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Kolb's Experiential Learning Theory: A Framework for Assessing Person-Job Interaction[1]

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This paper presents Kolb's experiential learning theory as a framework for measuring the person and the job in the same language. In addition, it suggests other valuable uses of Kolb's theory, such as increasing understanding of person-job match or mismatch, identifying pivotal versus peripheral skills in jobs, and determining whether mismatched (over- or underqualified) person-job relationships result in different levels of performance or satisfaction.

Kolb's experiential learning theory (ELT) offers a method by which an individual's skills and his job requirements can be assessed in the same language. In other words, commensurability can be measured. Furthermore, many other elements of person-environment interaction now can be considered in new and possibly more concrete ways. By briefly reviewing a person-job congruence model, one can understand the need for commensurability between person and job.

A worker's experiences on the job gradually help to determine his behavior; he *learns* by interacting with his environment. On the other hand, the changes that he undergoes in turn affect the form of that environment. Figure 1 illustrates a model that depicts the interaction and matching of the individual and the requirements of the job. If an organization decides to fill its positions by matching the characteristics of a person and the requirements of a job, organizational effectiveness should increase as a result of a greater personal satisfaction and improved job performance. In this model, growth climate is the variable that allows the person to develop his relationship with his job to an optimal level of performance and satisfaction.

Underlying this model are several assumptions: (1) people change and adapt; (2) people are capable of learning different types of skills and have many differences that they bring with them into an organization; and (3) job requirements attach differing amounts of importance to different skills. However, not all skills are equally important in measuring effective job performance. Effectiveness in this model is contingent on a dynamic match between the person and job. Hypothetically, once the requirements of the job are clear and the characteristics of employees are assessed, jobs and people can be matched. To match the job and person, a commensurate framework for assessing job demands and personal characteristics is needed.

The competency assessment approach implied in this paper focuses on the person's repertoire of skills as they relate to the specific demands of a job. Tyler (1978) summarizes two major advantages of this approach:

First, competencies cut across boundaries. Instead of assessing intelligence and achievement in school children, skills in job applications, and symptoms in psychiatric patients, we can examine what each person in any of these categories can and cannot do. One can capitalize on the developed competencies and set up situations in which competencies not now present can be acquired, whether these are basic educational competencies, occupational competencies or intrapersonal competencies. The competency approach thus

Figure 1
Person/Job Learning Congruence Model
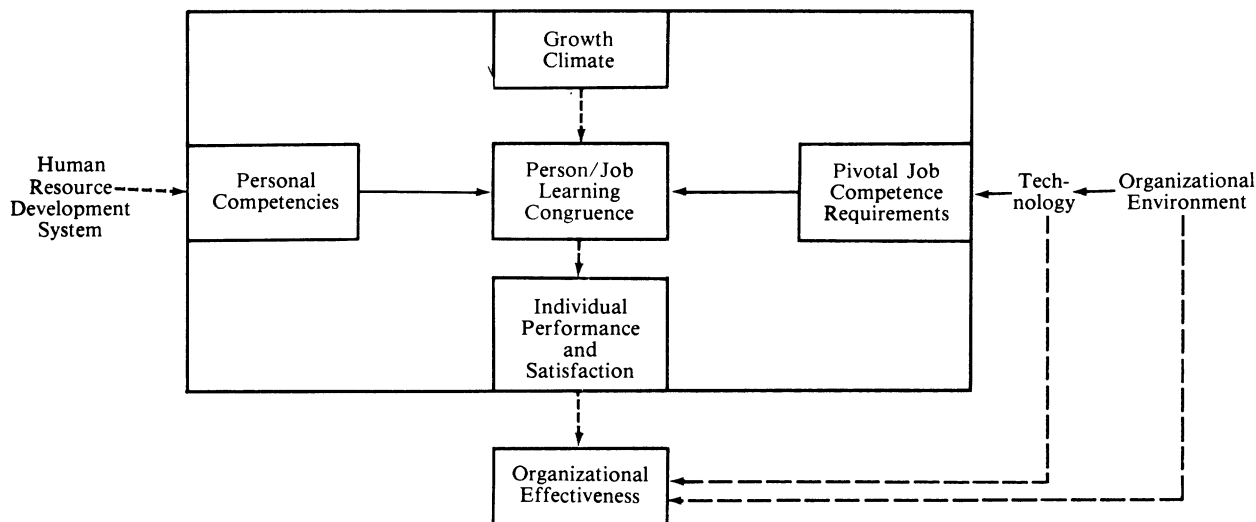
provides individuals and their helpers with clear guidelines as to what to do next.

Another potential benefit is the generation of the concept of complementarity to supplement the concept of competitiveness so prevalent in modern society. Competencies represent a completely different way of structuring our perceptions of others. The more competencies other people have the better for each of us, and it is essential for the functioning of complex society that individuals develop different repertoires of competencies (1980, pp. 104-105).

There have been yet other means used to measure the person-environment (P-E) relationship. In spite of the intuitive appeal of such formulations as Lewin's $B = f(P, E)$, or Bandura's (1978) concept of reciprocal determinism, the major obstacle in dealing with interactive effects of the person with his environment has been the difficulty of conceptualizing and measuring both the person and the (job) environment in commensurate terms. To satisy the need for commensurability, a model is needed that describes the person variables and environment (job) within one classification scheme. For example, if cognitive style is the conceptual framework for discussing person variables, then an equivalent term for environment variables must be developed. There have been encouraging approaches in educational research to do just this (Hunt, 1971, 1973; Schroder, Driver, & Streufert, 1967). Although the results of these approaches are encouraging, the problem remains that the measure of structural (environment) variables is vague and the measure of person variables is too encompassing (Kolb & Fry, 1975). For example, the concept of conceptual level (CL) contains several theoretically based but interdependent factors, such as motivation, cognitive ability, maturity, and value sophistication. The measures of structure are derived subjectively from general distinctions among degrees of information load, information diversity, and rate of information change.

Framework for Assessing Person-Job Interaction

Going beyond the cognitive style, the ELT (Kolb, 1983) provides a more differentiated framework with which one can view person and environment (job) in commensurate terms. The basis for this view is that learning, adaptation, and problem solving processes are similar and that all jobs involve each of these processes. Therefore, if one describes both the person's adaptive skills and job requirements in learning terms, then one can identify and describe the adaptive or interactive processes that occur in the P-E model.

ELT conceptualizes the learning process in such a way that differences in learner styles and corresponding learning environments can be identified. Briefly, the theory contends that an effective learner

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needs four different abilities—concrete experience (CE) skills, reflective observation (RO) skills, abstract conceptualization (AC) skills, and active experimentation (AE) skills. That is to say that the learner must be able: (1) to get involved fully, openly, and without bias in new experiences; (2) to reflect on and interpret these experiences from different perspectives; (3) to create concepts that integrate these observations in logically sound theories; and (4) to use these theories to make decisions and solve problems leading to new experiences. These generic abilities encompass specific skills.

The application of this learning model to P-E interactions in work settings is not straightforward. Jobs most often are portrayed in one set of terms (i.e., job specifications), and individuals are thought of in another set of terms (person trait characteristics). To achieve a commensurate means of assessing person and environment factors, Fry (1978), proposes two critical assumptions:

1. That the person or role incumbent be viewed as an adult learner, and
2. That the job context be viewed as a *learning environment* in which job performance necessitates some type of cycling through the experiential learning theory process.

Viewing the Person as a Learner

Before joining organizations or taking new jobs individuals possess characteristics that identify themselves as particular kind of learners or specialists resulting from their personality, abilities, and educational training or vocational specialization. Previous research has shown that on the basis of educational experiences, individuals enter organizations with a particular *learning style* (Altemeyer, 1966; Kolb & Fry, 1975; Manring, 1980; Miller, 1978; Polvnick, 1976). Kolb identifies four different learning styles: accommodator, diverger, assimilator, and converger. (For a more detailed description of these learning styles, see Kolb, 1983.)

Individuals develop different patterns of needs, values, and perceptions. It must be understood that these patterns continue to develop as persons encounter new experiences wrought with new problems. As an individual strives to master problems, certain behaviors consistently tend to be rewarding; that is, certain behaviors provide solutions to problems facing the individual. Consequently, the next time the individual needs to solve a similar problem the same pattern of behavior is tried again. As a result of this conditioned learning process, different individuals develop different personal learning habits, or what Kolb (1971) calls learning styles.

Viewing the Job as a Learning Environment

Consider the job as a learning environment that may facilitate, inhibit, or impede individual feelings of competence, satisfaction, or value placed on work. Given this perspective, the present framework is most concerned with subjective apprehensions and evaluations of individuals, as to the requirements of their jobs, that is, how jobs are perceived and experienced (Pervin, 1968; Stern, 1970). In addition, an objective measure of P-E interaction is provided by using performance.

As do individuals, jobs develop as distinct entities. Research by Fry (1978) has shown that learning environments can be viewed as having certain objective characteristics or demands that are independent of what a learner does, or should do, in the environment. These characteristics reflect the nature of the job, supervisory relationships, opportunities for feedback, type of interdependence required, type of information dealt with, and so on.

Fry and Kolb (1979) provide the potential to view the (job) environment in terms similar to how the person is viewed. They hypothesized that a learning environment can be characterized in terms of four orientations or distinct types that pose demands on the person/learner in that environment. They are labeled affective, perceptual, symbolic, and behavioral.

Affective Orientation. This involves the person in a wide range of interpersonal situations that press for the application of interpersonal skills in carrying out organizational objectives. Effective job performance requires working with and through others in ways that deal effectively with the teachings and values of others. A sensitivity to the nuances of communication and behavior is a further prerequisite. Managers, salespeople, counselors, and personnel officers are examples of jobs with a high affective orientation. The manager's job typically is perceived as getting things done through other people. Managers are expected to be heavily involved with other people in negotiating for resources, influencing decisions, motivating subordinates, and in many other interpersonally oriented transactions necessary for meeting organizational objectives.

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Perceptual Orientation. This requires a job holder to observe and reflect on phenomena in order to understand cause and effect relationships, creative possibilities, or potential consequences from possible courses of action. Effective job performance requires the use of multiple forms of data representing elements in a causal chain. The data may be verbal (oral or written) and relate to human or mechanical systems. Typical examples include research scientists, psychoanalysts, strategic planners, and mathematicians.

Symbolic Orientation. This requires the job holder to maintain or increase mastery over a range of theoretical or technical skills. Effective job performance is a function of being called on to use a number of different abstract tools in daily problem solving. The person must rely on abstract theoretical principles gained as a result of formal training in a particular technology. Typical examples of jobs with a high symbolic component are engineers, physicians, economists, and computer system designers.

Behavioral Orientation. This requires the involvement in and control over a wide range of interdependent activities by the job holder. The scope of discrete tasks may be small or large. However, at some level they are interdependent with the system's goals. Often there is a sense of too many activities for the amount of time available. Typical examples are managers of small businesses, foremen, general administrators, and supervisors. This orientation emphasizes planning, coordinating, scheduling, and follow-up on completion of projects.

These four orientations are arbitrary but connote the overall climate or environmental press they create and the particular learning skill or mode they require. Knowledge gained from Fry's research led Fry and Kolb (1979) to suggest a common set of 'adaptive' competencies that characterize a job in a work setting and relate to learner styles. The empirical relationship between person and job thus can be derived by measuring the personal characteristics and job demands in learning terms via ELT.

Adaptive Competency: The Link between Person and Environment (Job)

As Table 1 indicates, one can measure personal characteristics and job demands in commensurate terms by linking the two via the construct of adap-

Table 1
Performance Competencies that Link Job Demands and Personal Learning Competencies

Job Demands	Performance Competencies	Learning Competencies
An affectively oriented environment (job) requires one to ——→	Be personally involved Deal with people ←——— Be sensitive to people's feelings Be sensitive to values	Learning via concrete experience —enables one to develop skills in
A perceptually oriented environment (job) requires one to——→	Gather information Organize information ←———	Learning via reflective orientation —enables one to develop skills in
A symbolically oriented environment (job) requires one to ——→	Experiment with new ideas Create new ways of thinking ←——— Build conceptual models Generate alternate ways of thinking and doing Analyze quantitative data Design experiments Test theories and ideas	Learning via abstract conceptualization —enables one to develop skills in
A behaviorally oriented environment (job) requires one to——→	Seek and exploit opportunities Commit yourself to objectives ←——— Make decisions Set goals	Learning via active experimentation —enables one to develop skills in

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tive competence. This is the behavior factor in the P-E model presented earlier. The effective matching or application of personal skills to meet/satisfy job demands reflects a process or adaptive competence that is evidenced via some behavior.

The concept of adaptive competence represents a new approach to the improvement of performance by seeking to match or fit persons to jobs through understanding those particular adaptive competencies that are appropriate to the given job or situation. Previous approaches by others emphasize the measurement and selection of personnel based on generalized aptitude tests. These methods have proven a dismal failure in spite of heroic efforts to make them succeed (see Tyler, 1978, for a review). The basic problem of the aptitude testing approach has been that the definitions are too generalized and thus do not relate to the specific tasks in a given job. These test results produce low correlations between the aptitude and task being measured and they often are not commensurate, that is, they do not measure the person and the task in the same terms.

The result of using adaptive competency measures to link individual learner styles to the requirements of jobs suggests a powerful diagnostic tool to study the match or mismatch between the person and the job. The performance competencies can be arranged around the generic learning competencies of Kolb's learning cycle in what is called a competency circle. The competency circle portrays a field on which measures of both a person's skills and the job's demands can be plotted (Figure 2). The learning styles described in ELT are perceived as learning competencies, that is, as higher level heuristic learning processes that facilitate the development of a generic class of more specific skills. This generic class of skills is required for effective performance on different tasks. Each task requires a corresponding set of learned ideas, skills, and attitudes for effective performance. The effective matching of task demands and these personal attributes results in a performance competency.

To study the relationship between learning styles as learning competencies and the specific performance competencies associated with them, a list of performance competencies has been developed. They are based on knowledge of jobs in social work and engineering and the hypothesized relationship of these performance competencies to learning styles. A list of 24 competencies was submitted to a sample

alumni group of 479 engineers and social workers (Kolb, Wolfe, Fry, Bushe, Gish, Griggs, Gypen, Manring, & Sims, 1981) as part of a questionnaire. Respondents were surveyed to determine their perceived competencies and their perceptions of the competencies demanded by their jobs. To avoid jargon on the questionnaire, the self-assessment competencies were called work abilities and job characteristics and were on a 7 point Likert scale.

To assess construct validity, that is, the relationship between the performance competencies and the learning competencies of ELT, the self-rated competencies of professional engineers and social workers were correlated with Kolb's learning style inventory (LSI abstract/Concrete [AC-CE] and active/reflective [AE-RO]). This analysis resulted in 17 competencies related to the learning competencies (affective, perceptual, symbolic, and behavioral). These are arranged around the competency circle in Figure 2 and Figure 3. (See Miller, 1978, for further details.)

Performance competencies become a vehicle for assessing personal characteristics and job demands in commensurate terms. Thus the performance competencies required for a specific job can be compared to a person's inventory of performance competencies to determine the degree of fitness, areas for needed development, and so on.

The resulting sample means for five job types are shown in Figures 2 and 3. The five job types are: direct service social workers (social workers providing direct service to clients); administrative social workers (social workers serving in managerial or administrative positions); bench engineers (engineers in nonmanagerial positions responsible for completing technical tasks assignments); technical managers (responsible for completing technical assignments through supervision of other engineers); and general managers (individuals who are involved in specialized management, such as financial management of their own engineering firms). If it is assumed that these overall averages represent an accurate, generic view of job demands, then in each instance a manager would be able to identify matches and mismatches. For example, in Figure 3, this sample shows that technical managers believe that their jobs require more affective and behavioral competencies than they possess. With this information management would see that a mismatch exists between the technical manager's skills and the demands of the job. This could lead to management's providing for possible

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Figure 2
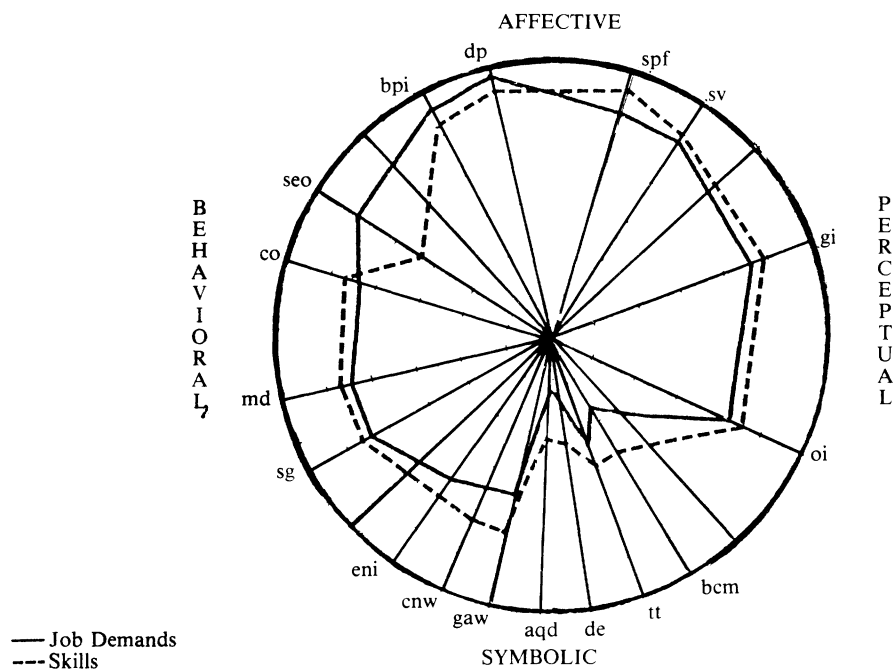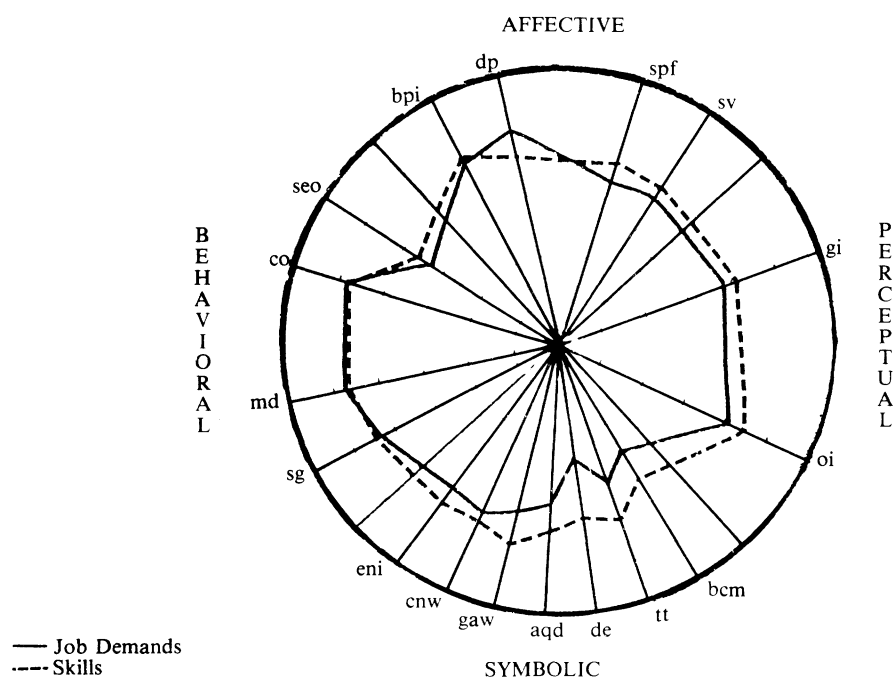## Comparison of Job Demands and
Skills for Direct Service Social Workers

AFFECTIVE

—— Job Demands
--- Skills

SYMBOLIC

Figure 3
Comparison of Job Demands and
Skills for Technical Managers

AFFECTIVE

—— Job Demands
---- Skills

SYMBOLIC

Work Abilities Index

Affectively Related

bpi being personally involved
dp   dealing with people
spf being sensitive to people's
     feelings
sv   being sensitive to values

Perceptually Related

gi   gathering information
oi   organizing information

Symbolically Related

eni experiment with new ideas
cnw create new ways of thinking
     and doing
gaw generate alternative ways of
     thinking and doing
aqd analyzing quantitative data
de   designing experiments
tt   testing theories and ideas
bcm building conceptual models

Behaviorally Related

seo seeking and exploiting
     opportunities
co   commiting yourself to
     objectives
md   making decisions
sg   setting goals

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training programs or necessary changes in the task requirements to improve the matching process. Similar information is indicated to the manager of direct service social workers via Figure 2, in which one finds that behavioral skills are needed competencies for performance of the administrative social workers job. But they may not be the particular strengths of the incumbents in those positions—who probably come from being "matched" in the highly affective direct service jobs!

With this kind of data at one's disposal, design changes or training programs could be considered to develop the required individual adaptive competencies to perform the current job more efficiently. For example, if a job manager determines that a particular entry level engineer is ready for promotion to a managerial position, he/she could identify that individual's skills and the skills required to do the new job in commensurate measures. The new job may require competency skills in affective and behavioral areas, but assessment of the person's skills may show that the individual's skills lie in the symbolic area (i.e., abstract learning styles). Hence some developmental/training program would be needed for further development of the individual's affective and behavioral skills necessary for the new position.

Some Implications and Concluding Remarks

At the outset it was argued that Kolb's ELT is useful in linking the person and job by measuring them in the same terms. Measuring the person and job in commensurate terms can be accomplished by using the model of four performance competency areas. Generic skills of both the individual and the job can be identified as being affective, perceptual, symbolic, or behavioral performance competencies. Not only can individual skills and competencies required to perform the job effectively be identified, but valid differences in occupations can be determined through the use of this four factor model.

Through adaptive competencies that are empirically related to both measures of adult learner styles and job press, one now is in a position to assess P-E interactions. Beyond determining the requirements of a job, or personal skills present, however, one can start to explore the *impact* of different P-E interaction effects. Does a match between person and environment make a difference? If so, on what?

A study by Sims (1981) shows that a match be-

tween the person and job does make a difference. Matched individuals reported higher job satisfaction and performance than did individuals who were not matched (over- or underqualified). Thus an underlying principle for effective performance is a match between the person and the job. The better the fit, the greater the benefits to both the individual and the organization.

Another use of the competency circle methodology, presented in Figures 2 and 3 as a way of diagnosing person-job interaction, is in identifying pivotal versus peripheral job demands. Does matching the person and the job in pivotal versus peripheral skill areas have different effects on individual job performance and satisfaction? Most job requirements attach differing amounts of importance to different skills. Not all skills may be equally important for effective performance of a job. Pivotal skills refer to those skills that a person must possess or learn to perform a job effectively. Peripheral skills refer to skills that a person may possess but that have no impact on the performance of the job. Through a greater understanding of the pivotal and peripheral skills of a job, one can more effectively match the person and the job and evaluate the impact on the individual's performance and job satisfaction. A study of the differential impact of pivotal versus peripheral norms indicates that this hypothesis is supported (Sims, 1981).

A final implication that managers can more clearly address centers on the overall P-E interaction model presented earlier in Figure 1: the notion of growth climate. Growth climate refers to the experienced or perceived climate of the organization by the individual. Growth climate is measured on a 7 point Likert scale by a combination score of the individual's perception of this relationship with supervision, autonomy, the chance to grow and develop, and advancement potential within the organization. For example, does growth climate have an impact on the degree of match between the person and the job? Sims' study showed that a difference existed between matched and mismatched individuals on perceived growth climate. Does growth climate serve as the glue or lubricant in enhancing the matching process between the person and the job, or in enhancing the career process of moving from match (success) in one job to mismatch (challenge) in another, to match in that one, and so on?

Some problems and limitations in the current tax-

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onomy, however, need to be addressed in future research and development. First, the current available data are all based on respondents' self-analyses and reports. More behavioral and observational means need to be developed to assess these competencies. Second, the list of performance competencies should be revised and expanded to include new performance competencies associated with the four learning competencies (e.g., "influencing and leading others" in

the behavioral area). It is doubtful that the current list encompasses all important performance competencies in all jobs. Despite these limitations, Kolb's ELT nonetheless provides much promise as a framework for measuring the person and job in the same terms and identifying the pivotal skills required for effective job performance. All jobs involve problem solving/learning and the typology potentially can be used to describe all jobs.

References

Altemeyer, L. *Education in the arts and sciences.* Unpublished Ph.D. dissertation, Carnegie Mellon University, 1966.

Bandura, A. The self system in reciprocal determinism. *American Psychologist,* 1978, 33 (4), 344-358.

Fry, R. E. *Diagnosing professional learning environments: An observational framework for assessing situational complexity.* Unpublished Ph.D. dissertation, Massachusetts Institute of Technology, 1978.

Fry, R. E., & Kolb, D. A. Experiential learning theory and learning experiences in liberal arts education. *New Directions for Experiential learning,* 1979, 6, 79-92.

Hunt, D. E. *Matching models in education: The coordination of teaching methods with student characteristics.* Ontario, Canada: Monograph Series No. 10, Ontario Institute of Technology, 1971.

Hunt, D. E. Person-environment interaction: A challenge found wanting before it was tried. Address to the Division of Educational Psychological Association, Montreal, Quebec, August 1973.

Kolb, D. A. Individual learning styles and the learning process. Working paper, Alfred P. Sloan School of Management, Massachusetts Institute of Technology, 1971.

Kolb, D. A. *Experiential learning: Experience as the source of learning and development.* Englewood Cliffs, N. J.: Prentice Hall, 1983.

Kolb, D. A., Wolfe, D. M., Fry, R. E., Bushe, G., Gish, G. L., Griggs, W. H., Gypen, J., Manring, S. L, & Sims, R. R. Professional education and career development: A cross sectional study of adaptive competencies in experiential learning. Final Report, #NIE G 770053, 1981.

Manring, S. *Career patterns of technically trained professionals: A person-environment interaction model.* Unpublished Ph. D. dissertation, Case Western Reserve University, 1980.

Miller, C. W. *The effects of work experience and undergraduate education on the learning style and career development of technical professionals.* Unpublished Ph.D. dissertation, Case Western Reserve University, 1978.

Pervin, L. A. Performance and satisfaction as a function of individual environment fit. *Psychological Bulletin,* 1968, 69 (1), 56-68.

Schroder, H. M., Driver, M. J., & Streufert, S. *Human information processing.* New York: Holt, Rinehart and Winston, Inc., 1967.

Sims, R. R. *Assessing competencies in experiential learning theory: A person-job congruence model of effectiveness in professional careers.* Unpublished Ph.D. dissertation, Case Western Reserve University, 1981.

Stern, G. G. *People in context.* New York: Wiley, 1970.

Tyler, L. *Individuality: Human possibilities and personal choice in the psychological development of men and women.* San Francisco: Jossey-Bass, 1978.

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