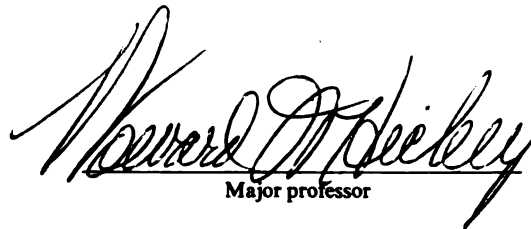This is to certify that the

dissertation entitled

A DESCRIPTION OF THE LEARNING STYLE PREFERENCES
OF HOSPITALITY INDUSTRY EXECUTIVES AND MANAGERS

presented by

Peter J. Stevens

has been accepted towards fulfillment
of the requirements for

__Ph.D.__ degree in __Administration and
Higher Education__

Major professor

Date __July 13, 1981__

0-12771

A DESCRIPTION OF THE LEARNING STYLE PREFERENCES

OF HOSPITALITY INDUSTRY EXECUTIVES AND MANAGERS

By

Peter J. Stevens

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Administration
and Higher Education

1981

ABSTRACT

A DESCRIPTION OF THE LEARNING STYLE PREFERENCES OF HOSPITALITY INDUSTRY EXECUTIVES AND MANAGERS

By

Peter J. Stevens

A rapidly increasing number of business leaders are con-
cluding that future success in a dynamic and constantly changing
environment will more and more depend on the abilities of manage-
ment to comprehend that environment and to adapt company responses
to optimize their posture toward that environment. The key to
developing these essential management abilities is believed to be
continuing management education.

Business investment in management education already amounts
to billions of dollars annually. The effectiveness of such programs,
including their cost effectiveness, is being severely limited by
lack of knowledge about how business managers and executives learn.
Current consensus suggests that adults prefer and need a Humanist
Approach (referred to in the literature as "andragogy") where a
Behaviorist Approach (referred to in the literature as "pedagogy")
is more appropriate and effective with children. Further, it is
suggested that the older a person becomes, the more andragogy is
preferred and needed.

Given the importance of fundamental values in determining attitudes and behavior, and given findings by Massey and Rokeach regarding the fundamental values held by different age groups of adult Americans, and given that learning style preference is an attitude and actual learning is a behavior, this research tested the suggestion that the older an adult becomes, the more he or she prefers a Humanist Approach. This tenet of adult learning theory seemed to conflict with logical inference from the findings of the value research of Massey and Rokeach.

The Learning Preference Survey was developed and tested, and then administered to hospitality industry managers and executives attending the National Restaurant Association Restaurant and Hotel/Motel Show May 16-20, 1981 in Chicago. Managers and executives from the hospitality industry were chosen both because of the author's background and interest in that industry and because that industry has lagged behind most others in innovation and change. Given both its people intensity and its extraordinary need to change and adapt, the hospitality industry seems in even greater need than others of increased management and executive education effectiveness.

Managers, owners, and executives of hotel/motel and food-service concerns provided information regarding their age, ethnic origin, gender, and level of schooling; and indicated the level of their agreement/disagreement with statements designed to test preference for a Behaviorist Approach or a Humanist Approach to learning. Data obtained from four hundred and eighty-four

managers, owners, and executives were analyzed, using multivariate analysis of variance technique (SPSS Subprogram MANOVA) and the S-method (Scheffé post hoc analysis). Though the researcher's primary interest was differences with respect to learning style preference among age groups, also tested were differences by gender, ethnic origin, and level of schooling.

The researcher found that for hospitality industry managers, owners, and executives:

1. The Behaviorist Approach to learning is more preferred by "Traditionalists" (those born prior to 1937) and "In-Betweens" (those born between 1937 and 1947) than by "Rejectionists" (those born after 1947).

2. There is no significant difference in preference with respect to the Humanist Approach among age groups.

3. The Humanist Approach was more preferred by women than by men.

4. There is no significant difference in preference with respect to the Behaviorist Approach between women and men.

5. The Behaviorist Approach is more preferred by those with at least some college than by those with no college.

6. There is no significant difference in preference with respect to the Humanist Approach among groups with different levels of schooling.

Given these findings, the author concludes with suggestions for changes in continuing education programs for hospitality industry managers and executives.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

THE PROBLEM

Introduction

A rapidly increasing number of business leaders are conclud-
ing that future success in a dynamic and constantly changing environ-
ment will more and more depend on the abilities of management to
comprehend that environment and to adapt responses--policies, plans,
strategies and techniques--to optimize company posture. Responding
to this conclusion, many firms are investing in the continuing edu-
cation of key personnel. How much, with whom, for whom, with what
media, and for what educational programs investments should be made,
however, seems at present to be not well understood. Three of these
questions are essentially quantitative and answerable using ROI
(return on investment) analysis. Two--what media and what programs--
are more complex and deserving of additional consideration.

Purposes of This Study

This study was undertaken to determine whether differences
in learning style preference exist for different management age
groups. Additionally, the researcher sought to provide to hospi-
tality industry executives a learning system preference profile
of managers in their industry. Finally, this research effort was
used to ascertain whether further more lengthy and complex research

into the relationship between childhood value programming and later adult learning system preference, and into the relationship between expressed learning style preference and actual learning outcomes when the preferred style is employed, were warranted.

Importance of the Study

This study seems important for at least four reasons. Although many philosophers, psychologists and educators have devoted vast amounts of time, energy and money studying how animals and children learn, little has been invested in studying how adults learn. Given the difficulties in generalizing to adult populations the findings with animal and child subjects, and given the trend in American age demographics--where a growing proportion of the population will be adults--more must be understood about how adults learn. Further, of the physical, financial and human resources employed by organizations, clearly and by far the least effectively and efficiently used is the human resource (33,42,52,73,81,117,119, 131,168). Findings may contribute toward increasing productivity.

A third reason for considering the study important is that effective continuing education of business executives and managers seems to hold promise for improving organizational homeostatic response capabilities which are seen as essential, given the growing complexity of, and rapidity of change in, the world. Finally, effectively designed and operating systems for the continuing education of personnel, in addition to increasing productivity and improving the quality of decision making, may increase job

satisfaction and motivation, reduce job dissatisfaction, help personnel self-actualize, lengthen tenure, reduce turnover and absenteeism, and provide a recruiting advantage for an organization versus its competitors.

Generalizability

Results from this study of hospitality industry managers and executives should only be generalized to the population of adult Americans, or even to the population of American business managers and executives with caution. There is substantial evidence to suggest that important differences in fundamental values exist between managers and executives who select the hospitality industry for employment and those who choose other industries (184,185).

The hospitality industry managers and executives who participated in this study were all attendees of the Sixty-Second Annual National Restaurant Association Restaurant and Hotel/Motel Show May 16-20, 1981 at McCormick Place in Chicago. Attendees, passing the researcher's booth in the exhibit area and identified as managers, owners, or executives of hotel/motel or foodservice companies by inspection of their name badges, were asked to complete the Learning Preference Survey. About eighty percent of those asked completed the Survey. Most who declined seemed to do so because of immediate time pressures; they were due at another location.

One never knows whether a sample chosen is representative of some larger population, even if it is a random sample (65, p. 243). Though this sample was not randomly drawn either from

Show attendees or from hospitality industry managers and executives--
a technique which could have increased confidence about generaliz-
ing--the researcher has reason to believe that the sample may be
"representative" of the population of hospitality industry managers
and executives (92).

The reader is invited to decide, given the research pro-
cedures described later and the demographics of the sample, whether
results can be generalized to some population relevant to him or her.

Research Questions and Hypotheses

Since, given a particular situation as a stimulus, a
person's fundamental values will act as an intervening variable in
determining affective and behavioral response, one would expect
that persons holding differing values would prefer to learn--and,
in fact, learn--in different ways. Further, ceteris paribus, those
holding similar values would be expected to prefer to learn--and,
in fact, learn--in similar ways.

Since most values programming is accomplished during child-
hood and adolescence, and since held fundamental values seem quite
resistant to change in adults, and since most people are subjected
to and influenced by essentially the same value programming media at
a given point in time, much can be understood about the attitudes and
behaviors exhibited by groups of like-aged people by analyzing major
media characteristics at the time those people were about ten years
old (124,170,171). Dr. Morris Massey, Associate Dean of the College
of Business at the University of Colorado, suggests, for example,

that vast differences in value programming when they were children explain much of the clear differences in attitudes and behavior now between "Traditionalists" (persons born prior to 1937) and "Rejectionists" (persons born after 1947). "In-Betweens" (persons born between 1937 and 1947), according to Massey, seem ambivalent between the values of their older and younger counterparts, and exhibit some of the attitudes and behaviors of each (124).

If Massey's assertions are correct that (a) the three groups differ with respect to values and (b) members of each group tend to hold the values that he suggests, their learning style preferences should (a) differ from group to group and (b) within groups be consistent with the values which he suggests they hold.

Research Questions

Answers to three major questions were sought with this study:

1. Do hospitality industry managers and executives differ among age groups with respect to learning style preference?

2. Are there other major factors which are related to differences among hospitality industry managers and executives with respect to learning style preferences?

3. Can any found differences with respect to learning style preference among age groups be explained on the basis of these other factors?

Research Hypotheses

From these research questions regarding the learning style preferences of hospitality industry managers and executives nine research hypotheses were drawn and examined. The last hypothesis

was formulated to test the construct validity of the <u>Learning</u>

<u>Preference Survey</u>.

1. There is significant difference among age groups with respect to learning style preference.

2. There is significant difference among age groups with respect to preference for the Behaviorist Approach.

   Further, it is hypothesized that Traditionalists more prefer the Behaviorist Approach than do In-Betweens who in turn more prefer the Behaviorist Approach than do Rejectionists.

3. There is significant difference among age groups with respect to preference for the Humanist Approach.

   Further, it is hypothesized that Rejectionists more prefer the Humanist Approach than do In-Betweens who in turn more prefer the Humanist Approach than do Traditionlists.

4. There is significant difference between males and females with respect to learning style preference.

5. There is no interaction between age group and gender with respect to learning style preference.

6. There is significant difference among ethnic groups with respect to learning style preference.

7. There is no interaction between age group and ethnic group with respect to learning style preference.

8. There is significant difference among groups with different levels of schooling with respect to learning style preference.

9. There is no interaction between age group and level of schooling with respect to learning style preference.

10. There is significant correlation between statements in the <u>Survey</u> and the dependent variable that they represent.

Definition of Important Terms

Terms Related to Age Group

"In-Betweens" refers in this study to persons born between
1937 and 1947 inclusive. Massey suggests that different attitudes
and behaviors are exhibited by this group because it value programmed
at a different time, subject to different major programming media
and media content, from others (124).

"Rejectionists" refers in this study to persons born after
1947. Massey suggests that different attitudes and behaviors are
exhibited by this group because it value programmed at a later time,
subject to major programming media and media content not experienced
by its predecessors. Massey would not include persons born after
1962 in this group. Since, however, the population studied only
included adults, this distinction was ignored (124).

"Traditionalists" refers in this study to persons born
before 1937. Massey suggests that this group exhibits different
attitudes and behaviors from younger groups because it value pro-
grammed earlier, subject to different dominant values and to media
not nearly as influential during later periods. Further, this group
had locked in to fundamental values before certain highly influential
media--television, for example--existed. Massey ignores persons
born prior to 1910 when characterizing this group. Since, however,
the population studied included only employed persons, those past
mandatory retirement age were (for purposes of this study) ignored
(124).

Terms Related to Learning Preference

"Behaviorist School" represents principles of learning consistent with the theories of, for example, Guthrie, Hull, Pavlov, Thorndike and Tolman. Learning occurs because of the rewards or, to a lesser extent, punishments which follow a response to a stimulus. Repetition and practice are seen as important to lock in the relationship between response and the reward/punishment which follows. The importance of understanding and insight, and the value of prior learning, when faced with a novel stimulus, are considered minimal at best (60,80).

"Humanist Approach" refers to the principles of learning espoused by Carl Rogers. The potential for learning is natural in humans, and learning is most likely to occur when the content/skill is seen as personally relevant (intrinsic reward). Learning is best facilitated when intrinsic threats (such as a challenge to values or self-image) and extrinsic threats (punishment) are minimized. Learning is best facilitated when self-initiated and evaluated rather than being initiated and evaluated by others, and when both intellect and feelings are involved. Finally, the most useful learning is that which yields insight and understanding into the learning process itself, since subsequent learning can then be more easily and effectively self-initiated (169).

"Learning" is that which occurs when a stimulus situation together with memory content combine in such a way that performance changes pre-to-post stimulus. Learning occurrence is inferred from the change in performance (100).

"Learning Preference Survey," the testing instrument developed by the researcher for use in this study, poses twenty-four statements regarding characteristics of a learning situation to which subjects are asked to respond by indicating on a five-point Likert-type scale the degree of their agreement or disagreement. In addition, subjects are asked to provide certain personal demographic information.

Terms Related to Educational Strategy

"Andragogy," derived from the Greek, means "the art and science of helping adults learn" (35, p. 4). The assumptions and processes of this learner-centered approach are outlined in Figure 1 and Figure 2 on pages 14 and 15.

"Pedagogy," derived from the Greek, refers to "the art and science of teaching children" (35, p. 4). The assumptions and processes of this teacher-directed approach are outlined in Figure 1 and Figure 2 on pages 14 and 15.

A Note Regarding the Population

"Hospitality industry managers and executives" refers to persons with organizational responsibility for directing supervisors of production and service personnel, for strategic planning, and/or for control of at least unit-level human, financial and/or physical resources in institutional or commercial lodging and/or foodservice operations. The term "executive" is generally applied to those with corporate-wide responsibility; "manager" (when a distinction is made) is generally applied to those with regional multi-unit or single-unit responsibility.

CHAPTER II

REVIEW OF RELATED LITERATURE

It has been suggested that there is considerable learning
theory, but that there is substantial difficulty applying that
theory to the development of adult continuing education. It has
further been suggested that, because of an anticipated dynamic
and increasingly more complex environment and the belief that the
continuing education of key personnel is vital to affecting appro-
priate organizational homeostatic response vis-a-vis such an
environment, business is beginning to invest substantial time,
effort and money in such education. Finally, it is because of the
alleged correlation between age and values and the role of values
in determining attitudes and behavior that the researcher has con-
cluded that a study into the relationship, if any, between age and
learning preference is important. With later research one might
attempt to determine the direct relationship between values and the
quantity and quality of important actual learning.

Literature, therefore, has been reviewed in six areas. In
the order in which they will be discussed, they are: (1) learning
theory, (2) adult continuing education, (3) the future environment,
(4) business investment in continuing education, (5) correlation

between age and values, and (6) the role of values in determining attitudes and behavior.

Learning Theory

Modern learning theory has evolved from philosophy (epistemology) and then psychology (80). Modern learning theorists, it would seem, can be classified into three main groups: (1) the associationists, including behaviorists and functionalists (Guthrie, Hull, Pavlov, Skinner, Thorndike, Tolman, et al.); (2) the rationalists, including those in the gestalt and information-processing schools (Piaget, Tolman, et al.); and (3) the humanists (Dewey, Maslow, Rogers, et al.) (60,80,169,206).

Hilgard and Bower suggest six questions which modern learning theorists attempt to answer: (1) What are the limits of learning? (2) What is the role of practice in learning? (3) How important are drives, incentives, rewards and punishments? (4) What is the place of understanding and insight? (5) Does learning one thing help one to learn another? (6) What happens when one remembers or forgets? (73). Each of the theorists mentioned does deal with most of these questions at length. With but one exception, however, each deals only with learning by children and/or animals and none asks how these prefer or like to learn. They speak only to how children and/or animals do in fact learn (60,61,62,80). In contrast, Rogers--whose principles have resulted primarily from formal and informal survey research rather than the experimental research conducted by the associationists and rationalists previously mentioned--

discusses not only how both children and college students learn, but to some extent how they like or prefer to learn (see the previous discussion on page 8) (169).

Where learning theory was for centuries the province of philosophers before psychologists and educational researchers began to deal with questions about how children and laboratory animals acquire knowledge, skills and attitudes, the development of an adult learning theory--occurring over the last three decades--has involved all three groups simultaneously (14,25,35,40,48,71,97,99,100,101, 102,103,111,113,114,126,178,193,194,200,207,208,220,221,227). This development, relative to earlier learning theory, has been charac- terized much more by logical inference and by observation in uncon- trolled real-world situations than by systematic experimentation in laboratory settings and planned manipulation of stimulus situations (14,25,35,40,48,71,97,99,100,101,102,103,111,113,114,126,178,193, 194,200,207,208,220,221,227).

Two major tenets of adult learning theory seem to have emerged for educators, adult education administrators, and involved theorists. (1) Differences between child learning and adult learn- ing are a matter of degree, not of kind (103,111,148,178,194,207,220, 221). The adult is largely the product of, and an extension of, what he was as a child. (2) Pedagogy is less effective with adults than with children, and its effectiveness continues to decline as the adult learner continues to age. As pedagogy becomes less and less effective, andragogy becomes more and more effective (111,113, 120,126,207,208,220,227).

The first tenet allows adult learning theorists to use the centuries of earlier learning theory as a base, rather than beginning anew. If adult and child learning theory do not differ in kind, but only in degree, adult learning theory can be developed with and from the work of the associationists, the rationalists, and the humanists. This is what the adult learning theorists have been doing.

Pedagogy, in fact, evolves from behaviorism while andragogy clearly is based upon humanism or humanist psychology (14,35,40,48, 99,100,101,102,103,126,148,193,208,220,221). The words are derived from Greek. "Pedagogy" means "the art and science of teaching children" (35, p. 4). "Andragogy is . . . the art and science of helping adults learn" (35, p. 4). Malcolm Knowles, the best known American proponent of andragogy, goes as far as to suggest that the "pedagogy of adult education" is a semantic contradiction (101,102).

A comparison of the assumptions (Figure 1) and processes (Figure 2) of teacher-directed (pedagogical) learning and self-directed (andragogical) learning follows on pages 14 and 15.

It should be noted that if with this study research hypotheses 2 and/or 3 (see page 6) were supported, the second major tenet of existing adult learning theory ought at least to be re-examined. There seems to this researcher to be a major conflict between the assumptions (see Figure 1) regarding the motivation of adult learners made by proponents of andragogy, and the findings of Massey (see Figure 4 later in this chapter on page 31) regarding the fundamental values held by older Americans.

About	Pedagogical	Andragogical
ASSUMPTIONS		
Concept of the learner	Dependent personality	Increasingly self-directed organism
Role of learner's experience	To be built on more than used	A rich resource for learning
Readiness to learn	Varies with levels of maturation	Develops from life tasks and problems
Orientation to learning	Subject-centered	Task or problem-centered
Motivation	External rewards and punishments	Internal incentives, curiosity

Figure 1.--A Comparison of Assumptions of Teacher-Directed (Pedagogical) Learning and Self-Directed (Andragogical) Learning (SOURCE: Norene F. Daly, Andragogy: Implications for Secondary and Adult Education Programs (p. 5) as adapted from the Institute for Continuing Education, Adult Educators "Expansion" Workshops Handbook.

PROCESS ELEMENTS		
Elements	Pedagogical	Andragogical
Climate	Formal authority-oriented, competitive, judgmental	Informal, mutually respectful, consensual, collaborative, supportive
Planning	Primarily by teacher	By participative decision-making
Diagnosis of needs	Primarily by teacher	By mutual assessment
Setting goals	Primarily by teacher	By mutual negotiation
Designing a learning plan	Content units, course syllabus, logical sequence	Learning projects, learning content sequenced in terms of readiness
Learning activities	Transmittal techniques, assigned readings	Inquiry projects, independent study, experimental techniques
Evaluation	Primarily by teacher	By mutual assessment of self-collected evidence

Figure 2.--A Comparison of the Processes of Teacher-Directed (Pedagogical) Learning and Self-Directed (Andragogical) Learning (SOURCE: Norene F. Daly, Andragogy: Implications for Secondary and Adult Education Programs (p. 6) as adapted from the Institute for Continuing Education, Adult Educators "Expansion" Workshops Handbook.

Gagné enumerates both the elements of the learning event
and the categories of human performance established by learning.
The elements are: (1) the learner, (2) the stimulus situation,
(3) learner memory content, and (4) the response or performance.
The categories are: (a) interaction by use of symbols, (b) com-
municating with others, (c) cognitive strategies, (d) motor skills,
and (e) attitudes. With respect to the second element, the stimulus
situation, Gagné notes that it can be either an internal or an
external process (60).

In responding to the Learning Preference Survey subjects
(element #1) were asked to indicate preference toward character-
istics of two learning styles (element #2/external). The Survey
directions to subjects did not specify, and thereby guide their
thinking toward, particular types of outcomes (element #4/categories
a, b, c, or d), though the wording of the preface to the directions
(see Appendix A), the researcher believes, was likely to bias
respondents against focusing upon motor skills (category d).

Adult Continuing Education

Programs to provide continuing education for adults, it
would seem, are bound to grow in number and scope both because of
declining enrollments in colleges and universities by "traditional"
students (202) and because of the perceived need for adults to learn
new knowledge and skills to adjust to changes in the world (104).
The former contributes to the need to supply; the latter to the
need to demand such education.

The "Lifelong Learning Act" became law in October of 1976 as part of the Education Amendments of 1976, and located Federal leadership in the hands of the Office of the Assistant Secretary for Education (22). In the Act's preamble the scope is delimited, where it is stated that

> Lifelong learning includes, but is not limited to, adult
> basic education, continuing education, independent study,
> agricultural education, business education and labor educa-
> tion, occupational education, preretirement and education
> for older and retired people, remedial education, special
> educational programs for groups or for individuals with
> special needs, and also educational activities designed
> to upgrade occupational and professional skills, to assist
> business, public agencies, and other organizations in the
> use or innovation and research results, and to serve family
> needs and personal development (22, pp. 3-4).

Despite its breadth, the Act is likely to affect most those with the least education, the poor and disadvantaged. This would be somewhat of a break with the past. All taxpayers now support an educational system, including postsecondary, that by and large serves the affluent and well-educated classes (154).

In anticipation of the Act and its long-range impact, it had been suggested that more vocational training be introduced into the public schools (210) and that coordination of efforts and a survey of employment needs be conducted and continually audited (66). The Marshall Plan under the U.S. Department of Labor is an attempt to follow these suggestions (23), and is a reversal of trend. The Federal government had turned over responsibility for training the disadvantaged to cities and counties to improve services in 1974 (214).

The benefits of continuing education both to society and to individuals were demonstrated in a 1974 study which suggested increased productivity capability and personal income resulted (228).

Suggestions to organizations regarding how much, with whom, for whom, with what media, and for what educational programs they should invest have been many. These include: training only those who need it (87); training wherever the opportunity presents itself (6); training on-the-job by doing (156,189); training by managers rather than professionals (11); assessing the qualifications of trainers carefully (good managers do not necessarily make good teachers) to see that they can teach (18); in a fun (136,202), or different atmosphere (166) from the regular work setting.

More comprehensive research with resulting recommendations to organizations desiring to provide education and/or training to their personnel has also recently been conducted. Recommendations include obtaining commitment from top management which is prerequisite to success, conducting a needs analysis and pilot program before conducting an organization-wide program (142), and continually evaluating programs and revising them (127). Though these research efforts may be more comprehensive than those mentioned previously, neither is particularly enlightening.

Leslie This and Gordon Lippitt attempted in 1966 to provide an overview of learning theory and its implications for training directors. That their article was reprinted thirteen years later, without revision, in the thirty-second anniversary issue of

Training and Development Journal (206) may speak to the paucity

of such work in recent years. Craig Eric Schneier made a similar

effort which included some more recent developments (181). Though

his survey of learning theory was both easily readable and logically

organized, his conclusions, rather than following from the theory,

were that what training directors should apply depended, for the

most part, upon budget constraints and the particular skills of

trainers. Neither This and Lippitt nor Schneier considered the

characteristics of learners in their recommendations.

A recent College Board survey found that adults find

"printed materials, formal courses, work-experience programs and

direct observation of workers as being more acceptable than less

traditional and more technologically sophisticated methods involving

such things as computers and mass-media techniques" (134, p. 8).

Despite this finding, however, more and more is being invested in

film, video cassette, computer simulation and role-playing (2,11,12,

17,30,31,41,129,145,155,199,201). Programs at Agway, Incorporated

in Syracuse, New York (7), for supervisors and managers of Contra

Costa County in California (49), and at the North Carolina National

Bank (10) remain consistent with the College Board findings. It

should be noted here that those findings relate preferences toward

learning situation characteristics, not actual learning.

Some trainers and training consultants seem quite clearly

to advocate methods based almost solely upon one school or learning

theory approach, without particular regard to the personal attri-

butes of trainees. At one end of a continuum are those who advocate

training programs based upon principles of the Behaviorist School,
such as Gellerman (64), Hilliard (84), Leber (110), Ross (175),
Smith (191), Weiss (223) and Wener (224). At the other end of the
spectrum are those who conduct or advocate training programs based
upon principles of the Humanist Approach, such as Brymer (18),
Ertelt (95), Miller (132), Milling (133) and Shoen (188).

The attempt to apply learning theory to instructional
practice, in the context of adult continuing education, must be
done only with careful reservation. As previously mentioned, most
learning theory has been developed by research psychologists employ-
ing experiments with animals and children. Generalizing from their
results to adult populations must be done, if at all, with caution.
Also, pure science may not be relevant to existing practical prob-
lems. One must determine whether the questions asked by pure and
applied researchers are related. Finally, a theory of instruction
and a theory of learning differ both in content and goals. Much,
if not most, learning takes place without instruction, if not in
spite of it. The goal, then, is not to create learning, but to
improve, enhance, or direct it. The goal here must be to translate
from the descriptive and analytical (learning theory) to the pre-
scriptive (theory of instruction).

Future Environment

At the same time that planners and policymakers around the
nation are being informed and warned about "future shock"
and the emerging "age of discontinuity," an increasing
number of adults in America are experiencing "shock" and
"discontinuity" in their daily lives. Rapid and often

> unpredictable social and economic occurrences (along with
> the simple fact of aging) are forcing Americans to seek
> change--in job, in lifestyle, in where they live, and in
> their values. Many people find this imperative to change
> makes demands that are beyond their ability to cope.
> These are Americans in transition--many of them in career
> transition--and their number is legion (134, p. 7).

A recent College Board survey determined that more than forty million

Americans say that they are, or expect to be, in a career transition

(134, p. 7). Among important challenges seen by the College Board

is that of determining better definitions of social and demographic

conditions which influence adult learning (134, p. 9).

Nanus and Coffey had expressed some five years earlier in

1973 similar concerns to those of Moon. Addressing themselves to a

business audience, rather than Moon's leaders in education, they said

> Modern business operates in the most dynamic and fluid
> environment ever known to man. Within the last decade,
> not only has rapid technological obsolescence become the
> norm in business, but some of the most fundamental values
> of business and society appear to be in a state of
> flux . . . (140, p. 28).

Today's most distinguished hospitality industry leaders,

asked to rank with Delphi Technique the most important roles that

future industry executives must play to ensure success by their

organizations, rated "training personnel in a manner that has a

positive effect on productivity and morale" highest (104, pp. 38-39).

Koppel concludes that "indications are that tomorrow's manager must

have greater diversity of preparation, and--perhaps even more

significant--a greater depth of understanding in numerous areas

of expertise" (104, p. 39).

That the environment for business is continually changing and that presently pervasive techniques for organizing and motivating employees, along with reducing the costs of excessive turnover, are not likely to be effective in the future is echoed in many corners (20,57,88,91,105,131,141). As a means of directing that inevitable change it has even been suggested that rural residents might be trained so that industry might be induced to move to those rural locations, thus solving some of the problems of urban density and locally intense use of natural resources (217).

The age demographics of American society are changing dramatically, and are likely to do so for at least the remainder of the century (190). The age demographics of American business employees is, of course, also changing (78,164). Given the "post-war baby boom" and the lower birth rate begun in the 1970s, society and industry will experience the effects of a disproportionate number of those who Massey calls "Rejectionists" for some time to come. This group of now-twenty-to-thirty-four year olds—holding, and likely to continue to hold, values very different from their elders—will by 1990 be reaching what has typically been middle-management age and by the year 2000 be reaching what has typically been top-management age. One might expect this to cause business strategy (by 1990) and policy (by 2000) to be quite different from now.

Lifestyles are also changing (134,190). Americans are having fewer and later children; shorter and fewer marriages; more divorces; more relocations and employment changes; more leisure

time and discretionary income; more multiple-income families (190).
To achieve a "quality society" will require, according to O'Toole,
that work and learning be combined much as it is in Japan (146).

Finally, it is suggested, business will in the future need
to continue to educate its employees for the purpose of having
credibility and stature with its customers and consumers in general
(123,179). It is clear that the need to provide continuing educa-
tion for managers and executives is increasing, and that that need
is widely perceived.

Business Investment in Continuing Education

Many businesses, associations representing businesses, and
other organizations are already investing heavily in the continuing
education of executives, managers and other employees. Business
firms now spend more than $2 billion annually on educational
efforts, with most of the effort directed toward developing new
techniques and in-house instructional programs (117).

Among public agencies and departments are the New Hampshire
Board of Education, using mobile units to reach foodservice
employees (2); the United States Government, fulfilling its respon-
sibility under the Government Employees Training Act of 1958 (58);
and the University of Iowa Residence Halls, regularly orienting
six hundred new employees at the beginning of each school year (17).

Each of the five major hospitality and foodservice industry
associations--American Dietetics Association, American Hotel and
Motel Association, Club Management Association, National Institute

for the Foodservice Industry, and the National Restaurant Associa-
tion--provides extensive nationwide educational programs for
managers/supervisors and/or students preparing for such roles (13,
50,77,196).

Among individual companies making substantial commitments
to the education and training of their employees are Batchelder
Company and Lackman's Foodservice (72); Burger King with its Burger
King University and Church's with its Master Merchant Program (16);
Dairy Queen who sends corporate executives into units to do mana-
gers' jobs (36); Daka Corporation (212); Dunfey Family Corporation
(47); Elias Brothers Restaurants with sophisticated slide-tape
programs (128). Other hospitality industry firms include Fairview
General Hospital (108); Hilton International with a new European
Training Center in Switzerland joining its Career Development
Institute in Montreal (16); McDonald's with Hamburger University
(16); Wendy's (16); and the Sciara Pallazzino Restaurant (20).
Non-hospitality-industry companies making even larger commitments
include Equitable General Insurance Company for assistant managers
(83); Gould, Incorporated, who has built and staffed its own manage-
ment education center to which it brings its executives from across
the country (229); IBM (125); and AT&T, who spends some $700 million
annually, a sum more than the budget of any college or university
(117).

Many companies are offering courses for their executives
and managers for which college credit may be received. Among them
are Bank of America; California Edison Company; Digital Equipment

Corporation; Fluor Engineers & Constructors; General Electric
Company; General Motors Corporation; Holiday Inns of America,
Incorporated; John Hancock Mutual Life Insurance Company; Knight-
Ridder Newspapers; Lockheed Missiles & Space; Picker Corporation;
Sheraton Corporation; Trans World Airlines Incorporated; and Xerox
(29). "The trend toward granting credit developed after a 1973
report financed by the Carnegie Corporation and educational testing
groups laid out for the first time just how much high-level educa-
tion was being provided by noncollege organizations" (29).

With this level of present commitment on the part of
business and government, and the almost-certain substantial increase
in such commitment forthcoming, there would seem to be ample reason
for attempting to learn more about the needs and wants--personal
characteristics and preferences--of those who are the intended
recipients of such commitments.

Correlation Between Age and Values

Studying projections for future age-demographic, social
and economic environments suggests ample reasons for these commit-
ments toward continuing education. For government, service to the
people in the future means service to an older population, one
coping with the stress which rapid ecological, social and economic
change produces. For colleges and universities, survival may
require enrolling adults to fill classrooms left idle by the decline
in the number of traditional students. Business perceives that
future success will increasingly depend upon the development of

personnel who can effectively manage organization homeostasis in a rapidly and radically changing environment. Both content knowledge and appropriate skills become obsolete more and more quickly.

If investments in educating adult learners are to provide adequate returns, are in fact to affect substantial appropriate learning, it seems that a more developed theory of adult learning-- or, at least, a much better understanding of what of existing learning theory can reasonably be generalized to adult learners-- is necessary. Differences in the physiology of older adults which are likely to affect learning (115), and in the relative effectiveness of instructional media with younger adults' learning (106), are but two sources of evidence that blanket generalization cannot be justified.

Of even greater significance than the differences found by Long and Ulmer, Lewin, Warren and Witkin, and Domino, cited in the previous paragraph, may be findings of substantial differences in fundamental values between age groups. A literature review in two areas, therefore, follows. First, found correlations between age and values are studied. Then, the role of values in affecting attitudes and behavior is explored.

Two individuals dominate current academic and general understanding of the nature of human values: Milton Rokeach, Professor Emeritus at Michigan State University and Professor of Sociology and Psychology at Washington State University; and Morris Massey, Professor of Management and Associate Dean of the College of Business at the University of Colorado.

Rokeach developed the <u>Value Survey</u> in 1967 (173) which con-
tains a list of eighteen terminal and eighteen instrumental values
(see Figure 3). Rokeach surveyed a random sample of American adults
in 1968 and again in 1971, ascertaining both what values adult
Americans held and how those values changed over a three-year period.
His 1968 findings are presented in Table 1 as rank orders of values
by age categories (171).

Three features of the data presented in Table 1 should be
noted. First, the placement of subjects into age categories occurred
in 1968. Those, for example, represented as being in their twenties
were born between 1938 and 1947, and are now between the ages of
thirty-three and forty-three. Second, though data were collected
for subjects then in their teens, sampling was such that comparisons
with the adult groups cannot be justified. Those findings are,
therefore, not included in Table 1. Third, Rokeach found signifi-
cant differences in values between age groups. It should also be
mentioned that in comparing results of the 1968 and 1971 surveys,
Rokeach found that values are quite resistant to change among
American adults over time, especially among those over thirty
(170,171,172).

Massey, during his enthusiastically attended lectures
before business and college audiences (Dow U.S.A. in 1976 and
Central Michigan University in 1978) consistently echoed both of
these Rokeach findings (124). The lecturer suggests that people
proceed inevitably through three stages of values acquisition--
imprinting, modeling and socialization. He further contends that

TERMINAL VALUES

A COMFORTABLE LIFE (a prosperous life)
AN EXCITING LIFE (a stimulating, active life)
A SENSE OF ACCOMPLISHMENT (lasting contribution)
A WORLD AT PEACE (free of war and conflict)
A WORLD OF BEAUTY (beauty of nature and the arts)
EQUALITY (brotherhood, equal opportunity for all)
FAMILY SECURITY (taking care of loved ones)
FREEDOM (independence, free choice)
HAPPINESS (contentedness)
INNER HARMONY (freedom from inner conflict)
MATURE LOVE (sexual and spiritual intimacy)
NATIONAL SECURITY (protection from attack)
PLEASURE (an enjoyable, leisurely life)
SALVATION (saved, eternal life)
SELF-RESPECT (self-esteem)
SOCIAL RECOGNITION (respect, admiration)
TRUE FRIENDSHIP (close companionship)
WISDOM (a mature understanding of life)

INSTRUMENTAL VALUES

AMBITIOUS (hardworking, aspiring)
BROAD-MINDED (open-minded)
CAPABLE (competent, effective)
CHEERFUL (lighthearted, joyful)
CLEAN (neat, tidy)
COURAGEOUS (standing up for your beliefs)
FORGIVING (willing to pardon others)
HELPFUL (working for the welfare of others)
HONEST (sincere, truthful)
IMAGINATIVE (daring, creative)
INDEPENDENT (self-reliant, self-sufficient)
INTELLECTUAL (intelligent, reflective)
LOGICAL (consistent, rational)
LOVING (affectionate, tender)
OBEDIENT (dutiful, respectful)
POLITE (courteous, well-mannered)
RESPONSIBLE (dependable, reliable)
SELF-CONTROLLED (restrained, self-disciplined)

Figure 3.--The Value Survey (SOURCE: Rokeach, 1974, pp. 226-227).

TABLE 1.--Composite of Rank Orders of Values by Age Categories.

	20s	30s	40s	50s	60s	70s	
Terminal Values							
a comfortable life	9	12	8	11	6	6	*
an exciting life	18	16	18	18	18	18	*
a sense of accomplishment	8	8	9	9	11	12	
a world at peace	1	2	1	1	1	1	*
a world of beauty	15	15	15	15	15	14	
equality	6	7	10	12	13	7	
family security	2	1	2	2	2	2	*
freedom	3	3	3	3	3	4	*
happiness	4	6	4	6	7	9	
inner harmony	14	9	13	13	12	13	
mature love	13	13	14	14	16	17	*
national security	11	14	11	10	4	10	*
pleasure	16	18	17	17	17	15	*
salvation	10	11	7	4	10	3	*
self-respect	7	4	5	5	5	5	
social recognition	17	17	16	16	14	16	
true friendship	12	10	12	8	9	8	*
wisdom	5	5	6	7	8	11	*
Instrumental Values							
ambitious	4	3	2	3	2	3	
broadminded	6	6	5	2	4	4	
capable	13	10	9	10	10	10	*
cheerful	14	13	12	9	8	9	*
clean	7	12	8	8	5	6	*
courageous	8	4	6	6	9	6	
forgiving	3	5	4	5	3	2	*
helpful	9	7	7	7	7	5	*
honest	1	1	1	1	1	1	
imaginative	18	18	18	18	18	18	
independent	12	11	13	14	13	11	
intellectual	15	15	15	15	16	16	
logical	17	16	17	17	17	17	
loving	5	9	11	11	14	14	*
obedient	16	17	16	16	15	15	
polite	11	14	14	13	12	13	*
responsible	2	2	3	4	6	8	*
self-controlled	10	8	10	12	11	12	

SOURCE: Rokeach, 1973, pp. 76-77.

*Indicates significant differences found at at least α = .05.

by about age ten, during the modeling period, approximately ninety percent of one's "gut-level" values are "locked in." Persons have then internalized what is right, wrong, good, bad, normal and not normal. If these values are to be altered, says Dr. Massey, an adult must experience a "significant emotional event" (124).

Figure 4 displays in outline form what Massey suggests are distinct differences between two age groups as the result of value programming accomplished when each was about ten years old. Labels for the three oldest groups were discussed earlier (see page 7) under "Definition of Important Terms." Attempts to compare characteristics by Massey and Rokeach (see Figures 3 and 4) are foiled by two factors. First, those in Massey's "Rejectionists" category were not included in the 1968 Rokeach population of adult Americans. Second, the terminology used by the two is different.

James L. Hayes, President of the American Management Association, notes that new business school graduates are very different from his generation--executives in their fifties (78). Hayes' observations regarding the differences between the two groups are quite consistent with Massey's characterizations of "Traditionalists" and "Rejectionists." John Horton, in "The Youngest Workers Care the Least," suggests that a study of three thousand workers in fifty-three companies indicates that younger workers are less committed to the organization, less willing to follow the rules, less intimidated by authority, and less motivated by promise of financial gain (85). These findings are also consistent with Massey's.

TRADITIONALISTS	IN-BETWEENS	REJECTIONISTS	SYNTHESIZERS
1920s 1930s	1940s	1950s 1960s	1970s
group, team-oriented		me-oriented	
rules-oriented		no rules-oriented	
spectators		non-spectators	
respect for authority		participate, negotiate	
formality, propriety		informality, adaptation	
puritanical		sensual	
hypocritical		honest and direct	
motivated by money		motivated by fun	
problem solvers		cause joiners	
respect social order		deal with individuals	
like stability		experiment, try the new	
things-oriented		experience-oriented	

Figure 4.--What You Are is Where You Were When . . . (When You Were About Ten) (Adaptation from Lecture by Morris Massey, Central Michigan University, 1978).

Cameron S. Hawkins of the Toronto office of Laventhol and Horwath, Certified Public Accountants, in "The Young Executive in Industry: Implications for the Coming Decade," suggests that there are differences in traits and attitudes among workers in different age groups, and that changing age demographics make this fact significant. Hawkins believes that implications for career tracking and how business organizations will be managed in the future are great (77).

The implications for business, or for any part of society for that matter, would not be great, of course, unless differences in values result in differences in behavior. Further, for purposes of this study the implications would not be great unless differences in values--found to exist between age groups--were likely to result in differences in learning style preference.

<u>Role of Values in Determining</u>
<u>Attitudes and Behavior</u>

This researcher hypothesized that persons in one age group would prefer learning in a different manner from persons in another. Persons born before 1937 would want an educational situation more consistent with a Behaviorist orientation than would persons born after 1947. Conversely, the latter group would prefer a Humanist approach more than the former.

The opportunity of a learning situation reflecting a Behaviorist orientation (external stimulus) for a "Traditionalist" (organism) would elicit a favorable or positive attitude (affective response). Given the same external stimulus, a "Rejectionist"

would have a negative affective response. Opposite affective responses were hypothesized for each of the two groups when the external stimulus was a learning situation consistent with a Humanistic approach.

---

external
stimulus → organism → affective → behavioral
response response

learning
situation → learner → attitude → learning
+ ⟵⟶ -
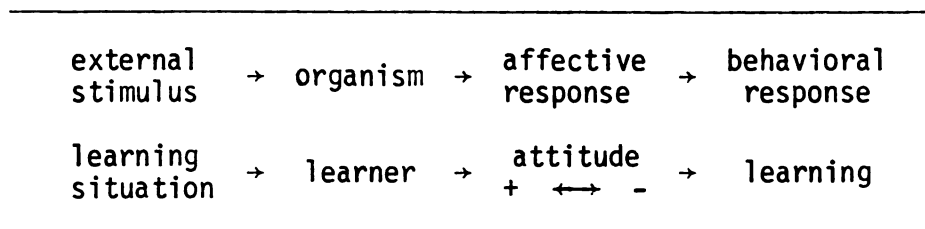
Figure 5.--Model of Behavior.

Though with this study it cannot be shown that it was this difference (values) in learners which caused there to be a difference in affective responses (preference indication toward learning style approach or orientation), the findings of Massey, Rokeach and others suggest that such an inference is plausible. Further, what Hand (75), Long and Ulmer (115), and Peck (3) found--or, to some extent, did not find--regarding the physiology and psychology of aging, and their effect on learning, does not contradict or mitigate against the plausibility of such inference.

It was beyond the scope of this study to demonstrate the link between the affective and behavioral responses. Many, however, have demonstrated the importance of wanting to learn and of enjoying learning to academic success (38,60,61,62,80,82,112,115,169,177).

The role of values in determining attitudes and behavior has been widely discussed. The original and primary use by Rokeach

34

of his Value Survey (173) was to act as a predictor of attitudes

and behavior. For example, it was used to predict how positions by

politicians would be received by various constituencies and how

certain groups would tend to vote on candidates and ballot questions.

Findings accurately predicted outcomes in the national elections of

1968 (172).

Massey suggests that Cadillacs and Buicks should be target-
marketed to "Traditionalists" while the Porsche should be target-
marketed to "Rejectionists." This is because the former value

things; the latter experiences. The Porsche is designed such that

the driver "feels the road." "Traditionalists" do not want to feel

the road, according to Massey (see Figure 4 on page 31). The same

kind of relationship can be seen in the purchasing patterns of the

two groups for musical sound systems. The older group buys furni-
ture; the latter buys components, without cabinetry but with compli-
cated and tangled wiring, which produces vibrations which cannot

only be heard, but felt (124). Actual purchase patterns bear out

what would be predicted from held values.

Attempting to determine what differentiated successful hotel

managers from adults in general, Michael C. Shaner surveyed such a

group, using the Value Survey, and compared data with the Rokeach

national sample. Those who have attitudes conducive to successfully

managing hotels, and behave such as to achieve success in the hospi-
tality industry, do in fact differ as to values. Differences in value

rankings are shown in Table 2. It should here be noted that if

Shaner's study (184,185) were replicated with students contemplating

TABLE 2.--Comparison of the Values of Hotel Managers and Adults in General.

Terminal Values	HM	AG		Instrumental Values	HM	AG	
* a comfortable life	8	12		ambitious	2	3	
* an exciting life	10	18		broadminded	5	5	
* sense of accomplishment	1	11		capable	4	9	*
* a world at peace	13	1		cheerful	15	13	
a world of beauty	16	15		clean	13	10	
* equality	12	4		courageous	10	6	
family security	2	2		forgiving	14	4	*
freedom	6	3		helpful	12	7	*
happiness	5	6		honest	1	1	
* inner harmony	7	12		imaginative	11	18	*
* mature love	9	14		independent	6	12	*
* national security	18	8		intellectual	8	15	*
pleasure	15	16		logical	9	16	*
* salvation	17	9		loving	17	8	*
self-respect	3	5		obedient	18	17	
social recognition	14	17		polite	16	14	
true friendship	11	10		responsible	3	2	
* wisdom	4	7		self-controlled	7	11	

SOURCE: Michael C. Shaner, 1978, p. 69.

*Added here to highlight striking differences.

careers in the hospitality industry, their responses might offer

valuable assistance in career counseling. Since their values as

college students have become quite resistant to change, one could

identify whether their values matched well with those of successful

hoteliers.

The numbers who bemoan unsuccessful attempts to understand

the behavior of the new, young executives are legion (1,9,13,41,46,

53,70,79,88,107,109,135,139,144,164,168). The common complaint is

that these new, young workers just do not behave the way they are

supposed to, the way those who are trying to figure them out think

that they should.

Sara Fritz, Associate Editor of U.S. News and World Report,

in a recent major article, "New Breed of Workers," reflects some of

the dilemna (59):

> Unlike their parents, contemporary workers do not view
> their jobs as a simple contract: A day's work for a day's
> pay. . . . They want nothing less than 8 hours of meaning-
> ful, skillfully guided, personally satisfying work for 8
> hours pay. And that's not easy for most companies to
> provide (p. 35).

> They have always known prosperity. . . . Older workers,
> many of whom remember the Great Depression, often seem
> to be more obedient, respectful and diligent than their
> offspring (p. 35).

> A young factory worker wants a day off to go fishing.
> When the request is denied by the boss, he goes anyway.
> The punishment: Two more days off without pay. . . .
> Two days off for this guy is a reward, not a punishment
> (p. 37).

> If we do not cope with this in the next decade, our
> industrial society is in serious trouble (p. 35).

Many, then, are coming to realize that the reason that young workers behave differently and have different attitudes from those of top executives is that they have different values from those twenty years their senior. This very same "generation gap" was a major topic for discussion just a few years ago, but in the context of parents and their teen-aged children.

Summary

Literature relevant to this study of adult learning preferences has been reviewed in six areas: (1) learning theory, (2) adult continuing education, (3) future environment, (4) business investment in continuing education, (5) correlation between age and values, and (6) the role of values in determining attitudes and behavior.

The importance of knowing more about how adults learn is supported by this review. Though much about how animals and children learn has been studied and reported, much less experimental or controlled research has been conducted to find how adults learn. A future environment in which the greatest constant is change--rapid change rendering new knowledge and technology obsolete again and again during the course of one's career--is causing, and will likely continue to cause, business to substantially increase its investment in the continuing education of its human resources.

There is substantial evidence to suggest that adults cannot be treated as anything close to a homogeneous group with respect to how they will learn. Differences in values held by persons in different age groups have been demonstrated, as has been the

role of values in determining both attitudes and behavior (learning

is behavior).

CHAPTER III

RESEARCH DESIGN AND PROCEDURES

Introduction

This research was conducted primarily to determine whether three age groups of hospitality industry executives and managers differed with respect to learning style preference. Given that factors other than age group might be related to such differences in learning style preference, relationships with gender, ethnic origin, and level of schooling were also examined. Since no suitable existing instrument for testing learning style preference was available, the researcher developed the Learning Preference Survey (see Appendix A).

Research Design

The study had no treatment and one observation. Participants were administered the Learning Preference Survey (see Appendix A). The Survey includes twenty-four statements to which participants responded, indicating the degree to which they agreed/ disagreed on a five-point Likert-type scale. Twelve statements are constructs for one dependent variable, "Behaviorist Approach" to learning (statements 1, 3, 4, 6, 8, 9, 15, 17, 19, 21, 22, 23); twelve statements are constructs for the other dependent variable, "Humanist Approach" to learning (statements 2, 5, 7, 10, 11, 12,

13, 14, 16, 18, 20, 24). Point scores were assigned to each
response such that:

                    strongly agree   = 1
                    tend to agree   = 2
                    neutral or unsure = 3
                    tend to disagree = 4
                    strongly disagree = 5

Mean scores on each of the two dependent variables were computed
for each participant.

Before responding to the twenty-four statements, partici-
pants were asked with the Survey to answer questions regarding
(1) gender, given two levels; (2) ethnic origin, given four levels;
(3) level of schooling completed, given five levels; (4) year of
birth; and (5) the number of years spent outside of the United
States before reaching the age of twenty-one. The fourth question
was used to place participants into one of the three age groups.
The fifth was used to exclude some participants, those who had
spent a substantial number (six or more) of their intense value
programming years in a different cultural setting. Mean scores
on each of the dependent variables were computed for each level
of the independent variables--gender, ethnic origin, and level of
schooling completed--for each of the three levels of the primary
independent variable, i.e., age group.

Created, then, was the following variable matrix for each
of the dependent variables (see Figure 6), a two-way crossed design
with unequal numbers of observations in the cells.

	Age Group		
	Traditionalist	In-Between	Rejectionist

Gender

Male			
Female			

Ethnic Origin

White American			
Black American			
Spanish American			
Other			

Schooling Completed

>4 years college			
4 years college			
<4 years college			
4 years high school			
<4 years high school			

Figure 6.--Variable Matrix.

The following research hypotheses were examined:

Hypothesis 1

There is significant difference among age groups with respect to learning style preference.

Hypothesis 2

There is significant difference among age groups with respect to preference for the Behaviorist Approach.

Further, it is hypothesized that Traditionalists more prefer the Behaviorist Approach than do In-Betweens who in turn more prefer the Behaviorist Approach than do Rejectionists.

Hypothesis 3

There is significant difference among age groups with respect to preference for the Humanist Approach.

Further, it is hypothesized that Rejectionists more prefer the Humanist Approach than do In-Betweens who in turn more prefer the Humanist Approach than do Traditionalists.

Hypothesis 4

There is significant difference between males and females with respect to learning style preference.

Hypothesis 5

There is no interaction between age group and gender with respect to learning style preference.

Hypothesis 6

There is significant difference among ethnic groups with respect to learning style preference.

Hypothesis 7

There is no interaction between age group and ethnic group with respect to learning style preference.

Hypothesis 8

There is significant difference among groups with different levels of schooling with respect to learning style preference.

Hypothesis 9

There is no interaction between age group and level of schooling with respect to learning style preference.

Hypothesis 10

There is significant correlation between statements in the Survey and the dependent variable that they represent.

Research hypotheses 1-9 were tested using multivariate analysis of variance, SPSS Subprogram MANOVA (27,216). This technique was chosen because of the ability of the tests used to attend to the data as a whole rather than to each set of comparisons of means separately. Analysis of each of the measures separately results in redundancy, such that statistical error rates may be multiplied manifold. The multivariate model retains the multiple scores as a set of interrelated traits (27,65,216).

SPSS Subprogram MANOVA provided multivariate analysis of variance for both dependent variables--Behaviorist Approach and Humanist Approach--for (1) the interaction effect between two of the independent variables, and then (2) for each of the independent variables while controlling for any effect of the other. Subprogram MANOVA then provided univariate analysis of variance for each dependent variable in the same order and fashion. The researcher was able thereby to test for the effect of each independent variable on learning style preference, for the interaction effect between

age group and each of the other independent variables on learning style preference, and for each effect and interaction on each dependent variable. MANOVA provided four criteria for tests of significance: Wilks Lambda, Hotelling's trace criterion, Roy's largest root criterion, and Pillai's criterion. Each of the four gives a single probability statement to retain or not retain the null hypothesis of no treatment effects (27). All hypotheses were tested at the α = .05 level.

Where significant differences were found, the direction of those differences was determined by inspection. Where there were more than two levels, determining between which levels differences were significant required an additional multiple comparison procedure. The two most useful procedures are the S-method and the T-method, developed by Scheffé and Tukey, respectively (65). The Scheffé was chosen because, unlike the Tukey, it does not require equal cell sizes and has great sensitivity when complex combinations of sample means are being estimated (65, p. 395). It was expected that the numbers of cases in the thirty-three cells (see Figure 6, page 41) would be far from equal, and they were.

<center>Research Procedures</center>

Development of the Learning
Preference Survey

The development of a valid testing instrument to measure learner preference toward the two theoretical approaches, behaviorism and humanism, was attempted in five steps. Four preceded administration; one followed.

The first step was the construction of a bank of statements satisfying two criteria: Each statement needed to reflect some aspect or tenet of one of the learning theories, but not the other. Each statement needed to be expressed both in terminology and context such that it would be understandable and relevant to a business executive or manager.

The second step was the testing of the "face" validity of the instrument, i.e., did in fact each statement clearly represent the dependent variable intended? A specially designed form of the Survey (see Appendix B) was administered to recognized experts in the field of learning theory. Participants were Stephen L. Yelon, Professor of Counseling Personnel Services and Educational Psychology and of Learning and Evaluation Services at Michigan State University, and Carl M. Johnson and Kevin G. Love, Professors of Psychology at Central Michigan University. Each was asked to respond twice to the statements in their original form with about two weeks elapsing between tests. On this "test-retest" of reliability each was entirely consistent in his responses. New and revised statements were also presented on the second occasion to replace those for which concensus had not been achieved on the first testing.

The third step was field testing of the revised instrument. This was done to determine whether business people, rather than learning theory experts, understood and were able to respond properly to the instrument. Both management and supervisory personnel at the Board of Water and Light in Lansing, Michigan graciously cooperated with the researcher at this stage.

Twenty-eight respondents completed the Survey and commented both in writing and verbally regarding statements which they either did not like or found confusing. Choosing supervisors and managers, rather than the managers and executives who would participate in the later study, was decided upon to increase the researcher's confidence that the Survey in its final form would be easily understood. Management at the Board of Water and Light requested results from the study, and will receive them.

The fourth step was another revision. Some words, the order of phrases within statements, and the order of statements were changed to improve readability and logical sequence. The changes were approved by the learning theory experts.

The fifth and final step, occurring after administration of the Survey, was a test of the correlation between statements and dependent variables. Pearson-Product-Moment Correlation (SPSS Subprogram PEARSON CORR) was used (65,216).

Administration of the Learning Preference Survey

An exhibit booth was rented and furnished for the Sixty-Second Annual National Restaurant Association Restaurant-Hotel-Motel Show held May 16-20, 1981 at McCormick Place, Chicago, Illinois. The booth was one of more than 1,100 in an exhibit area of more than eight acres. Visiting the exhibit area were more than 100,000 hospitality industry professionals from all fifty states and many foreign countries.

The booth, assigned to and identified as "Central Michigan University," was located on the center aisle of the main floor. Furnishings included a table and four chairs, and a counter partially fronting the booth and separating it from the aisle. A staff of three, working two at a time, was hired and trained by the researcher. With the help of two "point of sale" promotional signs located at each front corner of the booth, the staff solicited participation in the study from persons in the aisle who could be identified as managers, owners, or executives on the basis of their name badges. These "credit card-type" badges were imprinted with the individual's name, title, company, and address.

Each subject was handed a Survey and a pencil and escorted to a chair at the table. Some preferred to stand and were accommodated at the counter. All data were gathered at the booth with the completion of each test instrument requiring an average of five-to-six minutes. Some persons who completed the Survey were not managers, owners, or executives. In some cases these persons volunteered and in a few they were solicited on the basis of an incorrect quick reading of their name badges. Given the time to verify while they were completing the Survey, these invalid forms were segregated without the participants' knowledge merely by not stamping them with an identification number. No one was discouraged from completing a Survey. Surveys completed by individuals verified to be managers, owners, or executives were stamped using a sequential numbering machine. Each subject was thereby assigned a four-digit identification number. Participants cannot be identified by name.

Summary

The research design and procedures described were formulated to effectively and efficiently obtain answers to the three major research questions stated in Chapter I. It was also important that concerns with respect to validity be addressed. There were three major concerns: (1) the survey instrument itself; (2) sampling technique; and (3) choice of statistical techniques for analysis of the data.

The Learning Preference Survey was developed because no existing instrument, appropriate for answering the questions proposed in this study, could be found. Both its reliability and content validity are supported by the testing of the learning theory experts and the field testing of supervisors and managers. Construct validity was tested (Hypothesis 10) using Pearson-Product-Moment Correlation Analysis (SPSS Subprogram PEARSON CORR). Results of that analysis are reported in Chapter IV.

Major concerns regarding generalizability and external validity result from the employed sampling technique. Given that participants were not randomly selected from the population (see discussion under "Generalizability" in Chapter I), the researcher cautions the reader to generalize only where practical and necessary, and where one has reason to believe that the population in question has significant demographic characteristics matching those participating in this study. Those participating in the study are analyzed with respect to learning style preference

as a representative sample of some larger population, i.e., one with the same demographic characteristics.

Finally, multivariate analysis of variance technique was used (SPSS Subprogram MANOVA) because of the need to treat two dependent variables simultaneously, analyzing differences between and among levels of independent variables with respect to both and each of the dependent variables. This technique attends to the data as a whole rather than to each set of comparisons of means separately. Where required, locating between which levels of an independent variable significant difference existed was accomplished with the S-method. Both MANOVA and the S-method are robust with respect to unequal cell sizes. Results obtained, using this design and these procedures, are reported in Chapter IV.

The researcher acknowledges that current hospitality industry demographics are such that: (1) a higher percentage of males occupy management positions in the commercial sector, while females dominate such positions in institutional (e.g., schools and hospitals) foodservice; and that (2) a higher percentage of females have completed four-or-more years of college than males (92). Further, men with managerial or administrative responsibility in the hospitality industry have higher average salaries than women (92). Believing that none of these differences would severely impact upon the independent variables tested, the researcher did not test for what some might consider potential confounding variables.

CHAPTER IV

ANALYSIS OF THE RESULTS

Analysis of the data collected and results from this study of learning style preference among hospitality industry managers and executives are reported in this chapter.

Data Collection

Five hundred and seventy-three attendees of the NRA Show completed the Learning Preference Survey at the Central Michigan University booth. Sixty-seven of those were excluded from analysis because they were not verified as being managers, owners, or executives. An additional twenty-two were excluded because each had spent six or more years living outside of the United States before reaching the age of twenty-one. Two participants refused to indicate their ethnic origins. Four hundred and eighty-four cases, then, were analyzed except when computing interaction effect between age and ethnic origin and the effect of ethnic origin itself. There the number of cases was four hundred and eighty-two.

TABLE 3.--Summary of Data Collection.

Cases read	=	573
Cases rejected	=	89
Cases accepted	=	484
Cases rejected in part	=	2
Cases accepted for all analyses	=	482

The numbers of accepted observations and the resulting cell frequencies are expressed in Table 4. The variable matrix in Table 4 corresponds to the two-way crossed design with unequal numbers of observations in the cells expressed in the previous chapter (Figure 6) in the "Research Design" section. So also do Tables 5 and 6.

Summary Data

Calculated mean scores for each of the dependent variables for the entire sample and for each cell, resulting from analysis by SPSS Subprogram MANOVA follow. Table 5 shows results for the Behaviorist Approach and Table 6 shows results for the Humanist Approach. The reader is reminded that lower scores indicate greater preference, since:

strongly agree   = 1
tend to agree   = 2
neutral or unsure = 3
tend to disagree   = 4
strongly disagree = 5

Because such small numbers of subjects fit some of the cells (see Table 4), data were also analyzed with ethnic origin compressed to two levels from its original four, and schooling completed compressed to four levels from its original five. The resulting matrices of cell means for Behaviorist Approach and Humanist Approach are expressed in Tables 7 and 8.

TABLE 4.--Numbers of Observations and Cell Frequencies (n=484).*

	Age Group		
	Traditionalist (n=83)	In-Between (n=137)	Rejectionist (n=264)
Gender			
Male (n=346)	59	105	182
Female (n=138)	24	32	82
Ethnic Origin			
White American (n=457)	76	132	249
Black American (n=9)	1	3	5
Spanish American (n=5)	1	0	4
Other (n=11)	5	2	4
Schooling Completed			
>4 years college (n=4)	3	1	0
4 years college (n=51)	12	18	21
<4 years college (n=157)	28	37	92
4 years high school (n=131)	12	29	90
<4 years high school (n=141)	28	52	61

*n = 482 when computing age by ethnic group because observations ID 0276 and ID 0069 did not respond to the question about ethnic origin.

TABLE 5.--Cell Means for Behaviorist Approach to Learning.

	Age Group		
	Traditionalist	In-Between	Rejectionist
Gender			
Male	2.13508	2.29372	2.45872
Female	2.36975	2.34366	2.46698
Ethnic Origin			
White American	2.20088	2.31758	2.47705
Black American	1.90900	1.97233	2.33780
Spanish American	2.45500		2.24250
Other	2.24260	2.00000	2.25025
Schooling Completed			
>4 years college	1.90167	2.50000	
4 years college	2.34158	2.14350	2.23738
<4 years college	2.12036	2.17214	2.39192
4 years high school	2.17358	2.31421	2.61882
<4 years high school	2.27096	2.44758	2.41054

Mean for the entire sample = 2.37285; n = 484

TABLE 6.--Cell Means for Humanist Approach to Learning.

	Age Group		
	Traditionalist	In-Between	Rejectionist
Gender			
Male	2.01627	1.99847	2.02929
Female	1.93621	1.99547	1.89228
Ethnic Origin			
White American	1.99688	1.99980	1.99457
Black American	1.50000	1.79533	2.08320
Spanish American	1.50000		1.75000
Other	2.13320	2.16700	1.81650
Schooling Completed			
>4 years college	1.66667	1.66700	
4 years college	2.22917	2.05839	1.85595
<4 years college	2.01593	1.95846	1.99839
4 years high school	1.85975	2.01231	1.99901
<4 years high school	1.96129	2.00300	1.99605

Mean for entire sample = 1.99095; n = 484.

TABLE 7.--Cell Means for Behaviorist Approach to Learning.

	Age Group		
	Traditionalist	In-Between	Rejectionist
Gender			
Male	2.13508	2.29372	2.45872
Female	2.36975	2.34366	2.46698
Ethnic Origin			
White American	2.20088	2.31758	2.47705
Other	2.22529	1.98340	2.28154
Schooling Completed			
$\geq$4 years college	2.25360	2.16226	2.23738
<4 years college	2.12036	2.17214	2.39192
4 years high school	2.17358	2.31421	2.61882
<4 years high school	2.27096	2.44758	2.41054

Mean for the entire sample = 2.37285; n = 484

TABLE 8.--Cell Means for Humanist Approach to Learning.

	Age Group		
	Traditionalist	In-Between	Rejectionist
Gender			
Male	2.01627	1.99847	2.02929
Female	1.93621	1.99547	1.89228
Ethnic Origin			
White American	1.99688	1.99980	1.99457
Other	1.95229	1.94400	1.89862
Schooling Completed			
$\geq$4 years College	2.11667	2.03779	1.85595
<4 years college	2.01593	1.95846	1.99839
4 years high school	1.85975	2.01231	1.99901
<4 years high school	1.96129	2.00300	1.99605

Mean for the entire sample = 1.99095; n = 484

Data Analysis

Hypothesis 1

> There is significant difference among age groups--
> Traditionalists, In-Betweens, and Rejectionists--
> with respect to learning style preference
> (Behaviorist Approach and Humanist Approach,
> taken together).

This hypothesis was formulated to obtain evidence regarding the first research question (Chapter I) which asked whether hospitality industry executives and managers in each age group differed with those in the other age groups with respect to learning style preference. This hypothesis was tested, using multivariate analysis of variance technique (SPSS Subprogram MANOVA), with the corresponding statistical null hypothesis:

$H_0$1: There is no significant difference among age groups with respect to learning style preference.

The null hypothesis was not retained at the .05 level. Significant difference was found among age groups with respect to learning style preference ($F_{6,478}$ = 3.92449, p $\leq$ .00070).

Hypothesis 2

> There is significant difference among age groups with
> respect to preference for the Behaviorist Approach.

This hypothesis was formulated to obtain more specific evidence regarding the first research question (see Chapter I), i.e., whether hospitality industry executives and managers in each age group differed with those in the other age groups with respect to their preference for the Behaviorist Approach. This hypothesis was

tested, using univariate analysis of variance technique (SPSS Sub-program MANOVA), with the corresponding statistical null hypothesis:

H_02: There is no significant difference among age groups with respect to preference for the Behaviorist Approach.

The null hypothesis was not retained at the .05 level. Significant difference was found among age groups with respect to preference for the Behaviorist Approach ($F_{2,478}$ = 10.61286, p $\leq$ .00003).

Further, the following directional hypothesis was tested using the S-method (Scheffé):

Traditionalists more prefer the Behaviorist Approach than do In-Betweens who in turn more prefer the Behaviorist Approach than do Rejectionists.

This directional hypothesis was not retained at the .05 level. Though the weighted sample means--Traditionalists (2.2029), In-Betweens (2.23054), and Rejectionists (2.4613)--are in the direction hypothesized, comparison with the standard percentile points of F-distributions for $F_{1,478,\alpha = .05}$ = 3.84 indicates that there is no significant difference between Traditionalists and In-Betweens with respect to preference for the Behaviorist Approach (F = 2.2653 < F = 3.84). However, significant difference was found between In-Betweens and Rejectionists with respect to preference for the Behaviorist Approach (F = 9.1474 > F = 3.84). Since the difference in sample means for Traditionalists and Rejectionists is greater than for In-Betweens and Rejectionists, there is also significant difference between Traditionalists and

Rejectionists with respect to preference for the Behaviorist

Approach (see Table 9).

TABLE 9.--Scheffé Post Hoc Analysis.

Age Groups and Weighted Mean		$\dfrac{(m_1 - m_2)^2}{\dfrac{1}{n_1} + \dfrac{1}{n_2}}$	Mean Squared Error	F =
Traditionalists	(2.2029)			
		.5426	.23954	2.2653
In-Betweens	(2.2305)			
		.0243	.23954	9.1474
Rejectionists	(2.4613)			

That Traditionalists more prefer the Behaviorist Approach

than Rejectionists, and that In-Betweens more prefer the Behaviorist

Approach than Rejectionists is retained. That Traditionalists more

prefer the Behaviorist Approach than do In-Betweens is not retained.

Hypothesis 3

There is significant difference among age groups with
respect to preference for the Humanist Approach.

This hypothesis was formulated to obtain more specific

evidence regarding the first research question (see Chapter I),

i.e., whether hospitality industry executives and managers in each

age group differ with those in the other age groups with respect

to their preference for the Humanist Approach. This hypothesis

was tested, using univariate analysis of variance technique
(SPSS Subprogram MANOVA), with the corresponding statistical null
hypothesis:

$H_0 3$:   There is no significant difference among age
groups with respect to preference for the
Humanist Approach.

The null hypothesis was retained at the .05 level. Signif-
icant difference was not found among age groups with respect to
preference for the Humanist Approach ($F_{2,478}$ = .02979, p $\leq$ .97065).

Further, the following directional hypothesis was proposed:

Rejectionists more prefer the Humanist Approach than
do In-Betweens who in turn more prefer the Humanist
Approach than do Traditionalists.

This directional hypothesis was not tested because when its
antecedent non-directional hypothesis was tested, significant differ-
ence was not found among age groups with respect to preference for
the Humanist Approach.

Hypothesis 4

There is significant difference between males and
females with respect to learning style preference.

This hypothesis was formulated to obtain evidence (second
research question, Chapter I) regarding what one might intuitively
believe would have an effect on learning style preference, thus
mitigating against and confounding findings with respect to age
groups. This hypothesis was tested, using multivariate analysis
of variance technique (SPSS Subprogram MANOVA), with the correspond-
ing statistical null hypothesis:

H_o4: There is no significant difference between males and females with respect to learning style preference.

The null hypothesis was not retained at the .05 level. Significant difference was found between males and females with respect to learning style preference $(F_{2,478} = 3.92266, p \leq .02043)$.

Though no hypotheses were proposed regarding the effect of gender on Behaviorist Approach and Humanist Approach, the finding of significant difference with multivariate analysis with respect to learning style preference, seems to warrant reporting those univariate findings. Significant difference was not found at the .05 level between males and females with respect to the Behaviorist Approach $(F_{1,478} = 1.37988, p \leq .24071)$, but was found with respect to the Humanist Approach $(F_{1,478} = 4.47116, p \leq .03499)$. Females more preferred (mean = 1.92356) the Humanist Approach than did males (mean = 2.01772).

Hypothesis 5

There is no interaction between age group and gender with respect to learning style preference.

This hypothesis was formulated to test whether any found difference in learning style preference among age groups could be explained (third research question, Chapter I) on the basis of any effect of gender. This hypothesis was tested, using multivariate analysis of variance technique (SPSS Subprogram MANOVA), with the statistical null hypothesis:

H_05: There is no interaction between age group and
        gender with respect to learning style preference.

This null hypothesis was retained at the .05 level.

Significant interaction between age group and gender was not found

with respect to learning style preference $(F_{6,478} = .72988, p \leq$

.62561).

Hypothesis 6

There is significant difference among ethnic groups
with respect to learning style preference.

This hypothesis was formulated to obtain evidence (second

research question, Chapter I) regarding what one might intuitively

believe would have an effect on learning style preference, thus

mitigating against and confounding findings with respect to age

group. This hypothesis was tested, using multivariate analysis of

variance technique (SPSS Subprogram MANOVA), with the corresponding

statistical null hypothesis:

H_06: There is no significant difference among ethnic
        groups with respect to learning style preference.

The null hypothesis was retained at the .05 level.

Significant difference was not found among ethnic groups with

respect to learning style preference $(F_{6,478} = .82632, p \leq .54955)$.

Even when the data were compressed (see Tables 7 and 8) to compare

White Americans with all others, no significant difference was found

$(F_{2,478} = 1.40897, p \leq .24541)$.

Hypothesis 7

> There is no interaction between age group and ethnic group with respect to learning style preference.

This hypothesis was formulated to test whether any found difference in learning style preference among age groups could be explained (third research question, Chapter I) on the basis of any effect of ethnic group. This hypothesis was tested, using multivariate analysis of variance technique (SPSS Subprogram MANOVA), with the statistical null hypothesis:

> $H_0 7$: There is no interaction between age group and ethnic group with respect to learning style preference.

This null hypothesis was retained at the .05 level. Significant interaction between age group and ethnic group was not found with respect to learning style preference ($F_{10,478} = .55956$, $p \leq .84747$). Even when the data were compressed to compare White Americans with all others, significant interaction was not found ($F_{6,478} = .28424$, $p \leq .94454$).

Hypothesis 8

> There is significant difference among groups with different levels of schooling with respect to learning style preference.

This hypothesis was formulated to obtain evidence (second research question, Chapter I) regarding what one might intuitively believe would have an effect on learning style preference, thus mitigating against and confounding findings with respect to age group. This hypothesis was tested, using multivariate analysis of

variance technique (SPSS Subprogram MANOVA), with the corresponding

statistical null hypothesis:

$H_0 8$: There is no significant difference among groups with different levels of schooling with respect to learning style preference.

The null hypothesis was not retained at the .05 level.

Significant difference was found among groups with different levels

of schooling with respect to learning style preference ($F_{8,470}$ =

2.53160, p $\leq$ .00996).

Though no hypotheses were proposed regarding the effect of

levels of schooling on Behaviorist Approach and Humanist Approach,

the finding of significant difference with multivariate analysis

with respect to learning style preference seems to warrant report-

ing those univariate findings. Significant difference was found

for different levels of schooling for the Behaviorist Approach

($F_{4,470}$ = 4.16385, p $\leq$ .00252), but not for the Humanist Approach

($F_{4,470}$ = .59763, p $\leq$ .66452).

A Scheffé was performed to determine between which pairs

of the five levels of the independent variable significant differ-

ences existed. Weighted mean scores for each of the levels obtained

with respect to the Behaviorist Approach were:

more than four years of college   = 2.0513
four years of college   = 2.2288
less than four years of college   = 2.0797
four years of high school   = 2.5106
less than four years of high school = 2.3965

Comparison with the standard percentile points of F-distributions

for $F_{1,478,\alpha = .05}$ = 3.84 for contrasted pairs of levels of

schooling with respect to the Behaviorist Approach indicates that significant difference was found only between those with less than four years of college and those with four years of high school (see Table 10).

Given that the highest level (more than four years of college) had only four cases, the first two levels were combined. The independent variable was compressed to four levels from its original five (see Table 7).

A Scheffé was performed to determine between which pairs of the four levels of the independent variable significant differences existed. Weighted mean scores for each of the levels obtained with respect to the Behaviorist Approach were:

four or more years of college	= 2.2159
less than four years of college	= 2.0797
four years of high school	= 2.5106
less than four years of high school	= 2.3965

Significant differences were found for three of the six pairs of levels tested (see Table 10).

Significant difference was found between those with four or more years of college and those with four years of high school; between those with four or more years of college and those with less than four years of high school; and between those with less than four years of college and those with four years of high school. Significant difference was not found between those with four or more years of college and those with less than four years of college; between those with less than four years of college and those with less than four years of high school; and between those

TABLE 10.--S-Method Tests of Significance Between Levels of Schooling with Respect to the Behaviorist Approach.

Comparisons	$\dfrac{(m_1 - m_2)^2}{\frac{1}{n_1} + \frac{1}{n_2}}$	Mean Squared Error	F =
Schooling Completed with 5 Levels (see Table 5)			
>4 years college vs 4 years college	.1169	.23098	.5060
>4 years college vs <4 years college	.0094	.23098	.0403
>4 years college vs <4 years high school	.4635	.23098	2.0067
<4 years college vs 4 years high school	13.2593	.23098	57.4045*
Schooling Completed with 4 Levels (see Table 7)			
≥4 years college vs <4 years college	.2340	.23124	1.0121
≥4 years college vs 4 years high school	3.4596	.23124	14.9609*
≥4 years college vs <4 years high school	1.2905	.23124	5.5808*
<4 years college vs 4 years high school	3.3969	.23124	14.6900*
<4 years college vs <4 years high school	.8159	.23124	3.5283
4 years high school vs <4 years high school	.8717	.23124	3.7698

with four years of high school and those with less than four years of high school.

Given that even the four sample means were not direction- ally ordered, though significant differences had not been found where they were out of order, the four levels were compressed to two. Weighted mean scores for the two levels obtained with respect to the Behaviorist Approach were:

at least some college = 2.0762
no college = 2.4510

Comparison with the standard percentile points of F-distributions $(F_{1,478,\alpha = .05} = 3.84)$ indicates that significant difference was found with respect to the Behaviorist Approach between those with at least some college and those with no college (F = 73.3198 > F = 3.84). Those with at least some college (2.0762) prefer the Behaviorist Approach more than do those with no college (2.4510).

Hypothesis 9

There is no interaction between age group and level of schooling with respect to learning style preference.

This hypothesis was formulated to test whether any found difference in learning style preference among age groups could be explained (third research question, Chapter I) on the basis of any effect of level of schooling. This hypothesis was tested, using multivariate analysis of variance technique (SPSS Subprogram MANOVA), with the statistical null hypothesis:

$H_0 9$: There is no interaction between age group and level of schooling with respect to learning style preference.

This null hypothesis was retained at the .05 level. Significant interaction between age group and level of schooling was not found with respect to learning style preference ($F_{14,470}$ = 1.34644, p $\leq$ .17344). When the data were compressed to four levels of schooling from the original five, significant interaction was not found ($F_{12,470}$ = 1.22897, p $\leq$ .25764).

Hypothesis 10

> There is significant correlation between statements in the Survey and the dependent variable they represent.

This hypothesis was formulated to assure that all statements--valid on their "face" according to learning theory experts--were significantly and positively correlated with the dependent variable which they were designed to represent. This hypothesis was tested, using Pearson-Product-Moment Correlation Analysis (SPSS Subprogram PEARSON CORR), with the corresponding statistical null hypothesis:

> $H_0$10: There is no significant correlation between statements in the Survey and the dependent variable they represent.

The null hypothesis was not retained at the .05 level. Significant positive correlation was found between each of the twenty-four statements and the dependent variable that it represents. Table 11 displays the statements with their correlations (r) and the probability that r is not greater than zero (p).

Correlations were also calculated, using Pearson-Product-Moment Correlation Analysis (SPSS Subprogram PEARSON CORR), to

TABLE 11.--Correlation Matrix for Statements with Represented
Variables.

Behaviorist Approach				Humanist Approach		
Statement Number	r =	p≤		Statement Number	r =	p≤
1	.5272	.001		2	.4179	.001
3	.3210	.001		5	.4357	.001
4	.4157	.001		7	.4424	.001
6	.5470	.001		10	.4976	.001
8	.4644	.001		11	.4374	.001
9	.3582	.001		12	.5707	.001
15	.4543	.001		13	.5182	.001
17	.6143	.001		14	.5041	.001
19	.5148	.001		16	.4694	.001
21	.5343	.001		18	.4356	.001
22	.6058	.001		20	.4259	.001
23	.5263	.001		24	.4658	.001

determine the correlation of each statement with the dependent variable that it was not designed to represent. Each of the statements was either negatively correlated or less positively correlated with the unintended dependent variable than with the dependent variable that it was designed to represent (see Table 12).

Summary

The researcher's primary purpose in this study was to determine whether differences existed among age groups of hospitality industry managers and executives with respect to learning preference. Evidence gathered with this study indicates that the Behaviorist Approach to learning is more preferred by Traditionalists and In-Betweens than by Rejectionists. No difference, however, was found among age groups with respect to the Humanist Approach.

A major concern regarding these differences with respect to learning preference among age groups was that the influence of other factors--gender, ethnic origin, and/or level of schooling--might contribute substantially toward explaining any found differences among age groups. No interaction, however, was found.

Two other differences were found with respect to learning preference. The Humanist Approach was more preferred by women than by men, though no difference between genders was found for the Behaviorist Approach. The Behaviorist Approach was more preferred by those with at least some college than by those with no college, though no difference was found among groups with different levels of schooling with respect to the Humanist Approach.

TABLE 12.--Correlation Matrix for Statements with Unintended
Variables.

Humanist Approach			Behaviorist Approach		
Statement Number	r =	p≤	Statement Number	r =	p_<
1	-.0497	.138	2	.0519	.128
3	.2724	.001	5	.0360	.215
4	.1640	.001	7	-.0065	.444
6	.0963	.018	10	.0551	.113
8	-.0074	.435	11	-.1189	.005
9	-.0473	.150	12	.1022	.012
15	.3444	.001	13	.1632	.001
17	.0846	.032	14	.2091	.001
19	.1565	.001	16	.2660	.001
21	.1991	.001	18	.2343	.001
22	.1927	.001	20	.1952	.001
23	.2098	.001	24	.2844	.001

Finally, with respect to the testing instrument itself, each of the twenty-four statements in the Learning Preference Survey was found to be significantly and positively correlated with the dependent variable--Behaviorist Approach or Humanist Approach--that it was designed to represent.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

A rapidly increasing number of business leaders are con-
cluding that future success in a dynamic and constantly changing
environment will more and more depend on the abilities of management
to comprehend that environment and to adapt company responses to
optimize their posture toward that environment. The key to develop-
ing these essential management abilities is believed to be continu-
ing management and executive education. Business investment in
management education already amounts to billions of dollars annually.

The effectiveness of such programs, including their cost
effectiveness, is being severely limited by lack of knowledge about
how business managers and executives learn. Most learning theory
has been developed through experimental research with laboratory
animals and young children. Generalizing results from that
research to adult populations is, at best, risky. A theory of
adult learning has been actively pursued during the past thirty
years, but its development, relative to earlier learning theory,
has been characterized much more by logical inference and by obser-
vation in uncontrolled real-world situations than by systematic

experimentation in laboratory settings and planned manipulation of stimulus situations.

Current consensus suggests that adults prefer and need a Humanist Approach (referred to in the literature as "androgogy") where a Behaviorist Approach (referred to in the literature as "pedagogy") is more appropriate and effective with children. Further, it is suggested that the older an adult becomes, the more andragogy (based upon humanistic psychology) is preferred and needed. Given the importance of fundamental values in determining attitudes and behavior, and given findings by Massey and Rokeach regarding the fundamental values held by different age groups of adult Americans, and given that learning style preference is an attitude and actual learning is a behavior, this research tested the suggestion that the older an adult becomes, the more he or she prefers a Humanist Approach. This tenet of adult learning theory seemed to conflict with logical inference from the findings of the value research of Massey and Rokeach.

The Learning Preference Survey was developed and tested, and then administered to hospitality industry managers and executives attending the Sixty-Second Annual National Restaurant Association Restaurant and Hotel/Motel Show May 16-20, 1981 in Chicago. Managers and executives from the hospitality industry were chosen both because of the author's background and interest in that industry and because that industry has lagged behind most others in innovation and change. Given both its people intensity and its extraordinary need to change and adapt, the hospitality industry

seems in even greater need than others of increased management and executive education effectiveness. The NRA Show, attended by more than 100,000 hospitality industry professionals, provided an exceptional opportunity to conduct survey research efficiently.

Managers, owners, and executives of hotel/motel and food-service concerns provided information regarding their age, gender, ethnic origin, and level of schooling; and indicated the level of their agreement/disagreement with statements designed to test preference for a Behaviorist Approach or a Humanist Approach to learning. Data obtained from four hundred and eighty-four managers, owners, and executives were analyzed, using multivariate analysis of variance technique (SPSS Subprogram MANOVA) and the S-method (Scheffé post hoc analysis).

The researcher found that for hospitality industry managers, owners, and executives:

1. The Behaviorist Approach to learning is more preferred by Traditionalists (those born prior to 1937) and In-Betweens (those born between 1937 and 1947) than by Rejectionists (those born after 1947).

2. There is no significant difference in preference with respect to the Humanist Approach among age groups.

3. The Humanist Approach was more preferred by women than by men.

4. There is no significant difference in preference with respect to the Behaviorist Approach between women and men.

5. The Behaviorist Approach is more preferred by those with at least some college than by those with no college.

6. There is no significant difference in preference with respect to the Humanist Approach among groups with different levels of schooling.

The researcher also found that mean scores for the total sample were lower for the Humanist Approach (1.99095) than for the Behaviorist Approach (2.37285) to learning. Coding of responses on a five-point Likert-type scale was such that lower scores indicated stronger agreement. However, the study was designed to compare preference with respect to each approach among groups (age, ethnic, and level of schooling), not whether hospitality industry managers and executives preferred one learning style approach to the other. It is for this reason that this difference was not reported in Chapter IV.

Three aspects of this difference in mean scores should be noted: First, given that the "neutral" point on the Likert-type scale was three, both mean scores indicate agreement. Second, a theory of learning and a theory of instruction differ both in content and goals. The findings of pure scientists may not be relevant to current practical problems. To operationalize this finding, one must translate from the descriptive and analytical (learning theory) to the prescriptive (theory of instruction), while considering that much, if not most, learning occurs without instruction, and that instruction usually occurs in practical and less than ideal settings. Third, the two approaches--Behaviorist and Humanist--though certainly providing substantial contrast, are not mutually exclusive. They should not be seen as opposite ends of the same continuum.

Conclusions

This researcher's findings provide substantial reason to suggest changes in continuing education programs for hospitality industry managers and executives. Even having heeded his own caution about translating from learning theory to a theory of instruction, the researcher perceives a number of immediate implications.

Many responsible for planning and implementing continuing education programs operate as though the population of hospitality industry managers and executives were homogeneous with respect to how they like to, and what motivates them to, learn. Some choose medium and message based on what they believe to be best for achieving a particular type of objective, i.e., new knowledge, new skills, change in attitudes. Many, of course, choose medium and message based upon what the instructor likes to do, or finds easiest to do (lecture is most common), and what the instructor knows. A few also consider learner readiness, i.e., what the learners already know and what skills they have already mastered. Given the vital role that interest and motivation play with respect to what is learned and how well, choice of instructional strategy or learning situation should not be based solely upon desired outcomes. Hospitality industry managers and executives differ with respect to fundamental values, and, predictably therefore, differ with respect to learning style preference. Based upon this research, it is suggested that these differences among learners should also be considered in the design of educational programs.

Some planners and implementers of continuing education programs, of course, do not operate as though this population were homogeneous. They operate, maybe on the basis of current adult learning theory literature, as though the population of hospitality managers and executives were heterogeneous and that learner need and want characteristics must be considered in learning situation design. Findings from this study, however, seem to contradict the current belief that adult learners more and more prefer and need an andragogical approach the older they get. This researcher found no difference among age groups with respect to preference for the Humanist Approach. Furthermore, the two older groups more preferred the Behaviorist Approach than did the youngest. Malcolm Knowles may be correct that the "pedagogy of adult education" is a semantic contradiction (101,102), but hospitality industry managers and executives seem to find no contradiction between being adults and agreeing with educators who employ pedagogical process elements (see Figure 2, page 15) in helping them learn.

Pure learning theory suggests that the quality of education could be improved if instruction were designed for each individual learner. Probably most educators can accept this as true. In most cases, however, the financial cost of such personal attention is prohibitive. It generally is for elementary school children and it generally is for managers attending executive seminars. The "reasonable compromise" solution between treating all learners as alike and each learner as unique is to find reasonably homogeneous

learner groups who need reasonably similar new knowledge and skills. Suggestions for "reasonable compromise" solutions follow.

Historically, upward mobility in individual careers has been such that young newcomers begin in lower management positions, are promoted to middle management positions by the time they reach their late thirties, and (for those who make it) are promoted to top management by fifty (92,104,220). The kinds of knowledge and skills necessary to perform successfully at each of these levels are different. Technical skills, for example, are most important at the first level; human skills are most important at the second level; and conceptual skills are most important at the top level. The content of education and training programs must focus, not only on the kinds of knowledge and skills necessary to perform successfully at the learner's present level, but also at the learner's next level.

In this study it was found that Traditionalists (who now and for the next few years will fill most of the top management positions) and In-Betweens (who now and for the next few years will fill most of the middle management positions) are different from Rejectionists (who now and for the next few years will fill most of the lower management positions) with respect to learning style preference. Given this researcher's findings, continuing education programs for top and middle management personnel, designed, for example, to improve conceptual skills, probably should incorporate some of the pedagogical processes outlined in Figure 2 (see page 15). Continuing education programs for lower management personnel,

designed, for example, to improve technical and human skills, should incorporate more of the andragogical processes outlined in Figure 2. Programs to develop conceptual skills, using more andragogical process elements, will be needed within a few years, of course, because Rejectionists will then be assuming more middle management positions.

Three trends in the demographics of the population of hospitality industry managers and executives have additional signif-icance because of the findings from this study. First, the size of the Rejectionist age group is likely to remain disproportionately large for at least the remainder of this century. Second, more managers and executives are likely to be women. Third, the per-centage of college-educated managers and executives is increasing, and is likely to do so even more rapidly in the near future (92,77).

The impact of this Rejectionist age group has been discussed at some length in Chapter II. Traditionalist managers are confused and frustrated at the attitudes and behavior exhibited by these "Young Turks." This study's findings suggest that, as investments in continuing education increase and as these Rejectionists assume more and more organizational responsibility, the "Old Guard" is going to have to accept and deal with the fact that these younger managers even balk at learning the "right" way.

The impact of the last two demographic trends on continuing education programs, unfortunately, is likely to be confusing and complicating. Women were found in this study to more prefer the Humanist Approach than men. Those persons with at least some

college were found to more prefer the Behaviorist Approach than those with no college. Each group is increasing in number and as a percentage of hospitality industry managers and executives. The "reasonable compromise" solution, mentioned earlier, of finding reasonably homogeneous learner groups who need reasonably similar new knowledge and skills may be made more difficult because of these trends.

How much an individual hospitality firm is able to accommodate additional sub-groups in the "reasonable compromise" solution to achieve reasonable learner homogeneity within groups is likely to be a function of size and amount budgeted for education and training. Since most women entering the ranks as managers are also Rejectionists beginning in lower management positions, no conflict with educational programs designed with age group in mind is seen. Where accommodation is reasonable, however, it is suggested that hospitality firms might consider separate programs for Rejectionists with and without college.

Each of the five major hospitality industry associations--American Dietetics Association, American Hotel and Motel Association, Club Management Association, National Institute for the Foodservice Industry, and the National Restaurant Association--provides extensive nationwide continuing education programs for executives, managers, supervisors and/or students preparing for such roles (13,50,77,196). Given the numbers that they serve and their ability to target programs by both content and management level,

the researcher strongly recommends their accommodating to each of
the "reasonably homogeneous" learner groups discussed.

Recommendations for Further Research

On the basis of both the limitations of, and the oppor-
tunities provided by, this study, the researcher recommends five
additional studies. The author is himself interested in conducting
each and all of them.

1. An update and amplification of the Shaner study of
1978 (184,185), which used the Value Survey (173) (see Figure 3,
page 28) to compare the fundamental values of hotel managers with
those of a random sample of adult Americans (see Table 2, page 35)
seems warranted. The new study would compare hotel managers
(Shaner's data) and college students studying hospitality manage-
ment, using Rokeach's Value Survey. This study could be useful in
career counseling of students, and in providing a preview to
industry professionals of the value differences and implications
of the "new breed" of managers about to enter the industry.

2. The author would also like to shorten the Learning
Preference Survey and use it with a random sample of hospitality
industry managers and executives. This would serve to validate
(or not validate) this study.

3. This Learning Preference Study could also be employed
to study the learning style preference characteristics of the
students studying hospitality management mentioned above in the
proposed Shaner update study. Massey calls this age group the

"Synthesizers" (124) (see Figure 4, page 31). Results from this study can be used (a) to see whether values predict learning preference for this age group as they did in this study for older groups, (b) to guide instructional strategy in hospitality college curricula, and (c) to provide a preview to planners of hospitality industry continuing education programs of the learner characteristics of the next group of lower level managers.

4. The Learning Preference Survey could be employed to study the managers and executives of a major hospitality industry firm, employing many and committed to quality continuing education. Such a study could provide more specific intelligence regarding that firm's learners. The researcher believes that such information could help further improve educational outcomes.

5. The population of business managers and executives from all industries could be analyzed with respect to learning system preference using the Learning Preference Survey. The need for particular knowledge and skills, in many cases, is not specific to just managers and executives in one industry. In such cases, findings might help determine reasonably homogeneous learner groups who need this reasonably similar knowledge or skill.

APPENDICES

APPENDIX A

LEARNING PREFERENCE SURVEY

LEARNING PREFERENCE SURVEY

PLEASE PROVIDE THE FOLLOWING INFORMATION ABOUT YOURSELF:

PLEASE CHECK (X) ONE	PLEASE FILL IN THE BLANK
SEX: 1. ( ) male 2. ( ) female	I was born in 19 _____ .

PLEASE CHECK (X) ONE	PLEASE CHECK (X) ONE
1. ( ) White American 2. ( ) Black American 3. ( ) Spanish American 4. ( ) Other _____	Were you born in the United States? ( ) Yes ( ) No

PLEASE CHECK (X) ONE	PLEASE FILL IN THE BLANK
SCHOOLING COMPLETED: 1. ( ) more than 4 years of college 2. ( ) 4 years of college 3. ( ) some college, but less than 4 years 4. ( ) 4 years of high school 5. ( ) less than 4 years of high school	Before becoming 21 years old, how many years did you spend living outside of the United States? _____ years.

THANK YOU! NOW, PLEASE CONSIDER THE FOLLOWING HYPOTHETICAL CASE.

A new company for whom you go to work -- believing more and more in the vital importance of its human resources -- wants to make a substantial commitment to the continuing education and personal development of its key people.

The Survey on the back of this page represents an attempt to determine how you prefer to learn. It seeks to find out what kind of a learning situation for continuing your education you would like best.

-- OVER --

For each statement indicate (with an X) whether you

I WOULD PREFER INSTRUCTORS WHO

Column scale: STRONGLY AGREE (++) · TEND TO AGREE (+) · CENTRAL OR UNSURE (0) · TEND TO DISAGREE (-) · STRONGLY DISAGREE (--)

#	Statement	++	+	0	-	--	
(1)	tell me exactly what is important for me to learn.	++	+	0	-	--	1
(2)	ask me to choose what I want to learn.	++	+	0	-	--	2
(3)	arrange activities so that I learn a bit at a time and build toward higher skills and knowledge.	++	+	0	-	--	3
(4)	give a learning situation (text, lecture, etc.); quiz me to see that I have learned what I should; give feedback.	++	+	0	-	--	4
(5)	help me to find information sources for myself rather than just giving me the information.	++	+	0	-	--	5
(6)	cover exactly what they have planned.	++	+	0	-	--	6
(7)	are flexible when learners would prefer to discuss some situation which may seem unrelated to the plan for the session.	++	+	0	-	--	7
(8)	Teach at regularly scheduled times; hold class for a set length of time; assign the same amount to read each time.	++	+	0	-	--	8
(9)	discourage discussion and stick to providing information and answers.	++	+	0	-	--	9
(10)	encourage me, and others, to discuss how we feel about each other's ideas.	++	+	0	-	--	10
(11)	let me discover things for myself, rather than show me.	++	+	0	-	--	11
(12)	work with me at my pace and schedule meetings when I am ready.	++	+	0	-	--	12
(13)	do not either pressure me or threaten me.	++	+	0	-	--	13
(14)	suggest new and different ways for me to learn and for me to approach a subject.	++	+	0	-	--	14
(15)	regularly review to see that previous information is not forgotten.	++	+	0	-	--	15
(16)	help me to grow, to become more aware and self-fulfilled.	++	+	0	-	--	16
(17)	tell me exactly what I must do to show that I have learned.	++	+	0	-	--	17
(18)	ask me to participate in the process of evaluating my learning achievements.	++	+	0	-	--	18
(19)	tell me how what is being taught should be used in my job.	++	+	0	-	--	19
(20)	ask me to consider and figure out how what I am learning might be useful in my job.	++	+	0	-	--	20
(21)	see that those who show that they have learned are rewarded.	++	+	0	-	--	21
(22)	see that those who show that they have learned the subject matter are awarded certificates of achievement.	++	+	0	-	--	22
(23)	have the authority to recommend promotion or a salary increase if I have scored better than others.	++	+	0	-	--	23
(24)	work hard to see that the learning process is fun.	++	+	0	-	--	24

APPENDIX B

FACE VALIDITY TEST

For each statement indicate (with an X) whether you
believe that an executive/manager indicating agreement
would be suggesting preference for a Behaviorist Approach (B),
a Humanistic Approach (H), or neither of them (*).

I WOULD PREFER INSTRUCTORS WHO

1. tell me exactly what I must do to show that I
   have learned.

B	H	*

2. arrange activities so that I learn a bit at
   a time and build toward higher skills and
   knowledge.

B	H	*

3. see that those who show that they have learned
   are rewarded.

B	H	*

4. give a learning situation (text, lecture, etc.);
   quiz me to see that I have learned what I
   should; give feedback.

B	H	*

5. teach at regularly scheduled times; hold class
   for a set length of time; assign the same
   amount to read each time.

B	H	*

6. have an input into company decisions about
   promotions and salary raises if I have scored
   better than others.

B	H	*

7. ask me to choose what I want to learn.

B	H	*

8. provide resources for me to use in learning
   what I have chosen.

B	H	*

9. do not either threaten me or pressure me.

B	H	*

10. let me discover things for myself, rather
    than show me.

B	H	*

11. let me participate in the process of evaluating
    my learning achievements.

B	H	*

12. work with me at my pace and schedule meetings
    when I am ready.

B	H	*

PLEASE TURN TO THE NEXT PAGE!

For each statement indicate (with an X) whether you
believe that an executive/manager indicating agreement
would be suggesting preference for a Behaviorist Approach (B),
a Humanistic Approach (H), or neither or them (*).

I WOULD PREFER INSTRUCTORS WHO

13. schedule sessions during my off hours so that
I don't miss time at work.

B	H	*

14. schedule sessions during my working hours so
that I don't miss time off.

B	H	*

15. teach me skills which will improve my immediate
day-to-day job performance.

B	H	*

16. help me to grow, to become more aware and
self-fulfilled.

B	H	*

17. work hard to see that the learning process is
fun.

B	H	*

18. see that those who show they have learned the
subject matter are awarded certificates of
achievement.

B	H	*

19. are thoroughly prepared for each learning ses-
sion and cover exactly what they have planned.

B	H	*

20. let me role-play so that I can get the actual
feeling of what I am trying to learn.

B	H	*

21. let me see more qualified professionals role-
play so that I can see what I am trying to
learn.

B	H	*

22. suggest new and different ways for me to learn
and for me to think.

B	H	*

23. arrange for me to take classes with my peers;
not with my bosses or with my subordinates.

B	H	*

24. arrange for me to meet with persons who have
similar subject interest, regardless of
organization status.

B	H	*

YOU HAVE COME TO THE END! THANK YOU VERY MUCH!

ANY COMMENTS WOULD BE APPRECIATED. PLEASE USE REVERSE SIDE.

SELECTED BIBLIOGRAPHY

SELECTED BIBLIOGRAPHY

1. Ackerman, Leonard. "Let's Put Motivation Where It Belongs--
    Within the Individual." Personnel 49 (July 1970): 559-562.

2. Alonzo, Roy S. "School Food Service Training Takes to the Road."
    School Food Service 31 (March 1977): 48, 52.

3. Anderson, John. Psychological Aspects of Aging. Washington, D.C.:
    American Psychological Association, 1956.

4. Applebaum, Gertrude. "Persistence + Determination = Success."
    School Food Service 32 (July/August 1978): 50, 52.

5. Arbeiter, Solomon and Aslanian, Carol. 40,000,000 Americans in
    Career Transition. New York: The College Board, 1978.

6. Avery, Arthur. "On-the-Job Training Techniques." Food Manage-
    ment 12 (March 1977): 42, 78-80.

7. Barth, Anthony L. and Engfer, Robert T. "The Agway Management
    Development Program: Design and Implementation." Personnel
    56 (July 1977): 342-347.

8. Bearce, Jim. "Food and Beverage Management Takes Planning and
    Teamwork." Resort Management 30 (June 1976): 12-13.

9. Bekiroglu, Haluk and Gonan, Turan. "Motivation--The State of
    the Art." Personnel 56 (September 1977): 561-562.

10. Bell, Chip R. "Informal Learning in Organizations." Personnel
    56 (June 1977): 280-283.

11. Bellman, Geoffrey M. "The Whats, Whys and Hows of Teaching
    Managers to be Trainers." Training 15 (June 1978): 31-32.

12. Bienvena, Bernard. "Overlooking Advantages for Retraining."
    Personnel 49 (April 1970): 337-339.

13. Bobeng, Barbara J. "Job Enrichment in Job Design." Journal of
    the American Dietetics Association 70 (March 1977): 251-253.

14. Bolton, Elizabeth B. and Jones, Edward V. "Theory Based
    Approaches to Learning Implications for Adult Educators."
    Paper presented at the annual spring meeting of the American
    Educational Research Association, San Francisco, April 1979.

15. Bomberg, Hy. "The Liberated Office." Management World 8 (January 1979): 11.

16. Brancato, Cecelia. "Operators Gear Up Training and Advancement Programs." Nation's Restaurant News 13 (July 9, 1979): 31-32.

17. Browers, Steve R. "Problem: How to Orient 600 New Employees. Solution: Produce Your Own Self-Contained Slide/Tape Program." Food Management 13 (October 1978): 13.

18. Brymer, Robert A. "The Trainee's Perspective: What Every Trainee Would Like His Trainer to Know." The Cornell Hotel and Restaurant Administration Quarterly 17 (February 1977): 79-82.

19. Buchanan, Robert D. "Establishing an Orientation Program." Food Service Marketing 39 (November 1977): 45-48.

20. Buchanan, Robert D. "How to Be a Better Manager." Food Service Marketing 41 (January 1979): 83-87.

21. Buchanan, Robert D. "Sanitation: Is Your Training Program Effective? Food Service Marketing 37 (June 1975): 32.

22. Bunting, Charles I. "The Federal Lifelong Learning Project." Current Issues in Higher Education (1978): 3-6.

23. Burdestsky, Ben. "New Direction in Apprenticeship Training." Worklife (August 1977): 18-24.

24. Centra, John A. Determining Faculty Effectiveness. San Francisco: Jossey-Bass, 1979.

25. Charland, William F. Jr. A New Look at Lifelong Learning. Union Press Monograph III. Yellow Springs, Ohio: Union Press, 1976.

26. Clark, Carolyn. "Staff Motivation is Stimulated by Employer Awareness." Resort Management 3 (December 1977): 19-20.

27. Cohen, Eli and Burns, Phil. SPSS-Manova--Multivariate Analysis of Variance and Covariance, Document No. 413 Revision A. Evanston, Ill.: Vogelback Computing Center, Northwestern University, 1977.

28. "Companies Put Up the No Smoking Sign." Business Week, May 29, 1978, p. 68.

29. "Company Courses Go Collegiate." Business Week, February 26, 1979, pp. 90-92.

30. "Computers." Motel/Motor Inn Journal 41 (December 1977): 9-11.

31. Copland, Jack L. and Stormes, John M. "Training with Standardized Audio-Visual Programs." The Cornell Hotel and Restaurant Administration Quarterly 17 (August 1976): 24-29.

32. Cowan, Paula and Miller, John. "Improving Employee Relations: A Four-Step Approach." The Personnel Administrator 24 (February 1979): 63-70.

33. Craig, Robert L., ed. Training and Development Handbook 2d ed. New York: McGraw-Hill, 1976.

34. Crichton, John and Manley, Robert A. "How to Motivate Your Employees and Raise Capital Too." Nation's Business 64 (October 1976): 48-52.

35. Daly, Norene F. "Androgogy: Implications for Secondary and Adult Education Programs." Unpublished manuscript submitted to ERIC Clearinghouse, October 1980. ED 186627.

36. "Dairy Queen Stores On-Line Training Keeps Execs in Swing." Institutions/Volume Feeding 81 (October 1, 1977): 34.

37. Davis, James R. Teaching Strategies for the College Classroom. Boulder, Colo.: Westview Press, 1976.

38. Davis, Robert H., Alexander, Lawrence T. and Yelon, Stephen L. Learning System Design: An Approach to the Improvement of Instruction. New York: McGraw-Hill, 1974.

39. "Deep Sensing: A Pipeline to Employee Morale." Business Week, January 29, 1979, pp. 34-35.

40. Delker, Paul V. "Adult Education--1980 and Beyond: Implications for Research and Development. Occasional Paper Number 59." Paper presented at the National Center for Research in Vocational Education, Columbus, Ohio, 1979.

41. Dethlefs, Dennis and Sellentin, Jerry L. "How to Be a Houdini in Training." The Personnel Administrator 24 (January 1979): 66-68.

42. Digman, Lester A. "How Well-Managed Organizations Develop Their Executives." Organizational Dynamics 7 (Autumn 1978): 63.

43. "Does Your Organization Need a Career-Development System." Food Service Marketing 37 (February 1975): 57.

44. Dohrman, Kent. "Managing Robots or People." *Food Management* 10 (July 1975): 19.

45. Doyle, Kenneth. *Student Evaluation of Instruction.* Lexington, Mass.: Lexington Books, 1975.

46. Drazin, Julius N. "Labor Relations." *Personnel* 58 (March 1979): 142.

47. "Dunfey's Employee Guarantee Continues Innovative Tradition." *Institutions/Volume Feeding* 76 (March 15, 1975): 37-38.

48. Elias, John L. and Merriam, Sharan. *Philosophical Foundations of Adult Education.* Huntington, N.Y.: Robert E. Krieger Publishing Co., 1980.

49. Elkins, Aaron. "Some Views on Management Training." *Personnel* 56 (June 1977): 305-307.

50. "Employee Training for Promotion." *Food Service Marketing* 38 (April 1976): 70.

51. Evans, Martin G. "Herzber's Two Factor Theory of Motivation." *Personnel* 49 (January 1970): 32-35.

52. Fiedler, Fred E. "Changes in Organizational Leadership and the Behavior of Relationships and Task Motivation." *Administrative Science Quarterly* 21 (September 1976): 453-473.

53. Finch, Frederic E. "Collaborative Leadership in the Work Settings." *Journal of Applied Behavioral Science* 13 (June 1977): 292-302.

54. Finkelstein, James A. and Ziengenfuss, James T., Jr. "Diagnosing Employees' Personal Problems." *Personnel* 57 (November 1978): 633-636, 643.

55. Finn, Jeremy D. *A General Model for Multivariate Analysis.* New York: Holt, Rhinehart and Winston, Inc., 1974.

56. Finn, Myrle. "Lee Harty's Atlanta Training School." *Hospitality* 15 (May 1976): 131.

57. Franklin, Jerome L. "Characteristics of Successful and Unsuccessful Organization Development." *Journal of Applied Behavioral Science* 12 (October 1976): 471-492.

58. Fraser, Richard F. "A System for Determining Training Needs." *Personnel* 57 (December 1978): 682-683.

59. Fritz, Sara. "New Breed of Workers." U.S. News and World Report, September 3, 1979, pp. 35-38.

60. Gagné, Robert M. The Conditions of Learning, 3d ed. New York: Holt, Rhinehart and Winston, Inc., 1977.

61. Gagné, Robert M. Essentials of Learning for Instruction. Hinsdale, Ill.: Dryden Press, 1974.

62. Gagne, Robert M. and Briggs, Leslie J. Principles of Instructional Design. New York: Holt, Rhinehart and Winston, Inc., 1974.

63. Garfield, Stephen R. "Helping Alcoholics and Drug Addicts with Supervisory Training." Training 15 (March 1978): 26.

64. Gellerman, Saul W. "Training and Behavior Change." Training and Development 31 (February 1977): 3-5.

65. Glass, Gene and Stanley, Julian. Statistical Methods in Education and Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1970.

66. Goldstein, Harold and Witz, Willard. "Measurement and Analysis of Work Training." Monthly Labor Review 98 (September 1975), 19-26.

67. Gomersall, Earl R. and Myers, M. Scott. "Breakthrough in On-the-Job Training." Harvard Business Review 44 (July-August 1966): 62-67.

68. "Good Advice on Employee Relations." Resort Management 30 (December 1976): 15-21.

69. "Good Jobs You Can Get Without a Degree." Changing Times 32 (August 1978): 26-28.

70. Gorman, Ronald H. and Baker, H. Kent. "That's OK in Theory, But . . ." Personnel 55 (July-August 1978): 48-54.

71. Grabowsky, Stanley. "Marketing and Promotion Strategies and Techniques." In Distinguished Adult Educators Explore Issues/Trends/Strategies in Adult/Continuing Education. A Compendium of Lectures and Resource Documents from a Seminar in Adult Education at the University of New Mexico. Albuquerque: University of New Mexico, 1979.

72. "Growth Personnel." Institutions/Volume Feeding 78 (January 1, 1976): 32-34.

73. Guglielmo, Paul J. "Developing the Top-Level Executive for the 1980s and Beyond." Training and Development 33 (April 1979): 12-15.

74. Hamlett, Jane E. "Tune In to Training." School Foodservice 32 (July/August 1978): 56.

75. Hand, Samuel E. A Review of Physiological and Psychological Changes in Aging and Their Implications for Teachers of Adults. Talahassee, Fla.: Division of Vocational and Adult Education, 1957.

76. Hase, Harold D. and Goldburg, Lewis S. "Comparative Validity of Different Strategies of Constructing Personality Inventory Scales." Psychological Bulletin 67 (April 1967): 231-248.

77. Hawkins, Cameron S. "The Young Executive in Industry: Implications for the Coming Decade." The Cornell Hotel and Restaurant Administration Quarterly 19 (February 1979): 4-6.

78. Hayes, James L. "Memo for Management: A New Generation." Management Review 66 (October 1977): 2-3.

79. Hazer, John R. "Job Satisfaction: A Possible Integration of Two Theories." Training and Development 30 (July 1976): 12-14.

80. Hilgard, Ernest R. and Bower, Gordon H. Theories of Learning. 4th ed. Englewood Cliffs, N.J.: Prentice-Hall, 1975.

81. Hilgert, Raymond L. "Positive Personal Motivation: The Manager's Guide to Influencing Others." Personnel 53 (December 1974): 832-834.

82. Hill, Raymond E. "Interpersonal Compatability and Workgroup Performance." Journal of Applied Behavioral Science 11 (October 1975): 210-219.

83. Hilliard, Richard Lee. "Don't Forget to Train Assistant Managers." Training 25 (April 1978): 50-51.

84. Hilliard, Vera J. "Ten Most Common Mistakes of Secretarial Training." Administrative Management 38 (December 1977): 32-33.

85. Horton, John. "The Youngest Workers Care the Least." Psychology Today 12 (October 1978): 34-35.

86. Horton, Loyal E. "Training the Management Team." Food Management 12 (March 1977): 37-39, 69, 79, 82.

87. Hoshberger, Joel. "Test 'Em Before You Train 'Em." Training 15 (November 1978): 53.

88. "How Bosses Get People to Work Harder: Interview with Arthur Witkin." U.S. News and World Report, January 29, 1979, pp. 63-64.

89. "How Texas Instruments Turns Its People On." Business Week, September 29, 1972, pp. 88-89.

90. "How to Earn Well Pay." Business Week, June 12, 1978, pp. 143-144.

91. "How to Keep Workers Happy on the Job." U.S. News and World Report, December 26, 1977/January 2, 1978, pp. 85-86.

92. Hume, Scott. "Executive Status Survey." Unpublished research study of hospitality industry executives and managers for Cahners Publishing Company, Chicago. Some of the results and resulting comments appear in "JOB$: Annual Foodservice Employee Survey." Restaurants & Institutions 88 (January 1, 1981): 23-100.

93. "The Individual Employee." Food Management 12 (March 1977): 34-74.

94. Johnson, Gary R. "Building a Staff--Hire or Train." Personnel 49 (March 1970): 222-223.

95. "Kahler Corp. Chefs Learn by Sharing Experiences." Institutions 83 (September 15, 1978): 52.

96. "Kennedy, William H. "Positive Action Can Reduce Turnover, Advises Exec." Nation's Restaurant News, 13 (February 15, 1979): 30, 52.

97. Kidd, J. R. How Adults Learn. New York: Association Press, 1973.

98. King, Corwin P. "Keeping Your Communication Climate Healthy." Personnel, 57 (April 1978): 204-206.

99. Klikun, Judith. "Competency-Based Instruction for Adults." In Distinguished Adult Educators Explore Issues/Trends/Strategies in Adult/Continuing Education. A Compendium of Lectures and Resource Documents from a Seminar in Adult Education at the University of New Mexico. Albuquerque: University of New Mexico, 1979.

100. Knapper, Christopher K. and Cropley, Arthur J. "Lifelong Learning and Higher Education: Implications for Teaching." Paper presented at the International Conference of Improving University Teaching, Lausanne, Switzerland, July 9-12, 1980.

101. Knowles, Malcolm. The Adult Learner: A Neglected Species, 2nd ed. Houston: Grid Publishing Company, 1978.

102. Knowles, Malcolm. "Needs Assessment Strategies and Techniques." In Distinguished Adult Educators Explore Issues/Trends/ Strategies in Adult/Continuing Education. A Compendium of Lectures and Resource Documents from a Seminar in Adult Education at the University of New Mexico. Albuquerque: University of New Mexico, 1979.

103. Knudson, Russell S. "An Alternative Approach to the Androgogy/ Pedagogy Issue." Lifelong Learning: The Adult Years, 3 (April 1980): 8-10.

104. Koppel, Joseph N. "The Food Service Manager of the Future." The Cornell Hotel and Restaurant Administration Quarterly, 19 (August 1978), 36-39.

105. Kovach, Kenneth A. "Improving Employee Motivation in Today's Business Environment." M.S.U. Business Topics, 24 (Autumn 1976), 5-12.

106. Kozma, Robert B, Belle, Lawrence W. and Williams, George W. Instructional Techniques in Higher Education. Englewood Cliffs, N.J.: Educational Technology Publications, 1978.

107. Laird, Dugan. "Should Trainers Push Self-Fulfillment?" Training, 15 (February 1978): 20.

108. Lamotte, Thomas. "Making Employee Orientation Work." Personnel 53 (January 1974): 35-37, 44.

109. Lawler, Edward E. "Workers Can Set Their Own Wages Responsibly." Psychology Today il (February 1977): 109-112.

110. Leber, Eve. "On the Job Training Techniques." Food Management 12 (March 1977): 40.

111. Lifelong Learning/Adult Audiences. Sourcebook Number 1. George Washington University. Washington, D.C. Center for Museum Education, 1978.

112. Logan, Frank A. and Ferraro, Douglas P. Systematic Analyses of Learning and Motivation. New York: John Wiley and Sons, 1978.

113. Long, Huey B. "In Search of a Theory of Adult Cognitive Development." Journal of Research and Development in Education 13 (Spring 1980): 1-10.

114. Long, Huey B., Hiemstra, Roger, et al. Changing Approaches to Studying Adult Education. San Francicso: Jossey-Bass Publishers, 1980.

115. Long, Huey B. and Ulmer, Curtis. The Psychology of Aging: How It Affects Learning. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1972.

116. Lubliner, Murray. "Employee Orientation." Personnel 57 (April 1978): 207-208.

117. Luxenberg, Stan. "Education at AT&T." Change, December 1978, pp. 26-35.

118. Magnusson, David. Test Theory. Reading, Mass.: Addison-Wesley, 1967.

119. Mai-Dalton, Renate, Latham, Gary P. and Fiedler, Fred E. "Selection, Management, and Performance of Food Service Personnel: A Survey of the Literature." The Cornell Hotel and Restaurant Administration Quarterly 19 (August 1978): 40-45.

120. Malone, Violet. "Counseling the Adult Learner." In Distinguished Adult Educators Explore Issues/Trends/Strategies in Adult/Continuing Education. A Compendium of Lectures and Resource Documents from a Seminar in Adult Education at the University of New Mexico. Albuquerque: University of New Mexico, 1979.

121. Marcussen, O. Mark. "Time Waste on the Job." Management 3 (May/June 1978): 38.

122. Martin, Josephine. "Only the Certified Work Here." Food Management 13 (December 1978): 15.

123. Martin, Josephine. "The Satisfied Employee." Food Management 11 (February 1976): 27-28.

124. Massey, Morris. "What You Are is Where You Were When . . . ." Speech at Central Michigan University, Mount Pleasant, Michigan, 1978.

125. Mayer, Allan R. and Ruby, Michael. "One Firm's Family." Newsweek, October 31, 1977, pp. 82-85.

126. McLagan, Patricia A. "Behavior Theory and Adult Education." Paper presented at the Adult Education Research Conference, St. Louis, Missouri, April 1975.

127. McNamara, Donna B. and Salinger, Ruth D. "Measuring the Payoff in Management Training." Training and Development 33 (April 1979): 8-10.

128. McNerney, Chris. "Training: 1975's Best Return on Investment." Institutions/Volume Feeding 76 (June 15, 1975): 35-37, 42.

129. "The Medium is the Message at Elias Brothers." Institutions/ Volume Feeding 81 (September 1, 1977): 39.

130. Menefee, Robert S. "We Motivate Mechanics for High Production Maintenance." American City and County 92 (March 1977): 51-52.

131. Miljus, Robert C. "Effective Leadership and the Motivation of Human Resources." Personnel 49 (January 1970): 36-40.

132. Miller, Jack. "Humanistic Management Involves People, Productivity." Food Service Marketing 41 (March 1979): 16.

133. Milling, Eileen. "A New Way to Improve Effectiveness on the Job." Nation's Business 63 (July 1975): 65.

134. Moon, Rexford G., Jr. "The College Board Program." Current Issues in Higher Education (1978): 7-11.

135. "Motivation Theories." Training 15 (January 1978): 54-55.

136. "Move to the Head of the Class." School Foodservice 32 (July/ August 1978): 53-54.

137. Murray, Francis T. "Train Presidents Too?" Training and Development 32 (January 1978): 38-41.

138. Myers, M. Scott. "Conditions for Manager Motivation." Harvard Business Review 44 (January/February 1966): 58-71.

139. Myers, M. Scott. "Who Are Your Motivated Workers." Harvard Business Review 42 (January/February 1964): 73-88.

140. Nanus, Burt and Coffey, Robert E. "Future-Oriented Business Education." California Management Review 15 (Summer 1973): 28-32.

141. Nebel, E. C., III. "Motivation, Leadership, and Employee Performance: A Review." The Cornell Hotel and Restaurant Administration Quarterly 19 (May 1978): 62-69.

142. Newell, Gale E. "How to Plan a Training Program." Personnel 55 (May 1976): 220-224.

143. Nie, N.; Hull, C.; Jenkins, J.; Steinbrenner, K.; and Bent, D. Statistical Package for the Social Sciences. 2nd ed. New York: McGraw Hill, 1975.

144. "NRN Focus/McDonald's: Recruitment and Training Aims for Crew Loyalty." Nation's Restaurant News 12 (December 18, 1978): 84, 87.

145. Orkin, Eric B. "HOTMAMA: A Computer Simulation Exercise to Sharpen Management Skills." The Cornell Hotel and Restaurant Administration Quarterly 19 (February 1979): 10-17.

146. O'Toole, James. "Integrating Work and Learning." Training and Development 31 (June 1977): 36-48.

147. Panyan, Steve and McGregor, Michael. "How to Implement a Pro-active Incentive Plan: A Field Study." Personnel 55 (September 1976): 460-462.

148. Parsons, Jerry and Johnson, Thomas. Adults Learn Differently Than Children. An Examination of an Old Assumption. Washington, D.C.: National Institute of Education, 1978.

149. Paxton, Dan R. "Employee Development: A Lifelong Learning Approach." Training and Development 30 (December 1976): 24-26.

150. "Personnel Shop Talk." The Personnel Administrator (January 1975): 35.

151. "Personnel Shop Talk." The Personnel Administrator (October 1977): 62.

152. "Personnel's Newest Service: Counseling." The Personnel Administrator (December 1978): 37.

153. Peterson, Brent. "On Making Work Meaningful." Progressive, November 1976, p. 30.

154. Peterson, Richard E. "The Educational Testing Service Project." Current Issues in Higher Education (1978): 12-16.

155. Petrie, Robert C. "How to Develop Training Films." The Cornell Hotel and Restaurant Administration Quarterly 16 (November 1975): 61-65, 69.

156. Phifer, Samuel. "Need for On-the-Job Training." Supervision 40 (June 1978): 3-4.

157. "A Pipeline to Employee Morale." Business Week, January 29, 1979, pp. 124-128.

158. Preston, Paul. "The Critical Mix of Managerial Communications." Industrial Management 18 (March 1976): 5-9.

159. "A Productive Way to Vent Employee Gripes." Business Week, October 16, 1978, pp. 168-169.

160. Puckett, Ruby. "The Dissatisfied, Disgruntled Employee." Food Management 13 (January 1978): 23.

161. Puckett, Ruby. "The Employee: A Human Cog?" Food Management 11 (February 1976): 25-26.

162. Puckett, Ruby. "There's No Substitute for Proper Training." Food Service Marketing 40 (June 1978): 8.

163. Quick, Thomas L. "Likert's System 4 for Participative Management." Training 15 (July 1978): 52.

164. Rankin, Ken. "Jobs Plentiful, But Where Are the Applicants?" Nation's Restaurant News 13 (July 9, 1979): 34.

165. Rappole, Clinton L. "Food Service Curriculum for the Future." The Cornell Hotel and Restaurant Administration Quarterly 15 (August 1974): 51-54.

166. "Resorts: Training in an R&R Atmosphere." Training 15 (September 1978): 78.

167. Roberts, James H. "Do Your Employees Know What They're Entitled To?" Management World 8 (April 1979): 4.

168. Robins, James. "Firms Try Newer Ways to Slash Absenteeism as Carrot and Stick Fail." The Wall Street Journal, March 8, 1979, pp. 1, 19.

169. Rogers, Carl R. Freedom to Learn. Columbus, Ohio: Charles E. Merrill Publishing Company, 1969.

170. Rokeach, Milton. "Change and Stability in American Value Systems, 1968-1971." Public Opinion Quarterly 38 (Summer 1974): 222-238.

171. Rokeach, Milton. The Nature of Human Values. New York: Free Press, 1973.

172. Rokeach, Milton. "The Role of Values in Public Opinion Research." Public Opinion Quarterly 32 (Winter 1968-1969): 547-559.

173. Rokeach, Milton. Value Survey. Sunnyvale, Calif.: Halgren Tests, 1967.

174. Rosenbaum, Bernard L. "How Good People-Handlers Motivate Others." Nation's Business 66 (March 1978): 78-80.

175. Ross, Allen. "Training the Individual Employee." Food Management 12 (March 1977): 32.

176. Rotundi, Ann. "Nonfinancial Compensation: A Productive Motivator." Supervision 40 (September 1978): 9-10.

177. Royer, James M. and Allan, Richard G. Psychology of Learning. New York: John Wiley and Sons, 1978.

178. Saljo, Roger. "Learning About Learning." Higher Education 8 (July 1979): 443-451.

179. Sandler, Charles H. "Sanitation Training and Certification: A National Trend." The Cornell Hotel and Restaurant Administration Quarterly 19 (May 1978): 23-27.

180. Scelzi, Gerald. "Problem: How to Motivate Employees. Solution: Form an Employee Problem-Solving Group." Food Management 13 (October 1978): 111.

181. Schneier, Craig Eric. "Training and Development Programs: What Learning Theory and Research Have to Offer." Personnel 53 (May 1974): 288-293.

182. Schoonmaker, Robert L. "Training Trainers on a Tight Budget." Training and Development 33 (January 1979): 8-10.

183. Semke, Ron. "Team Building: Helping People to Work Together." Training 15 (February 1978): 23-26.

184. Shaner, Michael C. "The Nature of Hospitality Managers: An Inquiry Into Personal Values." The Cornell Hotel and Restaurant Administration Quarterly 19 (November 1978): 65-69.

185. Shaner, Michael Cook. "The Relationship Between Personal Values, Organizational Climate, and Organizational Effectiveness: A Study of the Hospitality Industry." Unpublished Ph.D. Dissertation, University of South Carolina, 1974.

186. Shaw, Malcolm E. "Assertiveness Training for Managers."
     Training and Development 30 (September 1976): 8-14.

187. Shinn, Janet and Smith, Irene. "Moving Up the Career Ladder."
     School Foodservice 32 (September 1978): 49-54.

188. Shoen, Judith. "How to Talk Training Talk." Institutions/
     Volume Feeding 75 (June 15, 1974): 35, 40, 41.

189. Short, Sybil R.D. "Empty Places Changing Faces." Food Manage-
     ment 12 (August 1977): 36.

190. Smallwood, John; Lazer, William; Henry, William; Knight, Dennis;
     Rainwater, Lee; and Stolnitz, George. "Life Styles and
     Values of the 1970s." In Managerial Marketing; Policies,
     Strategies and Decisions, pp. 130-141. Edited by Eugene J.
     Kelley and William Lazer. Homewood, Ill.: Richard D.
     Irwin, Inc., 1973.

191. Smith, Howard P. "Misconceptions About Motivation." Training
     16 (March 1979): 54-56.

192. Smith, Preston E. "Management Modeling Training to Improve
     Morale and Customer Satisfaction." Personnel Psychology
     29, pp. 351-359.

193. Smith, Robert. "Learning How to Learn." In Distinguished
     Adult Educators Explore Issues/Trends/Strategies in Adult/
     Continuing Education. A Compendium of Lectures and Resource
     Documents from a Seminar in Adult Education at the University
     of New Mexico. Albuquerque: University of New Mexico,
     1979.

194. Smith, Robert M. and Haverkamp, Kay K. "Toward a Theory of
     Learning How to Learn." Adult Education 28 (Fall 1977):
     3-21.

195. Sommer, William. "What the Year 2000 Will Mean for Food Service."
     Nation's Restaurant News 13 (July 9, 1979): 37-43.

196. Southwell, Robert G., CCM. "Training Exchange." Club
     Management 58 (February 1979): 18-20.

197. Spierer, Howard. Major Transitions in the Human Life Cycle:
     Summary of the Conference on the Significance of the Bio-
     medical and Social Sciences in Understanding the Aging
     Process. New York: Academy for Educational Development,
     1977.

198. Standke, Linda. "The Advantages of Training People to Handle Stress." Training 16 (February 1979): 23.

199. Steele, Judith H. "Five Ways to Get Trainees to Open Up and Get Moving." Training 15 (November 1978): 40-42.

200. Stephens, Michael D. and Roderick, Gordon W., eds. Teaching Techniques in Adult Education. Newton Abbot, England: David & Charles, Limited, 1974.

201. Stern, Margaret. "Train Employees to Increase Wine Sales." Food Service Marketing 39 (July 1977): 56-58.

202. Stevens, Terrie J. "A Comparison of the Differences Between the Characteristics of Admitted First-Time Freshman Students Who Enroll and Admitted First-Time Freshman Students Who Do Not Enroll." Unpublished Ph.D. dissertation, Michigan State University, 1978.

203. Stringer, Robert A. "Achievement Motivation and Management Control." Personnel Administration 29 (November/December 1966): 329-335.

204. Terborg, James R. "The Motivational Components of Goal Setting." Journal of Applied Psychology 61 (October 1976): 613-619.

205. "Theories of Motivation: Why People Work." Personnel 57 (February 1978): 35-38.

206. This, Leslie and Lippitt, Gordon. "Learning Theories and Training." Training and Development 33 (June 1979): 5-17.

207. Tough, Allen M. The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning. 2nd ed. Toronto: The Ontario Institute for Studies in Education, 1979.

208. Tough, Allen. "Self-Guided Learning and Change." In Distinguished Adult Educators Explore Issues/Trends/ Strategies in Adult/Continuing Education. A Compendium of Lectures and Resource Documents from a Seminar in Adult Education at the University of New Mexico. Albuquerque: University of New Mexico, 1979.

209. "Training at Innisbrook: A Matter of Survival." Hospitality 15 (May 1976): 131-132.

210. "Training More People for Jobs in the Real World." U.S. News and World Report, June 25, 2973, pp. 49-51.

211. "Training, Product Visibility Promote Wine Sales." Food Service Marketing 41 (January 1979): 78, 80.

212. "Training the Daka Way." Institutions 84 (April 1, 1979): 78.

213. "Training the Individual Employee." Food Management 12 (March 1977): 32-35, 67-68, 70, 74.

214. "Turnabout in Job Training--States and Cities Take Over." U.S. News and World Report, February 4, 1974, pp. 69-70.

215. "Unions Fighting to Maintain Their Influence." Nation's Restaurant News 13 (July 9, 1979): 33-34.

216. Users Manual, Revisions and Local Options, SPSS. Chicago: Northwestern University, Vogelback Computing Center, 1976.

217. VanCleve, Roy and Marshall, Roy. "Start-Up Training and Rural Industrial Location." Monthly Labor Review 99 (April 1976): 23-25.

218. "Voting for Pay." Time, February 26, 1979, p. 69.

219. Ward, Earnest H. "Elements of an Employee Motivation Program." Personnel 53 (May 1974): 205-208.

220. Warnat, Winifred I. Building a Theory of Adult Learning: Toward a Total Person Model. Washington, D.C.: American University, Adult Learning Potential Institute, 1980.

221. Weathersby, Rita. "A Synthesis of Research and Theory on Adult Development: Its Implications for Adult Learning and Post-secondary Education." Paper delivered at Harvard University, Cambridge, Massachusetts, 1976.

222. Weiss, N. H. "Are Trainers Doing a Poor Job Because of Over-Communication?" Training 15 (November 1978): 68-69.

223. Weiss, Steve. "Culinary Institute's 7,000 Graduate Chefs Challenge Europe's Monopoly on Cooking Expertise." Institutions/Volume Feeding 87 (April 1, 1976): 85.

224. Wener, Isabel L. "On Emotional Environment for Training." Training and Development 33 (April 1979): 28.

225. "When Workers and Bosses Join to Boost Efficiency." U.S. News and World Report, April 16, 1973, pp. 121-122.

226. Wilkinson, Robert. "Ten Ideas for Half-Day Training Sessions." Supervision 40 (September 1978): 16-18.

227. Willis, Sherry L. and Baltes, Paul B. "Fluid and Crystallized Intelligence--Theory and Research in Later Adulthood." Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

228. Wise, David A. "Academic Achievement and Job Performance." American Economic Review 65 (June 1975): 350-366.

229. Ylvisaker, William T. "Gould's Corporate College: Where Hitting the Books is Company Policy." Management Review 66 (September 1977): 8-12.