desirability of Achieving Objectives; and Importance of Objectives in Enrollment Decision became Sections IV, V, VI, VII, VIII, and XI respectively. Section X, Unique Reasons for Participating, retained its place.

Summary:

Taken together, the elimination of ten objectives (five expressive and five instrumental); the reduction in the introductory explanations; the uniform scaling and the change of layout; considerably improved the flow of the questionnaire and brought about a reduction in the number of pages
Further Refinement of Draft Questionnaire

The revised questionnaire was further brought under intense scrutiny by members of the author's dissertation committee at a meeting following the completion of phase II. During the ensuing deliberations, further suggestions were made to improve the quality of the instrument in the following areas namely, 1) introductory remarks, ii) layout, and iii) scaling.

1) Hitherto, each of the objectives was introduced with "Participation in Chautauqua by the Pacific 1981 will enable me to...", this meant that this introductory phrase was repeated 60 times because each of the two models expresive and instrumental had three components with each component having ten objectives. To reduce this repetitiveness which was contributing to the length of the instrument, it was suggested that each set of objectives be prefixed ones with the phrase in respect of each of the six constructs. This meant that the introductory phrase now appeared six times instead of 60.

ii) With regard to the layout, it was suggested that section III pertaining to socio-demographic data become Section I while former Sections I and II be collapsed to become Section II with the new title "Extent of Perceived Social Influences on Decision to Enroll". Consequent upon this readjustment,
former Sections IV through X now became Sections III through IX.

iii) On the question of scaling, it was suggested that the scales should range from 1 through 5 instead of from 0 through 4 since most people tend to associate a zero with nothingness. In addition, the point was made that there was no need to label each interval on the scales. Rather it was suggested that once the labelling was done in respect of the first scale, subsequent scales in the same set should only have identical numbers as the first.

The instrument, after undergoing this third revision, was again given to all three of the judges from the University of British Columbia Centre for Continuing Education, one professor from the University of British Columbia Division of Adult Education and a second year doctoral student in adult education, all five being members of the original panel of 10 judges, for further review. With no judge suggesting any further amendments, the instrument as presented in Appendix B was pilot tested.
On the accompanying sheets are 30 "reasons" people give for enrolling in specific educational programs. Each reason is essentially a statement of the kind of satisfaction the individual is seeking to attain.

Sometimes the satisfaction occurs mainly while the educational experience is going on. At other times, there seems to be little if any satisfaction anticipated during the specific educational experience; instead the satisfaction is expected after the educational experience has ended. At other times, the reason does not suggest when the anticipated satisfaction is expected to occur. Such statements are ambiguous.

Instruction:

Classify each of the 30 reasons as indicating satisfaction either NOW, while the educational experience is going on, or LATER, after it has ended. Try not to read anything into the statement, but consider the words just as they stand. If the words imply satisfaction BOTH now and later, or if they provide no clue at all as to when the satisfaction is expected, classify the reason as AMBIGUOUS.

Note that you are also asked to select a level of certainty concerning each NOW and LATER judgment--(a) WITHOUT DOUBT and (b) WITH DOUBT. WITHOUT DOUBT means that you are uncertain about your classification of the item. AMBIGUOUS means that you are altogether unable to classify the item either way.

### NOW-LATER SATISFACTION RATING SHEET

<table>
<thead>
<tr>
<th>Reason for Enrolling</th>
<th>Satisfaction NOW</th>
<th>Satisfaction LATER</th>
<th>AMBIGUOUS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without Doubt</td>
<td>With Doubt</td>
<td>Without Doubt</td>
</tr>
<tr>
<td>1. To learn just for the sake of learning.</td>
<td></td>
<td></td>
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<tr>
<td>2. To secure advancement in my present job or occupational career.</td>
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<tr>
<td>3. To satisfy my curiosity about the subject taught in this course or program.</td>
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<tr>
<td>4. To acquire knowledge or skills that will help me in other educational courses which I intend to take.</td>
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<tr>
<td>5. To prove to myself that I am capable of learning the subject or skill taught in this course or program.</td>
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<td></td>
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<tr>
<td>6. To prepare myself to be able to serve others in a particular way.</td>
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<tr>
<td></td>
<td>Reason for Enrolling</td>
<td>Satisfaction Now</td>
<td>Satisfaction Later</td>
</tr>
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<td>----------------------------------------------------------------------------------</td>
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<tr>
<td></td>
<td></td>
<td>Without Doubt</td>
<td>With Doubt</td>
</tr>
<tr>
<td>7.</td>
<td>To learn about the subject taught in this course or program for its own sake.</td>
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<tr>
<td>8.</td>
<td>To carry out a step in a plan I have made for myself aimed at achieving a particular goal.</td>
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<tr>
<td>9.</td>
<td>To escape an unhappy relationship by having something in particular to do with my time.</td>
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<tr>
<td>10.</td>
<td>To get ready for a government examination in a particular field.</td>
<td></td>
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<tr>
<td>11.</td>
<td>To enjoy the sensation of intellectual activity.</td>
<td></td>
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<tr>
<td>12.</td>
<td>To catch up to others, such as my spouse, friends, relatives, business associates or competitors.</td>
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<tr>
<td>13.</td>
<td>To fulfill a need to be with other people.</td>
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<tr>
<td>14.</td>
<td>To improve my general ability to serve mankind.</td>
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<tr>
<td>15.</td>
<td>To share a common interest in the subject with one or more other people (such as spouse or friends) who are studying the same subject at the same time.</td>
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<tr>
<td>16.</td>
<td>To qualify for membership in a group I want to join.</td>
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<tr>
<td>17.</td>
<td>To learn something or engage in an activity which I particularly enjoy.</td>
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<td></td>
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<tr>
<td>18.</td>
<td>To maintain or improve the social position that I have.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reason for Enrolling</td>
<td>Satisfaction NOW</td>
<td>Satisfaction LATER</td>
<td>AMBIGUOUS</td>
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<td>----------------------</td>
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</tr>
<tr>
<td></td>
<td>Without Doubt</td>
<td>With Doubt</td>
<td>Without Doubt</td>
</tr>
<tr>
<td>19. To achieve the thrill of mastering the particular subject or skill taught in this course or program.</td>
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<td></td>
<td></td>
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<tr>
<td>20. To get accepted by others who will respect me more provided I learn the subject or skill taught in this course or program.</td>
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<tr>
<td>21. To break the routine of home or work.</td>
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<tr>
<td>22. To learn new things to talk about.</td>
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<tr>
<td>23. To attend because that is what I am being paid to do.</td>
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<td></td>
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<tr>
<td>24. To increase my competence to achieve my goals.</td>
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<tr>
<td>25. To do something, such as read, write, experiment, or exercise, that I like to do.</td>
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<td></td>
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<tr>
<td>26. To learn the subject or skills taught in this course or program so that I will be able eventually to share a common interest with other persons.</td>
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<tr>
<td>27. To kill time which I don't know what to do with otherwise.</td>
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<td></td>
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<tr>
<td>28. To learn to make my position in life more secure.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>29. To search for truth.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. To prepare myself better so that I can escape the frustrations of the way I live now.</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Please attempt to answer the following questions either on the paper or in your mind:

1. If you feel you can answer an item without questioning what the words mean, place a check-mark ( ) beside the item in the column headed "ALL CLEAR".

2. If the use of certain words in the item bothers you, circle the troublesome words and check the appropriate one of the two columns headed "DON'T UNDERSTAND CIRCLED WORDS" and "FIND CIRCLED WORDS OBJECTIONABLE".

3. If you find the question totally unclear, check the "AMBIGUOUS" column.

4. Work as quickly as you can.

5. After you have evaluated the items in accordance with the above directions, if you have any time left and you wish to suggest a better way of wording any of the items, go ahead and alter them.

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>ALL CLEAR</th>
<th>DON'T UNDERSTAND CIRCLED WORDS</th>
<th>FIND CIRCLED WORDS OBJECTIONABLE</th>
<th>AMBIGUOUS</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tr>
</tbody>
</table>
APPENDIX B

QUESTIONNAIRE PACKAGE
MAILED TO RESPONDENTS
SECTION  I
GENERAL INFORMATION

1. What is your age? ____ years  b. What is your sex? ____ male  ____ female

2. How did you come to know about Chautauqua 1981?
   __ Journal  __ Newsletter  __ Through a resource person in a program you attended
   __ Flyer  __ Mailed brochure  __ Past acquaintance with Chautauqua
   __ Friend  __ Colleague  __ Can't remember
   __ Other (please specify) ________________________________

3. What is the highest educational qualification you hold? (CHECK ONLY ONE)
   __ University degree and some other tertiary qualification (e.g., B.A. and Teacher's Certificate)
   __ University degree only
   __ Partially completed university degree
   __ Other tertiary qualification (e.g., nursing qualification, trade certificate, management diploma, etc.)
   __ High school graduation
   __ No formal qualification
   __ Other qualifications (please specify) ________________________________

4. About how long ago is it since you last participated in a continuing education program?
   __ Less than 1 year  __ 1 to 2 years  __ 3 to 5 years
   __ 6 to 10 years  __ 11 to 20 years  __ 21 to 30 years
   __ More than 30 years  __ Don't know

5. What is your opinion regarding the fees charged for Chautauqua 1981? (check one)
   __ Extremely high  __ Very high  __ High
   __ Just right  __ Low  __ Extremely low
  
6. Had your opinion regarding the fees charged anything to do with your enrollment decision?
   __ Extremely important  __ Very important  __ Important
   __ Unimportant

7. Who would be paying for you to attend should you decide to participate?
   __ Self  __ Employer
   __ Other (please specify) ________________

8a. Do you have friends with whom you might discuss participation in Chautauqua?
   __ Yes  __ No

8b. If yes, do your friends generally influence your decisions?
   __ Yes  __ No

9a. Do you have close contact with family members (e.g., spouse, brothers, sisters, children, parents, aunts, uncles, etc.)?
   __ Yes  __ No

9b. If yes, do members of your family influence your decisions?
   __ Yes  __ No

10. Please indicate your employment status:
    __ Unemployed  __ Self-employed  __ Employed by an organization
SECTION II
EXTENT OF PERCEIVED SOCIAL INFLUENCES ON DECISION TO ENROLL

This section is designed to measure the extent to which environmental factors influenced your enrollment decision.

**FRIENDS**

1a. Your friends' attitude regarding your possible participation in Chautauqua 1981 is:

<table>
<thead>
<tr>
<th>Circle</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very Discouraging</td>
</tr>
<tr>
<td>2</td>
<td>Discouraging</td>
</tr>
<tr>
<td>3</td>
<td>Indifferent</td>
</tr>
<tr>
<td>4</td>
<td>Encouraging</td>
</tr>
<tr>
<td>5</td>
<td>Very Encouraging</td>
</tr>
</tbody>
</table>

1b. To what extent did your friends' attitude regarding your possible participation in Chautauqua 1981 influence your enrollment decision?

<table>
<thead>
<tr>
<th>Circle</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strong Negative Influence</td>
</tr>
<tr>
<td>2</td>
<td>Negative Influence</td>
</tr>
<tr>
<td>3</td>
<td>No Influence</td>
</tr>
<tr>
<td>4</td>
<td>Positive Influence</td>
</tr>
<tr>
<td>5</td>
<td>Strong Positive Influence</td>
</tr>
</tbody>
</table>

**FAMILY**

2a. Your family's attitude regarding your possible participation in Chautauqua 1981 is:

<table>
<thead>
<tr>
<th>Circle</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very Discouraging</td>
</tr>
<tr>
<td>2</td>
<td>Discouraging</td>
</tr>
<tr>
<td>3</td>
<td>Indifferent</td>
</tr>
<tr>
<td>4</td>
<td>Encouraging</td>
</tr>
<tr>
<td>5</td>
<td>Very Encouraging</td>
</tr>
</tbody>
</table>

2b. To what extent did your perception of your family's attitude regarding your intention to participate in Chautauqua 1981 influence your enrollment decision?

<table>
<thead>
<tr>
<th>Circle</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strong Negative Influence</td>
</tr>
<tr>
<td>2</td>
<td>Negative Influence</td>
</tr>
<tr>
<td>3</td>
<td>No Influence</td>
</tr>
<tr>
<td>4</td>
<td>Positive Influence</td>
</tr>
<tr>
<td>5</td>
<td>Strong Positive Influence</td>
</tr>
</tbody>
</table>

**EMPLOYER**

3a. Your employer's attitude regarding your possible participation in Chautauqua 1981 is:

<table>
<thead>
<tr>
<th>Circle</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very Discouraging</td>
</tr>
<tr>
<td>2</td>
<td>Discouraging</td>
</tr>
<tr>
<td>3</td>
<td>Indifferent</td>
</tr>
<tr>
<td>4</td>
<td>Encouraging</td>
</tr>
<tr>
<td>5</td>
<td>Very Encouraging</td>
</tr>
</tbody>
</table>

3b. To what extent did your employer's attitude regarding your participation in Chautauqua 1981 influence your enrollment decision?

<table>
<thead>
<tr>
<th>Circle</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strong Negative Influence</td>
</tr>
<tr>
<td>2</td>
<td>Negative Influence</td>
</tr>
<tr>
<td>3</td>
<td>No Influence</td>
</tr>
<tr>
<td>4</td>
<td>Positive Influence</td>
</tr>
<tr>
<td>5</td>
<td>Strong Positive Influence</td>
</tr>
</tbody>
</table>
### Educational Utility

<table>
<thead>
<tr>
<th>4a. Generally speaking, indicate what your belief is regarding education as a means of gaining greater mastery over one's life.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4b. What degree of influence did your belief have on your enrollment decision?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

### Personal Ability

<table>
<thead>
<tr>
<th>5a. To what extent do you think you are capable of mastering the skills to be presented at Chautauqua 1981?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5b. What degree of influence did your belief regarding your capability have on your enrollment decision?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

### Time

<table>
<thead>
<tr>
<th>6a. Is Chautauqua 1981 scheduled at a time suitable for you to attend?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6b. To what extent did the scheduling of the 1981 Chautauqua influence your enrollment decision?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>
The purpose of this section is to obtain your opinion on your degree of certainty that participation in the 1981 Chautauqua will lead to the achievement of specified objectives. On the next page are statements of objectives which some people expect to achieve in the course of an educational experience. There are no right or wrong answers.

Read each objective and circle the number on the scale beside each response which best represents whether or not you expect to achieve the stated objective while participating in Chautauqua 1981.

Let 1 = You are certain that participation in Chautauqua 1981 will NOT lead to the achievement of that objective.
5 = You are certain that participation in Chautauqua 1981 WILL lead to the achievement of that objective.

Example:

Objective: Participation in Chautauqua 1981 will enable me to become a better informed person.

Response Scale:

1  2  3  4  5
Certain not Unlikely Uncertain Likely Certain to Occur to Occur

If your expectation of achieving the above objective as a result of participating in Chautauqua 1981 is certain to occur, circle 5.

If you are uncertain that you will achieve the objective, circle 3.

If you are certain you will NOT achieve the objective, circle 1.
OBJECTIVES:

1. Participation in Chautauqua 1981 will enable me to:

   a. learn for the sake of learning.  
   b. satisfy my curiosity about the subjects or skills taught in the programs. 
   c. prove to myself that I am capable of learning the subjects or skills taught in the programs. 
   d. become a better informed person about adult education. 
   e. participate in an enjoyable, intellectual activity. 
   f. fulfill a need to be with other people. 
   g. visit Vancouver. 
   h. break the routine of home. 
   i. break the routine of work. 
   j. engage in an activity which I particularly enjoy.

<table>
<thead>
<tr>
<th>CIRCLE ONE RESPONSE ON EACH SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certain to Occur</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>
SECTION IV

DESIRABILITY OF ACHIEVING OBJECTIVES

Desirability of an objective is not the same thing as importance. Desirability refers to the degree to which you want to achieve an objective because of the anticipated satisfaction you believe it will give you. It is an affective or emotional attraction to something, not necessarily rational or needing justification.

Importance on the other hand refers to how high in priority an objective is relative to others that you want to achieve at the moment irrespective of the anticipated satisfaction.

In this section we are concerned with desirability. The following are re-statements of the objectives you have just considered, please circle the number on the scale beside each objective that best represents how desirable or undesirable the achievement of each objective is to you at this moment.

Let 1 = very undesirable  
5 = very desirable

EXAMPLE:

Objective:
Participation in Chautauqua 1981 will enable me to become a better informed person.

Response Scale:

If your anticipation of the achievement of the objective is very desirable, circle 5.

If you are indifferent to the anticipated achievement of the objective, circle 3.

If your anticipated achievement of the objective is undesirable, circle 1.
**OBJECTIVES:**

1. Participation in Chautauqua 1981 will enable me to:

<table>
<thead>
<tr>
<th></th>
<th>CIRCLE ONE RESPONSE ON EACH SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very Undesirable</td>
</tr>
<tr>
<td>a.</td>
<td>learn for the sake of learning.</td>
</tr>
<tr>
<td>b.</td>
<td>satisfy my curiosity about the subjects or skills taught in the programs.</td>
</tr>
<tr>
<td>c.</td>
<td>prove to myself that I am capable of learning the subjects or skills taught in the programs.</td>
</tr>
<tr>
<td>d.</td>
<td>become a better informed person about adult education.</td>
</tr>
<tr>
<td>e.</td>
<td>participate in an enjoyable intellectual activity.</td>
</tr>
<tr>
<td>f.</td>
<td>fulfill a need to be with other people.</td>
</tr>
<tr>
<td>g.</td>
<td>visit Vancouver.</td>
</tr>
<tr>
<td>h.</td>
<td>break the routine of home.</td>
</tr>
<tr>
<td>i.</td>
<td>break the routine of work.</td>
</tr>
<tr>
<td>j.</td>
<td>engage in an activity which I particularly enjoy.</td>
</tr>
</tbody>
</table>
SECTION V
IMPORTANCE OF OBJECTIVES IN ENROLLMENT DECISION

Remember, we made a distinction between *importance* and *desirability*. In this section we are concerned with *importance*. We said that *importance* refers to how high in priority an objective is relative to others that you want to achieve at the moment irrespective of the anticipated satisfaction.

The following are further restatements of the objectives you have been considering. Please circle the number on the scale beside each objective that best represents how important your desire to achieve that specific objective was in influencing your enrollment decision regarding participating in Chautauqua 1981.

Let 1 = Much lower priority in influencing your enrollment decision.
5 = Much higher priority in influencing your enrollment decision.

**Example:**

Objective:

Participation in Chautauqua 1981 will enable me to become a better person.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much Lower Priority</td>
<td>Somewhat Lower Priority</td>
<td>Average Priority</td>
<td>Somewhat Higher Priority</td>
<td>Much Higher Priority</td>
</tr>
</tbody>
</table>

**Response Scale:**

If your desire to achieve this objective was highest on your priority list of objectives at the time you were considering whether or not to enroll in Chautauqua 1981, and you were certain that participation in Chautauqua would enable you to achieve the objective, which therefore influenced your enrollment decision accordingly, circle 5.

If in your consideration to enroll the relative position of this objective on your priority list of objectives was average, circle 3.

If however it was much lower on your priority list of objectives, circle 1.
OBJECTIVES:

1. Participation in Chautauqua 1981 will enable me to:

<table>
<thead>
<tr>
<th></th>
<th>Much Lower Priority</th>
<th>Somewhat Lower Priority</th>
<th>Average Priority</th>
<th>Somewhat Higher Priority</th>
<th>Much Higher Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>e.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>h.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>i.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>j.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

- a. learn for the sake of learning.
- b. satisfy my curiosity about the subjects or skills taught in the programs.
- c. prove to myself that I am capable of learning the subjects or skills taught in the programs.
- d. become a better informed person about adult education.
- e. participate in an enjoyable, intellectual activity.
- f. fulfil a need to be with other people.
- g. visit Vancouver.
- h. break the routine of home.
- i. break the routine of work.
- j. engage in an activity which I particularly enjoy.
SECTION VI
INSTRUMENTALITY OF PARTICIPATION
IN ACHIEVING OTHER OBJECTIVES

Many people believe that as a result of having participated in a specific adult education program they will be able to achieve certain objectives. The purpose of this section is to obtain your opinion on how participating in Chautauqua 1981 might be related to the achievement of selected objectives.

Read each of the following objectives carefully and circle the number on the scale beside each objective which best represents the strength of your belief that your achievement of that objective is entirely independent or dependent upon your participation in Chautauqua 1981.

Let 1= Very strong belief that the achievement of that objective is entirely independent of participation in Chautauqua.
5= Very strong belief that the achievement of that objective is entirely dependent upon participation in Chautauqua.

Example:

CIRCLE ONE RESPONSE ON EACH SCALE

Participation in Chautauqua 1981 will help me to improve my performance in the job I now hold.

Response Scale:

If you strongly believe that your achievement of that objective is entirely independent of participation, circle 1.

If you are uncertain, circle 3.

If you strongly believe that its achievement is entirely dependent upon participation, circle 5.
OBJECTIVES:

1. Participation in Chautauqua 1981 will:

<table>
<thead>
<tr>
<th></th>
<th>Entirely Independent</th>
<th>Largely Independent</th>
<th>Uncertain</th>
<th>Largely Dependent</th>
<th>Entirely Dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>enable me to advance in my present occupational career.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b.</td>
<td>help me in other educational courses which I intend to take.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c.</td>
<td>prepare me to be able to serve others in a particular way.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d.</td>
<td>enable me to carry out a step in a plan I have made for myself aimed at achieving a particular goal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e.</td>
<td>enable me to improve my general ability to serve mankind.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f.</td>
<td>enable me to improve the social position that I have.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g.</td>
<td>enable me to increase my competence to achieve my goals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>h.</td>
<td>enable me to learn the subjects or skills taught in the programs so that I will be able eventually to share a common interest with other persons.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>i.</td>
<td>give me an opportunity to make contacts for possible job openings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>j.</td>
<td>give me an opportunity to reflect on my practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
SECTION VII

DESIRABILITY OF ACHIEVING OBJECTIVE

Remember we said, that desirability refers to the degree to which you want to achieve an objective because of the anticipated satisfaction you believe it will give you. It is an affective or emotional attraction to something, not necessarily rational or needing justification.

The following are restatements of the objectives you have just considered in SECTION VI. Please circle the number on the scale beside each objective that best represents how desirable or undesirable the achievement of each objective is to you at this moment.

Let 1 = Very undesirable
5 = Very desirable

Example:

Objective:

Participation in Chautauqua 1981 will help me to improve my performance in the job I now hold.

CIRCLE ONE RESPONSE ON EACH SCALE

If your anticipation of the achievement of the objective is very desirable, circle 5.

If you are indifferent to the anticipated achievement of the objective, circle 3.

If your anticipated achievement of the objective is very undesirable, circle 1.
OBJECTIVES:

1. Participation in Chautauqua 1981 will:

<table>
<thead>
<tr>
<th>Option</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. enable me to advance in my present occupational career.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>b. help me in other educational courses which I intend to take.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>c. prepare me to be able to serve others in a particular way.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>d. enable me to carry out a step in a plan I have made for myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>aimed at achieving a particular goal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. enable me to improve my general ability to serve mankind.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>f. enable me to improve the social position that I have.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>g. enable me to increase my competence to achieve my goals.</td>
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<td>2</td>
<td>3</td>
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<td>5</td>
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<tr>
<td>h. enable me to learn the subjects or skills taught in the programs</td>
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<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>that I will be able eventually to share a common interest with other persons.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. give me an opportunity to make contacts for possible job</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>openings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. give me opportunities to reflect on my practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
SECTION VIII

IMPORTANCE OF OBJECTIVES IN ENROLLMENT DECISION

Remember we said that importance refers to how high in priority an objective is relative to others that you want to achieve at the moment irrespective of the anticipated satisfaction.

The following are further restatements of the objectives you have been considering from SECTION VI. Please circle the number on the scale beside each objective that best represents how important your desire to achieve that specific objective was in influencing your enrollment decision regarding participating in Chautauqua 1981.

Let 1 = Much lower priority in influencing your enrollment decision.
5 = Much higher priority in influencing your enrollment decision.

Example:

Objective:

Participation in Chautauqua 1981 will help me to improve my performance in the job I now hold.

CIRCLE ONE RESPONSE ON EACH SCALE

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much Lower Priority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat Lower Priority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Priority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat Higher Priority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Much Higher Priority</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Response Scale:

If your desire to achieve this objective was highest on your priority list of objectives at the time you were considering whether or not to enroll in Chautauqua 1981, and you were certain that participation in Chautauqua will enable you to achieve the objective, which therefore influenced your enrollment decision accordingly, circle 5.

If in your consideration to enroll the relative position of this objective on your priority list of objectives was average, circle 3.

If however it was much lower on your priority list of objectives, circle 1.
OBJECTIVES:

1. Participation in Chautauqua 1981 will:

<table>
<thead>
<tr>
<th></th>
<th>CIRCLE ONE RESPONSE ON EACH SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Much Lower Priority</td>
</tr>
<tr>
<td>a.</td>
<td>enable me to advance in my present job or occupational career.</td>
</tr>
<tr>
<td>b.</td>
<td>help me in other educational courses which I intend to take.</td>
</tr>
<tr>
<td>c.</td>
<td>prepare me to be able to serve others in a particular way.</td>
</tr>
<tr>
<td>d.</td>
<td>enable me to carry out a step in a plan I have made for myself aimed at achieving a particular goal.</td>
</tr>
<tr>
<td>e.</td>
<td>enable me to improve my general ability to serve mankind.</td>
</tr>
<tr>
<td>f.</td>
<td>enable me to improve the social position that I have.</td>
</tr>
<tr>
<td>g.</td>
<td>enable me to increase my competence to achieve my goals.</td>
</tr>
<tr>
<td>h.</td>
<td>enable me to learn the subjects or skills taught in the programs so that I will be able eventually to share a common interest with other persons.</td>
</tr>
<tr>
<td>i.</td>
<td>give me an opportunity to make contacts for possible job openings.</td>
</tr>
<tr>
<td>j.</td>
<td>give me opportunities to reflect on my practice.</td>
</tr>
</tbody>
</table>

THANK YOU
Chautauqua by the Pacific

You will be able to choose from 14 workshops of 1, 2, 3 or 5 days duration covering a range of topics and interests in adult education. Informal learning and network building will be aided by planned opportunity to meet and share experiences with colleagues from other locations.

Accommodations are available on campus or in downtown hotels.

Weekends and evenings are open for exploration of the campus environment (beaches, museums, gardens), Vancouver and surrounding areas.

Program choices will include

Managing the Business of Continuing Education; Organizational Consulting Skills; Polishing Your Training Skills; Designing and Managing Instruction for Adults; Policy Development; Development and Delivery of Continuing Professional Education; Counselling Adults; Learning, Community Action and Change Agents: The Linkages and others.

The schedule will allow each participant to attend at least two and up to three events:

June 22-26, 1981
Professional Development for Adult and Continuing Educators.

For a detailed program brochure, write Elayne Harris, Adult Education Programs, Centre for Continuing Education, The University of British Columbia, Vancouver, B.C., V6T 2A4.

Sponsored by the Centre for Continuing Education and the Department of Adult Education, University of British Columbia.

Join a week-long learning community of adult and continuing educators from across Canada and the U.S. at The University of British Columbia. Stay in campus facilities overlooking the Pacific, attend workshops relevant to your professional development and make contact with colleagues from a variety of adult and continuing education settings.
Managing the Business of Continuing Education AE-2037-281
Limited to 30 participants.
Increasing demands for educational services and declining resources are factors which require creative and effective leadership. In this workshop, senior administrators and program development staff will focus on the practice of continuing education management, particularly best practice and an analysis of their own potential. The topics include philosophical foundations of leadership and management, the role of management in finance and budgeting, developing and managing staff resources, and marketing adult education programs. The workshop will conclude with a clinic on management problems and opportunities.

Resource Person: Morton Gordon
Monday, June 22; 11:00 a.m. - 4:30 p.m.
Tuesday, June 23; 9:00 a.m. - 4:30 p.m.
Wednesday, June 24; 9:00 a.m. - 4:30 p.m.
$300

The Systematic Design and Management of Instruction AE 2036-281
Limited to 40 participants.
This workshop will help increase your teaching effectiveness. It is an opportunity to design the instruction for a short course and to manage a portion of the course through a micro-teaching experience. You will learn to identify learning outcomes, and select instructional techniques based on the learners. Integration of outcome-oriented and process-oriented approaches to instruction will be stressed. Participants are asked to bring to the workshop the materials for a short course with which they are currently involved.

Resource Persons: David Littie and Juan McAlistur
Monday, June 22; 11:00 a.m. - 4:30 p.m.
Tuesday - Friday, June 23-26; 9:00 a.m. - 4:30 p.m.
$500

Polishing Your Training Skills: For Experienced Trainers AE-2038-281
Limited to 30 participants.
This workshop will develop the subtle skills which make the difference between good training and superb training. The skills will be familiar but their use will be re-examined, modified, refined and polished. Among the items to be included are grouping practices, beginnings and endings, methods of involving participants in fun experiential work, timing in design, tailoring designs to particular groups, useful feedback tools during training and after, and follow-up action designs.
Participants will design a special event during the workshop and critique each other's design. Emphasis will be determined by participants and the resource person at the beginning of the workshop.

Resource Person: Eva Schindler Rainman
Monday, June 22; 11:00 a.m. - 4:30 p.m.
Tuesday, June 23; 9:00 a.m. - 4:30 p.m.
Wednesday, June 24; 9:00 a.m. - 4:30 p.m.
$300
Continuing Education in the Professions: A Workshop for Practitioners AE-2039-281

Limited to 30 participants.

This workshop will be of particular benefit to persons who develop and deliver educational programs and services for professional groups (lawyers, engineers, nurses, social workers, librarians, pharmacists, planners, architects, doctors, etc.). It will examine several factors which make development of appropriate educational responses to the learning needs of professionals a more complex process than just conducting courses. It will offer participants a framework for conceptualizing the role of continuing education in the professions and identify the tools and skills that are required for effective implementation. Some of these include learning skills, needs assessment, group process skills, instructional design, motivation, consultation skills, planning and goal setting, etc.

Resource Persons: Vince Battistelli and Andy Farquharson
Monday, June 22; 11:00 a.m. - 4:30 p.m.
Tuesday, June 23; 9:00 a.m. - 4:30 p.m.
Wednesday, June 24; 9:00 a.m. - 4:30 p.m.
$300

Adult Education and Public Policy AE-2041-281

Limited to 30 participants.

The contemporary State must mobilize the willingness to learn among huge and increasing numbers of its citizens in order to survive. For this reason, learning, and its most common institutional form, adult education, is emerging as a principal concern of public policy. This workshop will examine a "construct" for identifying various areas of decision and the legislation and associated policy characteristic of each area. Attention will be given to potential conflict between the characteristics of learning and the formulation of public policy. Groups of legislation distinguished by types of goals and the related consequences will be examined. A Canadian and American case study will be used to examine the practical effects of public policy.

Resource Person: Alan Thomas
Monday, June 22; 11:00 a.m. - 4:30 p.m.
Tuesday, June 23; 9:00 a.m. - 4:30 p.m.
$200

Organizational Consulting Skills AE-2040-281

Limited to 20 participants.

This workshop will focus on the exploration and practice of skills needed by organizational consultants in the areas of entry, contract development, data collection planning, diagnosis, and the design of interventions. The approach is an intensive, guided case-study simulation, in which participants work as consulting teams to a large educational bureaucracy. Outcomes for participants will depend on their specific learning goals. For particular skill areas (e.g., entry, diagnosis, etc.), one can expect to (a) become more aware of one's present skill level; (b) sharpen existing competence; (c) become aware of wider repertoire of behaviors; (d) link isolated skills together into more effective performance.

Resource Person: Matthew Miles
Monday, June 22; 11:00 a.m. - 4:30 p.m.
Tuesday, June 23; 9:00 a.m. - 4:30 p.m.
Wednesday, June 24; 9:00 a.m. - 4:30 p.m.
$300

Community Development - Concepts and Theories AE-2042-281

Limited to 25 participants.

This seminar is designed for community developers wishing to survey theories which can improve practice, as good theory is a prerequisite to effective practice. A range of concepts and theories which can be used to understand the community development process will be addressed. Theories of learning, communication, intergroup and interpersonal behavior, organization, economic development and political change will be introduced, as they relate to community development. Emphasis throughout is on the dynamic relationship between learning and action, its present relevance and future potential. The knowledge, skills and attitudes needed by a community development worker to cope with action plans and opportunities will be discussed.

Resource Person: Hayden Roberts
Monday, June 22; 11:00 a.m. - 4:30 p.m.
Tuesday, June 23; 9:00 a.m. - 4:30 p.m.
Wednesday, June 24; 9:00 a.m. - 12 noon
$250
**Institution Based Learning - Only the Tip of the Adult Learning Iceberg?**  
AE-2043-281 / AE-2049-281

Limited to 30 participants.

Only twenty percent of an adult's learning is planned by professionals, such as those in institutions of higher learning and continuing education. By far, the great bulk of adult learning consists of self-planned learning. What are the services and programming that would encourage adults to look to your institution for a greater proportion of their learning efforts? This workshop takes a fresh look at the spectrum of adult learning both in terms of human development and program packaging. It examines the scope of adult learning activities outside the classroom and identifies new types of assistance which adult learners are seeking.

Resource Person: Elaine McCreary  
Wednesday, June 24; 9:00 a.m. - 4:30 p.m. AE-2043-281  
Repeated on:  
Friday, June 26; 9:00 a.m. - 4:30 p.m. AE-2049-281  
$100

**Developing Performance Planning, Coaching and Review Skills In Managers**  
AE-2045-281

Limited to 30 participants.

Organizations in both Canada and the U.S. are facing mounting demands for more performance and more accountability both in the public and private sectors. A comprehensive system of performance management involves performance planning, coaching and review. In this workshop you will learn ways to train managers in developing effective performance plans, in coaching of staff members and in measuring and appraising performance. You will also learn training techniques to help managers select performance management approaches geared to their specific work situations, and a situational approach already in use by many major organizations to increase effectiveness and accountability.

Resource Person: Marshall Goldsmith  
Thursday, June 25; 9:00 a.m. - 4:30 p.m.  
Friday, June 26; 9:00 a.m. - 4:30 p.m.  
$200

**Linking Social Action, Change Agents and Learning**  
AE-2044-281

Limited to 30 participants

Community developers, change agents and other persons who want to make change happen, need and use an amazingly diverse set of skills and competencies. This workshop will look at the specific change plans in which participants are involved in their communities, the design of ways to help change happen, and the evaluation of progress towards those changes. It will consider the use of learning principles in helping community members develop realistic goals and action plans; and ways to help groups formulate plans without encouraging dependency. Attention will be paid to working with different age groups including intergenerational groups, increasing collaboration among community organizations and issues contributed by the participants.

Resource Person: Eva Schindler-Rahman  
Thursday, June 25; 9:00 a.m. - 4:30 p.m.  
Friday, June 26; 9:00 a.m. - 4:30 p.m.  
$200

**Holistic Approaches to Adult Education**  
AE-2046-281

Limited to 30 participants.

How can we achieve peak performance, optimal well being, maximum learning? What are the applications of right brain/left brain research, the consciousness disciplines, biofeedback, holistic health, transpersonal psychology and superlearning in helping adults learn? These will be explored in this workshop as tools for enhancing adult learning. Theory inputs, learning by experiencing, and discussions on practical applications in adult education settings will be used to develop an alternate paradigm for adult learning.

Resource Person: Bob Wiele  
Thursday, June 25; 9:00 a.m. - 4:30 p.m.  
Friday, June 26; 9:00 a.m. - 4:30 p.m.  
$200
Counselling Adult Learners AE-2047-281

Limited to 30 participants.

Program administrators, instructors and trainers all interact with adult learners seeking assistance in making choices and taking action to overcome problems which affect their learning. This workshop introduces participants to elements of counselling adults. Some of the topics to be covered are: the helping interview, how to listen and respond effectively, the basis of adult educational counselling, developing a "counselling" attitude in staff members, learning and development concepts and educational consequences of life crises. The workshop will use experiential learning principles and focus on practical training.

Resource Person: Vance Peavy
Thursday, June 25; 9:00 a.m. - 4:30 p.m.
Friday, June 26; 9:00 a.m. - 4:30 p.m.
$200

Significant Developments in Adult Learning Theory AE-2048-281

Limited to 30 participants.

Over the past decade, there has been a virtual "renaissance" in exploration, discovery and concern for learning. Contributions to learning theory are coming from zoology, chemistry, neurology, engineering, physics as well as psychology. At the same time various theorists are attempting to "capture" learning by establishing a predominant means of classifying its characteristics. This workshop will examine various contributions and assess their significance for adult learning. Participants are invited to contribute, in detail if they wish, special knowledge of developments in various fields of research. If you have special knowledge or experience to contribute, a brief description is required with your registration form.

Resource Person: Alan Thomas
Thursday, June 25; 9:00 a.m. - 4:30 p.m.
$100
APPENDIX C

MEANS AND STANDARD DEVIATIONS OF
THE PREDICTOR VARIABLES FOR
THE ENROLLEE AND NON-ENROLLEE SAMPLES
Table A
Means and Standard Deviations of Predictor Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>ENROLLEES (n=88)</th>
<th>NON-ENROLLEES (n=88)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Means</td>
<td>Standard Deviations</td>
</tr>
<tr>
<td>E</td>
<td>38.19</td>
<td>6.81</td>
</tr>
<tr>
<td>V1</td>
<td>38.40</td>
<td>5.28</td>
</tr>
<tr>
<td>Imp1</td>
<td>29.20</td>
<td>5.95</td>
</tr>
<tr>
<td>I</td>
<td>28.51</td>
<td>6.33</td>
</tr>
<tr>
<td>V2</td>
<td>37.05</td>
<td>4.45</td>
</tr>
<tr>
<td>Imp2</td>
<td>30.98</td>
<td>6.65</td>
</tr>
<tr>
<td>E \cdot \Sigma Imp2\cdot I\cdot V2</td>
<td>15741.51</td>
<td>7517.75</td>
</tr>
<tr>
<td>E \cdot \Sigma Imp2\cdot I\cdot V2</td>
<td>407.05</td>
<td>159.48</td>
</tr>
<tr>
<td>EXfMCf</td>
<td>11.26</td>
<td>3.97</td>
</tr>
<tr>
<td>EXfrMCfr</td>
<td>11.90</td>
<td>3.52</td>
</tr>
<tr>
<td>EXeMCe</td>
<td>14.89</td>
<td>5.40</td>
</tr>
<tr>
<td>EEeInf</td>
<td>18.73</td>
<td>4.75</td>
</tr>
<tr>
<td>EEexpInf</td>
<td>16.40</td>
<td>4.57</td>
</tr>
<tr>
<td>STInf</td>
<td>13.35</td>
<td>4.95</td>
</tr>
<tr>
<td>E \cdot \Sigma Imp1\cdot E\cdot V1</td>
<td>505.05</td>
<td>160.58</td>
</tr>
</tbody>
</table>

p < 0.05

Note:

E = Expectancy;
V1 = Expectancy valence;
Imp1 = Expectancy Importance;
I = Instrumentality;
V2 = Instrumentality valence;
Imp2 = Instrumentality importance;
E \cdot \Sigma Imp2\cdot I\cdot V2 = Score of expectancy x the sum of importance x instrumentality x instrumentality valence;
\Sigma Imp2\cdot I\cdot V2 = Score of the sum of instrumentality importance x instrumentality x instrumentality valence;
EXfMCf = Perceived expectations of family x motivation to comply;
EXfrcfr = Perceived expectations of friends x motivation to comply;
EXeMCe = Perceived expectations of employer x motivation to comply;
EEeInf = Educational Efficacy x influence;
EEexpInf = Educational efficacy expectations x influence;
STInf = Suitability of Time x influence; and
\( \sum \) Imp1xExV1 = Score of the sum of expectancy importance x expectancy x expectancy valence
APPENDIX D

ADDITIVE VERSUS MULTIPLICATIVE

COMBINATION OF THE COMBINED

EXPRESSIVE-FORCE AND INSTRUMENTAL-VALENCE MODEL
Additive Combination of the Components of the Combined Expressive-Force and Instrumental-Valence Model

Table B
Summary Statistics Based on Time, Employer and Valence: Additive Form

<table>
<thead>
<tr>
<th>Variables In Order of Entry</th>
<th>F. to Enter</th>
<th>Wilks' Lambda</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>STInf</td>
<td>132.69 *</td>
<td>0.57</td>
<td>0.65</td>
</tr>
<tr>
<td>EXeMCe</td>
<td>103.78 *</td>
<td>0.45</td>
<td>0.54</td>
</tr>
<tr>
<td>V2</td>
<td>85.09 *</td>
<td>0.40</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Variables not in the Analysis After step 3
- E: 3.29
- I: 0.13
- Imp2: 3.20
- EXfrMCfr: 1.64
- EXfMCf: 0.22
- EEeInf: 1.14
- EEexpInf: 2.41

* p< .05
Table C
Classification Results of Enrollees and Non-enrollees
Based on Time, Employer and Valence: Additive Form

<table>
<thead>
<tr>
<th>ACTUAL GROUP</th>
<th>NUMBER OF CASES</th>
<th>PREDICTED GROUP MEMBERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ENROLLEE</td>
</tr>
<tr>
<td>Enrollee</td>
<td>88</td>
<td>75 (85.2%)</td>
</tr>
<tr>
<td>Non-enrollee</td>
<td>88</td>
<td>6 (6.8%)</td>
</tr>
</tbody>
</table>

Percent of cases correctly classified: 89.2%
Multiplicative Combination of the Components of the Combined Expressive-Force and Instrumental-Valence Model

Summary Statistics Discriminant Function Analysis - Combined Expressive-Force and Instrumental-Valence Model: Multiplicative Form

<table>
<thead>
<tr>
<th>Variables In Order of Entry</th>
<th>F. to Enter</th>
<th>Wilks' Lambda</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>STInf</td>
<td>132.69 *</td>
<td>0.57</td>
<td>0.60</td>
</tr>
<tr>
<td>EXeMCe</td>
<td>103.78 *</td>
<td>0.45</td>
<td>0.57</td>
</tr>
<tr>
<td>V2</td>
<td>77.65 *</td>
<td>0.42</td>
<td>0.35</td>
</tr>
</tbody>
</table>

Variables not in the Analysis After step 3
- EXfrMCfr: 1.48
- EXfMCf: 0.23
- EEeInf: 0.85
- EEexpInf: 3.18

* p< .05
Table E

Classification Results of Enrollees and Non-enrollees Based on Time, Employer and the Score of the Expressive-Force and Instrumental-Valence Model: Multiplicative Form

<table>
<thead>
<tr>
<th>ACTUAL GROUP</th>
<th>NUMBER OF CASES</th>
<th>PREDICTED GROUP MEMBERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ENROLLEE</td>
</tr>
<tr>
<td>Enrollee</td>
<td>88</td>
<td>75 (85.2%)</td>
</tr>
<tr>
<td>Non-enrollee</td>
<td>88</td>
<td>7 (8.0%)</td>
</tr>
</tbody>
</table>

Percent of cases correctly classified: 88.6%