The influences of personal and professional learning situations on real-life learning strategy utilization by school administrators in Wyoming

by Robert John McKenna

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education
Montana State University

Abstract:
In this study, two real-life learning situations were examined to find out if there were any differences between the learning strategies used by school administrators in personal learning settings as opposed to professional learning situations. Additionally, this study examined the relationship between the demographic variables of age, type of academic training, years of teaching experience, the scope of responsibility within the district or building and the learning strategies used by school administrators in professional and in personal situations. The learning strategies were evaluated using the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) instrument. The five strategy construct areas of metacognition, metamotivation, memory, critical thinking, and resource management are identified in SKILLS.

The first hypothesis comparing the learning setting was analyzed with t-tests in each of the five content areas of SKILLS, as well as with each of the specific strategies within each of the content areas in both the personal and professional learning situation. The second hypothesis investigated the relationship between selected demographic variables and learning strategies and was tested by a series of multiple regression analyses. Separate regression analyses were conducted for each of the five content areas of SKILLS, as well as with each of the specific strategies within each of the content areas in both the personal and professional learning context.

Through the use of t-tests, it was found that school administrators did differ at a statistically significant level in their use of learning strategies in personal learning situations from their use of learning strategies in work-related, professional settings. The results of the multiple regression calculations indicate that there is no significant influence attributable to the respondent's demographic information and the specific learning strategies used in both personal and professional learning contexts. Thus, the SKILLS instrument is a valid and reliable instrument that can be used to discriminate learning strategy utilization in various contextual situations.

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by

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A thesis submitted in partial fulfillment
of the requirements for the degree

of

Doctor of Education

MONTANA STATE UNIVERSITY
Bozeman, Montana

September 1991

APPROVAL

of a thesis submitted by

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This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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ACKNOWLEDGEMENTS

* Important beyond words is Carol,

my wife, dearest friend

and the one who provided all the love and understanding that kept me going.

* That fatherly figure, Bob Fellenz,

chairman of my committee,

whose knowledge and inspiration influenced me so greatly.

* The finest mentor a fellow could ask for, Gary Conti,

who has the intellect, compassion and abilities

that so very few are granted.

* To the fine educators on my committee,

who so freely shared their time and what they have learned.

* To the doctoral fellows at the Kellogg Center for Adult Learning Research,

Lynn Paul, Frank Rowland, Nate St. Pierre and Jan Counter,

who, in their discussions, helped me to formulate so many ideas in my pursuit

of real-life learning.

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ABSTRACT

In this study, two real-life learning situations were examined to find out if there were any differences between the learning strategies used by school administrators in personal learning settings as opposed to professional learning situations. Additionally, this study examined the relationship between the demographic variables of age, type of academic training, years of teaching experience, the scope of responsibility within the district or building and the learning strategies used by school administrators in professional and in personal situations. The learning strategies were evaluated using the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) instrument. The five strategy construct areas of metacognition, metamotivation, memory, critical thinking, and resource management are identified in SKILLS.

The first hypothesis comparing the learning setting was analyzed with *t*-tests in each of the five content areas of SKILLS, as well as with each of the specific strategies within each of the content areas in both the personal and professional learning situation. The second hypothesis investigated the relationship between selected demographic variables and learning strategies and was tested by a series of multiple regression analyses. Separate regression analyses were conducted for each of the five content areas of SKILLS, as well as with each of the specific strategies within each of the content areas in both the personal and professional learning context.

Through the use of *t*-tests, it was found that school administrators did differ at a statistically significant level in their use of learning strategies in personal learning situations from their use of learning strategies in work-related, professional settings. The results of the multiple regression calculations indicate that there is no significant influence attributable to the respondent's demographic information and the specific learning strategies used in both personal and professional learning contexts. Thus, the SKILLS instrument is a valid and reliable instrument that can be used to discriminate learning strategy utilization in various contextual situations.

CHAPTER I

INTRODUCTION

Administrators in public schools face a variety of real-life problems that they must address every day. These demand not only problem solving processes but also the capacity to organize (planning) and actually experience the phenomena of "learning". The use of learning strategies in real-life encounters enhances an individual's ability to positively cope with life's many and varied challenges at both the personal and professional level.

Professionalism, in education, is something that is expected in this country. Being a "professional" gives a sense of added status and competency to the job of educating learners. The field of educational administration has moved towards becoming a separate profession, within the broader perspective of teaching. In the past, administrators focused more on the management end of the school process and tended to leave the teaching and learning to the teachers (Sergiovanni, 1991). However, the slogan "School leaders as learners" reflects a new norm in public school administration. Administrators today are not mere managers and shufflers of endless reams of paper. Today's professional school

administrator provides the leadership to make decisions, motivate and solve day to day problems in a collegial atmosphere (Hallinger & Murphy, 1991).

Administrative training is an ongoing professional activity. The materials and methods currently used to prepare school administrators for employment stress sound academic learning strategies. Adult learners live and work in real-life situations (as distinct from the learning that takes place in academia) and must rely upon themselves to initiate learning and set realistic expectations for their learning outcomes. Therefore, learning strategies must reflect the real-world job realities that are encountered in the school districts and buildings where professional school administrators work.

While professional development programs and district operations often focus on formal learning situations, instituting and implementing professional development goals usually remains dependent on the individual school administrator's own initiative (Hallinger & Murphy, 1991). School administrators must be prepared to undertake the responsibility for much of their own on-the-job learning activities. School administrators work in the real world and need real-life learning strategies to cope with day to day learning opportunities.

Real-life learning varies from individual to individual and is, in most cases, geared to the particular learning situation that is encountered. To distinguish

real-life learning from that encountered in an academic setting, one has to examine some of the conditions that prevail in a formal "schooling" situation. In an academic setting, one finds a curriculum that has been set by someone other than the learner; all of the pertinent information needed for the learning experience is provided, and the correct answers to problems the student might be asked to solve are available (Wagner & Sternberg, 1986). Real-life learning means planning and organizing one's own efforts. These are the everyday encounters with learning that allow the individual to survive and gain satisfaction with his or her particular lifestyle. It is the actual experience of using effective strategies that count.

An important aspect of adult learning is that quite often it is initiated for immediate use in real-life situations. Sternberg (1990) suggests that there are numerous differences between learning for real-life problem solving and learning for academic endeavors. Adult learners distinguish for themselves problems encountered in the real world as distinct from those problems identified and defined by someone such as a teacher or lecturer. Real-life problems are usually not as well structured as those problems encountered in an academic setting. Most often school-related problems lack the contextualization existing in those encountered in the real world. Often, in school settings, information is given which enables the learner to work effectively in solving

problems. However, in real-life it is often difficult to obtain or discover the information that would aid the learner in resolving day to day problems. In solving real problems, one must look not only at one's own perspective for resolution of the problem but also at those arguments that might be put forward by an opposing side. School related problems predominantly teach learners to confirm what they already believe. Good feed-back is often lacking in real-life situations; sometimes it does not come until it is too late. School environments teach us to work on problem solving on an individual basis. Real-life problems are quite frequently resolved by the group process of discussion. Hence, real-life learning strategies are dependent upon episodes that are characteristic of the real world in comparison to a rather artificial, academically contrived problem. Thus, as with most professionals, these are the types of situations school administrators face daily. They encounter and must effectively resolve real-life problems in both the workplace and in their personal lives on a continual basis.

Adults may use a variety of learning strategies in addressing real-world problems. Learning strategies are the techniques or specialized skills that the learner has developed to use in both formal and informal learning situations (McKeachie, 1988). These skills are honed to a workable efficiency by what Darwin would have termed "survival of the fittest" testing. If one was using this

Darwinian cliche, then those skills which produce favorable results are retained by the individual, amplified and expanded upon, and those techniques which have not proven to be reliable or fruitful will either be abandoned or suppressed. While this may be the way individuals develop learning strategies, there is another possibility for viewing this cliche of specialized skill "evolution" slightly differently. It is here that we might see an "efficiency of effort" paradigm that could be described in this alternative view. Those skills that are the easiest to perform are used more frequently. The skill might not necessarily be very effective, but the learner immediately chooses the quickest and easiest fix to the exercise at hand. The notion that water always flows in the path of least resistance might be applicable in this particular situation.

The particular skill(s) and the sequence(s) in which learning strategies are used can be both intuitive and learned in response to a given set of external stimuli. This learning stimulus seems to trigger or activate the learning process and to raise the question of whether there are "factors" which influence one's ability to use learning strategies. For example, does a school administrator's past teaching area have any bearing on the particular strategies used to solve those everyday problems that are so commonplace in the world of the adult?

Learning strategies that are employed by adults vary from learner to learner, and are dependent upon the actual learning objective. The particular

strategies employed by any given learner can often be so familiar to the learner that little thought is given to the actual strategy selection. However, when new or extraordinary learning situations are encountered, the adult learner might spend considerable time in selecting appropriate strategies that will be useful in successfully learning what is needed.

How do adults learn? Are there particular strategies which might be used more effectively by one learner, and not so well by another? Do the strategies employed by adults vary depending upon whether the learning situation is in an academic or real-life environment? Is the selection of real-life learning strategies contingent upon the learning being job related or of a personal nature? Factors such as these may influence one's use of learning strategies. They directly influence today's school administrator who must provide strong and positive leadership if the school is to be an effective institution. The administrator's personal background-data and employable real-life learning strategies can provide valuable insights into the effectiveness of leadership and subsequently the effective outcomes of schools.

What effect in real-life learning does a person's level of attainment in a formal educational setting have on their ability to use learning strategies? Virtually all school administrators in Wyoming must have attained a master's degree in school administration from a recognized university before they are

certified to hold an administrative position. Although this is one common denominator and although this master's degree training is shared, previous formal educational qualifications vary greatly. For example, some might have a vocational background where practical applications were predominantly examined; others may have a background with an emphasis on critical thinking skills. Each academic field has established methods for acquiring and learning knowledge and appears to attract people who have similar styles for learning (Kolb, 1978).

Is a person's age of any importance in selecting and successfully using learning techniques? With greater and varied experiences, one might anticipate there to be a modification or refinement of those strategies for learning that brought success in very specific circumstances that were encountered in the real world of the adult. Older learners by virtue of a succession of personal triumphs, defeats, and modifications to the strategies used might very well be more focused in recognizing their particular learning style or at least in being able to concentrate their learning efforts on subjects which are of importance to them.

Does the size of a school administrator's district/building have a bearing on the type of learning strategies employed? Small school districts/buildings present different challenges to the administrator than do larger institutions.

Often small districts will have only one administrator who is isolated and without a readily available person to discuss ideas and concerns. This presents a learning environment for the administrator that might require a completely different approach in the selection of learning strategies to solve the problems encountered. Being able to speak with someone in person allows the administrator to bounce ideas off the other individual, and get instant verbal and non-verbal reactions to everyday, real-life problems. When one must take a broader perspective or more global outlook in managing a building/district, learning strategies might be different. When one is not only the instructional leader but is also the person who is responsible for the direct control of the boiler room, learning might well take on a multi-level aura. On the other hand, larger districts/buildings tend to have many administrators, and they are assigned tasks that might be more limiting in scope when compared with the small district/building administrator, and consequently they may require the employment of differing strategies when learning situations evolve.

Statement of the Problem

Real-life learning occurs daily in one's professional and personal life. Although adults possess a variety of learning strategies and use them in different situations, little or no research has been conducted to determine if

individuals use the same learning strategies in their professional activities as in their personal lives. School administrators have a myriad of learning opportunities daily to gain knowledge for solving problems. Yet, little is known about the strategies used by administrators in these situations or about the demographic factors which may have influenced the development of these strategies.

Purpose of the Study

Therefore, the purpose of this study was to investigate the relationships between learning strategies used in professional situations and those used in personal situations by school administrators. In addition, this study examined the relationship between the demographic variables of age, type of academic training, years of teaching experience, and the scope of responsibility within the district or building and the learning strategies used by school administrators in professional and in personal situations.

Research Hypotheses

Two major hypotheses were tested in this study. The first examined the relationship between the use of learning strategies in professional situations and the use of learning strategies in personal learning situations. The first

hypothesis was analyzed with t-tests in each of the five content areas of SKILLS, as well as, with each of the specific strategies within each of the content areas in both the personal and professional learning situation. The second investigated the relationship between selected demographic variables and learning strategies. The second hypothesis was tested by a series of multiple regression analyses. Separate regression analyses were conducted for each of the five content areas of SKILLS, as well as, with each of the specific strategies within each of the content areas in both the personal and professional learning context.

The following two hypotheses were tested:

Hypothesis 1: There is no significant relationship between administrators' type of learning situation and their learning strategy score measured by SKILLS.

Hypothesis 2: There is no significant relationship between the demographic factors of age, type of academic training, years of experience, and scope of administrative duties and the learning strategies which are measured by SKILLS and which are strategies used in professional and in personal learning situations.

Definition of Terms

Throughout this study the following terminology was used in an operational context as defined below:

Learning Strategies--those techniques or skills that an individual elects to use in order to accomplish a learning task. These differ from learning styles in that they are techniques rather than stable traits and they are selected for a particular task. Such strategies vary by individual and by learning objective. Often they are so customary to learners that they are given little thought; at other times much deliberation occurs before a learning strategy is selected for a specific learning task (Fellenz & Conti, 1989, pp. 7-8).

Learning Style--a stable component of a person's psychological makeup comprising those traits and characteristics that the individual has accumulated and developed over the course of their existence. Learning styles are fairly consistent and stable. These traits are not only a component of the individual's genetic constituency but are probably the manifestation of all the positive and negative experiences that have ever impacted the learner (Fellenz & Conti, 1989).

Real-Life Personal Situation--those learning experiences encountered on a daily basis that require individuals to solve problems related to their home or family situation.

Real-Life Professional Situation--those learning situations encountered by professionals in the performance of their job.

SKILLS--an acronym for Self-Knowledge Inventory of Lifelong Learning Strategies. This is a valid and reliable instrument used to identify real-life learning strategies via the use of scenarios from real-world situations which reflect Shirk's learning categories. The questions assess how likely individuals are to use specific strategies in dealing with learning problems.

School Administrator--a professional school administrator who is listed in the 1990-91 *Wyoming Education Directory* as an employee in one of the 49 school districts in the state of Wyoming. The term denotes an individual who is certified by the State Department of Education as a specialist with endorsement as either a central office administrator (superintendent, assistant superintendent, or program director) or a building level administrator (principal, assistant or associate principal or dean of students).

Assumptions of the Study

This study assumed that the responses made to the SKILLS scenarios represented true and accurate perceptions of the respondents concerning their use of learning strategies in real-life learning situations of both a professional and personal nature.

Delimitations of the Study

The study sample was restricted to a small, relatively homogeneous population of school administrators from the least populated state in the continental U.S. The investigation was dependent on volunteer participants from this locale.

The generalizability of the results of the study are limited due, in part, to the organizational and regional character of the sample and to the volunteer status of the subjects. The need for replications of this study using additional populations should be conducted as they would undoubtedly enhance the generalizability of the results.

Methodology of the Study

The purpose of this study was to investigate the relationship of several independent variables to two dependent variables. The independent variables

were age of the school administrator, years of formal education background, teaching area and experience prior to undertaking administrative work, and building/district size. The dependent variable, real-life learning strategies as measured by the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS), were divided equally into first those learning strategies used in professional situations and secondly, those learning strategies utilized in personal real-life learning situations.

Conti and Fellenz (1990) provided evidence concerning the construct validity for SKILLS, which was based on literature reviews and obtaining judgment on the constructs from a group of adult education and educational psychology professors. Additionally, an exhaustive review of the literature was undertaken for each of the five constructs and in particular those aspects that were related directly to adult learning. The findings from the literature review were then linked to scenarios of general areas of adult learning indicated by Shirk (1990). Robert Sternberg and Wilbert McKeachie, and a group of learned adult educators, reviewed the constructs and associated strategies at a summer institute at the Center for Adult Learning Research in Bozeman, Montana. The consensus of the group was that the SKILLS instrument did indeed address the five theoretical constructs of metacognition, memory, metamotivation, resource

management and critical thinking, and further, the scenarios did in fact represent a variety of real-life situations.

Organization of the Study

Chapter I included an introduction, statement of the problem, purpose of the study, research hypotheses, definition of terms, delimitations and assumptions of the study, methodology, and organization of the study.

Chapter II contains a review of the related literature that is concerned with professionalism, learning strategies and real-life learning.

Chapter III provides a detailed description of the methods and procedures used in the study. Additionally, this chapter outlines the design, data collection procedures, instrumentation, description of the population and sample, statistical hypotheses, and the statistical analyses of the data.

Chapter IV contains the results of the study and the statistical analyses for rejecting or accepting each of the two research hypotheses.

Finally, Chapter V provides a summary of the study, conclusions, discussions and recommendations for additional research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

In the study of learning theory, two major paradigms emerge and appear to dominate much of today's thinking about adult education: pedagogy and andragogy. Malcolm Knowles first used the term andragogy to describe the "art and science of helping adults learn" (Knowles, 1968; Davenport, 1987, p. 6). Knowles (1970) provided four assumptions that are the underpinnings of his definition of andragogy: (1) as the learner matures, his/her self-concept moves from a dependency on others to a more self-directed mode, (2) along with maturity, is the accumulation of a greater store-house of experiences that can be used as a resource by the learner, (3) maturity brings a readiness to learn those things that are important relative to the role the learner plays in society, and (4) with maturity the learner tends to focus any new learning towards solving current problems as opposed to learning about new subjects.

The development of andragogy initially was as a method or approach to learning (Knowles, 1970). Recently, the emphasis has altered somewhat from a

teacher-centered approach to a more learner-centered view; the concept of andragogy taking on a theoretical approach that emphasizes that learning is more a continual process; from its inception as a pedagogical process to its continuing and on-going life-long learning experience (andragogy) (Knowles, 1979). Conti's (1985) work with adult learning styles further suggests that teacher-centered approaches might work well with short-term tasks (such as learning to pass the various components of the GED examination), but that andragogical approaches might be more effective with basic level groups of learners (such as ESL classes) who are focused on acquiring long-term skills.

There is some confusion when discussing learning "styles" as opposed to learning "strategies". Two distinctions must be made. First, that learning styles can in fact be differentiated from learning strategies. Second, an individual's learning style is a stable component of a person's psychological makeup (Fellenz, 1990). Thus, style will deal with those traits and characteristics that the individual has by nature accumulated and developed over the course of their existence. Learning styles are fairly consistent and stable (Smith, 1982; Keefe, 1982). Such traits are not only a component of the individual's genetic constituency, but, as Witkin (1976) suggests, are probably the manifestation of all the positive and negative experiences that have ever impacted the learner.

Learning strategies, on the other hand, are those techniques or specialized skills that the learner has developed to use in both formal and informal learning situations (McKeachie, 1988). These skills are honed to a workable efficiency by learning successes and failures in the individual's everyday encounters with solving problems. This means that those skills which produce favorable results (are effective) will be retained by the individual (and perhaps amplified or expanded upon), and those techniques which have not proven to be reliable or fruitful will either be abandoned or suppressed. There is of course another possibility, and perhaps one should view an individual's learning strategies slightly differently. It is here that we might see an "efficiency of effort" paradigm developing. Those skills that are the easiest to perform are used more frequently. The skill might not necessarily be very effective, but the learner immediately chooses the quickest and easiest fix to the exercise at hand (Fellenz, 1990). The notion that water flows in the path of least resistance might be applicable in this particular situation.

The particular skill(s) and the sequence(s) in which they are used can be both intuitive and learned in response to a given set of external stimuli. This learning stimulus appears to trigger or activate the learning process. Thus, are there "factors" which influence one's ability to use selected learning strategies? For example, does a school administrator's past teaching area have any bearing

on the particular approach (or strategies) used to solve those everyday problems that are so commonplace in the world of the adult?

Real-life learning varies from individual to individual, and is, in most cases, geared to the particular learning situation that is encountered. To distinguish real-life learning from that encountered in an academic setting, one has to examine some of the conditions that prevail in a formal "schooling" situation. In an academic setting, one finds a curriculum that has been set by someone other than the learner; all of the pertinent information needed for the learning experience is provided, and the correct answers to problems the student might be asked to solve are available (Wagner & Sternberg, 1986). Real-life learning means planning and organizing your own efforts. These are the everyday encounters with learning that allow the individual to survive and gain satisfaction with his or her particular lifestyle. It is the actual experience of using effective strategies that counts when discussing this type of learning (Fellenz, 1990).

Area I - Professionalism: Definition, Formal Preparation and Delineation of School Administrators as Professionals

There are some important commonalities of professional occupations that tend to set them apart from other endeavors. However, defining who is a professional is difficult and not a new problem. There is no clear-cut boundary

separating professions from other occupations (Cervero, 1988). Thus, "all occupations seeking the ideals of professionalization are worthy of sympathetic study..." (Houle, 1980, p. 27). Even in the early days of this century, Flexner (1915) suggested that there might be certain objective standards that one might need to look at when distinguishing a profession from that of other occupations. According to Flexner there are six essential characteristics an occupation must meet if it is to be considered a profession. These necessary characteristics include: (1) the involvement of intellectual activities, (2) that materials used within the occupation be derived from science, (3) the end-product of the occupation's pursuits be of a practical and well defined nature, (4) that the techniques used within the occupation be able to be communicated in some educational manner, (5) tend towards self-organization, and (6) be altruistic (Cervero, 1988). Schon (1987) feels that an occupation that is professional will "...share conventions of action that include distinctive media, languages, and tools." Professionals tend to work in particular institutional settings, such as "...the law court, the school, the hospital and the business firm, for example" (1987, p. 32).

Cervero (1988), has a slightly different viewpoint. He suggested "The professions, whose members account for almost 27 percent of the work force in American society, have a relatively high degree of control and influence in the

lives of other people in society" (Cervero, 1988, p. 17). Thus, the search for objective standards has been extensive and laborious over the past 75 years or so.

As more and more occupations seek the increased status of being categorized as a profession many different approaches to defining a profession have been attempted. These attempts fall into three broad perspectives: (1) static, (2) process, and (3) socioeconomic (Cervero, 1988). The static approach is dependent upon objective criteria that are firmly and clearly discriminated between those occupations which have been seen as professional and those which have not been viewed as being a profession (Cervero, 1988). Proponents of this approach have not been able to agree on set criteria or objectives. The second approach identified in defining professional occupations is the process approach. In the process approach, the move is from the question of whether or not an occupation is a profession to one of defining "the circumstances in which people in an occupation attempt to turn it into a profession" (Vollmer & Mills, 1966, p. v). Thus, with the process approach, occupations may, by virtue of how the constituents perceive and perform within the occupation, become a profession.

To address the notion of professionalization (via the socioeconomic approach), is to suggest "that any profession is a 'folk concept' that is historically

and nationally specific. This approach contrasts dramatically with both static and process approaches in that it assumes there is no such thing as an ideal profession and that no set of criteria is necessarily associated with it" (Cervero, 1988, p. 9). Friedson (1986) further suggests that in seeking to define professionalization by means of the static and process approaches will lead to an unsuitable conclusion because professional occupations are not generic in nature, but, rather an evolving historic idea that is greatly influenced by various social and economic institutions (especially in the U.S. and Great Britain).

Becker (1963, p. 33) strongly suggested that in defining professionalization, "Such a definition takes as central the fact that 'profession' is an honorific title ... a collective symbol and one that is highly valued" within a given society.

Friedson (1986) has provided one of the most comprehensive examinations of this topic. He suggests that in order for an occupation to be considered a profession, the individuals within the occupation must have some amount of higher education. By utilizing census data and definitions from the 1970 census, Friedson attempted to place all professions into two major categories: (1) professional, technical and kindred workers, and (2) managers and administrators, except farm workers. However, the categories were modified slightly in the 1980 census, and a new category was created that grouped managerial and professional together and moved technical occupations to

another major category. The notion is that a formal qualification creates a unique category for an occupation with some specialist-type training whereas those individuals without higher education are eliminated from the field of perspective candidates to enter a particular profession (Friedson, 1986).

The number of individuals who are practicing school administrators is about equal to the population of licensed medical practitioners in this country (Cervero, 1988). Unlike medical doctors, who are characterized as being first order professionals, school administrators are seen to be professionals of the second rank (Glaser, 1968). Friedson (1986) identifies school administrators, including principals and superintendents, along with accountants and health administrators as the only occupations that are members of the managerial/ professional category (newly created by combining these previously separate entities) identified in the 1980 census.

Glaser (1988) suggests that because teachers (and subsequently school administrators) perform tasks or deal with social issues that are open-ended, they lack the public's confidence in resolving problems. Doctors, lawyers and some other professions are seen to bring final closure to problems that they deal with. Patients either get better or die; law suits are ultimately resolved by a finite judicial system. Because schools are continually changing to meet the expectations and needs of the new generation of learner, they are not perceived

by the public as completely solving a problem or producing a measurable end-product.

The roles that school administrators play can be characterized into two basic activities that they engage in. Those activities that require the administrator to improve instruction through direct interaction with the teachers (Alfonso, Firthe & Neville, 1981, in Cook & Deluca), and those objectives that might be described as action toward achievement of school goals which are not necessarily dependent upon others for their success or failure (Sergiovanni, 1987). This dichotomy of activities might appear to be somewhat simplistic at first view, but, administrative activities are quite often seen as supervisory or administrative (Cook & DeLuca, 1986).

In preparing today's school administrator for the rigors of the job, a number of factors have been identified as critical for ensuring success, both in the selection and training of potential school administrators. Instructional leadership is of considerable importance and is superseding the broader category of supervisor in school settings. Cook and DeLuca (1986) suggest that in order to "develop greater style adaptability, techniques which encourage exploration of simulated and real-life situations...be widely incorporated..." in training and preparing potential school administrators for what will be encountered out in the field. This notion is further supported by Schon (in

Cervero, 1988) who suggests training that would most benefit "practitioner(s) who wish to enhance their abilities to reflect in and on their practice, to become aware of their own problem-setting frameworks, and to extend their repertoires of images, examples, strategies and appreciations" (p. xii).

Continuing education is of great importance to the professional school administrator, and as such, should take into account the particular character of the occupation being assisted.

> The dynamic concept of professionalization requires the broadening of the...goals of continuing education...the professionalizing process is complex, and the life-long learning to which it gives rise must have many goals in both pre-service preparation and in the active years of practice. The educational goals established...must be sought through the lifespan of the professional (Houle, 1980, pp. 34-35).

School administrators have "...an insatiable appetite for training beyond university preparation" (Pitner, 1981, p. 3). Work by Campbell and Cunningham (1959), Mintzberg (1973), Pitner (1979), and Duignan (1980) empirically suggests that school administrators can be characterized by the real-life tasks they are asked to perform in their role as a leader, a number of which would suggest the need for life-long learning opportunities beyond formal tertiary training. Many administrators have reported that they were unprepared for the rigors of day to day school administrative duties. The reality of what was encountered in the actual working environment is difficult to prepare for. Administrators have a desire to succeed, but do not come into the job with the

specialized skills that are needed for the unique position that a school administrator holds. Administrators believe that they perform adequately, but wish to perform to an exceptionally high level (Wolcott, 1973).

Pitner (1979) summarizes administrative work/tasks as : (a) being of short duration, (b) subject to continuous interruptions (thus providing a somewhat erratic working pattern and tending towards discontinuity), (c) allowing the needs of other workers in the school setting to supersede prior plans, (d) interaction with personnel, predominantly being verbal contact, face-to-face with individuals, (e) those tasks which provide considerable variability , (f) providing a work flow that is sporadic and unpredictable, (g) being called upon to make numerous trivial and relatively unimportant decisions, and (h) those jobs that the administrator tends to deal with as being problems/ information that have an immediate, solvable and concrete conclusion.

School administrators undertake a job "...that requires substantial cognitive ability. The discontinuity and the variety of tasks, decision making under conditions of uncertainty, plus the pace of the work seem to suggest that a school administrator must have a highly developed repertoire of critical thinking skills. Administrators face an unending stream of activities, people and problems; the work demands that administrators be able to quickly shift mental and emotional gears (Pitner, 1981, p. 5).

Schon (1987) notes that "the context of a professional practice is significantly different from other contexts..." (1987, p. 32). Universities are perhaps best suited for training school administrators in the intellective domain - the cognitive areas of functioning. The less cognitive areas might best be taught more appropriately in the domain or environment of the non-university setting (Pitner, 1981). Examples of this might include internships, on the job training, and observation of well regarded individuals in a laboratory-type setting.

Five areas, dealing with analysis, have been identified by March (1974) as being critical for success in professional management/administration. These include the ability to analyze each of these: (a) expertise, (b) coalitions, (c) ambiguity, (d) time, and (e) information. Each of these skill areas is closely linked to an administrator's success as a manager. Everyday existence would become tenuous if skills were not demonstrated in the above areas on a regular basis. These skills are not only rudimentary for survival and success, but, represent a plethora of training and learning for the administrator.

The analysis of expertise relative to those individuals encountered as a manager of a school is critical in developing the potential of school employees. Teaching staff are evaluated to ensure that they not only have expertise in their teaching area, but, that they are able to demonstrate the skill necessary to

actually present the materials to the learner in an interesting and functional manner. The inability for a school administrator to analyze expertise would surely be a contentious issue for a person who was considered the instructional leader in the school environment.

The analysis of coalitions is of great importance to the school manager. Coalitions are the backbone of an administrator's governance of the political infrastructure encountered in today's educational institutions. Natural leaders or key players evolve in any school environment. Building an effective administrative structure involves melding these players and others into effective units or coalitions. Little happens by the efforts of the school administrator alone; much can come to fruition given the manager's ability to analyze and reflect on existing and future coalitions.

The analysis of ambiguity is a subtle skill. The enigma presented by the constantly changing needs of the learner often creates ambiguous situations, interpretations and professional approaches within the school context. The school manager must take a global view in selecting the best choice in these types of situations. If ambiguity goes unchecked, then indecision and confusion will greatly decrease the perceived and real effectiveness of the manager.

The analysis of time is of extreme importance to the school administrator. Schools are managed within a strict time constraint. Schools start and finish at

set time intervals. All subjects are taught within the same time frame. Learners of varying abilities are required to complete tasks within certain uniform times. Although there well might be some latitude, relative to the need to so closely monitor time, school managers are bound to managing within set times.

The analysis of information is a skill critical for a school administrator to show expertise. The age of information is upon us. The quantity of information that comes to the attention of an administrator is nothing short of phenomenal. A small mountain of informative mail arrives with irritating frequency. Textbooks and other resources are in constant flux and upgraded information concerning the availability and quality of these materials must be quickly analyzed. To lack expertise in this skill area is to greatly limit the ability to act cognizantly and effectively in the management of a modern educational facility. Somewhere, either in a formal schooling setting or an "on the job" learning situation, these five areas of analyses must be learned.

Area II - Learning Strategies

Darkenwald and Merriam (1982) suggest that, "The methods that adults employ to learn a subject or skill vary greatly, presenting a sharp contrast to the relatively uniform techniques used in the schooling of children and young

people" (p. 128). Adult learners have considerably different learning needs, and utilize a variety of modes and strategies in satisfying these natural learning urges. "While the traditional class or lecture is the one method most preferred and most used, it would be inaccurate to conclude that adults generally prefer passive and traditional approaches to learning...less formal learning methods are more often preferred and used by adult learners" (p. 129). Vital aspects of the adult learning process that are felt to be essential in any assessment or training program can be best categorized into five areas: metacognition, memory, metamotivation, resource management and critical thinking (Fellenz, 1990).

Metacognition

Overview. Thinking about the process of thinking is what metacognition is all about. People are active information processors. In the mid-1970's the cognitive psychologist Flavell (1976) first introduced the notion that learners actually can "manipulate" their ability to think and subsequently control the learning process. By the 1980's other cognitive researchers, in particular Brown (1982) and Yussen (1985), concurred with Flavell's construct. Brown (1982) developed a model that suggests metacognition involved the learner taking an active role in utilizing these self-regulatory tactics to ensure the success of any learning activity.

The construct of metacognition is not alien to adult educators. Brundage and Mackeracher (1980) suggest "...that the learner be able to conceptualize his own learning process and be able to pay some attention to how he goes about learning..." (cited Smith, 1982, p. 52). A decade previous, Burman (1970) suggested, "We normally do best those things which we know how to do. I do not think learning is any exception" (p. 50).

To give an illustration, here is a practical example of how adults actively think: give a group of adults a sheet of paper and a writing instrument. Inform them that you are going to read a list of 12 words, and you want them to try and recall as many of the dozen words as possible after a short wait of some 20 seconds. The listing of 12 words is read at the rate of one word every three seconds. The listing includes: bed, rest, tired, night, pillow, yawn, cover, dream, sheet, pajamas, slumber and alarm. After waiting for 20 seconds, the group is told to write down as many words as possible and not to be concerned about the order of the words. The group is asked to raise their hand if they had listed the word 'bed'. Several do. "How many got the word 'rested'?" Again several group members raise their hands. "How about 'tired'?" Again, a positive audience response. "How many got 'sleep'?" Several respond that they had listed 'sleep'. The organizer tells them to lower their hands. The word 'sleep' was not on the list. People had processed the word into existence because of

the contextual similarity of 'sleep' and the listing of sleep-related terms (Weinstein, 1990).

In summary, learning how to learn involves a set of processes in which the individual learner acts, at least partially, as his own manager of change, and his focus of change is his own self-concept and learning process (Brundage & Mackeracher). Basically, people do their best work when they do what they know how to do best. This repeating and reconfirmation of existing skills is more than likely carried over to learning activities.

Strategies Associated with Metacognition. Flavell (1976) and Brown (1982) suggested that the learner takes an active and self-motivated interest in the learning process. The adult learner is an individual who seeks to clarify, with new learning, those aspects of their past experiences and learning activities which have been of use in real-life situations.

The following strategies take into account three areas of knowledge. There must be an awareness of self, task, and the strategy that will be used (Flavell, 1979). Researchers at the Center for Adult Learning Research at Montana State University have encapsulated this theme into three major strategies that are associated with metacognition (Fellenz, 1990):

(i) Planning. The learner analyzes the best method to be used when proceeding with a specific learning task, then adjusts the activity to his/her

own learning style and determines, after overviewing the task to hand, what resources will be needed to successfully complete the job.

(ii) Monitoring. In utilizing this strategy, the learner assesses how he/she is proceeding throughout the learning project. This keeps the individual on target relative to the learning activity. It is this constant reassessment that permits the individual to make adjustments to the thought processes, and subsequently will provide the latitude necessary to accommodate one's particular learning style.

(iii) Adjusting. It is this strategy that assists and facilitates the learner taking charge of directing and improving his/her own learning process. This includes activities such as revision of the learning which has already taken place and delineating how it is associated with the project at hand. Also, if there are any alterations that are required in the learning process, it is done at this juncture. New knowledge or enhanced insights into the learning task and/or the personal abilities of the learner are examined and adjusted as need be.

Memory

Overview. Memory might best be defined as "the capacity of humans to retain information, to recall it when needed and recognize its familiarity when

they later see it or hear it again" (Wingfield & Byrnes, 1981, p. 4). Norman (1982) goes further and suggests that human memory is composed of three types of "requests". These requests, per se, are those stimuli that are perceived by the individual as prompts, and provide the impetus to "find" any possible past associations stored in one's memory. The three types of requests are: feature, content, and function. Feature deals with the organizational specification, content is predominantly concerned with meaning, and function is any interpretation of the content. It is necessary when discussing the important aspects of memory, in real-life learning situations, to recall that memory consists of three distinct processes: the encoding (or storage), retention (or holding) and the retrieval (or recalling) of knowledge (Zechmeister & Nyberg, 1982).

Seamon (1980) suggests that the acquisition or encoding of information is a process of interpreting a stimulus and storing a representation of the interpretation in memory. Short-term memory items require only a minimal of coding. Long-term memory examples are much more complex and require more extensive encoding (Zechmeister & Nyberg, 1982).

The retention of information is in reality a two step phenomena. This concerns the storage of encoded information and its loss due to forgetting, which is the loss of information that is stored because it is in competition with new information (Wingfield & Byrnes, 1981). Zechmeister & Nyberg (1982)

suggests that forgetting may be due to interference caused by learning just before and after attempting to acquire new information. Environmental factors, both internal and external may also influence the retention of information. Altered conditions can either greatly reduce or eliminate stimuli capable of triggering the to-be-remembered material.

Retrieval of information in the memory process is composed of a number of sub-areas. Probably the two most important areas are: (a) recognition, which might be considered by some to be the most important facet of remembering, and (b) recall. Humans are able to recognize more information than they are able to recall information. An example of this is recognition of words during reading. An individual can recognize and know more words while reading then he/she can recall when speaking or writing (Adams, 1982).

When dealing with memory concepts relative to real-life learning, Long (1983) suggests that, "The process of learning and memory are so closely related and interdependent that it is often difficult to determine whether we are concerned with one phenomenon or two...one who does not learn has nothing to remember, and without memory there is no evidence of learning" (p. 58).

Strategies Associated with Memory. Memory strategies are categorized as either being an internal or external aid. Internal memory strategies are those aids where all efforts to remember are completed by the individual within their

own cognitive thought processes. Sometimes individuals bolster internal memory functions by the use of mnemonics, another internal memory aid. Mnemonic aids might be a simple as a short rhyme to assist in remembering (Zechmeister & Nyberg, 1982).

Adult educators tend to see memory in its more traditional role: a series of skills needed to remember items (Long, 1983). More recent work in the area of memory would suggest the need for further research into the area dealing with the reasons for the loss of memory functions as opposed to there being differences in memory between young and old learners (Ogle, 1986). Four strategies used in aiding memory that adults would use in real-life learning situations are suggested by the researchers at the Center for Adult Learning, Montana State University (Fellenz, 1990):

(i) Rehearsal. This is an internal memory aid. What is involved here is the repeating of an item over and over. It may be done silently or said aloud. The repeating of the item may be rote or in its original form with no attempt to alter or add anything. This type of rehearsal allows the individual to maintain the item's availability in memory (Zechmeister & Nyberg, 1982).

(ii) Organization/Elaboration. Organization in memory involves the reordering or restructuring of information from that which was originally

presented (Seamon, 1980). The use of this strategy involves a more in-depth and concerted effort at the structuring or processing of information so that material to be remembered will be better stored, retained and retrieved. Placing the material to be remembered in a framework that naturally guides the learner in the retrieval process appears to be the best way of enhancing one's memory. New material must naturally slot into the older framework of items already in long-term memory storage (Norman, 1982). An example of this: a school administrator who must report orally to the school board on the effectiveness of each faculty member, inserts a new staff member's qualities into his/her already established litany of pros and cons that have been previously established as being important to the supervisor and/or the school board as a whole.

(iii) External Aids. The use of external aids to reinforce memory has proven a most effective strategy to improving the learner's ability to remember items that are naturally important to him/her. One such strategy which allows for a deeper level of processing, is known as elaborative rehearsal, and it is generally thought to produce long-term retention. The reviewing of materials for the purpose of improved retention is generally thought to be more beneficial if the quality of rehearsal is kept high, rather than the number of times the item is recited (Zechmeister & Nyberg, 1982). Using

simple mnemonic items can be of use, especially with regard to short-term increases in remembering. Chunking, which organizes sets of information, therefore diminishing the number of categories that need to be remembered, is another useful strategy for the improvement of short-term memory functions (Wingfield & Byrnes, 1981).

(iv) Memory Application. The use of remembrances, mental images, or other memories to facilitate planning or problem solving are effective strategies in real-life learning situations. Visual images are remembered more effectively than those associated with words. An example of this might be the way manual skills, such as learning to ride a bicycle is retained indefinitely, irrespective of the degree of proficiency that the individual shows in the performance of the skill where the skill might decline with disuse. Manipulative learning is retained longer than verbal information under any circumstances (Adam, 1982).

Metamotivation

Overview. As real-life learning is usually under the control of the individual who is participating in the activity, then it stands to reason that the motivational impetus used in facilitating the learning must also be under the control of the learner. Hence, the notion of "metamotivation".

Deci and Ryan (1985) would lead us to consider that to motivate one's self, there must be an action involved. The learner must be interested in doing something that allows a goal to be reached. In other words, there must be an energization and direction to any behavior that is said to be motivated. One's past experiences have an effect on future motivation. Tough (1971) summarized this by suggesting:

"During the episodes of a learning project, the person will perform certain activities such as reading, listening, watching...(and) practicing. As a result of these learning episodes he will retain certain knowledge and skill. This knowledge and skill will be used for performing some responsibility or action at a higher level (or faster)" (p. 48). Learning what one wants and values, in an enjoyable environment, is perhaps an adult's greatest motivation (Wlodkowski, 1985).

Strategies Associated with Metamotivation. Keller (1987) put forward the ARCS model of metamotivation which has four basic strategies:

(i) Attention. This strategy has the learner focus his/her attention on the material to be learned. A concerted effort is made to examine only one aspect that is to be dealt with at a set time. It is well documented in the literature, that adult learners are better able to focus their attention if the

learning problem is one that is attractive to the learner's own learning goals (Conti & Fellenz, 1988).

(ii) Reward/Relevance. The pleasure derived from learning, increased self-esteem, and the pleasing of others, in addition to the accomplishment of relevant goals are all important motivational aspects in providing an effective strategy for adults to use in learning projects (Tough, 1971). Anticipating, recognizing and valuing one's ability to learn specific material provides a strong and positive aspect to real-life learning. Both personal and professional situations provide excellent environments to gain valuable learning experiences.

(iii) Confidence. McCombs (1988) suggests that confidence has "an important functional role of motivation...to contribute to the maintenance of positive self-views and perception of self-efficacy and personal control that underlie the ability to change negative attitudes towards learning" (p. 142). Believing that one can complete the learning task successfully is critical to actually doing the job successfully.

(iv) Enjoyment. Schooler and Schaie (1987) suggest that, "Large amounts of instruction and high degrees of ability...may count for little if students are unmotivated or instruction is unsuitable" (p. 209). What does motivate is having fun or gaining a high degree of satisfaction with the learning activity.

Resource Management

Overview. Finding relevant resources presents difficulties for many people. Adults need to be able to identify and evaluate those resources which can be used in solving problems associated with real-life learning experiences.

One of the first concerns for adult learners in attempting to utilize resources is the concern for the relative value of the material. The environment (including time concerns), methods of procuring and the learner's ability to critically evaluate the materials that are identified are four important aspects of resource management (Shadden & Raiford, 1984).

Difficulties with resource selection are many and varied. "One problem that learners frequently report is finding more printed or audiovisual materials available on a topic than they know what to do with. Materials may also be overly technical or too detailed" (Smith, 1982, p. 103).

Strategies Associated with Resource Management. Research conducted by Shirk (1990) suggests that adult learners may not be all that adept at identifying and using particularly relevant or reliable sources of information when undertaking a self-initiated real-life learning project. The ease of obtaining resources is an important aspect in using any resource other than one's own past experiences. Using one's own books, magazines, family members, friends and

neighbors were often the limit to satisfying the need for outside assistance through resource utilization. Resource management strategies are divided into three major categories (Conti & Fellenz, 1991):

(i) Identification. Critical for the utilization of any resource material is of course being able to identify, and locate sources of information. Once identified as a source of information, the learner often has difficulty recognizing the limits of usefulness that the resource has. Tough (1971) went even further and acknowledged that major problems can occur when sources of information were human or material in nature. It is questionable whether some resources are even worth the expenditure of time, energy, money or the frustration associated with obtaining the needed assistance.

(ii) Critical Use. Adult learners tend to use resources that are readily available, even at the expense of not using a particularly appropriate source. Smith (1982) suggests that, "One problem that learners frequently report is finding more printed and audiovisual materials available on a topic that they know what to do with" (p. 103). Being able to utilize appropriate rather than available resources, while also recognizing the limitations and biases of any resource is crucial for adult learning to take place in the real-life environment to which most adults belong.

(iii) Human Resources. The utilization of this strategy can play an important role in the selection and management of a multi-faceted resource: another human being. Less than 25% of adult Americans use the library as a resource for finding information that would assist in learning (Shirk, 1983). Those individuals who turn first to another person for help may be revealing something not only about the strategies they use, but also about their personal learning style. Thus, integrating others who can aid the adult learner into the social and political processes of learning, increases the likelihood of the personal learning experience being successful.

Critical Thinking

Overview. Brookfield (1987) suggests that, "Critical thinking is not seen as a wholly rational, mechanical activity. Emotive aspects--feelings, emotional responses, intuitions, sensing--are central to critical thinking in the adult life" (p. 12). One limiting factor in this definition is that Brookfield clearly deals almost exclusively with the affective dimension of this important learning strategy. To broaden this perspective and bring a definitive view, Fellenz, (1990), suggests that critical thinking is thought to be the process by which individuals analyze information in a contextually specific situation and create new ideas.

Strategies Associated with Critical Thinking. Brookfield (1987) suggests four major strategies that are associated with critical thinking and the adult learner:

(i) Test Assumptions. In using this strategy, the learner must first be able to recognize critical assumptions when he/she comes across them, and then be able to evaluate the evidence presented by these assumptions relative to the learning situation encountered.

(ii) Assess Context. In assessing the context of an idea or learning problem, the learner must evaluate the specifics that are given and then consider the generalizability that exists within a given situation.

(iii) Generate Alternatives. This strategy calls for the learner to generate alternative hypotheses, keeping clearly in mind the basis of the problem. The hypotheses should be limited to the options that are generated by the given situation.

(iv) Conditional Acceptance. This strategy allows the learner to conditionally accept the statement, but is a more tentative acceptance and permits the learner to be reflective about the problem while there is a tentative maintenance of principles.

Area III - Real-Life Learning

Learning that is relevant to the living tasks of the individual is what real-life or real-world learning is all about. The adult learner can demonstrate considerable knowledge of a practical nature, since life's experiences are cumulative. Realistically, a person learns what they must in order to function in their social and cultural environment. Learning tasks grow out of perceived needs (Fellenz, 1991).

For at least the last three decades, adult educators have shown an increased interest in real-life learning. Early on, Houle (1961) and Tough (1971) presented not only an interest, but some astute insights into why real-life learning might be of greater importance to the adult learner than those studies associated with the more formal "schooling" setting linked with academic learning. Perhaps it is the world-wide concern for the social and cultural environments in which adults live and work that have heightened the need for greater attention on real-life learning. Work by Paulo Freire and the late Myles Horton have certainly been instrumental in raising the consciousness of all individuals to the social needs of various peoples on an expanded global level.

Adult needs are varied and individual. The notion that adult learners tend to lose some of their cognitive abilities as they age is being questioned by cognitive psychologists. Schooler and Schaie (1987) have suggested that as an

adult learner gets older, the desire for learning experiences that involve cognitive processing diminish; that situational learning tasks become more important and relevant; older adult learners are more concerned with solving real-life learning problems. Thus, adults might well spend considerable effort in expanding or "beefing-up" existing learning strategies so that they could more efficiently undertake tasks that are particularly important to them, such as raising one's consciousness level or seeking to become self-actualized or perhaps a desire to take control of the events/circumstances that normally drive one's existence (empowerment).

The identification of real-life problems, encountered by just about all adults, is of critical importance in selecting appropriate strategies (those skills that the individual elects to use in order to complete a learning task) that will successfully resolve the quandary. Once the adult learner has focused his/her attention on identifying the problem, then useful strategies can be employed to learn what will be useful in positively resolving the problem (Sternberg, 1990).

While speaking at a seminar on real-life learning, sponsored by the Kellogg Center for Adult Learning Research, at Big Sky, Montana in 1988, Sternberg discussed what he considered to be "proper" traits exhibited by adults relative to real-life problem solving. These include: (a) Adults must recognize problems for themselves, (b) How the adult defines or sees the problem will

have a considerable bearing on how the problem will be solved, (c) Solving problems often calls for examination of the problem through the arguments put forth by the other side, (d) Adults seldom get clear feedback on real-life problems that are faced, and (e) Solutions to real problems usually are dependent upon group discussion or approval by others.

Real-life experiences encountered in professional and personal situations require the use of strategies to solve the myriad of real problems. School administrators are a group of professionals who face a wide and diverse set of problems on a daily basis. Much of the administrator's training is purely academic in nature. Real problems call for real-life solutions.

If school administrators must learn to recognize problems for themselves then new strategies must evolve to assist in this process. After all, school administrators, for the most part, are highly academically trained and as such have been conditioned, through academic training, to having problems identified by their teachers or mentors.

The school administrator's perception or definition of problems encountered in real-life environments might require the utilization of totally new learning strategies. An example of this might be the difficulty that an administrator faces in trying to schedule classes for the academic year. Traditional views, supported by one's own academic training, might suggest the

need to encapsulate instruction into modules of a set duration. This is a fairly standard approach to solving this problem. However, if the perception is that learners gain knowledge at different rates, then the approach for resolving a school timetable might be to individualize all instruction and do away with rigid time constraints.

Often an administrator is asked to resolve problems in which two opposing points of view are involved. Academic training tends to reinforce what administrators already believe in as being the "right" answer or approach. Real-life problem solving would suggest the need to examine the problem from an opposing point of view. As an example, school administrators sometimes, during salary negotiations, see themselves as "us" and the other negotiating body as "them" with little empathy for the "enemy". Perhaps the problem is that during negotiations no one entity wants to lose. If administrators reviewed the other team's perspective of why they could not afford to lose, per se, then perhaps a win-win environment could be created.

Interpersonal relationships are rarely straightforward nor are they simplistic. The school administrator faces daily real-world problems with staff. Is the feedback from these interactions clear-cut? Administrators' academic training has not necessarily prepared them to view feedback as anything but clear-cut. The politics and interplay of personalities in a school environment

would certainly provide anything but clear and precise feedback relative to interpersonal relations. Learning to deal with imprecise, noncontextual feedback would require varying approaches and different learning strategies.

Individual solutions to real-life adult problems is highly improbable. Adult learners do not usually resolve problems on their own. This might be illustrated by how school administrators cope with individualizing instruction for exceptional students. Child Study Teams (CST's) are formed that consist of classroom teachers, administrators, guidance counselors, parents, specialists, and even the learner under discussion, to try and put together a plan that will fully meet the needs of the student. Individual viewpoints in resolving the problem are considered, but it is the consensus of the group that will actually determine the course of action that should lead to a terminal decision.

The utilization of appropriate learning strategies in the professional setting can be a most formidable and awesome tool in providing the adult learner with a satisfying and profitable experience. With the pressure that is often found in the realm of school administration, clearly a natural progression of learning strategies would be a welcome addition to an often sparse practical response to the task of managing a modern school.

CHAPTER III

METHODS AND PROCEDURES

This causal-comparative study investigated the relationships of real-life learning strategies to professional and personal learning situations encountered by school administrators in Wyoming. Additionally, the demographic factors of age, level of attainment in a formal educational setting, and teaching experience were examined to determine if they could be used to predict the utilization of learning strategies in the two situations.

Population

Wyoming is the least populated state in the continental United States of America. With a population approaching 500,000 people (Rand McNally, 1986), only Alaska has a smaller resident population. The population of the state is homogenous and consists predominantly of white, middle-class workers, ranchers, and farmers. The state is known as the "equality state" because it was the first state to grant women the right to vote. Ethnic groups are extremely