Is It the People We Know, the Things We Do, or the Places We Go?
The Impact of Social Environments on Self-Directed Change and Learning

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Abstract

This project examines the interactions between individuals and the social environment as individuals engage in self-directed change and learning. The individuals in the project are graduates of a part-time MBA program. The social environment is the Life Sphere framework introduced with this study. Self-directed change and learning refers to the learning agendas that these people outlined for themselves when they first entered the MBA program. Each learning agenda resulted in goals that targeted managerial competencies (Boyatzis, 1982) that must be developed if the goal is to be met. The study measures the participants' success towards these goals in terms of the participants’ demonstrated improvement on these competencies. Longitudinal assessment data were collected at time of entry into the program, at graduation, and between 18 and 30 months later. The critical incident interview, measuring behavioral changes on these competencies, and the learning skills profile, measuring the self-reported change of these competencies, were administered each time. The Life Sphere Interview, designed specifically for this project, was administered during the post-graduation assessment session. This interview asked two general sets of questions: 1) what life spheres supported each learning goal; and 2) what relationships and activities, in each life sphere, supported each learning goal. Findings suggest that the number of life spheres, relationships, and activities does impact positively the demonstration of these competencies, although to a limited degree.
Several years ago the president of my former employer issued a mandate that said “Effective immediately all management employees will attend a minimum of ten days of training per year.” Working at the time as the staff director in charge of human resources, I was assigned the task of making this happen, at least for the sales department that I was a part of. The term ‘management employees’ was, for my organization, a fairly broad classification. It included most employees other than the union members and clerical staff. My specific organization employed about 250 management employees. I asked the employees what kinds of training they wanted. I went about contacting training organizations, both internal and external, to line up the appropriate courses. In addition, senior management asked me to put together the various processes necessary to track our progress towards the new training objective. Yet, with all this activity going on and money being spent, no one ever asked me what impact this training was having on either the management employees or the company. This always struck me as odd.

The above story illustrates some of the changes that have been occurring in the workplace over the past decade. Estimates suggest that from 1990 to 2005, two-thirds of all entrants into the work force will be women and minorities (Adams, 1993). Additional projections suggest that by the year 2000 companies will employ fewer people, be less hierarchical, more horizontal, and more service focused (Kiechel, 1993). The employees, in turn, will be expected to be constant learners with the capacity to do higher-order thinking (Kiechel, 1993). As workplace uncertainty continues to increase, so will the workplace challenges (Hall and Richter, 1990). With this will come the motivation and need for people to give and receive help (Kram and Hall, 1991; 1996). Further, individuals, hoping to remain employable, will need to assume more and more responsibility for their careers (Kiechel, 1993; Labich, 1991). These changes, projected as
well as actual, underscore the benefits of understanding the interactions between the social environment and the individual.

This research project looked at the impact that these efforts have on individuals as they assume control of their personal development. The project’s main question asked - how does the social environment support self-directed change and learning? This project studied the interactions between individuals and the social environment as individuals engaged in self-directed change and learning. The results from this project support the general hypothesis that the social environment impacts positively self-directed change and learning. These findings will become increasingly important as adults continue to take responsibility for their own learning.

LITERATURE REVIEW

Socrates first emphasized the human need, when striving towards individual success and excellence, to ‘Know Thyself.’ He taught that as we understand our innermost experience, the secrets of the larger universe would reveal themselves. These early teachings illustrate the early efforts to understand ourselves as well as our larger surroundings. We as human beings continue to inquire into our internal experience as well as our relationship with the larger world. When we do so, as Socrates suggested, we begin to see the interconnectedness of nature - the internal self with the external surroundings. Several literature streams have emerged from this inquiry. This paper reviews: at the individual level - motivation, self-directed change, and goal theory; and at the social environment level - field theory, ethology, social learning theory, socialization, reference groups, and relationships. In addition, a new framework conceptualizing the social environment will be presented.

Motivation - Freud felt (1910/1938) that behavior is motivated by sexual impulses and that we are often unconscious as to what these motivations are. In contrast, Adler (1917) felt that
the drive for power was our strongest motivator. Horney (1939) placed the need for security and safety as primary. Maslow (1943) wrote that we are motivated towards wholeness. He felt that our needs fall into five hierarchically arranged categories where the needs at one level must be satisfied before higher level needs become active. Maslow’s hierarchy of needs provides insight into the underlying inquiry associated with the present study. At the hierarchy’s lower levels we are merely trying to stay alive in a hostile environment. The higher level needs, such as love, emerge out of our desire to belong. The last need, the need for self-actualization, represents the human desire for self-fulfillment. In a sense, this need echoes back to the early teachings of Socrates in that this need emerges out of our desire to reach our fullest potential.

McClelland (1951) wrote that, although we can attempt to predict our behavior, our inability to anticipate the future will make those predictions questionable. Similar to Maslow, he felt that the determinants of behavior needed to include determinants beyond those of motivation. In doing so, he acknowledged the importance of the person’s environment (McClelland, 1987). Rotter (1966) identified the construct ‘locus of control.’ People with an internal locus of control feel that they have control of events in their lives. People with an external locus of control interpret events occurring as a result of people and situations beyond their control. Potentially, one’s locus of control may impact one’s understanding of self and his or her environment. Bandura (1990) credits cognitive capability as one of the major sources for motivating humans. Through awareness of possible outcomes and by exercising forethought humans are able to identify goals and their associated action steps. Bandura’s emphasis on the human’s cognitive capability represents the late twentieth century ideas regarding human motivation.

Organizational theorists, in an effort to improve employee performance, have spent much time trying to understand human motivation. Hall suggests that ‘continuous learning’ “is the
major source of motivation in today’s workplace, and it is the quest for psychological success -- the fulfillment of one’s own personal values and purposes and goals -- that is driving the worker” (Hall, 1996, p. 6). Another approach, expectancy theory, states that the employee’s effort leads to a performance that leads to a reward (Nadler & Lawler, 1977). From the perspective of this project the outcomes associated with expectancy theory are important. Expectancy theory states that the individual may receive outcomes on two levels -- the environmental and the individual. First, at the environmental level, the employee will receive either positive or negative rewards, depending on the environment’s perception of his or her performance. Second, at the individual level, the employee receives the kudos for a job well done that only he or she can give him or herself (Nadler and Lawler, 1977).

Self-Directed Change and Self-Directed Learning - Considering the assumption that people can control what and how they change and learn late twentieth century self-directed change and learning theories echo back to Socrates and Plato. Present day writers such as Hunt (1987) espouse Plato’s view that knowledge “is ‘led out’ from within” (Tarnas, 1991, p. 43). Hunt argues that real change begins with us. The key is the process of “Inside-Out” psychology, a process that is “rooted in your own experience” (Hunt, 1987, p. 2)

Self-directed learning and self-directed change have come to be used either interchangeably or as the all inclusive ‘self-directed change and learning.’ Yet, although they do represent similar philosophies, they are indicative of two different, albeit related activities. Self-directed learning, as part of the larger literature on adult education, involves using a learning-centered teaching methodology (Bilimoria & Wheeler, 1995). This pedagogical philosophy involves the teacher helping the student understand what he or she wants to learn. The individual and the entire learning process (i.e., educational objectives, methods, and actions) become the
focus of the classroom (Boyatzis, Cowen, & Kolb, 1995; Freire, 1973; Kolb & Boyatzis, 1970).

As this philosophy is implemented, individuals take control of their learning and take actions that allow themselves to move in directions that are personally consistent with their values and desires (Candy, 1991; Knowles, 1975). Additionally, Boyatzis (1999) suggests that individuals involved in self-directed learning are aware of the change occurring and understand their change process.

Butler (1989) notes that the power of self-directed learning lies in its ability to arouse and motivate the individual such that he or she seeks out independent learning opportunities both in and outside the classroom. Cottingham (1977) continues the discussion by noting several items that the self-directed learner must pursue. First, he or she must identify and engage in a learning event. Next, there must be some element of evaluation such that the self-directed learner is able to assess his or her achievement and progress. Identifying goals or targeted behaviors and their associated performance standards is also important. Finally, the self-directed learner must assess his or her current knowledge and skills as well as find ways to maintain his or her motivation towards these endeavors. Knowles (1986) adds the idea of learning contracts to the discussion. He outlines a five step process that allows the individual to develop a learning plan that incorporates learning objectives, strategies to reach these objectives, evidence of accomplishment of the objectives, validation criteria of the objectives, and a date of completion for the objectives. McClelland suggested several inputs that can facilitate people’s efforts to acquire or change core personality traits (i.e., motives and self-concepts). As mentioned by Boyatzis (1982) and summarized by Spencer and Spencer (1993) these include providing learners with a new ‘conceptual model,’ walking them through the process of ‘self-assessment’, giving them opportunities to practice, and finally helping them set goals. It is important to work consciously
in both setting the goal and receiving the feedback. By doing so the individual’s efforts to remain motivated and to achieve the goal will be increased. Finally, there is the input of social supports which includes learning in “a socially ‘safe’ and supportive environment in which to learn, experiment with, and practice new thoughts and behaviors” (p. 288). This process is important relative to the present study in that the process integrates self-assessment with the need for environmental supports.

As stated earlier, although self-directed learning and self-directed change espouse similar pedagogical perspectives, a difference exists between these two concepts. Self-directed learning usually takes place in a formal classroom setting (Candy, 1991) whereas self-directed change can take place in a variety of training and development locations and settings. Self-directed change has been described as a three step process (Candy, 1991; Festinger, 1957; Griffith, 1966; Kolb & Boyatzis, 1970; Kolb, Winter, & Berlew, 1968; McClelland, 1965; Spencer & Spencer, 1993; Winter, Griffith, & Kolb, 1968; Zacks, 1965) where: 1) the individual understands his or her current state; 2) establishes a desired future state; and 3) develops goals to facilitate the transition to that future state. Self-directed learning differs in that the individual focuses on initiating activities intended to continue and to enhance the learning (Butler, 1989; Candy, 1991; Cottingham, 1977; Fry, 1972; Knowles, 1986; Rosenblum & Darkenwald, 1983). These activities may take place in or outside the classroom.

As we saw with self-directed learning, two important components of self-directed change are feedback, or the evaluation process, and the individual’s commitment to the ideal state, or goal (Kolb & Boyatzis, 1970; Kolb et al., 1968). Based on Festinger’s (1957) theory of cognitive dissonance, it has been shown that the identified discrepancy or gap results in dissonance that will be resolved through movement towards either state (i.e., the individual either
moves toward the ideal state through his or her actions or the individual finds ways to ignore the ideal state. More recently, Senge’s (1990) concept of ‘creative tension’ speaks to this phenomenon. With creative tension, the discrepancy causes a tension similar to an elastic band being stretched between two hands. One hand represents the ideal state, the other the real. As the gap is identified the hands separate, causing the elastic to stretch. In the end, the only way that this tension can be reduced is by either hand giving in, (i.e., either moving towards or devaluing the ideal state). Feedback and commitment allow the individual to continue his or her efforts of moving towards the ideal state. The feedback provides the individual with the data necessary to continually re-focus on the ideal state. It also helps to keep the discrepancy’s dissonance alive in the individual’s consciousness (Kolb & Boyatzis, 1970; Kolb et al., 1968; McClelland, 1965; Winter, Griffith, & Kolb, 1968). Commitment allows the individual to stay focused on the goal, thus resulting “in significant behavioral and self-reported change” (Leonard, 1996, p. iii).

The work of Boyatzis (1999), building on the work of Kolb and Boyatzis (1970), provides the foundation for the present study’s approach to self-directed change and learning. Integrating the concepts of both self-directed change and self-directed learning, Boyatzis describes a process that begins with an assessment of the person’s Real and Ideal states. From a comparison of these two states emerges first a balance between Discrepancy and Congruence, then a balance between a Felt Need for change and the Strength on which to build. The person then articulates Goals and a Plan to reach those goals that involves Experimentation, Practice, and Relationships. In addition, Psychological Safety exists which enables the necessary contemplation and reflection. This process is punctuated at different points with a need to make the necessary decisions in support of continuing the learning. The process loops back onto itself
and repeats. Where the present study makes one of its contributions is elaborating on this model in more specific terms regarding the importance of relationships, activities, and life spheres (these will be described later) as self-directed learners pursue their learning agendas.

The present study involves individuals participating in a goal setting process based on defining their current and ideal states. Hence, the literature on self-directed change applies. Equally important, the present study involves students pursuing learning activities and relationships both in and out of the classroom. Hence, the literature on self-directed learning also applies. Yet, as noted by Leonard (1996), although research shows self-directed change and learning to have been effective in bringing forth personal behavioral change (Kolb & Boyatzis, 1970; Kolb et al., 1968; Zacks, 1965), most settings studied have been in a therapeutic context with results similar to those found in the therapeutic behavior change literature. Hence, this research project, studying self-directed change and learning efforts in the individuals’ social environment (i.e., life spheres), will be addressing a gap in the literature.

**Goal Theory** - Past research shows that effective goal setting will increase the likelihood of goal accomplishment from between 5 and 20 percent to between 60 and 70 percent (Kolb & Boyatzis, 1970; Meyer, Kay, & French, 1964). Goal setting results in an average increase in productivity of 19 percent (Locke & Latham, 1979). Effective learning goals are specific, measurable, achievable, realistic, and time-bound. As noted by Locke and Latham (1990), whether the goal is assigned to us by our work organization, as in a sales objective, or developed by us personally, goals usually represent something that we want to achieve outside ourselves. This external focus suggests a connection with the environment. Locke and Latham (1990) note that research done at the individual level has typically involved simple tasks being done in an unchanging environment. At the organizational level, Lawrence and Lorsch (1967) found that an
environment’s uncertainty might have impact. They found that an industry’s stability would impact the amount of uncertainty facing the organization’s functional units and the resulting need for differentiated goals. As the industry becomes less stable, the functional unit’s environment becomes less certain, and the differentiation of goals across functions increases. Cohen and March (1974) found that setting goals in a highly uncertain environment may be difficult because the required information may not be available. Braybrooke and Lindblom (1970) showed that even if the information is available, the uncertain conditions might have made it irrelevant. Latham and Saari (1979) found that supportive relationships were important in goal setting. Yet, their study, similar to other studies on goals, dealt with goals that had a short timeframe and were worked on in one environment. In addition, the supportive relationships studied were of the hierarchical superior/subordinate model. The present study suggests the importance of expanding our learning into places other than our office and classroom and getting support from a variety of relationships and activities.

The Social Environment - Theorists throughout the twentieth century have continued to study the interaction of human behavior and the environment. Bronfenbrenner (1979) notes that “development is defined … as a lasting change in the way in which a person perceives and deals with his environment” (p. 3). White (1959), echoing Bronfenbrenner, notes that growth and competency result when a person interacts successfully with the environment. These theories add insight to the present study. It is out of a desire to understand a person’s behavior and, more importantly, a person’s growth in relation to the larger environment that the present study was first begun.

Field Theory - Lewin (1935), one of the first theorists to examine directly, through field theory, the relationship between human behavior and the surrounding environment, described the
environment in terms of the person within it. Lewin felt that a series of forces exists between our surroundings and us such that when we move towards an object there is an actual force that moves between the object and us. Maslow (1943) also wrote about the effect of the field on human behavior. Although, as previously discussed, he attributes much of human behavior to a hierarchy of needs, he felt that the situation or the field in which the organism reacts must be taken into account.

**Ethology and Ecological Psychology** – Ethologists observe animals in their natural habitats (Pellegrini, 1996). They are noted for conceptualizing “the environment and the organism as influencing each other” (Pellegrini, 1996, p. 21). In contrast, ecological psychologists stress the importance of the environment (Pellegrini, 1996). Ethnomethodology is another tradition that describes the relationship between behavior and the larger context. Using a qualitative approach, the researchers often assume the role of a participant observer (Pellegrini, 1996). These traditions are important for the present study because they represent additional efforts to study humans and the environment.

**Social Learning Theory** - Social learning theory states that people learn interpersonal skills by watching and imitating other people (Bandura, 1969; Bandura, 1977). Past writings associated with competency development discuss the use of ‘behavior modeling methods’ such as showing “learners numerous live, film, or videotape examples of a person like the learner performing the specific competencies in a realistic situation” (Spencer & Spencer, 1993, pp. 288-289). In terms of the present study, the idea of learning through role models is important. Yet, where the present study departs from these previous studies is by bringing the role modeling out of the classroom and into the person’s larger environment.
Socialization – People continue to try to adapt themselves to the demands of their respective environments. Early on William James described us as “having as many ‘social selves’ as there are social situations in which we find ourselves” (McClelland, 1951, p. 290). Additionally, sociologists such as Weber and Veblen have studied the on-going role of humans in society. But it was anthropologists Ralph Linton (1949) who is credited with providing the distinction between ‘status’ and ‘role’ (McClelland, 1951). Status “simply means the position of a person in the social structure without regard to how ‘high’ the position is” (McClelland, 1951, p. 290). Hence, our status may be as a family member or as a work team member. Social roles are the resulting patterns that occur “when the situation ‘dictates,’ as it were, the common characteristics which several people display” (McClelland, 1951, p. 292).

Tolman (1946) suggested three influences on our identity formation: older people, groups, and causes. The first influence reflects Freud’s theory of our identities emerging out of our desire to be like our parents. This concept is important for the present study because it highlights the need for us to have access to people that we can identify with. The second influence is similar to Freud’s concept of “the feeling of the child for his siblings” (p. 120). This concept, in terms of the present study, supports the notion that the individual might learn better if there is a reference group to identify with. The third influence suggests the importance of the larger cultural context. Similar to Tolman’s conclusions, Hall (1996) notes that a person’s identity “is a social product, the result of repeated exchanges with others significant in one’s world” (p.4). As we give and receive feedback from the people we are in relationships with “we discover who we are, what we do best, and how to be better” (p.4).

The socialization process is important for the present study because it acknowledges the influence culture has on its members (McClelland, 1951). We, as employees, are ‘socialized’ as
part of our introduction into our current work organizations. As we settle into these organizations we adapt to the existing norms and behaviors of the respective organization. Socialization, to a lesser degree, occurs when we join other ‘societies’ such as community organizations and social groups. The present study explores what happens when we embark on endeavors separate from these ‘societies’ (i.e., programs geared towards our individual growth and development). Do these various places that we occupy adapt to our changes? Are we able to find relationships and activities within these respective ‘societies’ to support our learning? Or is the socialization process so strong that we end up continually adapting back?

Reference Groups and Relationships - Recent studies of the impact of relationships looked at social networks and perceptions of intergroup conflict (Labianca, Brass, & Gray, 1998). Other research argues that relationships such as those found in mentoring and positive peer interactions will result in improved performance across dimensions such as greater organizational commitment and better job performance and will result in higher salaries, improved job satisfaction, and faster job promotion (Chao, Walz, & Gardner, 1992; Dreher & Ash, 1990; Kram, 1983, 1985; Scandura, 1992; Whitely, Dougherty, & Dreher, 1991). Yet, other theorists argue that mentors and associates, while important, may not be sufficient to support our efforts at personal growth (Boyatzis, 1999).

Several professors at Boston University have studied the importance of relationships and groups as a source of development and growth. Kram (1996) acknowledges the importance of other people. Kahn (1996) emphasizes the need for “secure base relationships at work” (p. 158). Louis (1996) suggests that ‘safe havens’ at work will provide us a place for reflection, further supporting our development. Hall (1996) argues that in the midst of the downsizing these “relational resources (connections to others around work tasks) have never been greater than they
are in this era of teams, projects, and information networks” (p. 3). Kram and Hall (1996) describe a process of ‘colearning’ where “development is a mutual process” (Hall, 1996, p. 2) between all parties in the relationship. In this process no one party is always the teacher, rather the teacher role goes to that person who has the skill and expertise. Walker (1996) discusses the importance of valuing differences as a strategy towards both personal and organizational development. Hodgetts and Hodgetts (1996) discuss the developmental sanctuary, a concept usually applied to clinical settings, as a “a powerful way of thinking through the kinds of conditions that can be created, with minimal expense, by arranging space and time for social reflection and support” (Hall, 1996, p. 10). Finally, Parker (1996) develops the notion of GROWS – Growth-Enhancing Relationships Outside Work. In doing so she extends the discussion of the importance of learning outside of the work place. All of the above, by stressing the importance of relationships, and our larger social environment, lend insight to the present study.

The Research Context - The research project is an extension of the Weatherhead School of Management’s 50-Year Longitudinal Outcome Study (Boyatzis, Baker, Leonard, Rhee, & Thompson, 1995; Boyatzis, Leonard, Rhee, & Wheeler, 1996; Boyatzis & Renio, 1989; Boyatzis, Renio-McKee, & Thompson, 1995; Boyatzis, Wheeler, & Wright, in press; Leonard, 1996; Rhee, 1997). Previous findings reported from the WSOM Outcome Study illustrate the positive impact of a competency-based MBA program (Boyatzis, Leonard, Rhee, & Wheeler, 1996; Boyatzis, Wheeler, & Wright, in press). Boyatzis, Wheeler, and Wright (in press), documenting the study’s most recent findings, report that the full-time graduating students improved on 100% of the competencies assessed and the part-time students improved on 95% (20 of 21 competencies assessed). One area that the Outcome Study has not yet examined
involves the impact of relationships, activities, and life spheres on learning goal attainment and competency development. This project, in examining the impact that relationships, activities, and life spheres have on learning goals, expands the learnings associated with the Outcome Study.

The Current Framework: The Life Sphere Framework - The present research study attempts to more fully define the environment that people live and function within. In doing so, it follows in the tradition of those theorists who studied both life space and life spheres. Following is a brief review of the relevant literatures as well as a description of the framework introduced and used in this study.

Life Space - Lewin (1936) first described life space “as the ‘totality of possible events’” (p. 14). Lewin attempted to describe the interrelated nature of the person and the larger environment. This research project attempts to build on and enhance Lewin’s ideas. Yet, in contrast to Lewin’s definition that includes the person’s physical, social, and psychological environments, the present construct of life sphere de-emphasizes the importance of the physical environment. Rather, this project defines life sphere as the psychosocial settings within which a person functions. Further, the present study suggests that a life sphere is held together by common interests, purposes, visions, or goals.

Recent theorists have attempted to expand Lewin’s ideas. Lee (1985) is one such author. She described four life space types: home-based, work-based, conjoint, and diffuse. The conjoint type balances high quality and high quantity time between work and home. The diffuse type emphasizes high quality and high quantity time spent in places other than work or home. Each type “represent different configurations of behavior on a set of dimensions which measure patterns of time use, physical movement from place to place, interaction with people, and
engagement in activity,” (Lee, 1985, p. 624). Each of us operates within one of these four types. Lee’s life space framework is important in terms of the present research study because it expands Lewin’s ideas regarding the environment that we function within. Yet, where Lee’s life space framework and the present research study’s life sphere framework differ is in the description of that environment. As will be discussed shortly, the present study’s life sphere framework attempts to define more fully those areas where we function beyond work and home. Additionally, the present study’s life sphere framework does not identify any one life sphere type as the predominant structure for the person.

Mayer, Carlsmith, and Chabot (1998) “use the term life space to refer to the person’s representation of the areas surrounding him or her” (p. 253). Using a systems approach, they define three dimensions of a life space – “the molecular-molar dimension” (p. 255), “the internal-external dimension” (p. 255), and “the organismic-constructed dimension” (p. 255). The first two dimensions are further delineated to include the biological life space, the incorporative-social life space, and the interactional-social life space (Mayer, Carlsmith, & Chabot, 1998). Mayer, Carlsmith, and Chabot’s (1998) depiction of the importance of sociological level influences on the person adds insight to the present study. Similar to Lee (1985) above, they advance Lewin’s ideas. Yet, where the present research study departs from their work is in its attempt to provide further delineation of these sociological level influences.

The Life Sphere - Morf (1989) adds to the current discussion with his description of both work spheres and life spheres. Each sphere operates at the society, organization, and individual levels. Morf further divides the life sphere into five subspheres: close social relationships (family, other social relationships, and love), leisure (leisure, recreation, and play), armslength social relationships (social, community and civic activities, community, and politics), education
(unstructured self-development, personal growth, personal development and fulfillment, and art), and religion (religion and church) (Morf, 1989). Similar to the life space discussed above, Morf’s work and life spheres include aspects of the environment, personal characteristics of the individual, and aspects of the person’s behavior. But, in contrast to the previous life space discussion, Morf spends little time talking about the actual physical environment. The present research study attempts to enhance and expand the framework outlined by Morf (1989) in three ways. First, the present study uses the term ‘life sphere’ in a more generic sense, it is no longer a term used to define only the personal part of the individual’s life. Second, the present study does not use the ‘subspheres’ concept. Rather, because life sphere is now a generic term, any categorization is done at the life sphere level. Third, the present study introduces seven generic life sphere categories: Work Organization, Family, Personal Leisure Other Than With Family, Professional Affiliations or Clubs Apart From Work Organization, Community and Civic Activities, Church, Religious Membership, and Spiritual Participation, Education Separate From Work Organization. These categories represent a variation of the life sphere subspheres described by Morf above.

More recently, the life sphere literature shows the construct being used in model formation. Clucas (1997) used the life sphere in developing the human/technology interaction model. This model evaluates human’s interactions with technology from three different perspectives: the civic-life sphere, the personal-life sphere, and the work-life sphere. There have also been efforts to validate the Life Sphere Questionnaire: a personality test that assesses the individual’s psychological state, the person’s interpersonal relationships, and his or her individual life style (Flanagan, 1994).
Life Sphere Versus Life Space - Although the two constructs are related, the life sphere construct seems to deal more with the psychological and social aspects of the person (Flanagan, 1984), while life space also brings in the physical environment (Lewin, 1936; Lee, 1985). Additionally, the life space seems to describe the person’s general environment (Lewin, 1936; Lee, 1985; Mayer, Carlsmit, and Chabot’s, 1998), while the life sphere seems to describe the environment’s component elements (Morf, 1989). There is conceptual evidence that suggests that life spheres may be part of the life space. Freed-Fagan (1984) proposed a model of the individual’s life space that included three life spheres: interpersonal, intrapersonal, and environmental.

Additional Descriptions of Our Environment - Goffman (1959) spoke of a phenomenon similar to life spheres - “a region may be defined as any place that is bounded to some degree by barriers to perception” (p. 106). Bronfenbrenner (1979) described the environment as a set of nested structures similar to a set of Russian dolls where the settings expand beyond the developing person. Bronfenbrenner’s description of the microsystem is of particular importance to the present study. He lists “activities, roles, and relations in which the person engages” (p. 11) as the three factors making up the microsystem. The present study’s life sphere framework, as described below, uses a similar structure.

Overview of the Life Sphere Framework - Each life sphere consists of three components: relationships, activities, and cultural context. The relationships exist in relation to the person within the respective life sphere. Either the person or someone on behalf of the person initiates activities. Examples include, within the workplace, individual contributions and group projects. The cultural context provides the rules, regulations, and supporting framework for the life sphere. Examples include, within the workplace, corporate policies and mission statements. Life spheres
may exist separately or they may overlap. This overlap will be a function of factors such as the similarity of individuals, similarity of settings, and similarity of activities. Life spheres vary in size. The size symbolizes the importance of the life sphere to the person. An increase in time and energy spent in a specific life sphere will increase the size of that life sphere. A person’s environment consists of many life spheres, although the person may choose to participate in only a few.

The life sphere framework includes generic life spheres that we may occupy during the course of our day. Bronfenbrenner’s work on human development (1979) adds insight into what these may be. He spoke of “a few crude and undifferentiated categories that do little more than locate people in terms of their social address” (p. 17). These are “family size, ordinal position, single- versus two-parent households, home care versus day care, parents versus peers, and – perhaps the most frequent – variation by social class or ethnic background” (p. 17). Yet in terms of the present study, these categories fall short most particularly because he is referring primarily to the social address of children. We get a little closer to understanding the generic life sphere categories when we read the career theory literature. Hall (1996) wrote that the career experience can be better understood “by separating it into its component elements: work, people, identity and subidentities, difference, community, meaning, learning processes, aging, development, and organizations” (pp. 1-2). The notion of ‘component elements’ is reflected in the present life sphere framework. The main difference between Hall’s discussion and what is being presented here is that the present study’s life sphere framework applies to any area that the individual may occupy throughout the day, not just the ‘career experience.’ Other than that, his component elements seem to represent an alternative breakdown of the life sphere’s three components (i.e., relationships, activities, and cultural context).
Dreyfus (1990), studying the competencies of high performing scientists and engineers, found that many of the managers in her sample had first experimented with competency use while in high school and college. They used the competencies while participating in athletic activities, clubs, and living groups. Further, she found that as they matured as managers, they still used and practiced competencies in areas outside of their work place (i.e., social and community organizations, and professional associations). It is Morf (1989) discussed above that brings us closest to detailing the generic life sphere categories. His work sphere combined with his five life sphere subspheres (i.e., close social relationships, leisure, armslength social relationships, education, and religion) provide the beginnings of the generic categories used in the present study’s life sphere framework.

The present study suggests that there are seven generic life spheres where we can function: Work Organization, Family, Personal Leisure Other Than With Family, Professional Affiliations or Clubs Apart From Work Organization, Community and Civic Activities, Church, Religious Membership, and Spiritual Participation, Education Separate From Work Organization. The organization that employs the person represents the person’s Work Organization life spheres. The Family life sphere includes both the nuclear and extended families. The Personal Leisure life sphere includes the area where the person participates in hobbies, sports, and other personal interests. This life sphere may be that area where the person partakes in solitary endeavors such as reading and sewing. The Professional Affiliation life sphere includes those places where persons create and maintain professional contacts apart from the work organization. The Community and Civic Activities life sphere includes the person’s involvement with community and civic voluntary non-profit organizations. The Church, Religious Membership, and Spiritual Participation life sphere includes those places where people
go for religious and spiritual guidance and membership. The Education life sphere includes those locations where people attend classes separate from work-sponsored education and training.

**Research Question** - The present study’s general research question is: How does the social environment support self-directed change and learning? By asking this question, the present study hopes to address a void in the literature regarding self-directed change, goal attainment, and competency development and the respective impact of life spheres, relationships, and activities. Three hypotheses emerge:

Hypothesis 1 - **Life Spheres** - The higher the number of life spheres used in working on the learning goal the greater the degree of success in achieving the learning goal.

Hypothesis 2 - **Relationships** - The higher the average number of relationships used in working on the learning goal across the person’s life spheres (i.e., those life spheres in which the person is working on the learning goal) the greater the degree of success in achieving the learning goal.

Hypothesis 3 - **Activities** - The higher the average number of activities used in working on the learning goal across the person’s life spheres (i.e., those life spheres in which the person is working on the learning goal) the greater the degree of success in achieving the learning goal.

**METHOD**

**Design** - An on-going longitudinal study provided the initial data for this project. Additional data was gathered specifically for the present study. The three data gathering points are as follows: 1) during the participants’ first semester in the MBA program, Time 0; 2) during the final semester, Time 1; and 3) between 18 and 30 months after graduation, Time 2. The first data gathering point occurred during the participants’ enrollment in the core course, Managerial
Assessment and Development (Boyatzis, 1994, 1995). During this foundation course the participants, via the critical incident interview (CII) and the learning skills profile (LSP), were assessed against a model of competencies that have been found to differentiate the superior performing manager from the average performing manager (Boyatzis, 1982). In addition, the students wrote in-depth learning plans that included very specific learning goals that addressed the remainder of the participant's enrollment in the MBA program as well as the initial stages of the participant's desired career. Each learning goal write-up identified those competencies that must be targeted for further development if the learning goal is to be reached. The next data gathering point occurred just prior to graduation. At that time both the CII and the LSP were re-administered. The final data point occurred between 18 and 30 months after graduation when the CII and the LSP were administered for a third time. In addition, a demographic questionnaire and the life spheres interview were administered at this time. Recruitment at both T1 and T2 included sending introductory letters and making follow-up with telephone calls. Attempts were made at T2 to contact and interview all potential participants.

**Sample** - Part-time MBA students graduating in either January or May, 1995 or January or May 1996 who gave their written and informed consent regarding their participation in the ongoing WSOM 50-Year Longitudinal Outcome Study comprised the population for the present study. Only those participants who had completed the CII and the LSP at both T0 and T1 could be contacted at T2. This resulted in 54 possible participants – 20 from the 1995 Outcome Study and 34 from the 1996 Outcome Study T1. In the end there were 30 participants: of the 1995 eligible graduates, 11 participated, 2 refused to participate, 1 did not show up for the arranged meeting, and 6 could not be found; and of the 1996 graduates, 19 participated, 2 refused to participate, 3 did not show up for the arranged meeting, and 10 could not be found. Previous
Outcome Studies established the comparability of the respective samples to the larger WSOM MBA population (Boyatzis, Baker, Leonard, Rhee, & Thompson, 1995; Boyatzis, Leonard, Rhee, & Wheeler, 1996; Boyatzis & Renio, 1989; Boyatzis, Renio-McKee, & Thompson, 1995; Boyatzis, Wheeler, & Wright, 1997). The 1995 and the 1996 samples used in the current research were found to be similar to the larger Outcome Study sample. The 1995 and 1996 samples were about the same age as their entering counterparts, had a similar gender split, and had about the same percentage of non-native English speakers.

**Assessment Instruments and other Research Tools** - The Critical Incident Interview (CII) measures the participant’s behavioral change against the competency model designed specifically for the WSOM MBA program (Boyatzis, 1982). The CII was a forty-five minute audiotaped interview (Flanagan, 1954; Boyatzis, 1982; Raven, 1992; Spencer & Spencer, 1993) that has the participant describe in detail approximately four episodes when he or she felt either effective or ineffective in a work type situation. The interviews were then coded independently by two coders who had already demonstrated inter-rater reliability of 70% against an expert coder (i.e., a professional who had used the code in validation studies). Once the coding was completed, any coding disagreements were reconciled until 100% agreement was reached between the two coders and the expert coder. Campbell, Dunnette, Lawler, & Weick (1970) cited this interview technique as one of the most effective techniques for assessing skill-related behavior. The sixteen competencies by cluster are: Goal and Action Management -- Efficiency Orientation, Planning, Initiative, Attention to Detail, Self-Control, Flexibility, Persuasiveness, and Self Confidence; People Management -- Empathy, Networking, Negotiating, Group Management, Developing Others, and Social Objectivity; and, Analytic Reasoning -- Systems Thinking and Pattern Recognition.
The Learning Skills Profile (LSP) measures the self-reported change on a set of scales similar to the competency model designed specifically for the WSOM MBA program (Boyatzis, 1982). The LSP, a self-administered card sort, measures the respondent against twelve behavior scales (Boyatzis & Kolb, 1991, 1995). The respondent sorts seventy-two cards into seven stacks. The corresponding categories range from (1) “I have no skill or ability in this area” to (7) “I am a creator or leader in this area”. The twelve scales are: Leadership, Relationship, Help, Sense Making, Information Gathering, Information Analysis, Theory, Quantitative, Technology, Goal Setting, Action, and Initiative. For added clarity and consistency, while conducting the present study’s analysis, the LSP scales were converted to CII competencies using the conversion table as mapped out by Boyatzis, Baker, Leonard, Rhee, & Thompson (1995).

The learning plan learning goals included a list of those competencies that the participant decided he or she must target for further development if the learning goal was to be reached. It was these targeted competencies that were used in the present study’s analysis. The Demographic Questionnaire was designed to collect demographic data from T1 to T2. Questions such as “Current work position, title, and company?” and “Current annual salary?” were asked. The Life Sphere Interview was designed to gauge the impact of life spheres, relationships, and activities on the learning plan learning goals. During this 60 minute audiotaped interview the participant was shown the original learning plan and was asked the same two questions for each learning goal: 1) which life spheres supported the specific learning goal? and 2) for each life sphere that you mentioned, what activities or relationships did you find most useful/helpful as you worked on this learning goal since graduation? The relationships and activities that supported each learning goal as identified by the participant during the life sphere interview were then counted independently by two counters. Initial inter-rater reliability, using two-tailed
Pearson correlations (Boyatzis, 1998), was .6573 for activities (n = 961, p = 0.000) and .7647 (n = 961, p = 0.000) for relationships. All disagreements were reconciled until 100% inter-rater reliability was reached.

Operationalization of the Variables - Each learning goal write-up included several competencies that needed to be developed if the learning goal was to be achieved. The dependent variable is operationalized as the increased demonstration of these competencies during post-graduate learning. It was calculated by subtracting the T2 CII and LSP results from the T1 results. For Hypothesis 1, the independent variable equals the number of different generic life sphere types within which the participant worked on the learning goal; for Hypothesis 2, the independent variable was determined by calculating the mean number of relationships used to work on the learning goal across life spheres; and for Hypothesis 3, the independent variable was determined by calculating the mean number of activities used to work on the learning goals across life spheres.

FINDINGS

Hypothesis 1 - There were either statistically significant or near significant positive correlations for three of the sixteen CII competencies (Efficiency Orientation, Initiative, and Flexibility); and for nine of the fourteen converted LSP scales (Efficiency Orientation, Initiative, Empathy, Persuasiveness, Networking, Self Confidence, Developing Others, Systems Thinking, and Pattern Recognition) (see Table 1). There were no statistically significant or near significant negative correlations for either the CII behavioral change or LSP self-report data. The results suggest that Hypothesis 1 is somewhat supported by both the CII behavioral change and LSP self-report data.
Hypotheses 2 - There were either statistically significant or near significant positive correlations for four of the sixteen CII competencies (Efficiency Orientation, Initiative, Self-Control, and Negotiating) (see Table 2). One of the CII competencies had a statistically significant negative correlation (Networking). The LSP converted self-report scales had no statistically significant or near significant positive correlations and one statistically significant negative correlation (Negotiating). The results suggest that Hypothesis 2 is weakly supported by only the CII behavioral change data.

Hypotheses 3 - There were only two either statistically significant or near significant positive correlations out of the sixteen CII competencies (Self-Control and Negotiating) (see Table 3). There were no positive or negative statistically significant or near significant LSP converted self-report scales. The results suggest that Hypothesis 3 is very weakly supported by only the CII behavioral change data.

Insert Tables 1, 2, and 3 about here

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DISCUSSION

After reviewing the findings reported above we could conclude that one’s social environment does in fact support self-directed change and learning. The data suggests that self-directed change and learning is enhanced when we are able to work on our learning goals in multiple life spheres, with multiple relationships, and with multiple activities.

Four conclusions are suggested by the Hypothesis 1 results. First, the demonstration of the competencies of Efficiency Orientation (EO) and Initiative (INIT) were impacted positively by the increase in number of life spheres. Second, the competencies of Empathy, Persuasiveness,
Networking, Self Confidence, Developing Others, Systems Thinking, and Pattern Recognition were impacted positively at the LSP self-report change data only. Third, the Goal and Action Management cluster was the only cluster of competencies that was impacted at both the CII behavior change level and the LSP self-report change level. Fourth, all three of the competency clusters were impacted at the LSP self-report level. The results of Hypothesis 2 suggest three conclusions. First, there is a positive relationship between the number of relationships across life spheres and the increased demonstration of the Goal and Action Management competencies. Second, there does not seem to be a relationship between the number of relationships across life spheres and the increased demonstration of the Analytic Reasoning competencies. Third, the one cluster of competencies where there should be intuitively a positive relationship (i.e., with the People Management cluster), there is data that suggests a potentially negative relationship. The results Hypothesis 3 suggest two possible conclusions. First, it may be concluded that there is a positive relationship between an increase in the number of activities and an increase in demonstrating the competency Self-Control (SC). Second, there is a possible positive relationship between an increase in the number of activities and an increase in demonstrating the competency Negotiating (NEG).

Putting the Findings in Context - Examining the change in demonstration of both the CII competencies and the LSP scales from T0 to T1 and T1 to T2 and comparing this data to the larger WSOM Outcome Study sample might enhance the present discussion. When t-tests are run using the present study’s sample regardless of what was targeted or where the learning occurred, there was limited change from T1 to T2. Only two competencies had a statistically significant positive change during that period (Empathy and Persuasiveness); two scales had a statistically significant or near significant positive change (Sense Making and Theory); and one
scale had a near significant negative change (Action) (see Table 4). These data offer more insight when they are compared to the same change data but from T0 to T1. Six competencies had statistically significant positive change (Efficiency Orientation, Self-Control, Flexibility, Self Confidence, Systems Thinking, and Social Objectivity). Nine scales had a statistically significant or near significant positive change (Help, Information Gathering, Information Analysis, Theory, Quantitative, Technology, Goal Setting, Initiative, and Leadership). None of the competencies and scales had a statistically significant or near significant negative change.

Insert Table 4 about here

Four conclusions could be made. First, the significant changes in the data, for the most part, that occurred from the T1 to T2 occurred on those CII competencies and LSP scales that had not experienced significant change from T0 to T1 (i.e., Empathy, Persuasiveness, and Sense Making). There seems to be a long-term broadening or balancing in the participants’ demonstration of both the CII competencies and the LSP scales. In other words, the participants are showing an improvement on more and more competencies over time. Second, the one CII competency or LSP scales that had a statistically significant or near significant negative change (i.e., Action) from T1 to T2 may be explained by reviewing what the actual scale represents. ‘Action’ has the participant rate him or herself on “the ability to commit to objectives, to meet deadlines, to be persistent, and to be efficient” (Boyatzis & Kolb, 1993, p. 4). Given that the participants just completed a highly demanding MBA program, they just may feel, now that they don’t have classes and work to juggle, that their lives have slowed down. As a result, they may not have rated themselves as high on this scale. Third, the limited demonstrated change of the
both the CII competencies and LSP scales from T1 to T2 would suggest that it might be difficult
to establish a positive correlation between the targeted change and the independent variables (i.e.,
multiple life spheres, relationships, and activities). In other words, if there wasn’t much
demonstrated change to begin with, then it does not seem realistic to expect that positive
correlations will result between what little change there was and the independent variables.
Hence, the findings seem that much more impressive. Finally, it could be concluded that the
demonstrated changes are consistent with the larger WSOM Outcome Study database. Although
the present study’s sample had fewer significant changes from T0 to T1, the changes that did
occur reflected the changes in the larger sample (see Table 4).

Conclusion - The data suggests that self-directed change and learning is enhanced when
we are able to work on our learning goals in multiple life spheres and with multiple relationships
and multiple activities. As the Millennium approaches we are seeing more and more the effects
of a changing work place. Distant learning, remote offices and the Internet are but a few of the
technologies that have facilitated our migration out of the traditional office. Success, once
symbolized by the key to the wash room and a private secretary, is now evidenced by a laptop
computer and a cell phone. Further, all of these changes have sped things up. We want answers
now, in this moment. The 56K computer telephone hook-up we bought last month is already too
slow. Hence, as we approach the virtual office with all of its trappings, it seems to make sense
that we will get what we need, when we need it – no matter where we are or who we are talking
to.

With these changes has come the need to find resources in places and from people that
may not have been considered previously. Since we are spending more time on the road or in
our homes, we have more opportunities to ask a variety of people for help. Dual-career
marriages and the increase in women employees are making a segment of our society, once relegated to attending PTA meetings, viable resources. Hence, the present study’s findings regarding both life spheres and relationships seem accurate.

Limitations - Concern may arise regarding the participant’s honesty. Alternative research methodologies have explored the issue of interviewee honesty. In particular, feminist research methodology suggests that the on-going long-term relationship with the interviewee involves establishing commitment and honesty on the part of both the researcher and the participant (Reinharz, 1992). Giving the longitudinal nature of the present study there was an opportunity for this type of long-term relationship to be established. The participants were introduced initially to the WSOM assessment and development philosophy while taking the course, Management Assessment and Development, during their first year as an MBA student. During that course it is standard practice that intimate coaching relationships are established between the students and the course’s delivery staff. Full and honest disclosure is both modeled and encouraged from the moment the students began working with both the delivery and research teams. It is also felt that the place where the assessment occurred impacted positively on the reliability of the answers provided. Each assessment session occurred either in the participant’s home or office, or in a Ph.D. student office. In all cases, explicit effort was taken to ensure that the environment was less intimidating and more private. These efforts allowed the participant to feel comfortable and at home, adding to the existing relationship between the researcher and the participant. Additional concerns imply that it may be socially desirable for the participant to lie while completing the assessment instruments. Given that up to two years separated the completion of the instruments at Time 1 and Time 2, it is highly unlikely that the participants remembered their answers from one assessment time period to the next. Further, the time it takes
to complete the interview (about 2 1/2 hours) combined with the number of research tools that
must be completed (CII, LSP, the Life Sphere Interview, and the Demographic Questionnaire)
make it difficult for the participant to lie. Finally, the multiple formats of the research tools
enhanced the researcher credibility, produced comparable results, and minimized the possibility
of the researcher influencing the participant.

The triangulation of qualitative and quantitative methods and the use of multiple
measures (i.e. self-report and behavioral) enhanced the validity of the present study’s findings
(Reinharz, 1992). It is also felt that using valid assessment instruments (i.e., the CII and LSP)
with the experimental interview (i.e., the Life Sphere Interview) added to the validity of the
newer research tools.

Sample Size – Although the present study only explores data generated by 30
participants, it uses data generated at three different time periods. Hence, the present study,
using multiple data sets with same people, increases significantly the size of the final data set
used.

Implications and Applications - The objectives of this project include: 1) introducing a
new social environment framework (i.e., the life sphere); 2) offering insights that when
implemented will enhance the WSOM MBA program as well as other higher educational
institutions targeting the individual; 3) enhancing the preparation done by MBA students as they
apply the learnings to their lives separate from school; and 4) adding to the current literature on
learning goals and adult learning.

Suggestions for Future Research - Further exploration should include re-calculating the
independent variable by counting the activities and relationships irrespective of the life spheres.
In defining the independent variable in this new manner it is hoped that we will be able to study
the impact of relationships and activities that transcend the life sphere. Steps are already underway to include the Life Sphere Interview when the learning goals are first written. As this data is collected it will be possible to examine the impact of actually mapping out which relationships and activities are to be pursued in conjunction with each learning goal, and the impact of actually pursuing them. Future contact with the present study’s 30 participants is recommended. Additional research should be conducted examining the impact of the life sphere’s third component – cultural context. Finally, it is suggested that it will be worthwhile to work with a new sample to validate the life sphere framework.

REFERENCES

Adams, B. 1993, October 29. Glass ceiling: Are women and minorities blocked from the executive suite. CQ Researcher, 3(40), 939-948.


Table 1
A comparison of the mean number of life spheres per learning goal with the demonstration of the targeted critical incident interview competencies and the targeted learning skills profile converted scales a,b

<table>
<thead>
<tr>
<th>Competency/Scales</th>
<th>Critical Incident Interview</th>
<th>Learning Skills Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean</td>
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<td>Efficiency Orientation</td>
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</tr>
<tr>
<td>Social Objectivity</td>
<td>19</td>
<td>-0.58</td>
</tr>
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</table>

a As explicitly mentioned by the participant in the Learning Plan Learning Goals.

b Significance levels are one-tailed tests based on Pearson Correlations: ÷ p < .10; * p < .05; ** p < .01.
Table 2
A comparison of the mean number of relationships per learning goal with the demonstration of the targeted critical incident interview competencies and the targeted learning skills profile converted scales.\(^a,b\)

<table>
<thead>
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<th>Competency/Scales</th>
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\(^a\) As explicitly mentioned by the participant in the Learning Plan Learning Goals.

\(^b\) Significance levels are one-tailed tests based on Pearson Correlations: + p < .10; * p < .05; ** p < .01.

\(^c\) A two-tailed significance level is reported because the results are in the opposite direction of predicted improvement.
Table 3
A comparison of the mean number of activities per learning goal with the
demonstration of the targeted critical incident interview competencies and the
targeted learning skills profile converted scales^{a,b}

<table>
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^{a} As explicitly mentioned by the participant in the Learning Plan Learning Goals.

^{b} Significance levels are one-tailed tests based on Pearson Correlations: + p < .10; * p < .05; ** p < .01.
Table 4
A comparison of the critical incident interview competencies and the learning skills profile scales demonstrated at entry, graduation, and post-graduation, for both the Outcome Study Sample and the present study samples.

<table>
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^a Matched-pair t-tests were run with the "t" reported because a longitudinal design was used. Significance levels are one-tailed: + p<.1; * p<.05; ** p<.01; *** p<.001.

^b Critical incident interview competencies n = 30; learning skills profile scales n = 29

^c Critical incident interview competencies n = 54; learning skills profile scales n = 67

^d EO = Efficiency Orientation, PLAN = Planning, INIT = Initiative, ATD = Attention to Detail, SC = Self Control, FLEX = Flexibility, EMP = Empathy, PER = Persuasiveness, NET = Networking, NEG = Negotiating, SELF = Self Confidence, GM = Group Management, DO = Developing Others, ST = Systems Thinking, PR = Pattern Recognition, SO = Social Objectivity.


^f A two-tailed significance level because it was in the opposite direction to that predicted.