

**CONTINUING EDUCATION
FOR MEMBERS OF
THE HOUSING INDUSTRY
BASED ON
THE NEEDS OF AN AGING POPULATION**

By Jeannette Frost Steeves

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Jeannette Frost Steeves

Bachelor of Interior Design, The University of Georgia, 1998

Approved:



MAJOR PROFESSOR



Date

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CHAPTER I

INTRODUCTION

The twenty-first century Baby Boomer population is quickly becoming a population of "Senior Boomers" (President Bill Clinton, 1999 State of the Union Address). The term "Senior" implies a physiological state with inherent needs that are unique to the latter stages of life. A person in the latter stages of life is often referred to as an older person and is more prone to accidents than a younger one. This is due to a slowed response to the senses that has come to be accepted, albeit reluctantly by the Baby Boomers (Margaret Wylde, Ph. D., Ka Boom, Home Builders International Convention Presentation, 1999), as an inevitable part of the aging process. While accidents are never entirely avoidable, research has identified certain construction related precautions that can effectively reduce the probability of their occurrence (Suzan St. Maur, The Home Safety Book, London: Robert Hale, 1984) 143-144. The manifestation of these construction related precautions in a non-clinical manner is vital to their acceptance by the consumer. Currently decisions involving the design and implementation of these precautions are being made by health care professionals and the resulting product is often institutional and therefore, in the opinion of some, unsuitable for a residential installation. It is imperative that the products involved be developed by design professionals with sensitivity to aesthetics as well as to function (Betty Ann Boetticher Raschko, Housing Interiors for the Disabled and Elderly. [lecture presented at ASID CEU meeting, Atlanta, GA. September 12, 1998] Raschko Consultants, Tigard, Oregon 97224).

In 1963, Olive Randall, the presiding Vice President of the National Council on the Aging at the time, expressed great concern regarding appropriate housing for the elderly and the ability of the housing industry to provide appropriate housing when she commented on the problem "while we plan the problem is changing," and we are all

“expressing opinions out of deep ignorance.” The issue of an aging population and the eighty-million people who currently comprise it is still a daunting consideration thirty-seven years later, however Noverre Musson, indicated a promising direction referring to housing for the elderly, when he stated “We proceed, ...with the conviction that if satisfactory answers are to be found, they will be architectural ones inasmuch as history proves that any ‘way of life’ has finally found expression in buildings and that these buildings have unavoidably molded the way of life of the people who lived in them” (Noverre Musson, AIA and Helen Heusinkveld. Buildings for the Elderly. New York: Reinhold Publishing Corporation, 1963) 7.

An informal survey of professionals in the housing industry was conducted by the author at the 1999 National Home Builders International Convention to determine the level of awareness of the members of this industry regarding the housing needs for the aging population. The results of this survey were compared to currently available information representing the specific housing requirements of the Baby Boomer market. According to the results of the survey, the members appear to lack information regarding the requirements of the built environment and the changing needs of the aging population. In addition the survey revealed a discrepancy between available information on what has been defined as needs of the aging population and the housing product currently being promoted to the Baby Boomer market. Most importantly, based on the pilot survey, it appears that while there is a wide variety of current research information available and additional research in progress on the housing needs of an aging population, this information has not had full impact on the housing construction industry. Therefore, the critical issue is not only the development of definitive information on the subject of housing for the Baby Boomer market, but also how to effectively distribute it and thus influence a housing product that addresses the specific needs of an aging population.

Current demographic information, indicates that interest in and need for private housing for the elderly has been increasing in recent years. Research predicts that by the

year 2030, seventy million people will be 65 or older and experiencing physiological losses as a natural part of the aging process . The challenge to the housing construction industry is two fold. First it involves education as to the precise physiological changes occurring in the aging population and, secondly, revisions of traditional construction practices in a way that results in a housing product that supports the defined losses in a sensitive and effective way. The significance of meeting this challenge is apparent in that housing for the elderly is projected to be a growth industry for the next thirty years (Douglas R. Porter, ed., Housing for Seniors: Developing Successful Projects, Washington, D.C.: Urban Land Institute, 1995) 1. The time required to accomplish the educational goal is an important factor in determining the appropriate method of distribution of information. The development of a continuing adult education program targeted at professionals in the industry lends itself to the accomplishment of the educational aspect of the challenge. Presentations organized and designed to delineate defined issues form the core of the continuing education experience. Continuing education, by definition, is an ever-evolving process providing infinite opportunity for future research and development.

Purpose of the Study

The purpose of this study is to gain a sufficient level of knowledge on the subject of continuing adult education in order to design an effective program of learning for members of the housing industry.

Objectives of the Study

The objectives of this study are as follows:

- (1) To gain knowledge through analysis of selected research material relating to continuing education and the adult learning process.
- (2) To identify members of the housing industry who are influential in the residential housing market.

- (3) To design an effective means of educating members of the housing industry in order to influence change in construction that will be beneficial to the aging population.

Limitations of this Study

This study is limited to the design of a continuing education program designed for members of the housing industry in order to influence change beneficial to an aging population. No attempt will be made to suggest continuing education in any subject other than housing needs of the elderly.

Definition of Terms

Baby Boomer - People born between January 1946 and December 1965 (Dr. Everett S. Lee, Gerontology Center, University of Georgia, interview by author, Athens, GA, October 6, 1998).

Senior Boomer - President Clinton's reference to aging Baby Boomers (President Bill Clinton, 1999 State of the Union address, January 1999).

Aging - to grow old; to show signs of age (Websters New Universal Unabridged Dictionary Deluxe Second Edition. New York: Simon and Schuster, 1979).

Population - in statistics, a group of items or individuals (Ibid.).

Chapter II

Review of Literature

Definition of the Target Audience

The continuing education of adults, the fastest growing classification in American education today, has identified as one of its tenets, the importance of a teacher-learner relationship. Identification of the proposed learner or target audience is the first step in preparing for this all-important relationship (Elinor Lenz, The Art of Teaching Adults, New York: Holt, Rinehart and Winston, 1982) 5. The target audience for a continuing educational experience designed specifically to address the housing needs of an aging population would be professionals whose work is associated with the design, modification and/or construction of homes for the aging population. This designation would be appropriate for several professions. Among them are architects, interior designers, realtors, academic instructors, contractors or builders and manufacturers of construction materials. Defining the individual professional categories indicates their connection with the subject of housing for the aging population. An architect is defined by Webster as "one skilled in the art of building; one who designs buildings, draws up plans, and generally supervises construction" (Webster's New Universal Unabridged Dictionary Deluxe Second Edition [1979], s.v. "architect"). An interior designer is defined as "a creative person who develops ideas into objects and environments" (Rosemary Kilmer, and W. Otie Kilmer, Designing Interiors. Ft. Worth: Harcourt Brace Jovanovich, College Publishers, 1992) p. 8. A realtor is "a real-estate broker who is a member of a local board affiliated with the National Association of Real Estate Boards" (Webster's New Universal Unabridged Dictionary Deluxe Second Edition [1979], s.v. "realtor"). Academic instructors are individuals who are professionally trained in a particular discipline, aware

of research and scholarship pertaining to that area, and are motivated to advance that area specifically (Lenz, 5). The terms *contractor* and *builder* are defined as “one of the parties to a contract, a person who contracts to supply certain materials or do certain work for a stipulated sum; especially, one whose business is contracting to erect buildings” (Webster’s New Universal Unabridged Dictionary Deluxe Second Edition [1979], s.v. “contractor”) and “one who builds; ...one whose business is the erection or supervision of the erection of buildings” (Ibid., s.v. “builder”) respectively. A manufacturer of construction materials is a business that manufactures a product intended to be used in the construction process.

The projected housing demand for the aging population is described as “almost unlimited” (Porter, 102). This is a function of a shift in demographics that triggers a need for change in associated professions. A prerequisite for the change in the associated professions is specific information regarding the identified requirements of the new demographic parameters. The importance of addressing the need for change in industry was expressed by Donald Petersen, retired chairman and CEO of Ford Motor Company when he said “Lifelong learning is the key that will unlock America’s human potential. The value we place on learning will decide the future of our country” (Nell P. Eurich, The Learning Industry: Education for Adult Workers, Princeton, New Jersey: The Carnegie Foundation for the Advancement of Teaching, 1990) 3. A predictable impetus for continuing education is awareness of need (Sharan B. Merriam, Being Responsive To Adult Learners, Washington, D.C.: American Association for Adult and Continuing Education, 1986) 2. The need to become educated in the details associated with housing requirements of the aging population as a basis for addressing the pertinent issues could motivate each of the categories identified to initiate a program of learning. Architects and interior designers are becoming increasingly aware of the need to incorporate design features that unobtrusively support and enhance the lifestyle of homeowners as they age. These features are sometimes referred to collectively as Universal Design (Stephen

Winter Associates, Accessible Housing By Design - Universal Design Principles in Practice, New York: McGraw-Hill, 1997) 6. Architects and interior designers customarily exercise influence during the design phase of plans to remodel or construct a residence. This provides an appropriate opportunity to implement structural modifications that could have a positive effect on the successful function of the home. Instruction in the specific requirements of the aging population could result in a housing product that would allow the occupants to remain in the home with which they have become comfortable and familiar. This phenomenon, referred to in the senior-housing industry as "aging-in-place", is highly preferable to the aging population (Joan R. McFadden and Jeanette A. Brandt, Aging In Place: Pre-Retirees' View of Environmental Adaptation In Maintaining Independence, Housing and Society, Volume 20, Number 1, 1993) 9. The majority of the eighty-million people that comprise the aging population are currently residing in the homes in which they raised their families. These homes were designed and built to meet the needs they have been experiencing for the last twenty to thirty years, but do not meet their anticipated needs for the next twenty to thirty years. Realtors, whose success depends on being able to efficiently locate properties that fulfill prospects requirements, would benefit from the information presented in a continuing education program focusing on the needs of the aging population because some of the aging population will chose relocation in addressing their anticipated needs. A well informed realtor who is sensitive to the concerns of the aging would be an asset in that situation. Evidence of the value placed on a professional who exhibits savvy in age issues is apparent in the numerous advertisements offering training in the various related professional disciplines that appear in the Summer 1998 issue of Seniors' Housing News. A continuing education course on the needs of the aging population would enhance the acumen of academic instructors, whose primary objective is to be on the cutting edge of advancement in their area, It would be of interest in any area that is influenced by the economics of the housing industry, and particularly those that are associated or tangential to the housing of the aging

population. Contractors, builders and manufacturers of construction materials are good examples of these associations. Young adults seeking entry level training in these areas as well as seasoned practicing professionals could benefit greatly from information addressing issues of interest to the aging population specifically.

General contractors and builders enjoy the closest association with the owners of the majority of custom homes being built today. Because they are the professionals who, more than any others in the construction industry loop, meet with the homeowner directly and often, they are in a position to scrutinize the process from a close perspective and to exert considerable influence. Ideally this association begins before a structure is designed and continues until the "punch list" has been addressed and the occupant is satisfied with the product the contractor or builder has provided. This can involve a considerable length of time and numerous one-on-one meetings. A high level of confidence and trust is necessary on the part of both the homeowner and the contractor or builder if this association is to be one of good quality. The homeowner must be able to communicate clearly to the contractor or builder exactly what is anticipated in the house that is being designed and built. And the contractor or builder must be able to articulate the details involved including the cost of providing the specified product. This communication is crucial to the success of the project. The homeowners are novices in these situations. Their input, while paramount to the process, is limited by typical peripheral exposure to residential construction options. The contractor or builder has a vast array of experience to draw from and is therefore in a position to bring to the process the benefit of years of experience as well as access to state-of-the art materials, equipment, and technique (Dr. Anne Sweaney, Housing Research Center, College of Family and Consumer Sciences, UGA, interview by author, Athens, GA., February 4, 2000). This information would significantly enhance their ability to advise clients as to the appropriateness and feasibility of their plans as well as make them aware of innovations in building materials and techniques that may not be well known to the general public. The recommendations of the

contractor or builder could improve the overall concept or resolve a particular problem. Evidence of the importance of the close association between homeowner and contractor or builder can be seen in the terminology chosen by the professionals for attracting clients. Independent general contractors and builders who specialize in custom homes often use terms like *integrity* and *homeowner satisfaction* in their advertisements and promotional information. They also often stress the importance of close collaboration with the homeowner for the purpose of insuring that the final product is the customized home that addresses all the homeowner preferences and concerns (Covenant Home Builders, Inc., Custom Built Homes, available from <http://home.att.net/~covenanthome>; accessed February 2, 2000). Although rare, an effort is being made by some savvy builders to emphasize an affinity and sensitivity to the complicated issue of housing several generations under one roof. John Kaltenbach, whose motto is "Everything you should expect in a custom home builder", (Susan Craig, "Built for the Generations - A well-considered home for an extended family", Su Casa Magazine, Winter Issue, 1998, available from <http://www.jkhomes.com>; accessed February 2, 2000) is one of those builders. The following quote verifies this tendency "I've been seeing a bit of a trend toward homes built with the contingency of adding family members, says Kaltenbach,... We built in certain features for adaptability to any future aging needs," (Ibid.). David Kohler, President of Kohler's kitchen and bath division, is quoted in the February 2000 issue of *Kitchen and Bath Business* magazine addressing the issue of the changing market "I believe that the most important factor facing all of us is changing our business to conform to a changing consumer. That may seem trite, but if you don't understand your customer and how they are changing someone else will and will exploit the opportunity"

The mindfulness of the residential construction industry of the need to address the aging population with sensitivity can be seen in periodicals dedicated exclusively to this issue such as *Senior Housing News*. Additional publications, available to the trade only such as and *The Urban Land Institute's Symposium Report on Housing in the 21st*

Century, Building Systems and Automated Builder, reveal a significant amount of research and development on the issue of product and techniques that benefit the aging population. The consumer is also being made aware of many of their housing options through news paper and magazine articles such as stories in the two most recent *AARP Bulletin's* (January and February 2000 on the subject of the Smart Houses of the future and independent lifestyles for seniors. The Orlando Sentinel has featured numerous articles over the last six years targeted at seniors with titles such as *Living Space that's Tailored to fit Lifestyle, Aging: A Game Plan, Designs help homes, owners age gracefully, and Homes that make aging go easier*. This trend in public information indicates an interest in the subject by both the consumer and the professions that serve their needs. Continuing education of the adults that work in those professions providing information on the needs of the aging population has potential for benefiting both groups.

The Adult Learner

Sharan Merriam quotes David Rauch in Being Responsive to Adult Learners.

Regarding the subject of the adult learner, Rauch asserts that the adult learning experience can be maximized when learning materials and the learning environment are designed specifically for the adult level participant. He further describes stereotypical categories of adult learners. Some of these descriptions lend themselves to the residential construction industry and are as follows:

1. Those whose goals have changed, who were not able or interested in continuing their education at an earlier age.
2. People learning new occupational skills or taking courses to upgrade themselves occupationally, Adults making mid-career changes,...
3. People facing new things at a particular point in their lives... older adults
4. Professionals taking courses to maintain and upgrade their skills and licensure...
5. People who believe in the enrichment possibilities of education, participating in a program to update their interests, learn new concepts that were not even in existence when they were young. And people now involved in their own lives with something that was not their concern or did not even exist This is

certainly the largest number of people in institution sponsored adult continuing education.

Dennis Parks, in another article in the same book titled Adults in Transition: Do Educational Programs Respond?, echoes Rauch's definition of a significant segment of the adult learner population as those who have chosen to meet their personal as well as professional needs through the educational process. George E. Spear and Donald W. Mocker also comment on the triggers for interest in adult learning in their article The Organizing Circumstance: Environment Determinants in Self Directed Learning. Their contention is that the impetus for continuing education is a direct result in the life circumstance of either the individual, someone who directly affects the individual's life or an event which occurs and is observed. Parks refers to this phenomenon as adult transition. He further points out that while there is no definitive definition for the term "adult transition", most professionals use it when referring to two types of life shaping metamorphoses. The first involves the act of sustaining a change in the course of life and will be affected by many complex factors including preconceived expectations regarding the change, and ability to accept and process change within the context of the new reality. The second type is closely connected to chronological age and, therefore, to the theory of phases of life. Transition of either type is characterized, according to Park, as consisting of several life phases during which an individual questions the past, assesses the present and plans for the future.

One of Rauch's recommendations regarding adult education stresses the importance of deviation from the traditional approach to training which might start with orientation, theory and chronological historic information on the topic when he suggests that the adult learners first encounter must result in a direct experience with the subject. Another recommendation that would appear to indicate that a web based format is ideal for adult continuing education pertains to assignments. Rauch's research reveals that because of prior commitments, many adult learners do not have large blocks of time to

concentrate on lengthy assignments, but it is likely that they would have several small segments of time a week to devote to requirements of the learning experience.

Additionally, the identification of components that confirm compatibility with the web based format, and are also unique to the adult learner, include a self directed curriculum, and an impatience with deferred gratification. A self-directed program of learning implies linear progression and includes, among other criteria, identification in detail of what is to be learned, resources and methods to be employed, the amount of time to be devoted to the effort, the environment where the learning will take place, the pace of the process and the deadline by which the process will be completed. Research on the subject of self-directed learning indicates that the absence of professional leadership in the planning process results in a phenomenon referred to as Organizing Circumstance which infers that the learner tends to make decisions based on limited alternatives which occur inadvertently in their environment. This indicates that the basis of the self-directed learning experience, if constructed without professional direction, will be somewhat arbitrary and may not result in maximum efficiency and effectiveness (Ibid., 1-27).

Planning

Needs assessment, a threshold issue in the continuing education process, is an important tool in the planning phase of an adult education program. Redirecting the educational experience from subject-centered to a learner-centered perspective, a needs assessment assists programmers in focusing on the expressed requirements of the learner as they make the decisions that essentially construct the program (H. M. Atwood and J. Ellis, The Concept of Need: An Analysis for Adult Education, 1971, 19[7] 210-212). Careful determination of educational needs is "the first step in developing (educational) interventions that are relevant" (C. M. Sleezer, Needs assessment: Perspectives from the Literature, *Performance Improvement Quarterly*, 1992) 5 (2), 34 - 36. It effectively identifies components that will best meet the needs of the clients', and often societies,

educational needs (Donna S. Queeney, Assessing Needs in Continuing Education: An Essential Tool for Quality Improvement. San Francisco: Jossey-Bass Publishers, 1995) 1-3. Although an imprecise tool, when implemented correctly, a needs assessment should accurately address such issues as target audience, content, location, scheduling, format, and the delivery system. While a needs assessment does not guarantee success of the project, its incorporation into the overall program-planning process can significantly diminish uncertainty regarding the appropriateness and feasibility of the proposed program. This, in turn, influences positively the likelihood of the success of the program being designed. A needs assessment functions as an integral part of multi-level research by providing practical data that guides the planners in their design of various aspects of the program.

It is helpful to keep in mind the differences in the terms *need*, *want*, and *demand* when considering a needs assessment. As it is used in the term needs assessment, *need* is a discrepancy between an actual condition or state and a desired identified standard (M. L. Monette, The Concept of Educational Need: An Analysis of Selected Literature. *Adult Education*, 1977, XXVII[2]) 119. Need is not hypothetical when used in the term *needs assessment*, but rather a value judgment determined by the expressed standard (F. C. Pennington, Needs Assessment: Concepts, Models and Characteristics, In F. C. Pennington (ed.), 7, San Francisco: Jossey-Bass, 1980) 1-4. *Want* implies interest and sometimes motivation, but is not associated with a discrepancy of any type. A *demand* indicates a commitment for the purpose of attaining a specific goal, but does not indicate discrepancy. While wants and demands are a part of the motivation that may result in engaging in a continuing educational experience, need is the dynamic that has the strongest impact on the decision to participate. A high-quality needs assessment can distinguish between wants, needs and demands and direct the planning in a way that relates both wants and demands to the needs that are at the core of the design of the program.

The actual needs assessment data gathering instrument can take several forms including questions, interviews, observations and various other forms of measurement. The data provided defines the differences between the existing level of acumen and the one aspired to in knowledge, skills and performance abilities. The interrelatedness of the data provided is important to the overall concept. The collective approach to data review, which involves simultaneous consideration of data collected from multiple indicators, allows for a comprehensive perspective. Some examples of multiple indicators are academic experience, socioeconomics, career choice, etc. Learning patterns are often revealed through multi-level data gathering. "...most adults have a pattern for the way they approach learning and understanding that pattern will help them discover how they process information" (Dagavarian, D. A. Proceedings of the National Institute on the Assessment of Experiential Learning. Trenton, N. J.: Thomas Edison State College, 1990) 13. A needs assessments report that includes information on how the learning patterns of the audience (revealed in the needs assessment) have been incorporated into the planning of the activities, and relevance of the activities to the goal can be a strong motivational tool. Frequency is a key learning pattern indicator. If a participant has a recent history of pursuing continuing educational opportunities, the probability of repeating that behavior and having a positive experience is heightened (Aslanian, C. B. The Causes and Timing of Adult Learning. *Adults and the Changing Workplace*. Arlington, VA.: American Vocational Association, 1985a as quoted in Donna S. Queeney, Assessing Needs in Continuing Education: An Essential Tool for Quality Improvement. San Francisco: Jossey-Bass Publishers, 1995) 204. The multiple indicator approach can reveal contradictions. Information may point to a participants low level of awareness of the identified need while concurrently revealing a high interest in another tangential area. One approach available to the continuing educator might involve connecting the activities designed to address the need directly to activities that the participant will identify with their area of interest. One example of this kind of connection involves advancement. A

participant may be very interested in advancement in his field, but not particularly interested in learning specifics about a particular area of his industry. Incorporating the likelihood of a heightened level of knowledge leading to advancement connects the two areas in a way that attracts and motivates the participants. This association of the educational experience with new or expanded aspirations is frequently overlooked when considering participation in a continuing education experience.

The next step in the use of a needs analysis is the interpretation of the data gathered by the instrument. The processes of analyzing and recording the information in a well-organized and easily accessed and understood summary form is critical to the appropriate implementation of the information. Insightful interpretation leads program planners to the creative exercise of translating the data into activities designed to move the participant from the existing level of capability to the desired one. (Queeney, 200).

The planners are sometimes referred to as a program development group. A program development group, consisting of experts from many disciplines (including needs assessment, delivery methods, content design, instructional design, marketing, and evaluation) is assembled to interpret information gathered from many sources for the purpose of creating the continuing education program. The discrepancies identified in the needs assessment instrument direct the programmers toward the design of appropriate educational activities to ameliorate the less-than-desirable situation. Adult educators function as moderators for this group, assuring that the focus remains stable and clear to all participants. The activities are carefully defined in relation to how they will contribute to rectifying the identified discrepancy within the target populations parameters. Another consideration, albeit a lesser one, in the design of the activities is the facilitating agencies strength, resources and mission. One important factor in interpretation of information is the identification of the unit under examination. Because it is impractical to base a plan on the needs of specific individual need, the information is generally categorized into group definitions. These groups can reference such things as geographic location, experience

and educational level of prospects. The data identified within these parameters will direct the programmers regarding not only the appropriate activity interventions to address the discrepancies, but the data will also reveal the preferences regarding such subtle concepts as learning styles, limitations, content, and format of the target population.

Learning style is an important consideration in the planning of an adult learning experience. Learning style, defined by Nancy M. Dixon in her article The Implementation of Learning Style Information, refers to a person's preference in the way they receive and transform information. This is not to imply that their ability to learn is limited to this form uniquely, but that their particular preferred learning style represents the most likely manner that will produce a successful learning experience for this person at a given time (Merriam 1986, 28). A quality analysis of the information provided in the multiple indicator needs assessment can assist in the development of a program that successfully addresses the issue of content in areas of data-overload, and learner limitations.

Data-overload, sometimes referred to as *Data Glut*, can dilute essential information to the point that it becomes indistinguishable from the peripheral information that is less relevant to the issue under consideration. Data-overload can also lead to a debilitating condition known as *Analysis Paralysis*. Excessive details can obstruct the learning process rather than foster it. It is for that reason that focus is an important part of a quality needs analysis. Content specialists refer to the needs assessment when formulating the content of the instructional material to insure that proper focus is maintained. They consider such things as the specific topics to be addressed and the appropriate level at which to approach them, the most effective visual aids and comment on issues of format and delivery system. Some of the most important content considerations are often Continuing Education Units needed, an employer sponsored reimbursement program, or credit toward higher level credentials for the target population. The key factors determining the delivery system are the educational content and the target population's preference in learning style. The interaction of the various

experts becomes complex and can be confusing as the process becomes more and more intricate. The continuing educator, functioning as facilitator in this process, continually refers to the needs assessment to keep the program plan on track. Without this element, the program development process could get completely out of control, and veer from the original purpose of the group.

A focused or narrow perspective provides the highest quality information for the planners of an adult education program. It is problematic to address a broad spectrum of issues in a single needs assessment. Most professionally structured needs assessments will provide more information than can be reasonably developed in one program. Controlling the scope of educational activities in a continuing education program increases the probability of a high quality presentation of the chosen topics with a resultant significant learning experience. This approach does not necessarily limit the number of items that may be addressed, but rather dictates an approach to orienting the items in a way that relates to the discrepancies identified. The manner in which the data is presented in the content material is directly related to the level of comprehension and retention that can be anticipated as a result of the learning activities.

The first step in the composition of learning activities is the to convert the needs analysis findings into learning objectives. Dostoevski said "Man is a creative animal, doomed to strive consciously toward a goal" (George S. Odiorne, Training by Objectives: An Economic Approach to Management Training. London: Collier-Macmillan Limited, 1970) 113. Learning objectives are directly related to goals in an educational experience. The learning objectives are the driving force for the design of a continuing educational activity providing a grounding and purpose on which the activity will be designed. The process of defining learning objectives often provides directives for other associated decisions under consideration such as delivery methods and materials selection. Learning objectives must be clearly and concisely stated in three parts; the desired outcome, how it relates to the defined discrepancy, and the anticipated advantage to the participant. The

learning objectives statements have maximum impact when they incorporate action verbs when referring to the advantages that can be expected from the exercise or activity (A. B. Knox, Helping Adults Learn. San Francisco: Jossey-Bass, 1986) 190 - 213.

Programmers are essentially professional problem solvers working within the context of established principles defined as follows: [(1) assessing learners' needs, (2) defining objectives based on these needs, (3) identifying learning experiences to meet those objectives, (4) organizing those learning experiences, and (5) evaluating the program in terms of the objectives" (Apps, 1969 as noted in Ronald M. Cervero, and Arthur L. Wilson. Planning Responsibly for Adult Education: A Guide to Negotiating Power and Interests. San Francisco: Jossey-Bass Publishers, 1994) 3. The last principle, evaluation, may be the most difficult one to implement by problem solvers. This is most likely because the planners may lose some of their momentum when they perceive the program planned and thus the problem solved.

Accepted definitions of *evaluation* differ greatly allowing program planners a wide variety of options in approach. The varying evaluations are not mutually exclusive, but rather place emphasis on different aspects of the evaluation process. While the variety of definitions is too numerous to address here, the definitions cited share some of the common elements. The current trend toward accountability, which can reference moral, educational, fiscal and legal matters, lends itself toward the thread of judgment that is also present in most definitions of evaluation. Accountability is a subjective issue and can never be complete due to varying people and their respective varying perspectives. However, the close association of an evaluation with predetermined value, inherent in the terminology, leads to the assumption that it is appropriate for someone to make those judgments and establish those standards of value. And lastly, the definition of evaluation of a program references the purpose for the evaluation process in providing vital information for those in the position of making decisions. The definition, in the opinion of some, that best serves the purpose of adult educators planning a continuing education

experience is “a process of examining certain objects and events in the light of specific value standards for the purpose of making adaptive decisions” (Paulson, 1970, as noted in Arden D. Grotelueschen, Dennis D. Gooler and Alan B. Knox. Evaluation in Adult Basic Education: How and Why. Danville, Illinois: Interstate Printers & Publishers, 1973) 17.

This comprehensive definition places emphasis on providing pertinent information to the planners to facilitate sound and rational decision making. Confirming definitions advanced by other notable authorities in the field of adult education are as follows:

“Educational evaluation is the process of delineating, obtaining and providing useful information for judging decision alternatives” (Stufflebeam, 1971, as noted in Arden D. Grotelueschen, Dennis D. Gooler and Alan B. Knox. Evaluation in Adult Basic Education: How and Why. Danville, Illinois: Interstate Printers & Publishers, 1973) 18.

This definition indicates a wider base of information providing a larger pool from which to select alternatives. A third definition emphasizes identifying discrepancies between the starting point and the goal of the work. Evaluation is responsive “if it orients more directly to program activities than to program intents; responds to audience requirements for information; and if the different value perspectives present are referred to in reporting the success and failure of the program “ (Stake, 1975, as noted in Arden D. Grotelueschen, Dennis D. Gooler and Alan B. Knox. Evaluation in Adult Basic Education: How and Why. Danville, Illinois: Interstate Printers & Publishers, 1973).

As important as the appropriate definition is, it is only a beginning. Definitions reveal only the primary nature of an evaluative task. Equally important is the question of why it is an important activity and how to accomplish it. A formal evaluation of educational programs occurs for at least three reasons. Required mandates is the most obvious reason. Projects funded by the Federal Government require evaluations on a regular basis. This system of checks and balances results in considerable accountability on the part of the program administrators. The motivation can be political, fiscal and educational. There is considerable speculation as to which of the motivations is primary in

any particular evaluation. Regardless of the motivation, the resulting information answers questions involving job description and effectiveness in a respective position. The most obvious, and often stated, principle underpinning most evaluations is for improvement of program functioning. This is accomplished by examining the program and its resultant effects including details of the programs composition, its success or lack thereof, and precise recommendations for refining and strengthening the curriculum.

How to conduct an evaluation is another broad based issue. The trend recently is to include both the processes of education and the measurement of student outcomes in the evaluation. Existing methodologies are currently available for the study and subsequent application of an evaluation into the adult education program planning process. The evaluation is the link that connects the planners of a program in the planning stages with a project with which they have experience. It is important that the evaluation process be seen as an integral part of the programming function and not as an isolated, optional activity. A good quality evaluation has the potential to assist the people in a position to improve future program design, enhance the level of understanding of experience regarding previous programs, and perhaps most important, reveal why previous experiences were perceived as they were.

The components of an evaluation include every aspect of the planning process and are as follows: Program description, audience identification, issue identification, evaluation design, data collection evaluator interpretation of results and preparation and transmission of information. The proper utilization of the components is non-linear, requires quality interpretation, and must be addressed independently as the planning process progresses for appropriate application. It requires flexibility, the ability to grasp the full scope of the project, skill in keeping objectives clearly in focus, as well as accurate and disciplined record keeping. The singular goal of formal educational evaluation is to determine the merit of a specified program. Each element is focused on this goal. The process leads to discoveries that improve present operations and reveals innovations that

have potential to strengthen future program plans. Therefore it can be said that evaluation serves also in the vital function of program analysis (Arden D. Grotelueschen, Dennis D. Gooler and Alan B. Knox Evaluation in Adult Basic Education: How and Why. Danville, Illinois: Interstate Printers & Publishers, 1973) 1-254.

Another critical consideration addressed by programmers is marketing. While marketing analysis is not necessarily a part of a needs assessment, it is an important adjunct to the information gathering process. The information can be maximized when a marketing expert is included in the design of the needs assessment instrument. When the continuing educator can gather information regarding needs and interest in conjunction with scheduling and associated preferences early in the process, the program can be designed to meet comprehensive needs simultaneously. Semantics is a marketing sensitive issue. The use of positive terminology when stating defined deficiencies has the effect of presenting the issue in terms of opportunity rather than deficiency. This strategy reduces the likelihood of resistance and a defensive reaction to promotional information. An educational experience is often considered an opportunity and therefore seen as one positive alternative for ameliorating a problem area in a positive light. "Labeling a need as educational implies that it is capable of being satisfied by means of a learning experience which can provide appropriate knowledge, skills, or attitude" (Monette, M. L. The Concept of Educational Need: An Analysis of Selected Literature. *Adult Education*, 1977, XXVII(2), 116-127) (Pennington, F. C. Needs Assessment: Concepts, Models and Characteristics. In F. C. Pennington (ed.), *Assessing Educational Needs of Adults*, New Directions for Continuing Education, no. 7. San Francisco: Jossey-Bass, 1980) 1-14.

Whether or not marketing is a part of the needs assessment, a marketing plan is generally being developed as the program is being designed. The primary issue for marketing planners is reaching the target population with information regarding the availability of the up-coming event. The target population is defined as those people who have been determined to have the identified discrepancies and therefore a need for the information

being presented in the program. The next phase involves convincing the target population, without threat or intimidation, that the program offers the opportunity for them to benefit. For this, a strategy is necessary. Ideally the marketing team has been involved in needs assessment early enough to have input into the questions asked so that they now have access to information that will directly guide the marketing plan. Designing a program specifically addressing the stated needs of the target population is a strong marketing factor in motivating the prospective participants to respond (Queeney, 1 - 220).

Because adult students, referred to as “the new majority” (Lenz, ix), are taking the opportunity to learn and grow in record numbers, it is important to acknowledge some of the inherent differences in the adult population as opposed to the younger, more traditional student one. One important aspect of planning for adults involves awareness of existing complications. Responsible planning of an educational program for adults must take into consideration the mature perspective of the audience. The term “mature” indicates a substantially complex set of dynamics, which in turn, culminate in varying priorities and interests that have a direct bearing on the process of learning. Effective program planning involves a “social construction” that seeks to connect the instructor, learner, planner, leadership of pertinent organizations, and the affected public in an interaction that results in a pragmatic vision that differs from the one that prevailed prior to the programs inception. The program planning process is essentially an evolutionary one in terms of its purpose, audience, content, and format. The process begins with session planning and the resulting program is a recognizable, coherent and realizable product that has come about through consensus and conflict (Cervero and Wilson, 153-157).

The issue of primacy, at its simplest, implies that what is learned first is learned best. It emphasizes the importance of first impressions and dictates that each important point be noted early in the session. Expansion of the points occurs when analogous information is introduced as the session progresses. The accuracy of the facts is a critical

issue. The power of primacy is evident in the commonly accepted belief that it is very difficult to rectify a point that has been taught incorrectly. Noting the importance of primacy in the adult learning experience, recommendations address the length of sessions, openings and careful attention to the learners initial experience. It is recommended that sessions be confined to no more than twenty minutes. The opening remarks and activities should be carefully chosen to command attention, and hold the interest of the participant with as much pertinent information as is possible. It is also advantageous to probe the learner for indications that their perceptions are correct and to keep them fully aware of the direction and progress of the class as a whole. Many of the principles involve the next issue. Two way communication is an important part of any training procedure. This is simply an interaction that involves instructor communication with the learners rather than at them. With this in mind it is important that the instructor be mindful of such subtleties as body language to assure that it confirms the verbal message that is being communicated. Planning of each session should include an opportunity for interaction between the instructor and the learner. Two way communication implies that the learner will take an active part in the learning experience. Feedback is equally important to both the facilitator of an adult learning experience and to the learner. It enables the facilitator to monitor the progress, or lack thereof, of the participant, and it provides the learner with on-going information regarding the standard of performance that is being achieved. Assuming that the desired standard is being met, feedback, is the ideal vehicle for positive reinforcement. Positive reinforcement increases the possibility of a successful experience resulting in the preferable outcome. Some instructors believe it is beneficial to use a strategy that provides for an opportunity to give positive reinforcement in the first session of the training. Positive reinforcement for a job well done is most powerful when acknowledged openly in the class environment. It is important to remember that not all reinforcement is going to be positive. Positive comments are not valid without the balance of appropriate constructive criticism that is sometimes perceived as negative feedback. Testing is an

efficient method of obtaining feedback for the instructor. This can be done through informal questions or in a formal written format. The counterpart to testing feedback for the instructor is the results of the tests for the learner. To be most potent, the results of the testing procedure must be communicated to the trainee as soon as possible. Feedback must be considered comprehensively and holistically. Opinions and decisions must be based on patterns rather than any single event. Situations to be alert to include perceptions that are always correct or always incorrect.

Active Learning is an approach to learning particularly appropriate for adults unaccustomed to being confined in a classroom environment. It follows the postulate that says we learn by doing. Participants are more likely to learn when they are actively involved in the process being learned. Activity is also an excellent remedy to combat lethargy and promote alert participation by the learner. Active learning requires practical exercises that demonstrate the desired achievement. The exercises often stimulate questions, a secondary form of interaction, to be encouraged. Quick quizzes also serve to maintain a high level of attention and keep the participants involved in the class. Active learning benefits the adult learning experience by promoting careful attention to subject matter and active participation in exercises.

Multi-sense learning is a pragmatic phenomenon that advances the concept that the success of the learning experience is directly proportionate to the number of senses involved in the process. This can be accomplished in several ways. Verbal explanations can be augmented by visual demonstrations. A common sense approach is necessary when choosing the appropriate number of senses and the specific senses to employ. Confucius alluded to active learning in 450 BC when he said "I hear and I forget, I see and I remember, I do and I understand" (Kroehnert, Gary. Basic Training for Trainers. Sydney: McGraw-Hill Book Company, 1995) 6.

Exercise, sometimes referred to as overlearning or meaningful repetition is the last principal of learning. Put simply, it states that repetition promotes effective learning.

When information that is new to the learner is repeated soon after it is initially presented, the likelihood of being able to recall it at a later date is enhanced. It is recommended that the repetition exercises be presented in as many different ways and as many times as is practical. It is helpful to define some activities familiar to the learner as repetitious and non-repetitious. For example, taking notes is not considered a repetition of an activity while work on a class assignment is. It has been determined that without exercising newly acquired information, one-quarter will be lost within six hours, one-third within twenty-four hours and ninety-percent will be lost within six weeks.

In summary, the principles of adult learning recommend that a successful learning experience begins with an introduction that motivates the target audience through the presentation and overview of the session with emphasis on the objectives. The information is presented in a manner that links it to previously understood information and clearly and concisely describes the procedure. Demonstrations illustrate the procedure and learners participate in a controlled learning activity that includes encouraging questions. Close monitoring by the facilitator provides information for feedback to the learner. An evaluation of the session tests the previously stated objectives, and a summary emphasizes key points. Closing statements note future sessions and emphasize the connection with the information acquired in this session (Ibid., 2-8).

Equally as important as the theoretical principles is the learning environment. One aspect of the significance of the creation of an environment designed specifically for learning relates to one of the principles previously cited. Much of the learning experience relies on the first impression, which must be carefully planned and articulated. The priorities are similar to those noted in the needs assessment and session planning. The most important piece of information the instructor needs to obtain from the participants is their motivation... why the student selected this particular class. Adult learners are unique in that they are generally voluntary participants with the inherent ability to come and go of their own volition. Instructors ordinarily have a captive audience where attendance and

contribution to the experience by the learner can be expected. The variance in these expectations can be problematic. One recommended strategy is to have the learners restate and therefore confirm their reason for entering into this particular learning experience. The instructor can reinforce and affirm the learners choice by exhibiting evidence that they (the instructors) are prepared for the class, intend to be patient with circumstances that may occur during the course of study, and have compassion for problematic issues that may be encountered. Additional attributes that are valued in the instructor are a sense of humor and fairness. The issue of fairness is a complicated one made more complex in the context of adult education. Because individuation is an integral part of maturity, and contiguous to imperfection, flaws and other various diversities, it can impact the learning experience. This impact can inappropriately manifest itself in the form of bias. Simply put, an instructor's personal inclinations have no place in the learning environment. Some believe that the most important information to be communicated to the learner by the instructor in that first encounter is the instructors enjoyment of the experience they are about to share. Some recommended procedures for the instructor to accomplish a positive first session experience are to start with a brief introduction of the instructor followed by having the students do the same. This is a good time to have them restate their purpose in choosing this class. The syllabus, bibliography, and any appropriate handouts for the course should be distributed and reviewed. And last, questions and comments should be encouraged from the participants. (Lenz, 32).

How Adults Learn

If instructors of adults are to be effective, it is necessary that they have a comprehensive understanding of the process by which adults learn. This must include problematic areas that occur at various stages of life and the techniques involved in integrating living with learning.

Elinor Lenz quotes J. R. Kidd regarding the evolution of learning theory. Historically learning has been considered to be a passive activity for the student, and an active one for the instructor. This theory presumes a lecture format. Known within the education industry as the "Hole-in-the-Head" theory of learning, it follows a train of thought that says that by some mysterious process access to the brain is obtained and facts are placed there by the instructor. The instruction procedure is simple and includes organizing information, employing repetition and other recommended techniques to properly place the facts into the brain of the learner. According to this theory, the instruction of adults was seen to be more difficult due to the accumulation over time of extraneous information that was the result of maturity.

Adults today are faced with an incredible deluge of facts and information every day. In order to make sense out of this overload of information, purpose becomes the priority. Determination of the objectives is vital. Adult learning is closely connected with experience, and because each adult's experience is unique, learning that is experiential must, by nature, consider that individuality. Another variation from traditional learning that is subject-centered is the learner-centered focus of the nontraditional adult education experience. This redirection of the priorities places the participants forward motion toward the desired goal ahead of the advancement of a particular discipline in the learning experience. This focus also facilitates interdisciplinary or multidisciplinary curriculum that overcomes fragmentation by establishing connections among varying phenomenon appropriate to the individualized course of study (Lenz, 1-13). The most prevalent form of teaching today is instructor-centered. This is the format that is least effective in adult education and is to be avoided. Adults have a very keen sense of the "now." This is one reason the first session is so critical to the entire experience. The participant must leave the first learning session with an acute awareness that they have been exposed to state-of-the-art information on the subject and, most importantly, that they have begun the

process of learning. Direct experience with the subject is an important aspect of the first session.

Elinor Lenz notes Carl Rogers description of the characteristics of experiential learning as including a quality of personal involvement, being self-initiated and pervasive, and properly evaluated only by the learner. Rogers emphasizes the role of the learner in the last characteristic by stressing that an instructor can not, in reality, teach another individual, but can facilitate the learner in that process. This is not to mitigate the role of the instructor, but to put it into proper perspective in the overall interaction.

Experiential learning's close connection with purpose explains the equally close connection between how and why adults learn. Research by Cyril Houle carried out at the University of Chicago in 1950 and noted by Elinor Lenz, identified three categories of learners and revealed the relationships between the how and the why of their relative learning experiences. The three categories are Goal-oriented learner, Activity-oriented learner, and Learning-oriented learner. The Goal-oriented learner is plagued by a lack of continuity. Energy and concentration are able to be corraled only with a specific goal in mind that represents a need or interest. Once the goal has been accomplished, all motivation ceases, and is not re-energized until another goal has been established. Activity learning, which is nurtured in a social context, is enhanced through relationships with other enthusiastic learners. The learning-oriented learner is what some call a "concept person." Highly susceptible to conceptual approaches, they are motivated to learn by the knowledge acquired, requiring no extraneous goal (as the first group) nor social interaction with other individuals (as the second group). Lenz also notes that Allen Tough, continuing Houle's line of research at the Ontario Institute for Studies in Education, discovered that adults prefer to organize their learning experiences around projects. This is a clear indicator that the adult learner has a need to demonstrate the learning, purpose and action in the learning immediately. Lenz quotes Patricia Cross in *Adults as Learners* when she confirms the connection between the how and the why of

learning in stating “Adult learners are frequently motivated by the pragmatic desire to use or apply the knowledge or skill...most often they hope to take action...do something, produce something or decide something” (Lenz, 14).

Life cycle research has had a profound effect on understanding how and why adults learn. Life cycle research has gained importance recently due to the rapidly increasing numbers of adults living vibrant lives well into what was once considered “old age.” This increased longevity has inspired interest in and a fresh perspective on adult education. Recent research in this area has revealed that life is cyclical, and that the cycle includes predictable transitions that occur throughout the lifespan. It has also determined that growth and development are constants in this continuum. Adoption of a cyclical approach to human development allows for valuing each stage of life for the attributes that are unique to that stage. It additionally challenges the traditional view that defines youth as the most advantageous stage for learning. Alan Knox, quoted by Elinor Lenz puts it this way: “A life-span view of development includes attention to openness, flexibility, creativity and choice at each stage of the adult life cycle” (Ibid., 14). The traditional perspective on human development has historically been seen as a linear progression. The young years are dedicated to learning, middle years are career oriented and the later years are considered leisure time. The cyclical orientation to personal development drastically changes ideas about work and development, redistributing education, work and leisure throughout the entire span of life. Even within the context of the traditional, linear approach, which currently affects most people, on-going career training is prevalent in the professional world. Career training is additionally complicated by the recent trend to move from one profession to another within one career phase of life. This means that career counseling must emphasize the possibility of predictable and unpredictable change to be anticipated in career choices and the options for preparing for those changes. Life cycle theorists, in consideration of the recent revisions in learning in adulthood, have revised previous assumptions that indicated a decline in intelligence and learning capacity

in adults as opposed to younger people. Educational psychologists have discovered important information, relevant to adult education, that identifies a distinction between “crystallized” and “fluid” intelligence in the adult learner. Crystallized intelligence is associated with experience. Fluid intelligence is based on biological forces. “Fluid” intelligence peaks in the mid-twenties and begins to decline shortly after. “Crystallized” learning, however, shows no decline but rather continues to rise throughout life. This is a clear indication that mature adults have a significant advantage over the young in experience-related education. Adlai Stevenson said, “The knowledge acquired with age is not a knowledge of formulas or forms of words, but of people, places, actions - a knowledge gained by touch, sight, sound, victories, failures, sleeplessness, devotion, love - the human experience and emotions of this earth and of one’s self and others” (John Mackleish, The Ulyssean Adult: Creativity in the Middle and Later Years. Scarborough, Ont.: McGraw-Hill Ryerson Limited, 1976) 126.

The right-brain, left-brain phenomenon also has a place in the adult education experience. The American education system has traditionally championed the analytical approach and most of the information gathering instruments were designed to measure right-brain activity. This is probably associated with the difficulty in acquiring accurate measurements in left-brain achievement. Lenz quotes Abraham Maslow’s comments on this subject that emphasized the exclusion of significant areas of knowledge and accomplishment that emanate from. “...the human experience and emotions of this earth” (Ibid., 17). The goal for educators of adults is to strike a balance between the left and the right brain that facilitates the advantages of both.

It is interesting to some that the capacity for learning in adults in their forties and fifties is similar to that which they experienced in their twenties and thirties when they can control the pace of their learning. Some evidence indicates a decline in learning capacity after the age of sixty, however this may be due to mitigating circumstances other than age. Some of these factors have been determined to be poor health, emotional and financial

issues related to retirement or the death of a life partner. Dr. Lossy Jarvik, professor of psychiatry at UCLA has studied this phenomenon for many years and his research indicates that under reasonably normal conditions, there is no decline in ability to learn into the seventies and eighties. In fact, social class and educational history are more consistently associated with variances in learning ability than is age. This is confirmed by the psychological development perspective which indicates that changes are less important than are needs and drives. A history of educational accomplishment is a significant indicator of ability to achieve a high standard of intellectual performance in the future. The social class issue is revealed in the correlation between educational opportunities and income level. This is usually revealed to be an unbalanced number of participants in the above-average income bracket. Another association can be made between voluntary learning in the later years and adaptability. Older people often find it difficult to adjust to new and unfamiliar situations, opting for the more comfortable path of least resistance.

All things considered, the learning process follows basically the same course in all learners regardless of age or cultural history. There are qualifying factors that are required in learners of all backgrounds, and the most important of these are curiosity, motivation, and the drive to achieve. The student who has these attributes will find learning a welcome challenge, and the instructor will be rewarded with a gratifying experience. The student who has none of these qualities will not progress beyond the mechanical, rote aspect of the exercises, and the instructor will be frustrated (Lenz, 14-23).

In summary, it is believed by some that the criteria for effective adult learning can be synthesized into seven components. The learner must associate personal purpose with the information being provided. The learner must be able to see a connection between what they are learning and their own learning goals. The learner must be an active participant in the learning process. The information and experiences involved must be previously unexamined by the learner. Uninterrupted learning sessions of a significant time period appropriate to the material being covered must command the attention of the

participant. Feedback in the form of continuously encouraged question and answer segments of the sessions are recommended. A relaxed, noncompetitive environment must be maintained (Sharan B. Merriam, Being Responsive To Adult Learners, Washington, D.C.: American Association for Adult and Continuing Education, 1986) 3.

Because adult learning often takes place in a group setting, it is appropriate to briefly examine group dynamics and the group learning process. Group learning involves the sharing of ideas and roles by individuals in a group context. They may include such activities as games, simulations, role-playing, team-building exercises, and brainstorming. The playing of games, and participation in simulations, related to the objective of the learning experience are often perceived by the learner as a non-threatening way to initiate involvement in the topic. Role-playing and team-building exercises are often used to develop connections within the group of participants that enhances team development. And brainstorming energizes the overall learning process. Five distinctive types of group methods have been identified by adult education researchers. They are group discussions, conferences, seminars, workshops and clinics. Group discussions customarily involve five to twenty participants engaging in an informal conversation on a topic of mutual interest. All members are held in equal esteem and the group leader functions as facilitator, maintaining the designated topic, and ensuring that all members participate equally. Conferences generally involve larger groups of people than group discussions, and the attendees may represent various aspects of a common interest. The format of a conference usually considers identified problems that impact the various represented areas with the goal of resolving the problems within a specific length of time. However, a conference may be less solution oriented and serve rather as a platform for the exchange of ideas or information as well as a venue for the display of cutting-edge technology and technique. A seminar can be a group of any size, and is generally motivated by a common need. The person in charge of a seminar is customarily a leader in the field involved who often challenges the participants with a problem and guides them through the process of

solving the problem. The seminar leader may accomplish this through lectures filled with relevant research findings that allow the participants to discover appropriate solutions to the problems by the process of deduction and creative problem solving. Depending on the number of participants, dividing the audience into small groups for discussion and analysis may expedite the process. A workshop is another method that is not defined by the number of participants. However as in the other formats, common ground in the form of a mutual interest or background is required. The workshop format lends itself to participant-direction. Customarily organized and conducted by the participants for the common purpose of improving an ability or understanding through study and discussion, workshops often derive their direction and pace directly from the participants themselves without intervention by a leader or facilitator. Clinics involve small groups of people with a common interest who gather to explore a reality based problem. The process includes dissecting the various aspects of the problem and defining options that have potential to remedy the situation. Solutions may involve procedural recommendations that are often based on the actual experiences of the participants.

Researchers in adult education have also identified four techniques appropriate for adults learning in groups. They are the Nominal Group Process, DACUM, Critical Incident Technique and the Delphi. The Nominal Group Process is a problem driven, time efficient technique that begins with the presentation of the problem to the group by the leader. The participants proceed in silence and within a designated time parameter, to describe their solutions in writing and present them to the leader of the group. When all the responses have been submitted the recommendations are shared with the group one at a time with clarification by the author if necessary. At the end of the presentations, the ideas are individually ranked by the participants. The rankings are tabulated by the leader to produce a comprehensive hierarchy of all solutions proposed. One shortcoming of this technique is that the facts involved in the proposals are not verifiable. DACUM is an abbreviation for Develop A CurriculUM. This format, particularly suited for training staff

development of training materials, consists of breaking a job description into small, definable segments. The purpose of this dissection is thorough examination by ten to fifteen experts in the field who commit a specified period of time, energy and attention to the task of designing training appropriate to the specific requirements of the position. The DACUM Technique is also useful in defining varying levels of development and competency in a particular area. The Critical Incident technique is transparently self explanatory. It assumes that the problem under scrutiny is critical-incident oriented, and approaches the solving of the problem by identifying the critical incident. The technique requires common interest or historic association with the issue and involves separate descriptions of the critical incident which resulted in a problematic situation under examination by each participant in the group. All the information is gathered, collated and addressed in a group discussion. The critical incident technique is a versatile tool that can serve varied purposes from identifying important occurrences in a career cycle to resolving a recurring jam in the photocopier. The last technique identified by researchers is known as Delphi. The Delphi Technique could be considered group work by remote control since the group never actually meets. The process calls for the definition of the problem or circumstance by the management team or others in the position of authority. A group leader is designated to specify experts in the area under consideration and to provide them with a carefully developed questionnaire that focuses on the problematic issue. When the first questionnaires have been addressed by the experts and returned to the group leader, a second questionnaire is distributed with a variation in the parameters that reflects the responses to the first questionnaire. The experts are instructed to respond to the second and any subsequent questionnaires from the perspective that results from their exposure to the collective responses. As many questionnaires as is deemed necessary may be sent until the experts concur on an appropriate course of action. The group leader is responsible for reporting the findings to the management team when the research is complete.

Modification of this technique allows for its use in an assembled group, however significant study and preparation is recommended if this is anticipated.

Because group training is the method of choice for most adult educators, the effectiveness of the group leader is an important factor. An experienced instructor is capable of advancing the group in the direction that most efficiently accomplishes the goals established in the program. Some recommendations that can be helpful are as follows. Carefully select a topic that is simultaneously familiar to the group and pertinent to the training objectives. Involve the participants in the process of setting parameters within which they will function. Conscientiously acknowledge and encourage participation by each member of the group. Ask the first question of someone who is likely to respond positively and provide a worthy example. Progress in a predictable manner in asking questions and addressing the group; perhaps in a circle around the room. Anticipate negative responses and introduce them into the program at a point that allows management. Calculate comments that are designed to inspire individual creative development of ideas and concepts under consideration. Advance new ideas as they appear and encourage development of them, relegating original information to a less prominent position. Aggressively address variances in activity that move the interest of the group away from the original topic. Remain cognizant of nonverbal messages that may contradict verbal statements being made. Work diligently to maintain integrity and enthusiasm as the program progresses (Kroehnert, 75-81). It is believed by some that consciences application of these recommendations will contribute significantly to a successful group learning experience.

While it is not possible to predict the success of an adult educational experience, many barriers to success have been identified and can be addressed effectively. Communication, a basic component of interaction of any kind, must be unambiguous and precise to be effective. Use of long words and phrases is to be avoided as it obstructs efficient learning. Similarly, the use of terminology that may not be familiar to the group

can frustrate the participants and be counter productive to the progress of the program. Inconsistency in the message being delivered on different levels of perception is also to be avoided. Incongruent verbal and nonverbal messages are distracting at best and can be confusing. The mobility of our culture produces another problematic communication dynamic. Consideration must be given to participants who may experience varied levels of understanding of the language used for the presentations. Another important area of compatibility is the selection of appropriate visual aids. The connection between the specific prop chosen to aid in demonstrating a point and the point being addressed must be obvious. If the connection is not clear, the process of learning is interrupted by the learners attempts to establish a logical connection. This distraction can exacerbate the situation by causing the learner to loose track of the presentation being made which leads to additional confusion. Distractions are often a function of less than diligent attention to the details of program planning and presentation. When distractions occur, the learner tends to focus on the distraction as opposed to the presentation in progress. This interferes with the desired flow of information and comprehension, effective listening and thus the flow of the learning experience. An erroneous perception of the participants level of competence or expertise upon entering the program can prove disastrous. Attempts to communicate on an inappropriate level are ineffective and frustrating for both the instructor and the learner. This can manifest itself in a presentation that is either too advanced or too elementary for the target audience. A presentation that is beyond the participants ability to grasp is as ineffective as one rendered uninteresting by too elementary an approach that does not command attention and engender curiosity. The presentation of complex information to a group of participants with appropriate entry level competency is best divided into manageable segments that can be addressed individually. A program that is beneath the target audience's level of capability can be made more compatible by elevating the complexity of the content presented. In either case the result is an interruption in effective listening that is necessary for learning to occur. Another

issue related to maintaining an appropriate level of concentration in an adult learning experience is the relative amount of time required to process information as compared to the rate at which the information is presented. Experts in this area of study believe that learners think or process information faster than information can be disseminated in a traditional speech pattern. Therefore, it is important to strive for and remain mindful of a pace that maintains a comfortable flow of information and simultaneously monitors the indicated comprehension of the participants in the group. Comprehension is preceded by effective listening skills. Effective listening is as vital to effective communication as is delivery, and an important element of effective listening is motivation. It is the responsibility of the trainer to incorporate into the program periodic reminders of the benefit to be derived from participation in the specific program. Research indicates that learners who forget why they are listening often forget to listen. Modulation of voice and projection can also have an impact on effective listening or the perception of the participant. Research indicates that a presenter's tone of voice, often without intention or recognition, rises when addressing issues that require emphasis. The insinuation is that messages delivered at higher decibels have more import than those delivered at lower levels. Receiving information from the learner in various forms of feedback is as important to the instructor as the delivery of program content is to the learner. It is vital that the adult educator be ever alert to feedback signals from the learner. These messages may be as subtle as a facial expression that indicates confusion or comprehension or as obvious as a comment or answer expressed inappropriately due to uncontrollable enthusiasm. Whatever the manifestation, the indication will point to either a message that is coming through unencumbered and being processed clearly or one that it is not being perceived in a coherent, processable way. Another stumbling block to effective communication is an inaccurate assumption on the part of the instructor or the learner relating to various aspects of the learning experience ranging from format to objectives. So pivotal is this aspect of the success of the program, that some planners recommend that

comprehensive documentation of the planned learning experience be sent to the participants well in advance of the first scheduled encounter. The anticipated goal of this recommendation is the mitigation of frustration and disappointment by the adult educator and the adult learner. Conscientious attention to the adult learner's unique requirements and limitations in planning even the simplest presentation can have a dramatic effect on the success of the program. A summary of the recommended procedures to overcome the barriers to appropriate interpretation of the information presented are elimination of inexactitude and other obstacles to effective listening, application of a wide variety of techniques that foster alert involvement of the target audience, consistent mindfulness of the unique needs of the particular audience involved and careful attention to even the most minute details of the program (Ibid,123-128).

One of the most well respected experts in the field of adult education, Malcolm Knowles, suggests that some of the problematic issues in adult education stem from the erroneous approach to adult instruction that equates adults to tall children. He goes on to say that nomenclature contributes to the confusion and recommends that the use of two specific terms "pedagogy" and "andragogy" be considered. The first step in understanding Knowles' point is a definition of the terms involved. The term "pedagogy", which is derived from the Greek stem *paid*, meaning "child" and *agogus* meaning "teacher of". An accurate translation of the term "pedagogy" is "teacher of children". The second term Knowles addresses, and the one he favors for use in the field of adult education is "andragogy." "Andragogy" is derived from the stem *andr*, meaning "man." Therefore the literal translation of "androgogy" is "teacher of man." The commonly accepted variances that define the term "child" as opposed to the term "man" clarify Knowles' preference for the term "androgogy" when referring to adult education. Contrasts between "pedagogy" and "androgogy" have been determined that further illuminate problem areas. The specific adult education related disparity involves the concept of self, basic resources and learning orientation. Pedagogy involves a dependent self-concept,

basic resources in the form of instructor scholarship and dominance and a subject matter learning orientation. In direct contrast, androgogy involves a self directed self-concept, basic resources manifested in participants' experience and motivation, and a problem oriented learning orientation. The drastic contrasts have led some leaders in the adult education field to consider the most important responsibility of an adult educational instructor to be the guidance of the adult learner in becoming self-directed. This task is perceived more than obviously challenging in light of Knowles assertion that self-directed learning is in direct opposition to the training adults have received in the past. Stated in his own words, Knowles is quoted as saying "by and large, the adults we work with have not learned to be self-directing inquirers; they have been conditioned to be dependent on teachers to teach them . And so, they often experience a form of culture shock when first exposed to truly adult programs" (Lenz, 24). Culture shock is only one of the learning areas identified as problematic for adults. It has been determined by researchers in the field of adult education that the problems originate in five general areas: "learning conditions, psychological barriers to learning, memory difficulties, poor study habits, and lack of basic skills, particularly in mathematics and language." (Ibid.) Problematic learning conditions cover a large range of circumstantial issues that must be taken into considerations. One of the most obvious, stemming from the multifarious details that constitute most peoples lives, manifests itself in the form of exhaustion. The adult educator, for the most part, is not dealing with participants who are functioning at their peak. This may result in a shortened span of attention and an inability to concentrate properly. The majority of participants have come to the learning experience after considerable manipulation of time and commitments, not all of which were successful. This situation can also contribute to a diminished ability to focus on the topic. The adult learner often brings to the experience a history of complexities that can distract and interfere with their full participation in the activity. Some strategies recommended for dealing with this issue are separating the presentations into segments that address a short

attention span, incorporating invigorating activities with clear connections to the goal into the brief learning sessions, and frequent breaks in the activities, proper provision for the physical needs of the group (such as lighting, acoustics, temperature and ventilation to minimize additional stress on physiological systems), and engage the participants in defining the goals, mission and procedures used in the group learning process.

One of the most prominent psychological barriers to effective adult learning is a lack of confidence. Although in reality, learning is in process in one form or another every day of our lives, many adult learners have not been involved in a structured learning experience for a significant period of time. It is reasonable that anxiety may surface concerning ability to perform at a desired level and accomplish specified goals. Anxiety connected with performance is sometimes an echo of a less-than-gratifying experience the adult learner may have had as a younger person in a traditional educational situation and not realistically connected to continuing education for adults. A common concern, also connected to the previous section regarding existing commitments and exhaustion, is finding the time to do research and assignments. Generally major adjustments are necessary in existing schedules to accommodate the requirements of a successful adult learning experience. This can trigger additional anxiety that often accompanies change of any kind in mature individuals. The construct of time enters into the scenario again in the form of guilt. Some adults are not comfortable taking time away from a previous commitment in order to make a new one. Since most people do not have many options about use of working hours, the impact on previous commitments is often family oriented and can affect the lives of others. The guilt, insinuating that learning in maturity is irrelevant and perhaps even trivial, is evidence that obsolete ideas regarding the unimportance of adult education remains in existence today. This belief is particularly applicable when the adult education experience is perceived as totally for pleasure. Mindset, another phenomenon closely related to previous experience, is another psychological block for many adults interested in continuing their education. If the

mindset is negative, it is a particularly stubborn issue to remedy and can cause defeating inflexibility. One interesting aspect of a negative mind set is transference. The rigidity often affects issues with little or no relevance to the original connection with negativity. It has been determined that a negative mindset is associated with diminished levels of self confidence and that it is not an immutable issue. The resistance can be penetrated and a competent adult educator can, in time and through reinforcement of achievement, reverse the direction of the mindset. Psychological barriers to learning can be seen in the learners absences from scheduled class meeting. A correlation has also been established between absences and scheduled tests, class presentation and paper deadlines. Other indicators that psychological barriers may be interfering with adult learning are the tendency to isolate, to resist the introduction of new material, and to avoid participation in learning activities as a protective measure. One strategy that has proven effective in combating psychological barriers to learning is "contracting." "Contracting" calls for notification of the students by the instructor of the specific qualifying factors and obligations required for successful completion of the learning experience. Another helpful tactic is appropriate delivery of feedback from instructor to student. Consistent feedback, carefully composed with consideration for economy of verbiage can be most effective when delivered in a compassionate way. Written comments made discretely and directly to the learner may assist in the management of anxiety regarding performance. Uncertainty in any area of the learning process is cause for concern and requires attention. Confirming with the participants that the scholarly evaluations are clearly understood and emphasizing the importance of compliance with established rules and regulations is helpful in eliminating anxiety associated with ambiguity. Learning tools, such as tests, designed as an integral part of the adult learning process, rather than as instruments to accurately measure the absorption of information, can enhance the learning experience and therefore, reduce psychological barriers. Encouragement by the instructor for the participants to engage in continuous self evaluation of their individual progress is also effective in lessening anxiety

related to testing. Another tactic that reduces psychological barriers through enhancement of the comfort level of the group is engagement in exercises that connect the instructor to individual participants in the group and the participants to each other. And the last strategy recommended for countering psychological barriers to learning involves application of the non-traditional three Rs, recognition, reinforcement, and reward.

In summary, it can be said that psychological barriers to learning are conquered by the process of learning. The adult learner who is inticed to continue in learning experiences will, in time, begin to acknowledge accomplishments, register lowered resistance, and heightened self-confidence.

Problems associated with memory are another source of consternation for adult learners. Some of the questions regarding the connection between memory and learning deal with the relative significance of amassing a large quantity of information. Another troublesome issue, identified as "one of the most inhibiting factors for adult learners" (Lenz, 27), is the fear of memory loss often associated with the aging process. Due to the recent heightened interest in the aging process, research is replacing myth regarding the reality of aging and the resultant data is significant to the adult education learning experience. Analysis indicates that memory functions in three phases: "Registration: the electrochemical process by which information is encoded in the brain. Retention: the persistence of decay of neural traces that are encoded through registration. Recall: the searching or retrieval process by which the individual recovers the information, which is what we refer to as 'remembering'" (Ibid.). A reduced ability in the registration phase appears to be prevalent in individuals in latter stages of maturity. Decline in the area of ability to interpret information to which they are exposed may stem from issues unassociated with age. The problem may be a function of interference at the point in the process where visual information is converted to auditory information for the purpose of storage. This is particularly important when relying on visual aids for testing purposes. One strategy for dealing with this potential problem is the augmentation of visual aids with

written support. While the problems associated with registration are important to recognize, it is retention that causes more concern in the adult learner. Although the prevailing consensus on this subject indicates that loss of retention is associated with the aging process and to be accepted as such, some researchers in adult education take issue with this position. Dr. Lissy Jarvik, a psychiatrist practicing in Los Angeles, who has a considerable history of researching the aging process, contends that the problem is more complex. His position is that what has been accepted as the memory difficulty commonly experienced by adults is in reality a result of misinformation and acquiescence to conventionalized ideas of the aging process. Retention and recall are greatly improved by connecting the information to meaning that is pertinent to the learning experience. An imaginative approach to this phenomenon strives to broaden the scope of the learners frame of reference in a way that creates connections between the information being presented and it's relevance to the learning experience. This increases the likelihood of retention and recall. The issue of the relative importance of the memory or memorization in the learning process is further complicated when considered within the context of recent achievements in technology. State of the art computers with sophisticated memory chips are capable of storing and retrieving a staggering amount of information. Experts in the field of adult education are quick to remind us that while memory certainly has an important role in the training of adults, it is only one part of the learning experience, and must be balanced by appropriately weighing other important aspects of adult learning such as usage and innovative development of the information being recognized and stored. Some of the consequence of difficulty involving memory in the learning process are errors that involve exclusions as opposed to inaccuracies, an inordinate fear of tests, and the accumulation of information that is assembled in a disorderly manner. Some recommended measures to mitigate memory oriented difficulties in the learning process are: careful planning of scheduled activities that provide ample time for each student to comprehend each step thoroughly before proceeding to the next, maximizing ease of

recognition of relevance and recall of information by incorporating as many visual aids as possible in the introduction of new material, pacing the progress to facilitate appropriate time for assignments and practice, administering brief tests often and emphasizing competency in the process of research and use of information rather than on the ability to memorize facts.

The success of learners of all ages is dependent on procedures that lead to the accumulation and retention of ideas and information. Study habits that produce substandard results become apparent in the classroom in several recognizable ways. The student often comes to the learning experience filled with enthusiasm and vitality for the task before them, but participation in class, which was initially energetic and exciting seems to lose momentum. If the learner continues on this course the result can range from a failure to maintain a satisfactory level of interest in the material being presented to a complete breakdown in performance rendering the entire learning experience meaningless and possibly destructive. The situation, if not recognized and addressed early, can become frustrating and counter productive. There are several factors that may be influencing this scenario. The learner may be troubled by issues having to do with their personal life or family. Health, a frequent and often growing concern of an adult learner, may be exhibiting problematic evidence of change relating optics, acoustics, or pathos. Career challenges are also a potential source of distraction that may affect the learners ability to concentrate and therefore, interfere with good study habits. Another factor influencing a successful learning experience may be time away from the academic environment. Many aspiring adult learners have been away from the learning environment for a significant number of years. The process they followed to achieve the desired results years ago may not be familiar to them now, producing the additional stress of needing remember how to learn. However, it is more likely that investigative methods, and resources have evolved to a point that bears no resemblance to the way they studied previously when they were in the role of traditional student. Regardless of why the learners study habits are not

producing the desired results, the remedy for the situation is the development of appropriate study practices and diligent discipline in the application of them. It is often helpful to the learner embarking on this all important task to have a good definition of the term *study* in mind as they begin. *Study* has been defined by researchers in adult education as “a procedure an individual uses to comprehend and master a given amount of material in such a way that he or she develops greater competence with that material” (Lenz, 29). The process of study has also been analyzed and determined to be observable in four phases that address the information involved: gathering, organizing, summarizing and storing. The gathering phase is accomplished through the activities of reading, listening, observing and various other activities that may be uniquely productive for a particular student or in a specified situation. Organizing the information involves arranging the discrete elements of the material in a logical manner that facilitates understanding. Storage of information in the process of learning is a little more complicated than the previous steps. It involves associating the information with previously established synchronal information that will likely prompt retrieval. Learners, particularly those that are not achieving preferable results, often confuse the term “studying hard” with “studying well.” It often falls to the adult educator to clarify this misunderstanding and to stress the importance of conscientious effort and discipline in the development of good study habits. The repercussions of poor study habits are: fragmentation of information that is problematic in the association, and categorization of study materials, inconsistent participation and advancement in classwork as well as testing procedures, and a discernible decline in motivation and enthusiasm for the learning experience which leads to frustration and discouragement. Some recommended procedures to combat the undesirable effects of poor study habits include such tactics as introducing the topic of study habits in the first session and reviewing procedures that have proven effective. It may help to provide this information as part of the class syllabus making it available to the student for reference during the course of study. It is also advisable to periodically

reiterate other issues that have direct bearing on study habits. One is the importance of an appropriate space that is conducive to concentration and productivity. Another is a schedule that identifies time slots that are dedicated exclusively to the exercise of study as defined by the learner. It is the responsibility of the adult educator to remain diligently alert to signs that poor study habits may be affecting a learners performance, intervene if necessary and recommend additional guidance from a separate source if that course of action appears appropriate.

Deficiencies in basic skills, identified for the purpose of the adult learning experience to be reading, writing, and mathematics, are also a potential source for difficulty in continuing education. Some participants may have been insconced in a life style that for many years has not required that they exercise some or any of these skills and their level of performance may be low. Alternatively, although many adults persuing continuing education are leading productive personal and professional lives that require some proficiency in the basic skills as defined, the level at which they are functioning outside the learning experience may not be adequate to accomplish their goals within that context. It is important to stress to the adult learner the difference in the application of basic skills for purposes that are not related to learning such as reading for relaxation, writing for routine communication, and exercises that involve rudimentary mathematics and the proper application of those same skills within the context of the learning experience. Remedial work in the practice of efficient notation techniques, reading rapidly without loss of comprehension, accurate spelling, and expanding lexicon with suitable research methodology may also be appropriate. In some cases rejuvenating or augmenting existing mathematical capabilities may also benefit the learning experience. In the communication of suggestions regarding appropriate remedial measures, care must be taken to ensure that the message in no way reflects on the intelligence of the learner. Emphasis is appropriately placed on the potential in developing and elevating proficiency in fundamental ability. Evidence of inadequacy in basic skills can be seen in insufficient

comprehension of information, difficulty in maintaining the pace of the class with requirements such as reading and research, inferior writing composition ability, deficiencies in even the most elementary mathematical work and resistance to class participation iminating from a fear of exposing any or all of these situations which are perceived by the learner as shortcomings of their goal in the learning experience. Some procedures, endorsed by researchers and experts in the field of adult education, to remedy problems caused by insufficiencies detected in basic skills are: emphasis on the redundancy of materials that are new to the learner through exercises that require frequent reexamination, the design of testing instruments that require writing composition as opposed to a short answer format, conscientious advocacy of learner effort demonstrated through diligence in detecting and acknowledging even small movement in the desired direction, and the ability and willingness to recognize a situation that warrants more drastic measures. An important tenet of adult education is that the primary requirement of the adult learner is to learn how to learn, and any tool that supports and advances the learning experience will benefit both the learner and the instructor in this endeavor (Ibid., 24 - 32).

Another area of concern to experts in the field of adult continuing education is improvement of instructor performance. A time honored premise of traditional education holds that learning is a result of teaching. In other words, accumulation of knowledge and expertise automatically follows the activity of teaching. Historically the test of this premise was limited to an evaluation of the learners performance. However, recent advancement of the concept of instructor accountability, which originally surfaced in the sixties, has resulted in close scrutiny of the educational profession and of the acumen of the individuals who populate it. The position adopted by experts and researchers in the field of adult education to this inquisition has been acceptance of joint responsibility with the learner for success in the adult educational experience. The significance of the learner's responsibility to participate and strive for excellence is not diminished by the

formal acknowledgment of the instructor to share in responsibility for the success of the learning experience. This bilateral approach to the learning experience has resulted in a strengthening of the relationship between instructor and adult learner. It has additionally required the development of highly evolved instruments designed for the purpose of evaluating teaching procedures and effectiveness. An examination of the procedures commonly employed by adult educators reveals a wide variety of distressing issues that occur habitually in the performance of some. Time is an issue that appears often in research and writing on the subject of adult education. Time, although a completely man made construct, continues to be the bane of adult education as related to use by the instructor. The frivolous squandering of precious time in a learning experience is to be assiduously avoided. Some practices that are an obvious waste of time to all involved are easily identified and simply remedied. However, some frequently overlooked instances of wasted time are arriving late for class, taking extended breaks during scheduled class time, excusing the participants before the scheduled time for the class to end, allowing the subject to drift aimlessly or permitting protracted focus on an unrelated topic. The last two points are frequently interpreted as indications of the instructor's lack of preparation and deficient planning or an indifferent attitude regarding the value of the learners time. Neither of these options is acceptable and none reflects well on the professionalism of the instructor. Some strategies recommended by research professionals in this area are arriving at the class location promptly on schedule, avoiding indulgence in interesting, but unrelated topics that consume time previously committed to the advancement of the goals of the learning experience, and thorough preparation for each learning session that maximizes the productivity of each minute spent in the learning experience.

A patronizing speech pattern is another shortcoming observed in many instructors involved in recent research. An insidious practice, that creates unnecessary hurdles, condescending words and tones are often spoken by the instructor without intention or conscious awareness. The habit, which is more prevalent in instructors with a history in

the traditional educational format, may stem from the historical perception of teachers as proprietary agents of vast amounts of knowledge with resources and authority to impart it as they deem appropriate. The position of the learner in this scenario, assumed to be the passive receiver of information, renders peer interaction difficult. This behavior may additionally trigger sensitivity to other condescending messages from the instructor and therefore, obstruct the development of a productive relationship between instructor and learner. Because the practice of condescending remarks is likely to be unacknowledged, it is helpful to note some commonly accepted cues to the presence of this undesirable behavior. Patronization can be communicated either through the spoken word or less obviously through gesture. Any activity that communicates a sense of instructor virtuosity in conjunction with learner inferiority is susceptible to association with condescension and requires examination. Some frequently overlooked manifestations of condescension by an instructor are referring to the instructor by their last name and the learner by first name, making personal statements that may be construed as complimentary, being overly solicitous with explanations or the use of generally familiar terms, indicating only superficial interest in the comments of the learner and exhibiting overzealous behavior in efforts to guide and control learning activities.

Another phenomenon that plagues many instructors and is annoying to many more learners as they are essentially held hostage by instructor in the traditional learning format is referred to as "Teacher Knows Best" or "Ego Tripping" (Ibid., 73). An instructor's obsession with an elevated sense of self-importance combined with a penchant for drama is evident in behavior that exhibits such details as consistent use of the pronoun *I*, frequent and inappropriate references to personal experience representative of extraordinary levels of accomplishment, little or complete lack of recognition of learner interest or attempts to comment, and required reading authored by the instructor, but not relevant to the topic of the learning experience. The egocentric instructor often spurns all efforts to be displaced from the position of prominence. If allowed to escalate, this proclivity may rise to the

level of interrupting guest speaker presentations. A realistic point of departure for the adult educator interested in addressing the issue of ego-tripping is a thorough self-evaluation resulting in a heightened sense of discernment regarding the subliminal self. Problematic "ego-tripping" is similar to condescending behavior in that they are both generally considered to be unconscious in nature and apparent most clearly in retrospect. This aspect of perception makes this issue an excellent candidate for capture and examination on audio or video tape. The re-playing of a tape that records a teachers instructional procedures may reveal to the instructor areas that may benefit from attention and reconsideration. An uncomplicated observation and recording of how the instructor is seen and heard provides a perspective previously unavailable to the instructor relating to likely perceptions by the audience being addressing. Ideally the experience of gaining a fresh perspective, which is sometimes fraught with unwelcome revelations, will serve as the point of departure for effecting change in presentation procedures. The assumption is that the changes will be advantageous in improving the quality of presentation skills. A taped account additionally provides information for an objective analysis by an arbitrary evaluator.

The line that separates propagandizing, another problematic issue in continuing education, and appropriate presentation of personal preference, is often obscure. Because it is human nature for individuals, including adult educators, to have opinions, it is unrealistic to expect that those ideologies would not, in some way, influence the teaching process. If managed appropriately, this need not be problematic within the context of the adult learning experience. The pivotal consideration is that the presenter remain cognizant of the difference between the act of unobtrusively imparting information in an unassuming, impassionate manner completely devoid of a sense of pressure and the opposite, which is the imposition of a personally held point of view in a manner that communicates an anticipated response. When this distinction is not held to a high level of accountability, the intrusion of a preferential attitude that is likely to be observed by the audience, can be

expected. When the consciousness is engaged appropriately, the sharing of an instructors educated opinions can be constructive and invigorating. Lenz quotes Robert Ornstein, a psychologist who researches adult education when he defines consciousness as “each individual’s own private construction” (Lenz, 78). Lenz develops this concept theory further: “The teacher, in the act of teaching, draws upon this private construction; the learners, in the act of learning, bring their private constructions into the transaction. When these separate realities meet and stimulate each other, the learning that takes place is a vital and mutually enriching process“ (Ibid.).

Another problematic area closely associated with “ego-tripping” is referred to in the adult education industry as “winging it.” An element of egocentricity is apparent in the practice of “winging it”. The projected assumption is that the instructor’s command of subject matter and ability to transmit information is so formidable and incorruptible as to render formal structure in presentations unnecessary. So impressed is the instructor with innate ability that complete reliance on existing erudition and mental dexterity is the teaching style of choice. Time spent in learning session planning is considered wasteful and therefore not a priority. This may stem from the erroneous assumption that the unconventional teaching style that lends itself to the instruction of adults is less reliant on careful planning than more traditional modes, when realistically, the opposite is true. “Winging it” is more prevalent in guest speakers than in professional educators, but regardless of where it is detected in the learning experience, the encounter leaves a negative impression that is often described as “ ‘incoherent’, ‘no goals’, ‘no syllabus’, ‘no continuity’, ‘too fragmented’, and ‘not clear enough about what was wanted’” (Ibid., 75). Teaching ability is limited not only by the instructors level of knowledge regarding topic, but also by expertise in the application of effective instructional techniques. It is erroneous to assume that either of these attributes alone can compensate for a deficiency in the other. Both are equally important prerequisites for successfully conveying information in a manner that is perceived and processed as pertinent by the learner.

The question of quantity of information addressed in content is a much debated topic in adult education circles. It is difficult to determine an amount that will challenge the participant without overwhelming. This issue is further complicated when consideration is given to the likelihood that other factors, not all of which are known to program planners, have an impact on the definition of the term reasonable in reference to program content. Some researchers in the field believe that a delicate balance must be struck between asking too little of participants and overwhelming them with attractive but unattainable objectives. Because circumstances related to the availability of time outside the scheduled learning sessions will vary from one participant to another, and is therefore not consistently predictable, it is recommended that instructors of adults plan for as many learning activities as is feasible to be executed within the scheduled learning session. "Overloading", the term often used to describe the situation that occurs when more work than is reasonable is undertaken, can be addressed as follows: abbreviating writing requirements, providing detailed information governing all writing requirements in the syllabus that is distributed in the initial meeting of the class enabling students sufficient time to prepare for each assignment, and striving to complete as many learning tasks as possible during the scheduled class time.

When an instructor's evaluation includes the terms "rambles" or "repetitious", it is likely that the instructor is "muddling through" the learning sessions in an attempt to "wing it" due to poor planning or lack of preparation. The instructor's creativity and ample store of experience is likely to be an asset as well as a obstacle to a successful teaching-learning relationship. While the attractive aspects of innovation and experience are usually obvious, revelation of liability requires a researcher's perspective. Some experts believe that it is often the teachers confidence in their innovative capabilities that leads them to believe erroneously that their experience will enable them to perform teaching duties admirably with little or no planning or preparation. The lack of structure that is evident in a presentation that alludes to aspects of the subject without elaborating

on them, is subject to frequent interruptions in the rhythm or flow of information, exhibits annoying redundancy of previously addressed information, and abrupt shifts from one subject to another without apparent associations is distracting and destructive to attempts to learn from the material being presented. The anecdotal teaching style, often favored by “muddlers”, discourages feedback from learners in the form of questions. The questions that are asked are seldom answered and tend to trigger long-winded discourses on marginally tangential subjects that are often irrelevant to the goals and objectives of the class. The presentation is sometimes perceived as dazzling while it is in progress, however, in retrospect, it leaves the learners with a feeling of confusion that is sometimes accompanied by a vague sense of contradiction related to the realization that the end result is not what they were led to believe it would be. The remedial procedures that will counter the need for “muddling through” are simple. Careful preparation and consistent execution of structured learning session plans eliminate the need to arbitrarily fill class time allotted for a meaningful learning experience.

Distancing of instructors, established in conventional educational formats through contrasted ages or scholarly achievements, is not as obvious in the adult education arena. And even when these factors are perceived as dynamics of the teacher-learner relationship, they tend to be less significant when the adult learner’s life experiences are taken into consideration. The parity that is established by adopting a comprehensive perspective of the attributes of instructor and learner, contributes to a balance of respect and consideration that is conducive to the learning experience. Researchers have determined that a good association between instructor and student includes elements of a trustworthy, emotional connection and a moderately reserved intellectual one.

The insufficient collection of feedback is a serious issue that appears as a symptom of other shortcomings, but is addressed here as a foible of instructor performance independent of other connections. It is recognizable by a preference for the lecture format that does not encourage questions, a posture that assumes that learning is assured when

teaching is in process, a failure to follow up on the collection of assignments, or to perceive the students as individuals. The instructor who is not cognizant of the importance of feedback may also fail to accept any responsibility for the experience of learning as perceived by the learner. Another characteristic is the provision of minimal opportunities for evaluation in the form of tests. Because, the teacher's perspective does not consider feedback to be relevant to the learning experience, class planning and preparation is not subject to learner input and preordained program plans are adhered to rigidly. Although these tendencies occasionally surface in the work of a seasoned professional educator, they are most often seen in professional researchers who are now and then compelled to participate in the other, the teaching arena. The problem occurs when the researcher/teacher erroneously assumes that the proper and productive procedures of one milieu, the research environment, will succeed in the teaching environment. In order to overcome the tendency to negate the importance of learner feedback, some specific procedures are recommended. Careful observation of the participants will provide indications of their level of understanding. Focusing singularly on each individual learner reveals unique details that distinguish one student from another. This information facilitates the identification of each student independently. Lecture for no longer than forty minutes with information on one specific topic limited to ten minutes. Plan for breaks at the end of each ten minute segment when questions will be encouraged. An instructor may also choose to replace a comprehensive exam at the end of the learning experience with several less intimidating quizzes spaced periodically throughout the learning process. When lengthy writing assignments are required, divide the work into segments to be submitted throughout the process. This strengthens the instructor-learner connection and provides appropriate time to address deficiencies in the work. While many shortcomings in the area of feedback are concerned with the information moving from the learner to the instructor, data that communicates learner progress and moves from the instructor to the learner is equally significant. Consistent attention to the collection of

assignments that are completed out of class, the evaluation of performance evident in the assignments and the prompt return of the work to the learner is productive in providing feedback for the learner. Conquering insidious obstacles to a successful learning experience begins with fearless self-examination that acknowledges a need for change followed by research into potential remedies and sincere effort in executing appropriate recommendations (Lenz, 70 - 80).

One option that has considerable appeal for continuing adult education is Self Directed Learning. Interest in self-directed learning, which has achieved a position of importance in the last thirty years, was stimulated by the research of Tough in 1971. Tough, expanding on the work begun by Houle ten years earlier in his seminal work, *The Inquiring Mind* (1961), developed a comprehensive approach to self-directed learning in which he identified the basic components of the concept. Tough, addressing an issue that was to prove controversial in the development of the concept, referred to the burgeoning concept as *self-planned learning*. The concept was originally met with resistance when it was perceived as a threat to the educational profession. The concern stemmed from the fear that the importance of the formal, professionally directed format would be sublimated with the acceptance of a concept that validated an individual's ability to learn without benefit of the traditional structured learning environment. Tough's research observed that intentional learning is a constant component of life. To illustrate this he states "highly deliberate efforts to learn take place all around you. The members of your family, your neighbors, colleagues, and acquaintances probably initiate and complete several learning efforts, though you may not be aware of it" (Sharan B. Merriam, and Rosemary S. Caffarella, *Learning in Adulthood - A Comprehensive Guide, Second Edition*. San Francisco: Jossey-Bass Publishers, 1999) 290. Malcolm Knowles, who was researching self-directed learning at approximately the same time, noted that a primary tenet of adult learning is the mature learner's attraction to self-direction as a comfortable mode for the learning experience. This position, not coincidentally, supports Knowles' previously

mentioned philosophy of andragogy. While this theory has not been accepted universally, where it is acknowledged, it has been integrated into the professional structure and application of adult training effectively.

The focus of early research into self-directed learning focused on verifying the hypothesis that maturing adults actively and assertively seek learning activities in the course of their day-to-day routines independent of a structured venue, considered by some, appropriate for such challenges. This grew into investigation regarding how individuals moved from one task to another in their quest for self improvement and accumulation of information, how they made decisions regarding progress, and rich, exhaustive models were developed. As interest grew and the significance of the development of the phenomenon began to be apparent, scholars became involved in the process piloting discussions regarding objectives of the practice and the personal nature and potential contributing factors of the individuals who were drawn to this innovative form of adult education. Their involvement soon expanded to include attempts to unify developing information and present it in a way that facilitated understanding and advancement. One resource, *Learning in Adulthood*, by noted authorities Merriam and Caffarella, found that this process revealed various aspects of the concept that lend themselves to analysis according to orientation. The orientations or contexts within which self-directed learning has been divided for purposes of investigation are identification of goals, characteristics of learners, and inherent challenges as well as the concept as a study methodology.

Primary objectives serve to divide the goals associated with self-directed learning. they are “(1) to enhance the ability of adult learners to be self-directed in their learning, (2) to foster transformational learning as central to self-directed learning , and (3) to promote emancipatory learning and social action as an integral part of self-directed learning” (Ibid.). Interest in the first goal has produced the majority of research in the area of goals.

Merriam and Caffarella cite A. Tough's 1979 *The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning*, as well as the 1980 publication of Malcolm Knowles, *The Modern Practice of Adult Education: From Pedagogy to Andragogy* as primary resources for the formulation of the first designated goal of enhancing adult learner ability in self-directed learning. Additional citations noted by Merriam and Caffarella, credit research of R. G. Brockett and R. Hiemstra conducted in 1991 and that of Rosemary Caffarella and J. M. O'Donnell completed in 1989 with further refinement of this proposition. Their research confirmed that the ability of the adult learner to direct themselves in the learning process is attributable to both personal characteristics and particular expertise. The adult educator's role of assisting the learner in the planning, execution and evaluation of the learning experience is understood to support the stated goal. It is the responsibility of the learner to assertively seek this assistance which may take the form of recommended resources or the introduction of innovative learning tactics. The collaborative research of Brockett and Hiemstra is rooted in a basic assumption about humanity referred to as Personal Responsibility Orientation (PRO). The contention is that PRO is the culmination of three fundamental ideas "that human nature is basically good,...that individuals possess virtually unlimited potential for growth.. (and) that only by accepting responsibility for one's own learning is it possible to take a proactive approach to the learning process" (R.G. Brockett and R. Hiemstra, Self-Direction in Adult Learning: Perspectives on Theory, Research, and Practice. New York: Routledge, 1991) 291. Inherent in this goal is the notion that personal autonomy and free will are required to make individual choices. Information related to the second goal, promoting learning that involves a metamorphosis as a pivotal element of self-directed learning, is primarily the result of research conducted by J. Mezirow and S. Brookfield. The conclusion of this research asserts that the authentic self-directed learner exists only in the ability of the learner to become completely involved in interactions that challenge and effect appropriate modifications to predetermined positions and goals.

The proposition asserts a threshold issue to be the comprehensive grasp by the learner of the orientation of their specific interests, needs and wants. It is additionally believed by some authorities in the field that without this level of comprehension, true autonomy in self-directed learning is not possible. The second goal also brings to the fore a challenge to researchers to unambiguously define the difference between strategies that result in self-directed learning and those that effect inherent change in awareness. The second goal is considered by some experts in the field to be the basis for the third goal advancing the theory of learning and social action as integral parts of the liberating aspect of self-directed learning. Promoters of the third goal have been some of the most adamant critics of goal one, citing the limited scope as the source of their criticism. Inherent in goal three is an evaluation that considers not only the issues that have an impact on the learning experience, but also the retrospective developments that occur as a result of the activity of learning. Brookfield's position on this issue notes that subsequent developments that follow self-directed learning are often difficult, if not impossible, to evaluate with regard to learning as an isolated issue. This is particularly applicable in the contexts of educational facilities and corporate structures that exert a high degree of control in operational areas. Control is generally viewed as a limiting quality and in that regard is not conducive to an activity designed to engender growth and expansion. The issue of control also comes into play with regard to another issue addressed by Brookfield. Easy access to resources that would enable learners to progress at a pace and facility that is determined by them to be most appropriate for them would make continuing education a potential for many adults who, for various reasons, have not previously considered self improvement in the form of adult education a possibility.

An examination of self-directed learning as a mode of study relates more consistently to the first two goals than it does to the third, and can be divided into three model types, linear, interactive and instructional, for the purpose of investigation. These

three divisions have been defined as dominant and showing more potential for development than other less significant examples.

The earliest studies of self-directed learning were based on linear models with many similarities to the more familiar traditional forms of education. This model drew heavily from Tough's early research in which he described self-directed learning with the term *self-planned learning*. The process involved the learner's predictable progress through a series of defined steps that reflected the learner's intentional effort to obtain and maintain specific finite information and capability or to modify themselves. Research additionally determined that self-planned learning projects implement thirteen steps that represent significant pivotal points regarding what, where, and how to learn. They are defined as "1. Deciding what detailed knowledge and skill to learn... 2. Deciding the specific activities, methods, resources, or equipment for learning... 3. Deciding where to learn... 4. Setting specific deadlines or intermediate targets. 5. Deciding when to begin a learning episode. 6. Deciding the pace at which to proceed during a learning episode. 7. Estimating the current level of this knowledge and skill. 8. Detecting any factor that has been hindering learning or discovering inefficient aspects of the current procedures. 9. Obtaining the desired resources or equipment or reaching desired place or resource... 10. Preparing or adapting a room (or certain resources, furniture or equipment for learning or arranging certain other physical conditions in preparation for learning... 11. Saving or obtaining the money necessary for the use of certain human or nonhuman resources... 12. Finding time for the learning... 13. Taking steps to increase the motivation for certain learning episodes..." (Merriam and Caffarella, 294). Exhaustive research working with both general and specific populations were inspired by Tough's original linear model, and the consensus of experts researching self-directed learning in adult education proclaims unequivocally that the autonomous quest for knowledge in unstructured environments has been verified. Knowles, in a somewhat similar description of self-directed learning, reduces the definition to six steps: "(1) climate setting, (2) diagnosing learning needs, (3)

formulating learning goals, (4) identifying human and material resources for learning, (5) choosing and implementing appropriate learning strategies, and (6) evaluating learning outcomes” (Ibid, 295). Knowles additionally provides resource related references designed to assist both the instructor and the learner in the completion of the learning assignments. Knowles and Tough are undisputed authorities in the research of self-directed education, providing the industry with important definitions of fundamental tenets, as well as terminology and phraseology that facilitates the communication of abstract concepts so important in the developmental stages of a new idea. While Knowles and Tough hold a position of high honor in the research arena, alternative interpretations of the self-directed learning model have been advanced by other prominent researchers in the field.

The interactive model, of self-direction is a major component in the attractive proposition currently circulating in adult education circles regarding lifelong learning. This model is not as structured as the linear variety and depends more on the spontaneous occurrences in participants lives combined with personality characteristics to create episodes of self-directed learning experiences.

The instructional model blends the formal structure of a traditional formal educational environment with the life’s hard won wisdom inherent in the mature learner. This integration of structure and experience enhances the learning experience by providing for higher levels of learner influence and independence within the context of an instructor directed learning process.

CHAPTER III

STATEMENT of THE PROJECT

Introduction

The project is to define the process by which a systematic design of instruction for adults is developed. The goal is an instructional product appropriate for use as a framework for communicating new information or skills, or higher levels of existing proficiency to adult learners.

The Methodology of the Study

The methodology used to research current procedural recommendations in adult educational programming are as follows:

- A. A review of pertinent literature on the adult education process.
- B. Participation in and observance of recent adult/continuing education opportunities.
- C. Personal interviews with professionals in the field of adult/continuing education.
- D. Review of currently available program format for instructional design in adult education.

CHAPTER IV

SOLUTION PROCEDURE

Introduction

The solution procedure for designing a program of study appropriate for adults begins with a clear concept of the desired end goals and objectives. The goals and objectives are then dissected and analyzed to reveal presentations appropriate to the process of advancing the specified goals and objectives. The presentations enable the learner to create associations and motivation to connect the classroom exercises to the particular learning activity that may be unique to each participant. Research indicates that this process can be synthesized into the outline that follows.

I - Identify Goals

- A - What participant will know at conclusion of course.
- B - What participant will feel at conclusion of course.
- C - What participant will experience at conclusion of course.

II - Identify Objectives

- A - Defined capabilities that will be accomplished during the course to a desired level of proficiency by the conclusion of the course.
 - 1 - System design
 - 2 - Analysis
 - 3 - Design
 - 4 - Evaluation

III - Needs Analysis

1 - Terminal Objectives

a - Define the problem to be solved.

2 - Enabling Objectives

a - Define

(1) Needs Assessment - The systematic effort to determine the difference between a model situation and the actual situation and to determine the type of performance problem/opportunity the differences indicate. As the differences are identified, they are evaluated to determine which differences deserve your attention.

M (Model) - (less) A (Actual) = D (Difference)/MAD

(2) Subject Matter Expert Analysis - An individual or group of individuals having either mastered a job activity (a master performer) or content area (intellectual concepts) related to solving a training problem. They have enough experience and knowledge to clearly articulate what the learner will need to know and be able to do to reach mastery.

(3) Direct Observation

(4) Extant Data Analysis

b - Identify appropriate options to address the specified problem.

3 - Learner Analysis

a - List suggestions and considerations based on characteristics of target audience, with particular sensitivity to adult/self-directed learner issues.

(1) List learner design and delivery considerations.

- (a) Knowledge level
- (b) Background experiences
- (c) Likely major misconceptions
- (d) General attitude

[1] Sensitive areas

- (e) Format preferences
- (f) Level of language skill (proprietary terminology)
- (g) Preference for language style (conversational or formal)
- (h) Sensory-perceptual differences (e.g., visual or hearing impairment) requiring special attention.

4 - Context Analysis - Identifies and describes environmental factors that may affect the design of instruction.

- a - Media selection
- b - Learning activities
- c - Participant materials and leader guides
- d - Learner and course evaluation
- e - Packaging and production of training materials
- f - Training schedule

5 - Task Analysis - The systematic procedure for taking any main task or objective and breaking it down into smaller, more manageable tasks.

a - Procedural Task

- (1) Identify beginning and end of task.
- (2) Identify psychomotor and cognitive processing involved.
- (3) Note linear progression.

(4) Identify extant subskills that are relevant to the task.

(5) Note observability and measurement of progress.

b - Hierarchical Task - involves cognitive processes - performed mentally. Involves superordinate skill with prerequisite subordinate skills focused on new learning skills that are prerequisite to the accomplishment of the task.

(1) Specify the main task.

(2) Identify subtasks at the next easier level.

(3) Treat each subtask as a main task and repeat procedure.

(4) Stop the analysis when the subtask reaches the learners' entry level

6 - Concept Analysis - The systematic identification of the critical and variable attributes of an idea.

a - Identify the concept

b - Compose a tentative definition

c - List critical and variable attributes

d - Prepare examples

(1) Divergent examples

(2) Close-In Nonexamples

7 - Specifying Learning Objectives - Major outcome of analysis phase.

a - Identify 2 categories

(1) Terminal Objectives

(2) Enabling Objectives

b - Clear statements of what learner is to do as a result of instruction program.

c - Select appropriate domain/levels for writing objectives.

d - Match the instructional task

- e - Are reasonable to meet given the training situation
- f - Should realize gains far beyond those normally expected
- g - Written after the analyses have been completed

IV - Design/Development

A - Construct criterion items that match objectives.

1 - Define methods of test construction

a - Methods

- (1) Topic based
- (2) Statistically based
- (3) Objective based

b - Criterion Referenced Tests

- (1) Pretest - administered before instruction
- (2) Prerequisite Test - Measures entry level skills and knowledge.
- (3) Post Test - Administered after instruction and measures which objectives were mastered by which trainee.
- (4) Measures enabling objectives providing for assessment in the process as instruction is occurring.

c - Principles for Test Construction

(1) Terminal Objectives

- (a) Test items for terminal objectives carry more weight than those for enabling objectives.

(2) Number of Test Items

- (a) Develop five to twenty test items for terminal objectives.

(3) Concentrate on the most important performance.

- (a) Tasks that are prone to error
- (b) Tasks for which the consequences of error are high.
- (c) Performance on the terminal objectives.

(4) Matching Performance Evaluation

- (a) Focus on the performance required on the job in determining how to evaluate performance.

(5) Analogous Measures

- (a) Affective objectives may require observation or other indirect measures of performance

2 - Develop performance checklists.

a - Three forms

- (1) Indicates completion
- (2) Includes a quality rating component.
(may be a scale)
- (3) Includes a descriptive component with concise specification of numbered rating which controls subjectivity on the part of the ratter.

b - Terms and Definitions

- (1) List of behaviors that contribute to performance
(may include a scale that indicates if and/or how well the behaviors are performed)

B - Design Documents and Blueprints

- 1 - Design Documents - An overview of the instructional program that indicates how all elements fit into an appropriate delivery system.**

a - Annotated Table of Contents

- (1) Introduction - Summarizes the results of the front-end analysis and applies them to the instructional design.
 - (a) Business Need - Summarizes the problem or opportunity that the training will address.
 - (b) Learner Analysis - Summarizes the characteristics of the target audience and applies those characteristics to the design of instruction.
 - (c) Context Analysis - Summarizes the characteristics of the training environment and applies those characteristics to the design of instruction and describes any secondary uses for the course.
 - (d) Course Goal - States the intended direction toward which learners will move and specifies how the training will satisfy the identified business need.
 - (e) Terminal Objectives - Presents the overall course objectives and may also discuss the learning domains and levels of learning for the objectives.
- (2) Course Overview - Provides a general overview of course content and structure.
 - (a) Instructional Flow Diagram - Specifies the media for each course component and illustrates how the course components will interact with each other.
 - (b) Course Outline by Module or Topic - Describes the general topics, media to be used and

instructional method and may include a rationale for making decisions regarding these options.

(c) Evaluation Plan - Describes the criterion-referenced testing plan (i.e., how attainment of the learning objectives will be measured), and specifies how the course will be evaluated.

(d) Implementation Plan - Describes how the course will be implemented and highlights any major implementation decisions that need to be made.

(1) Development Plan - Presents the schedule and resources for each phase of the course development.

(a) Course Development Schedule - Includes a schedule that clearly specifies start and completion dates for each step in the development process.

(b) Resource requirements - Specifies what resources will be needed to develop, produce, and deliver the instruction.

2 - Blueprints - A document that specifies the training materials to the level that others can determine the sequence of instruction and envision what the learner will experience in each component.

a - Annotated Table of Contents

(1) Instructional Flow Diagram - Specifies the media for each course component and illustrates how the course components will interact with each other.

(2) **Course Components** - Describes each major course component that will be developed, one at a time and specifies the following items for each major component.

(a) **Terminal Learning Objectives**

(b) **Media**

(c) **Treatment**

(3) **Project Planning** - Presents the detailed development schedule, and/or time-action calendar which includes timelines for each task that needs to be accomplished to complete the course.

(4) **Materials Distribution** - Specifies how and when the final products will be produced and distributed.

(5) **Issues** - Describes any development issues that must be resolved.

C - Developing and Selecting Learning Activities and Materials

1 - Principles of Effective Instruction

a - **Advance organizers**

b - **Provide relevant practice**

c - **Omit irrelevancies**

d- **Make it interesting.**

2 - Lesson Design

a - **Introduce the topic - gains attention**

b - **Present the objective - provides direction**

c - **Present the material - provides stimulus**

d - **Show correct performance - provides a model**

e - **Learner performs - provides practice**

f - Provide corrective or confirming feedback

g - Assess learner performance - provides certification of learning

h - Provide review and summary - enhances retention and transfer

3 - Media Selection

a - Considerations

(1) Systematic - Media selection should be appropriate for the learners, instructional task, and learning objectives.

(2) Optimum - Media selection should be based on the optimal mix of media attributes. A combination of media is often the best choice.

(3) Pragmatic - media selection should take into account the real-world constraints facing the instructional designer, instructor and learner.

b - Consider the task, learner, delivery, and context analyses

(1) Visual Information (text, graphic, pictures)

(2) Color

(3) Sound

(4) Motion

(5) Other

c - Basic Media Options

(1) Print

(2) Slides

(3) Transparencies

(4) Video

(5) Real objects

(6) Audio tape

d - Reality Check

- (1) Budget constraints
- (2) Timeline
- (3) Ability to produce media with available resources.
- (4) Short course life
- (5) Number of participants
- (6) Availability of instructional equipment

e - Final Selection

- (1) Select the medium or media combination that seems most practical or possible for situation.

4 - Instructional Writing Techniques**a - Writing from scratch****b - Script Writing**

- (1) Dramatization - act out model behaviors
- (2) Documentary - video record of an event or process
- (3) Illustrated presentation - on-camera or off-camera narration with hand-held or full-screen examples.
- (4) Combination - incorporates all the above

5 - Involvement Activities**a - Structured role-play****b - Instructional game****c - Simulation****d - Case study**

V - Evaluation

A- Expert Appraisal - sought soon after prototype instructional materials are created and before developmental testing is conducted to improve the effectiveness and usability of your instructional program.

B - Participants

- 1 - The Instructional Designer**
- 2 - Subject Matter Expert**
- 3 - Trainer**
- 4 - Media Specialist**
- 5 - Other Instructional Designers**
- 6 - Address**
 - a - Relevance of objectives**
 - b - Theoretical soundness of content**
 - c - adequacy of definitions**
 - d - Explanations**
 - e - Proper use of technical terms**
 - f - Appropriateness of examples**

C - Developmental Testing

- 1 - Part of a formative evaluation involving feedback from tryouts with representative members of the target population.**
- 2 - Takes place after client review and expert appraisal**
- 3 - Participants**
 - a - Instructional Designer**
 - b - Subject Matter Experts**
 - c - Trainee(s)/ Representatives of the Target Audience**
- 4 - Single Subject Testing**

V - Presentation of Instructional Program

A - Evolves during formative evaluation

B - Participants

1 - Instructional Designer

2 - Subject Matter Experts

3 - Client Personnel Responsible for Reproduction and Implementation

C - Development of tracking system

1 - What need to be done and when

2 - What's been completed

3 - What needs "work"

4 - Project Control Sheets

5 - Project Deliverables

6 - Production and Distribution Considerations

7 - Packaging and Reproduction Resources

D - Levels of Evaluation

1 - Reaction- Learners are evaluated during and at the end of instruction to measure their reaction to the training.

2 - Objective-Based - Learners are evaluated during and at the end of instruction to measure how well they achieved the learning objectives of the training program.

3 - Transfer - Learners are evaluated once they are working on the job and applying the training. Transfer evaluation measures whether the learners are using the training back on the job as it was intended and prescribed.

4 - Payoff - Evaluates the company, not the people trained. This long-term evaluation measures what impact the training has had on the business problem or opportunity.

5 - Check for program effectiveness and opportunities for improvement

6 - Participants

a - Instructional Designer

b - Target Audience Members

c - Other Interested Parties in the effects of the training

CHAPTER V

CONCLUSION

The process of designing a continuing education experience for adults has become more specialized and sophisticated in recent years. The importance of the development of the adult education industry may be connected, in some part, to the impact on the marketplace that has come to be expected as the approximately eighty-million Baby Boomers move into a particular market. Adult education is such a market. The Baby Boom generation is the best educated in history. They value learning, are comfortable on the "learning curve", and many show interest in continuing to learn as they age. Some adults currently interested in augmenting earlier formal training or changing professional direction entirely choose to do so with the help of an adult education program. Other adults with the option of free time, choose to fill that time with leisure learning experiences. This may involve acquiring new skills or investigating subjects that have interested them for some time, but were not a priority until now. Whether seeking leisure learning or professional training, the adult learner of today is fortunate to find professionally researched and developed programs available in both categories.

The adult education industry is an exciting place to be today. Much emphasis is currently being placed on research that is designed to predict, and therefore prescribe, what constitutes the optimal learning experience for both the instructor and the learner. Research stresses the evolutionary nature of the design process, which lends an element of vitality and life to each product that results from a successful instructional design process experience.

The relentless state of change that has become the accepted norm in the business world today requires that provisions be made to update the workforce consistently. In order to remain competitive, consumer demand, which is also in a constant state of flux, must be addressed. Industries today are acutely aware that they must often retrain or

reeducate their workforce in order to attain a competitive edge. Adult education programs provide viable options to this end.

Demand for continuing education opportunities is likely to grow in the coming years, and accompanying that growth will be an expectation for more efficient and creative approaches to instructional design and development. The ongoing desire of adults to learn will continue to be assertively pursued in various forms. The adult continuing education industry will continue to address the evolving requirements that manifest themselves in the interests of the adult learner community. Non-traditional environments and formats, already popular in the adult education industry, will find new forms of expression defined by the participants in the program and the course content. Among these advancements are sure to be various forms of self-directed interactive options including the video for purchase format and the availability of real time instructional Internet courses.

In conclusion, it should be noted that each adult learning experience is unique. The singular nature of each experience is related to the individual characteristics of the issue to be addressed and of the participating population. The primary responsibility of the program planner in developing the process is to define the goals and objectives, and to address them in a measurable, systematic manner that involves an appropriate balance between program and participant.

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