

Developments in Business Simulation & Experiential Exercises, Volume 13, 1986

EXPERIENTIAL LEARNING REVISITED: SOME THOUGHTS ON DESIGNING MORE ADAPTIVE MANAGEMENT EDUCATION PROGRAMS

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ABSTRACT

The aim of this paper is to provide: (a) an overview of experiential learning theory to help us design learning programs which would enable the learner to develop secondary/auxiliary learning styles needed for more effective adaptation to a rapidly changing environment; and (b) a better understanding of the critical elements of learning programs relevant to effective career development in management.

INTRODUCTION

The convergence of a number of forces and trends within our present society has created the need for more useful integrated framework(s) applied towards thesis, analysis and synthesis of the relevant issues in education and work. These trends are: (1) experiential growth of knowledge and the attendant specialization of disciplines; (2) technological and social changes that make occupations and careers obsolete and create new ones in increasingly compressed time spans; (3) the increasing age of our population due to declining birth rates and increasing life expectancy; and (4) increased social and political commitment to equal opportunity. Because of such trends demands for serious re-examination of the role of traditional educational programs in preparing people for meaningful life and work careers are being increasingly voiced. This is equally true for management education. In the context of U.S. economic performance of the past couple of decades the debates about the appropriateness of current management educational programs in the U.S. are becoming particularly acute.

For one thing the "front-loading" of educational experiences in the learner's life span is becoming increasingly questionable. Because of growing frequency of job changes, emphasis on career preparation rather than job preparation is essential. This requires the identification of and preparation for those genotypic adaptive competencies that are suited to the learners' career interests, preparing them for continual learning and growth.

Future managers will be encountering complex and rapidly changing environments requiring high degree of adaptive skills. Successful adaptation within such turbulent career progression would require learning of newer knowledge, skills, attitudes, as well as learning how to learn. Specific situations may very well require the use of secondary/auxiliary learning styles to increase adaptation effectiveness. We would therefore need learning theories that extend beyond the classroom into the world of work. Emphasizing the importance of experience in the learning process would be necessary.

Traditional learning theories, where the learner is perceived as a passive recipient of environmental stimuli, are inappropriate in the present context. Alternative learning paradigms are needed where the learner would be seen as

active interpreters and creators of their own experience. Experiential learning theory provides a model of a learning process that is consistent with the structure of human cognition and the phases of growth and development. The theory provides a mechanism through which we can conceptualize the learning process in such a way that the differences in individual learning styles and corresponding learning environments can be identified.

In the past decade the use of experiential teaching/learning methods in business disciplines, especially management, has become increasingly popular, as witnessed by the large number of "experientially" designed textbooks. Popularity of organizations such as the A.B.S.E.L. is testimony to the interest of academicians and practitioners alike to the concept of experiential learning. However, in reviewing the burgeoning text material as well as growing number of papers presented at the annual meeting of associations such as the A.B.S.E.L., we have come to conclude that a majority of the perspectives advocated are not anchored to the framework of sound psychological theories that make up the foundation of experiential learning process. The so-called "experiential" teaching/learning methods appear to be, at best, intuitively organized shot-gun approach to teaching design. It is, therefore, not surprising that sound, research based evidence clearly establishing the superiority of experiential teaching/learning methods is difficult to come by. Belief in the efficiency of experiential learning process notwithstanding, fuzzy comprehension of the theoretical underpinnings of experiential learning lead to weak research designs and produce fuzzy results. The aim of this paper is to provide: (a) an overview of experiential learning theory to help us design learning programs which would enable the learner to develop secondary/auxiliary learning styles needed for more effective adaptation to a rapidly changing environment, and (b) a better understanding of the critical elements of learning programs relevant to effective career development in management.

LIMITATIONS OF TRADITIONAL LEARNING THEORY

Learning is a process that each person goes through to gain access to forms of knowledge. Classical theories of learning and education are based on the perception of the individual as being passive and reactive. In this model of man the learner merely reacts to the stimuli and, therefore, is controlled by his environment. According to some of the cognitive psychologists (Bruner, 1966; Flavell, 1963) learning occurs when the learner begins to move towards greater abstractness. We see the application of this theoretical premise in the design of formal education in the U.S. Historically, the schools and colleges in the U.S. have emphasized the manipulation of symbols rather than things; reliance on thinking rather than feeling; achievement of comprehension rather than action. Thus, in classical learning design greater value has been placed on rationality, abstract knowledge, emotional detachment

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and verbal skills.

However, the works of Hartmann et al (1947), White (1959), Rogers (1951) and others have challenged the reactive conception of man. The works of these ego psychologists have introduced the notion of will, through which man is able to control and change his own behavior. Man is thus creative and pro-active, motivated to undertake problem-solving action steps.

The apparent contradiction between the two sets of psychological theories was reconciled in the works of ethologist Lorenz (1963). According to Lorenz (1963, pp. 231-232) man's behavior is governed towards goals and modified by the act of will. Such theoretical reconciliation lets us perceive learning more as a holistic process than either of the schools of thought mentioned above would allow.

In the latter conception learning is a process of adaptation embedded in the larger context of the self-environment transaction. In this view the learner utilizes facile mental processes in dealing with complex and uncertain world (Kaplan & Kaplan, 1981). The mental processes of recognition, prediction, evaluation and action are primary in the learning oriented self-environment transactions. The learner's internal processing of symbols acquire meaning only in the context of the specific environment. Learning, as adaptation, is a process through which the learner recognizes the elements of his environment as forms of knowledge and chooses to exploit that environment through adaptation behavior.

Learning as an adaption process is beginning to acquire greater meaning in the context of a complex, rapidly changing social environment through which each of us must successfully transact our way. The vision of such passage is at the core of career progression and development. The career/self-development path begins when people start to develop skills, but without a clear sense of what the skills mean or how these skills can be put to effective transactional use. The early experiences from the work world help to bring the career/developmental path into sharper focus. It also helps us select a specific path from a number of probable alternatives. As we journey along the chosen path we, as learners, tend to sharpen already acquired/to be acquired skills and adapt ourselves to specific roles that are appropriate to our needs of the moment. However, at some point in this life passage, the changes brought about by the transition from one life phase to another, and brought to our consciousness by specific stimuli from the environment may draw our attention to the alternative career/development paths discarded earlier. We may be intrigued by these discarded possibilities, troubled by them, or simply choose to ignore them. The travel along these alternative developmental paths, requiring newer sets of skills and filled with uncertainties mean further adaptation and learning. However, the previous learning styles may not be congruent with the learning process demanded by the new situation. Earlier learning strengths are no longer productive. Secondary/auxiliary learning styles need to be developed to bring about a fit between situation and style.

The traditional learning theories fail to shed light on the processes through which the alternative learning styles within the individual may be activated and strengthened. Experiential learning theory, based on structural analysis of the learning process along two underlying dialectic dimensions, is more helpful in explaining the adaptation process in complex environments. In the following section we briefly review the experiential theory based learning process in the context of career path transitions.

EXPERIENTIAL LEARNING THEORY AND THE PROCESS OF ADAPTATION

The seeds of experiential learning theory can be traced to the works of Jung (1960), Rogers (1961), Maslow (1962), Pepper (1970), Polanyi (1958), and Torbert (1970), among others. Kolb (1974) put the pieces together within a theoretical framework. Kolb's (1974) experiential learning theory is based on structural analysis of the learning process that identifies two basic underlying dialectic dimensions: concrete experience (CE) and abstract conceptualization (AC); and active experimentation (AE) and reflective observation (RO). These two dimensions identify four genotypic adaptive abilities or learning styles - divergent, convergent, assimilative and accommodative - in a cyclical pattern that suggests a sequence of learning. Kolb, in describing this four stage model, further hypothesized that learning requires abilities that are polar opposites that force the learner to continually choose the specific set of learning abilities that he will bring to bear in any specific situation. Kolb has developed an instrument the learning style inventory (LSI) - to measure the learner's relative preferences for each of the four learning styles. However, the reliability and validity of the LSI has been questioned (for a review of the critical literature see Basuray, 1982).

The experiential learning theory framework, articulated by Kolb, can help us understand better the learning needs placed upon the individual in terms of career growth and development. Thus, the secondary and post-secondary educational experiences should be aimed, not at preparation for jobs, but at preparation for careers. This requires the identification of and preparation for those genotypic adaptive competencies that are suited to the students' career interests, preparing them for continual learning and growth.

An integrative framework, as proposed by Kolb (1981), linking experiential learning process to the individual's growth and developmental learning needs is presented in Figure 1 below.

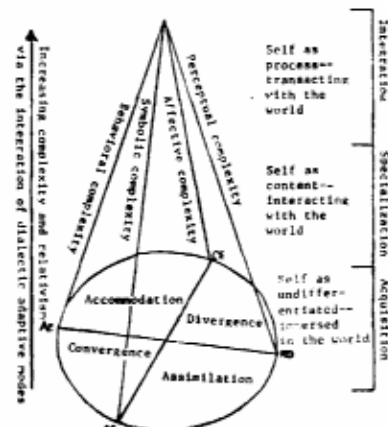


Figure 1. Schematic Representation of Growth and Development Through Experiential Learning Cycle.
Source: Kolb, D. A. and D. M. Wolfe (eds.), "Experiential Learning Theory." In *Professional Education and Career-Development: A Cross-Sectional Study of Adaptive Competencies in Experiential Learning*. Cleveland, Ohio: Weatherhead School of Management, Case Western Reserve University, 1981. p. 12.

The conceptualization of adult growth and development implicit in Kolb's integrational scheme is based

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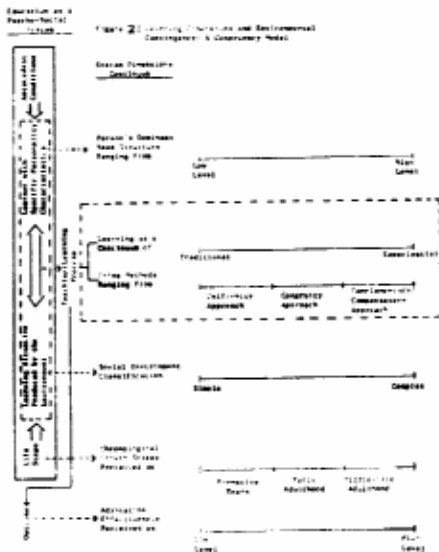
on the works of Roe (1956), McClelland (1962) and Erickson (1959), among others.

In this model, human growth and development is perceived as consisting of three broad stages. The first stage, acquisition, marks the acquisition of basic learning abilities and cognitive structures. In the second stage, specialization, development primarily follows paths that accentuate a particular learning style. Individuals shaped by social, educational, and organizational socialization forces develop increased competence in a specialized mode of adaptation that enables them to master the particular tasks. The third stage, integration, is marked by the reassertion and expression of the non-dominant adaptive modes or learning styles.

Through these three stages, development is marked by increasing complexity and relativism in dealing with the world and one's experience, and by high level integration of the dialectical conflicts between the four primary genotypic adaptive modes of CE, RO, AC, and AE.

However, the complexity of adaptive behavior through learning necessitates a broader framework that synthesizes the relevant variables discussed above. Figure 2 represents such an attempt.

The basic assumption made explicit in this model is that the learner is a complex open system and therefore it is impossible to make any sense of one's learning behavior



without taking into account the forces from the environment that interface the target system. The concept of learning adaptation is rooted in the transactions between the person and his environmental context/situation. The dynamic contexts/situations make behavioral/processual demands that, in order to be effective, need to be congruent with the specific contextual elements. Only then can adaptation become a meaningful system outcome. Some of the other assumptions implicit in this conceptual synthesis are identified below:

1. Learning is a life-long personal process. Any given course or learning process is but a concentrated segment in the individual's continuing learning and development process.
2. The underlying purpose of any course or learning process is the development and expansion of the competence (personal and professional) of the total person, and not simply the absorption of specific

knowledge, facts, and tools.

3. Substantive knowledge, gained by whatever means, is important, but it is incomplete until capabilities for integrating, internalizing, and using the knowledge are achieved.
- 4a. Internal motivation is necessary for optimal learning. The most effective and lasting learning stems from a "need to know."
- 4b. The more closely the learning process and environment parallel (stimulate) actual practice, the more motivated the learner will become.
5. Responsibility for learning lies in the hands of the learner, the learner must "own" his learning choices and processes.
6. Self-assessment and self-evaluation are of primary importance. Feedback and evaluations by others are secondary but important as checks against broader realities.
7. The most important learning is learning how to learn—through multiple learning methods, but especially how to learn from one's experience.

The dominant theme of the model of adaptation through learning, as presented in Figure 2, is the notion of dimensional congruity. Unless the system variables are in matching configuration, the outcomes will not be achieved. Thus, the model indicates that when the individual's dominant need structure is at the lower end (as witnessed in the formative years), where perception/judgement differences are ignored and the environmental context is simple, then application of traditional teaching/learning method using uniformity approach would lead to adaptation effectiveness, which is perceived as being low. Conversely, when the dominant need structure is high (which is more likely in later adult life), where less accessible perception/judgement capacities are surfaced and the environment is complex, then experiential teaching/learning methods using complimentary/compensatory approach would lead to high adaptation effectiveness.

The learning models presented in Figure 1 and 2 are intended to emphasize the point that learning activity is not a rigid process within the educational system but a flexible design on a continuum where selected processes can be identified and targeted to specific behavior outcomes. Such thinking, in our opinion, represents a conceptual leap towards the development of a more environment-relevant managerial education and/or training program. In the following section we explicate the cognitive characteristics embedded in the management role.

COGNITIVE CHARACTERISTICS AMONG MANAGERS WITHIN COMPLEX ENVIRONMENT

It is in the context of the post-industrial social dynamics, exemplified by the post-Vietnam era in America, that we see the challenge of professional career development as a challenge of learning and adaptation. Such context bound learning requires review of one's self and one's abilities to seize new and different opportunities. The need to educate competent, professional managers for the rapidly evolving post-industrial society is better served by the theories of experiential learning.

The role of management is as old as human civilization. However, what distinguishes the managerial role of yesteryears from that of today is the type of organizations that the managers of today are being called upon to lead successfully. The 20th century organizations, especially those created in the second half, are more complex (reflecting a more complex

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social and technological environment) and present managerial problems that are more 'ambiguous' than organizations of the past. The term 'ambiguous' is being used to identify problems that: 1) are poorly defined; 2) are interdependent, complex and changing; and 3) are lacking in necessary information as well as the causal relationships among elements. (McCaskey, 1982). According to Drucker (1980) such managerial problem ambiguities would be increasingly presented by the organizations of the future.

Different individuals tend to react differently when experiencing ambiguous situations. Managers are no exception. According to McCaskey (1982) managerial reaction to ambiguity ranges from enjoyment and tolerance of high levels of ambiguity to experiencing arousal of anxiety and the need for greater control (p.6).

An essential characteristic and ability that distinguishes humans from other lower order life forms is their capacity for conceptualizations. In relevant literatures such capacity has been termed "mapping". McCaskey (1982) defines "mapping" thus:

"A map is an interconnected set of understandings, formed by frequently implicit views of what one's interests and concerns are, what is important, and what demands action and what does not. It is cognitive representation of the world and ourselves in it." (p.17).

In the context of educating and training world's future managers the process of "mapping" represents a useful tool for understanding and exploring specific action steps. For, organizational ambiguities can be productively dealt with only when the managers begin to be aware of the nature of the conceptual map that has influenced their problem solving activities in the past. This is an essential pre-requisite to more flexible thinking or, as Argyris (1982) puts it, double-loop learning.

The psychological literature on the cognitive processes of "mapping" is vast and is beyond the scope of this paper. For our purposes it is sufficient to identify some of the critical elements of the mapping process. First, individuals operate on the basis of more than one cognitive map. Second, since individuals have limited information processing capacity, their process of map creation is also selective. Third, the process of mapping exhibit properties of dialecticism between target events and ideas about those events. Finally, individuals project objectivity to created maps that are widely shared by others (McCaskey, 1982).

Some time ago, Barnard (1938) identified the logical and nonlogical components of managerial problem-solving activities. According to Barnard, a successful manager can effectively use both components. More recently, Leavitt (1975a, 1975b) has considered the relative merits of analytical problem solving and intuitive and emotional elements of decision making and has concluded that persons capable of integrating both styles are more valuable organizational members. Mintzberg (1976) has extended the notion of alternative cognitive styles by incorporating the idea of left and right brain hemisphere processing of information together with problem solving activities. Mintzberg (1976) asserts that, since Frederick Taylor's work on scientific management, organizations have overemphasized the desirability of analytical processing of information which is the strength of the left hemisphere of the brain. At the same time, intuitive processes, localized in the right hemisphere, have been de-emphasized.

Mason and Mitroff (1973) proposed the Jungian typology as a method of classifying left and right hemispheric processing of information. Recently, a number of conceptual frameworks and investigative studies incorporating Jung's (1960) personality typology have been published to help better understand the managerial decision-making and problem-solving processes (Basuray & Scherling, 1979; Hellriegel & Slocum, 1975, 1980; Kilman & Herden, 1976; Robey & Taggart, 1981).

By and large, the formal systems of education in the United States provide the learner with exposure to rational, logical manipulation of symbols rather than of things; reliance on thinking rather than on feeling and intuition; and commitment to understanding rather than to action. However, in terms of educating and training managers, the goals embedded in the university model of educational processes may be counterproductive. According to Schien and Bennis (1965), the differences between the university mode of education and job oriented management training extend to "meta-goal" level. Meta-goals have been defined by Harrison and Hopkins (1974) thus:

Meta-goals are approaches to learning and personal development which the learner acquires in the process of being educated in a particular system. In other words, meta-goals represent what the learner learns, in addition to the content of instruction, about how to approach and solve subsequent problems outside of classroom...At the level of meta-goals, university education and cross-cultural training diverge significantly. The source, settings, and approaches of the former tend to be formal, bookish, rational, dependent on authority, and lacking in opportunities to gain competence in learning through interpersonal contact. (pp. 46-47)

Thus, the review of the management literature indicates that, at least conceptually, there are some fruitful avenues along which thoughts for considering education, and learning design changes may be channeled. Given the present and expected future economic exigencies such explorations have become imperative. In the next section we address some of the specific issues of management education design which are better understood and implemented with the aid of experiential learning theory framework.

MANAGEMENT EDUCATIONAL PROGRAM DESIGN FEATURES FOR THE 21ST CENTURY

In terms of management education program design the most critical element that requires careful analysis is the characteristics of the present business and management environment. The collective wisdom of the management scholars appear to converge towards a consensus as to the future trends of the business environment. These trends can be characterized as follows:

1. Increasing proportion of the societies' human resources would be involved in high skill occupations, professional pursuits and service activities.
2. Greater amount of research and educational activities would be supported by business, universities and public bodies leading to increasing productivities of resources.

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3. Economic improvements will be more closely tied to the quality and quantity of managerial skills available.
4. Increasing size of the market place, primarily brought about by the qualitative changes, as well as changes in technology would place greater demands on managerial skills.

In such a setting the central task of educating managers would be to provide a climate in which individuals with imagination would be nurtured and their capacities would be brought into creative alignment with organizational and environmental opportunities. What kind of curriculum and educational approach changes would be needed to accomplish such an objective?

First, in terms of developing the competence of future managers, the process gaps in developing basic versus applied knowledge orientation have to be bridged. The bulk of the existing business management curriculum emphasize the teaching of applied skills in various functional areas such as accounting, finance, marketing, economics, administration, etc. However, the obsolescence factor of such functional knowledge is extremely high. Therefore we subscribe to the idea that the future business management curriculum should reflect a transition from teaching of techniques to teaching principles of management practice through a scientific body of knowledge developed by drawing heavily from the physical and social sciences. Second, education to promote tomorrow's managers would need to emphasize the comprehension and mastery of analytical skills in order to practice decision-making. Third, in order to prepare greater adaptation response in tomorrow's managers the education program would need to inculcate a holistic problem-solving approach among the students. Such an approach envisions a high degree of commitment among teachers and students alike to the principle of keeping the whole problem in focus at all times, so that partial solutions are not accepted as final answers. The students would be socialized to the concept that for complex and ambiguous/uncertain problems there are no final answers and that answers to problems are selected on the basis of their superiority relative to past or existing solutions. In this sense holistic problem solving approach seeks successively superior answers that lie on a continuum. Also, the students are oriented to a conceptual base that allows feedback between action steps and planning. Fourth, the skills and knowledge produced through education and/or training program must be transferable from one task to another, from one organization to another. Tomorrow's complex environments would create situations where managers would be forced to reshuffle human resources, to seek innovative solutions rather than falling back upon mechanistic solutions of the past, and to reorder organizational priorities, necessitating transfer of managerial effectiveness from one set of tasks to another. Fifth, since available knowledge pool of improved managerial practice will be accreting at an accelerated pace the rate of obsolescence of existing management knowledge would be proportionately higher. This implies that in the future management education must be delivered on a continuous basis as opposed to the front-end loading that is in vogue now. Sixth, since the characteristics of the societies' human resource base would be changing in significant ways, the management education programs of the future must provide the students with new approaches for organizing and guiding the activities of these resource base. The information requirements of organizations utilizing such employees

would also be characteristically different. In such organizations total setting, strategy formulation, and policy questions will occupy more of the managers than ever before. Such approaches to management education would tend to generate a higher order entrepreneurial spirits and drive among tomorrow's managers. It is our considered belief that the cognitive and behavioral dimensions of entrepreneurial role profile would increase the capacity of future managers for tolerating ambiguity.

CONCLUSION

In every society education is possibly the most future-oriented activity (O'Toole, 1977). Yet, almost all educational activities seem bent on imprinting a specialized learning paradigm upon the young of the society to adapt to current employment skill and/or knowledge demands. This has been especially true of management profession. Such skill/knowledge demands are at best transient and cyclical, and due to social changes, face a higher degree of obsolescence. Educational endeavors more suited to the demands of an exponentially changing social environment need to be harnessed to the goal of developing more adaptive learning profile. This requires an appropriate educational design that integrates the individually dominant need structure, knowledge of learning styles, and life stage to the environmental demands.

It is also important to note here that general education differs from professional education in their respective means and ends relationships. In general education such as 'liberal arts' the ends are constantly in a state of flux, changing with changes in social values while the means are generally stable. By contrast, in professional education the ends are generally fixed over an extended period of time while the means are shifting, continually being fine-tuned to state of the art innovations. For example, in medical profession Hippocrates' ideal of the physician skill guide the present day medical education. The means-ends relationship characteristics of professional education, as described above, is also true of management profession. The goals of management education have been: (a) to prepare successful business executives who know their job and are examples to the rest of the society; (b) to discover and disseminate new knowledge; and (c) to create and promote professional standards of management conduct. However, in terms of the relationships between the generalist and the specialist within a profession management differs from other older professions in one significant respect. For while in older professions, such as medicine or law, the beginner is a generalist advancing gradually to a specialist status, in management the relationship is reversed. The beginning manager is a specialist (accountant, engineer, personnel specialist, etc.) who gradually move up the organizational and career ladder to become a generalist. Such career transitions, in combination with ever increasing complexities of the market environment have significant implications for management education. In this paper we have attempted to provide the outlines of a system-based conceptual framework for educating tomorrow's managers. In the context of epistemological paradoxes that are characteristics of vaguely understood higher order open systems it is just possible that educational design attempts such as this may help in achieving a better congruence between the real and the ideal.

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