An existential-phenomenological framework for understanding leadership development experiences

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Abstract
Purpose – The purpose of this paper is to develop a conceptual framework for better understanding leadership development experiences by melding the existential-phenomenological (E-P) perspective with the leadership literature.

Design/methodology/approach – This study used questionnaires to elicit leadership development experiences. A sample of US Army officers provided 117 unique experiences. Various computational methods were used to empirically determine the essential elements and structure of these experiences.

Findings – The results provide support for the proposition that beneficial experiences were rated higher than non-beneficial experiences on five elements: challenge, self-efficacy, sociality, relevance, and reflectivity. Four of the five elements were represented by two components: an interpersonal component (sociality and relevance), and an intrapersonal component (self-efficacy and challenge). A fifth element, reflectivity, was related to, but distinct from, both components. Reflectivity may bridge or connect the intrapersonal and the interpersonal components.

Research limitations/implications – The research was limited to a sample of US Army officers. Future research should seek to replicate the findings in larger and more diverse samples, for example, the private sector. These efforts are currently planned.

Practical implications – The conceptual framework and method for understanding experiences that facilitate leadership development can be used by any organization. The present framework and findings are consistent with other approaches to leadership development (e.g. the competency approach).

Originality/value – This study used a unique and tractable approach for understanding leadership development experiences. The elements and structure of beneficial experiences were empirically determined using a number of computational methods; heretofore, this has not been done.

Keywords Leadership development, Phenomenology, Armed forces, Competences, United States of America

Paper type Research paper

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Dubrin (2001, p. 3) suggests that “about 35,000 research articles, magazine articles, and books have been written about leadership”; yet, the research on leadership development is scant; moreover, the typical focus of leadership development is the individual, and how the individual enhances self-awareness and regulates and focuses energies for self-development (see Avolio, 2005). Although leadership development may be grounded in personal development, it is embedded in experience, and it is through experiences that leaders are developed (Van Velsor and McCauley, 2004). Gardner (1990) suggests that most of what leaders have that enables them to lead is learned, and what is learned is learned through experiences. Hence, central to better understanding leadership development is to better understand the nature of experiences that facilitate leadership development.

Today, leadership development may be conceptualized as enhancing organizational capacity through interpersonal competence (Day, 2001; Van Velsor and McCauley, 2004). Thus, to be an effective leader is to be socially adept: effective leadership development best occurs in a social context (Day, 2001). Moreover, leadership is about building relationships and organizational capacity through enhanced connectivity (O’Connor and Quinn, 2004) and sense making. Sense making, or meaning making, is an operation of intentionality (Schutz, 1967), and intentionality is a basic phenomenological principle or theme. Hence, it makes sense to use phenomenology as an approach to better understand leadership development.

The over-arching purpose of this paper is to use an existential-phenomenological (E-P) framework to better understand the features of experiences that facilitate leadership development. It is proposed that, although “certain events and experiences may contribute differently to the leadership development of different individuals,” (Avolio, 2005, p. 1), experiences identified as having a positive influence on leadership development will be characterized by a specific set of elements and a common structure. To our knowledge, the elements and essential structure of leadership development experiences have not been empirically determined; hence, this will be a unique contribution to the literature.

Arthur et al. (2004) suggest that the “blind spot” in understanding leadership is in understanding experiences; moreover, they suggest developing a method for accessing experience is of utmost importance for understanding leadership development. In the following, we propose a conceptual framework from which we will explore leadership development. We draw upon different disciplines to formulate our conceptual framework and we use a variety of computational methods to assess the viability of our propositions. As such, this article consists of three parts: the E-P framework; the leadership development framework; and a melding and distillation of the E-P and leadership development frameworks in order to identify the essential elements and structure of leadership development experiences. The present research, however, will not consist of an E-P analysis of actual experiences (e.g. Giorgi, 1997) to identify the essential features of leadership development experiences; rather, we borrow on the literature and theoretical formulations to derive the essential features of leadership development experiences. We then empirically test the viability of the derived features and corresponding structure.
The conceptual framework: existential phenomenology

At the core of existential thought is the question, “What is it to exist, or to be human?” The phenomenological theme inextricably tied to the existential theme is, “What is the nature of subjective experience?” Phenomenology is guided by the basic principle of intentionality, that is, experiences are directed toward things in the world: Humans live (exist) in relation to a world, other persons, and objects; that is, as humans we exist and are constructed by our relations with others. These basic existential-phenomenological questions can be extended to leadership development by asking, “What is leadership, and what is the nature of leadership experiences?” Hence, phenomenology can provide a framework of rational inquiry for accessing the phenomenon of leadership development (Peterson, 1994). Phenomenology, by its very nature, seems to be a logical approach for helping us to better understand the essence of leadership development experiences.

Phenomenology is a rigorous descriptive-analytic approach that is governed by three interrelated steps: phenomenological reduction, description, and search for essences (Giorgi, 1997). Phenomenological reduction is a search for nuance and precision in the analysis of experiences. Put differently, it is systematic, critical inquiry as to why phenomena are as they are; that is, can one attribute existence to a presence that one experiences. For example, one may say that s/he feels or intuits something, but it may not actually exist. Hence, in order to understand existence, which is the heart of the phenomenological approach, one needs to understand experiences. Description is an articulation or elucidation of experiences. Description provides a rich account of what the experiences mean. For instance, “Why are certain experiences meaningful for leadership development? What do the experiences provide that facilitate or enable leadership development?” Description, then, is framed in the context of phenomenological reduction, and phenomenological analysis informs the search for the essences of prototypical features of leadership development experiences. An essence is a fundamental meaning without which a phenomenon could not exist; it is the most invariant meaning of a context (Giorgi, 1997).

Binswanger (1958) suggests that experiences can be understood at three basic levels: umwelt, mitwelt, and eigenwelt. Umwelt can be translated as one’s awareness of physical sensation, such as pleasure, pain, and hunger; however, umwelt can be more generally classified as a motivational component of experiences; umwelt refers to the biological and motivational make-up or constitution of the individual’s life-world. Mitwelt is how one exists in a world with other people, it is how one relates to others and develops relationships; thus, mitwelt is the social component of existence. Eigenwelt can be classified as introspection or reflection, that is, in order to understand our existence, and our experiences, we need to understand ourselves and others, and this is accomplished by reflecting on our behaviors, values, and desires. Binswanger’s existential analysis provides a starting point for phenomenological reduction in that it provides a basis for characterizing experiences. More specifically, leadership development experiences can be understood in the context of Binswanger’s existential analysis; by extension, the essential characteristics and structure of leadership development experiences can be generated from this basic framework.

In sum, phenomenology provides a descriptive-analytic framework for understanding leadership development experiences. Moreover, leadership development is, by its very nature, a function of experiences; thus, it is amenable to
an E-P framework. Thus, we will combine the E-P framework with the leadership development literature to identify the essential elements and structure of leadership development experiences.

**The leadership development framework**

Before exploring the essential elements and structure of leadership development experiences, leader and leadership development will be defined and differentiated. The leadership development framework will help inform and guide the identification of the essential elements and structure of leadership development experiences.

*Leader and leadership development*

Day (2001) provides a comprehensive summary of the differences between leader and leadership development, from which we borrow and distill. Leader development focuses on the individual and seeks to enhance and build intrapersonal skills and competence, that is, human capital (Lepak and Snell, 1999). Some examples of intrapersonal skills from Department of the Army (1999) are “selfless service,” “initiative,” and “self-confidence.” Organizations that invest in leader development focus on building desirable attributes in individuals. Brass and Krackhardt (1999) suggest that the individualistic leadership perspective has been the predominant focus of organizational leadership research; however, Day (2001), citing Fiedler (1996), suggests that the individualistic approach to leadership training “ignores almost 50 years of research showing leadership to be a complex interaction between the designated leader and the social organizational environment” (p. 583).

Leadership development, on the other hand, focuses on building interpersonal competence. Leadership development focuses on building relationships of trust and commitment, extending social networks, and coordinating efforts within and across teams and organizations (Van Velsor and McCauley, 2004). Some examples of leadership skills from The Department of the Army (1999) are “interpersonal skills” and “cultural awareness.” Where leader development focuses on enhancing human capital, leadership development focuses on enhancing social capital; that is, building social networks that ultimately create organizational value and, in turn, facilitate goal completion.

The conceptualization of leadership development in this paper is consistent with Day (2001) in that leadership development is an integration of human and social capital. Leadership development, as a type of human development, takes place over time; it is incremental in nature, it is accretive; and it is the result of complex reciprocal interactions between the leader, others, and the social environment. Hence, effective leadership development realizes that leaders develop and function within a social context; and, although individual-based leader development is necessary for leadership, it is not sufficient. Leadership requires that individual development is integrated and understood in the context of others, social systems, and organizational strategies, missions, and goals.

**The essential elements and structure of leadership development experiences**

Van Velsor and McCauley (2004) suggest that there are three essential elements of an effective developmental experience: assessment, challenge, and support. It is suggested
that these experiences “a) motivate people to focus their attention and efforts on learning, growth, and change and b) provide the raw material for learning; the information, observations, and reactions that lead to a more complex and sometimes quite different understanding of the world” (Van Velsor and McCauley, 2004, p. 5). Although these elements of effective developmental experiences are compelling, we believe that an expanded set of elements better captures the current conceptualization of leadership as a relational model, where leadership is considered an emergent property of social systems (Salancik et al., 1975). Moreover, we seek to understand leadership experiences in the context of an E-P framework; hence, we borrow on Binswanger’s existential analysis to more clearly identify and define our expanded set of elements. Before examining the expanded set, however, we will summarize the elements of challenge, support, and assessment from an existential perspective.

Van Velsor and McCauley’s (2004) essential elements can be understood in the context of Binswanger’s (1958) existential framework. Umwelt, mitwelt, and eigenwelt correspond to the elements of challenge (motivation), support (connectivity/sociality), and assessment (reflection), respectively. As suggested by Van Velsor and McCauley (2004), experiences should possess these elements if they are to be effective facilitators of leadership development.

The challenge and support elements focus on intrapersonal development, not interpersonal development. Challenging experiences, for example, push people to do things they had never done before, or to look at things in new and different ways. Challenging experiences motivate development and provide the opportunity to learn (Van Velsor and McCauley, 2004, p. 9). Similarly, the support element is intrapersonal in nature, and its role is to engender a sense of can-do or self-efficacy, which leads to mastery and perseverance. Although support is conceptualized as sources of support for the individual, for example, individuals may receive support from their boss, coworkers, family and friends, the role of “support” is motivational. Van Velsor and McCauley (2004, pp. 10-11) note that, “Perhaps the largest source of support is other people and support is a key factor in maintaining leaders’ motivation to learn and grow ... It [support] helps engender a sense of self-efficacy about learning, a belief that one can learn, grow, and change”. Thus, both the challenge and support elements are motivational in nature and focus on intrapersonal development.

The assessment element, or reflection, provides people with an understanding of where they are now and what they need to do to improve their performance. Experiences that provide assessment information, like the Army’s after action review (AAR), allow for the integration of action and learning in order to analyze and improve performance. The AAR “is a professional discussion of an event, focused on performance standards, that allows for participants to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses” (Be, Know, Do, 2004, p. 137). The relationship between action and meaning occurs within a social context (e.g. a mission or corporate goal); thus, reflectivity allows people to understand how their actions are connected to others and to the context: reflectivity attaches meaning to that which has been experienced by connecting actions and thoughts to social structures.

In sum, two of three of Van Velsor and McCauley’s (2004) elements of leadership development experiences are intrapersonal in nature (challenge and support); the third
element, assessment or reflectivity, can be considered an element that has properties of both the intrapersonal and interpersonal; put differently, it bridges or connects the individual to the social environment and allows for sensemaking. Moreover, we have put forth the proposition that leadership development is a social phenomenon and that learning takes places within a social context. Thus, learning is responsive to interaction with others. Leadership effectiveness, however, also is realized in the context of organizational missions and goals. Within this social context, self-efficacy guides and regulates motivation, affect, and actions (Bandura, 1997; Schwandt, 2005). As such, leadership development experiences should not only provide for the intrapersonal elements and reflectivity, but also should be social in nature and should be relevant to the goals and mission of the organization.

In summary, we propose that the essential elements of leadership development experiences are: challenge; self-efficacy; sociality; relevance or purposive nature of the task/activity; and reflectivity. By extension, we put forth the following proposition:

\[ P1. \text{ Experiences identified as beneficial to leadership development will be rated higher on the five essential elements than those identified as not beneficial to leadership development.} \]

Two of the essential elements are intrapersonal in nature, self-efficacy and challenge; two are interpersonal in nature, sociality and relevance. Hence, we would expect that these four essential elements of leadership experiences will be represented by, or reduced to, two components. Accordingly, our second proposition is:

\[ P2. \text{ Challenge and self-efficacy will be represented by an intrapersonal component; sociality and relevance will be represented by an interpersonal component.} \]

We also suggest that the fifth element, reflectivity, bridges the intrapersonal and interpersonal components. Reflectivity allows one to make meaning of actions within a social context. It is expected that experiences seen as connecting the leaders to others, and to contexts, will enable leader development features, and, therefore, will facilitate leadership development. The intrapersonal and interpersonal elements, however, operate in a reciprocal fashion. For example, one may be part of a project team charged with solving a vexing organizational problem. Although this experience possesses the elements of challenge, the social context, and its perceived goal relevance, team members will not learn the meaning of their experiences unless they reflect upon their actions and use the reflective process to guide future actions (Mezirow, 1991); moreover, to be effective, team members have to believe that they can be effective (Bandura, 1982).

Hence, we propose the essence of leadership development experiences lies in the interaction of the intrapersonal and the interpersonal components. An experience lacking any element compromises the meaningful organization of leadership development; put differently, if any element is lacking, the fundamental meaning of the leadership experience can not present itself. Certain experiences may, for example, be challenging and force people out of their comfort zones and, in doing so, may enhance their belief in their ability to perform. Yet, if an experience is not able to be made sense of, and its goal relevance not recognized (suggesting a lack of reflectivity), then leadership development will not occur. In other words, the meaning of actions is
found in its relation to others – this is the hallmark of intentionality, which is an essential characteristic of phenomenology. Moreover, meaning is realized upon reflection (Schutz, 1967). Reflection allows for leadership development by building connections between social structures and sense-making frameworks (Schwandt, 2005). Hence leaders develop as they reflect about what they have done, how they can do things differently, and how they become more effective. Moreover, it is believed that the reflective aspect of leadership development experiences provides the bridge or connection between the intrapersonal and interpersonal components. Hence, we propose the following proposition.

\[ P3. \] Reflectivity will bridge or connect the intrapersonal and the interpersonal components; reflectivity should be related to, but distinct from, the intrapersonal and interpersonal components.

And, more specifically, we propose a corollary to \( P3 \). Considering Binswanger’s basic existential themes of umwelt (motivation), mitwelt (social) and eigenwelt (reflection), we expect that reflectivity will mediate the relationship between self-efficacy and the social element of leadership development experiences; that is, one’s belief in his/her ability to lead – to enhance connectivity and develop and nurture social structures – is realized through the reflective process.

\[ \text{Corollary 3a.} \] Reflectivity will mediate the relationship between self-efficacy and the social element and, thereby, serve as a bridge between the intrapersonal and interpersonal components.

**Method**

**Sample**

Data were obtained from 49 US Army officers stationed at two US Army bases: Ft Lewis Washington and Ft Riley Kansas. The officers represented the ranks 2nd Lieutenant to Lieutenant Colonel. The sample consisted of 57 percent Lieutenants, 17 percent Captains, 15 percent Majors, and 11 percent Lieutenant Colonels. Time in the military ranged from less than two to over 15 years. All Army branches (major occupational areas) were represented. Eighty-three percent were males and 17 percent were females. All participants had functioned in some type of troop-leading capacity. Twenty-five percent of the officers had served in combat. Two officers did not provide complete data and were dropped from the analysis.

**Procedure**

Officers at the two Army bases were asked to participate in a study that examined leadership experiences[1]. Officers in groups of two to four entered the study room and were seated at desks and provided an informed consent and a statement of research form. All officers agreed to participate. Officers were then asked to respond to a survey that consisted of demographic questions and statements about leadership development experiences.

**Demographic questions.** The demographic questions were as follows: what is your rank; occupational specialty; gender; years you have been an Army Officer (categorized); were you ever an enlisted soldier, if yes, how long; and have you ever experienced combat?
Rationale for eliciting experiential data. Officers were asked to: “Think about your experiences as an Army officer/soldier: Of all your experiences, identify and describe three (3) experiences that you consider the most instrumental or significant in your development as a Leader.” Asking officers about three salient, personal event memories seemed both reasonable and manageable considering the individual differences in recounting specific memories of significant events (e.g. Thorne and Klohnen, 1993). We wanted to be fairly confident that all participants were able to recount three experiences: only two of the 49 participants (4 percent) were not able to do this.

Subsequent to the description of the experiences, officers were asked to rate each experience on the five proposed elements of leadership experiences using a strongly agree (4) to strongly disagree (0) Likert-type scale. The derivation of the statements used for eliciting information about the beneficial and non-beneficial experiences was consistent with the conceptual developments in this paper and the supporting literature. Moreover, the items were written in a way that was meaningful and relevant to the participants (US Army officers).

The Department of the Army (1999), for example, defines military leadership as a process by which a soldier influences others to accomplish the mission by providing purpose, direction, and motivation. Hence, leadership is understood in the context of a mission or, more generically, in the context of work itself (Day, 2001). Hence, the relevance element of leadership development experiences was elicited as: “The experience was relevant to the mission, duties, and responsibilities as a soldier.” Also, in this paper leadership development was conceptualized as a relational model (Drath and Palus, 1994), whereby organizational capacity is enhanced through interpersonal competence (Van Velsor and McCauley, 2004). As such, the social element was elicited as: “The experience was social in nature, that is, it was an experience that involved interacting with other soldiers in order to get things done or goals accomplished.”

Avolio (2005, p. xv) notes that, “Fundamental to leadership development is stopping to reflect on what happened, what is happening, and what you think will be happening given certain actions taken by you”. The Army’s after action review is a technique for engaging in this reflective process (Be, Know, Do, 2004). Accordingly, the reflectivity element was elicited as: “The experience had a reflective component, that is, the experience, at some point, allowed me to examine and think about what I had done, how I did it, and how to do things better/differently.”

In order for experiences to develop leaders they also must be challenging. Van Velsor and McCauley (2004) suggest that challenging experiences can be characterized as those that are novel, push people out of their comfort zone, expose people to hardship, and provide them the opportunity to learn and develop new skills. The challenge element was elicited as: “The experience pushed me out of my comfort zone and required me to use skills that I did not know I had, to think and/or behave differently, or to things that I had not done before.” Challenging events are typically associated with high self-efficacy (Locke and Latham, 1990) and self-efficacy has been defined as task-specific self-confidence (Bandura, 1997). Self-efficacy is indicative of feelings of capability, that is, the belief that actions can be executed. Leaders who believe they can lead are more likely to lead (Bandura, 1982). Hence, consistent with Bandura (1997, 1982), self-efficacy was operationalized as confidence building which was elicited as: “The experience has increased my belief in my ability to be an effective leader.”
leader.” Hence, this measure of self-efficacy taps directly the action-related, competence-based aspect of self-efficacy (Bandura, 1997).

After completing the survey, the surveys were collected and the officers were provided a 10-minute break. After the break, the officers were asked to respond to another survey that asked the same demographic questions (so that the two surveys could be linked) and made the following request: Think about your experiences as an Army officer/soldier, specifically, think about those experiences that you thought would facilitate or be beneficial to your development as a Leader, but were not. Of these experiences, identify and describe three. The officers were then asked to rate each experience on the five proposed elements of leadership experiences, as they did with the beneficial experiences.

Analytic framework
Data analysis will consist of two parts: the analysis of experiences; and the testing of propositions. Data will be analyzed in a manner consistent with uncovering meaningful structure and patterns in leadership development experiences. As such, unique or particular experiences of an individual will not be the focus of the analyses; rather, aggregate phenomena and the relationship among variables will be the focus. In short, the analytic approach will be nomothetic, not idiographic: this, however, does not mean idiosyncratic data will be ignored or dismissed; rather, idiosyncratic data will be realized within a more generalizable framework and in the context of testable propositions.

Results
Analysis of experiences
Beneficial experiences. Sixty different experiences were identified as beneficial: 42 experiences, 42/60 (70 percent), were identified by only one officer; seven experiences, 7/60 (12 percent), were identified by two officers; hence, approximately 82 percent of the experiences were identified by only one or two officers. As such, the majority of experiences (82 percent) can be considered unique or idiosyncratic and will not be the focus of this initial analysis, but will be a part of subsequent, aggregate analyses. Another way to look at this is as follows. The mean number of officers to identify a beneficial experience is 6 (SD = 4.25). One SD below the mean is 1.75; hence, experiences identified by one or two officers can be considered relatively unique events.

The remaining 11 experiences, which represent a greater amount of agreement among officers and can be considered more robust or generalizable, will be the subject of this initial, nomothetic examination.

Table I presents the 11 experiences identified by three or more officers (approximately 18 percent of the experiences). The experiences are partitioned into operational and institutional experiences. Operational experiences are part of the everyday job of the officer. The Army also provides progressive education and schooling to its officers: this is commonly referred to as institutional training. The most frequently cited experiences were platoon leader and company commander, both positions require leading soldiers and mastering technical and tactical skills.

Non-beneficial experiences. Sixty-six experiences were identified as non-beneficial, yet, only one experience was identified by more than two officers: officer basic course (OBC). OBC was identified by 14 officers as non-beneficial. OBC marks the beginning of an officer’s formal military professional development training following
commissioning. These data suggest there is little if any agreement regarding what is considered a non-beneficial experience. From a nomothetic perspective, however, the concern is whether non-beneficial experiences (in aggregate) are characterized differently than beneficial experiences, which is tested in P1 below.

**Overlapping experiences.** There were nine experiences identified as beneficial and non-beneficial, but only one of these overlapping experiences was identified by more than two officers – OBC. OBC was identified by six officers as beneficial and by 14 officers as not beneficial (see Table II). Officer Candidate School (OCS) was identified by six officers as beneficial and by two officers as not beneficial. OCS is a training program for college graduates, non-commissioned officers and soldiers to earn commission as an officer. OCS is a precommissioning experience. The program generally lasts from ten to 14 weeks and covers topics on leadership, physical training and military subjects. In sum, the beneficial and non-beneficial experiences indicated unique clusters.

<table>
<thead>
<tr>
<th>Experience</th>
<th>No. of officers who identified the experience/all officers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational</strong></td>
<td></td>
</tr>
<tr>
<td>Platoon Leader</td>
<td>19/47 = 40.43 percent</td>
</tr>
<tr>
<td>Company Commander</td>
<td>10/47 = 21.28 percent</td>
</tr>
<tr>
<td>Company Executive Officer (XO)</td>
<td>7/47 = 14.89 percent</td>
</tr>
<tr>
<td>Operational Deployment</td>
<td>7/47 = 14.89 percent</td>
</tr>
<tr>
<td>Combat</td>
<td>6/47 = 12.76 percent</td>
</tr>
<tr>
<td>Platoon Leader (Operation Iraqi Freedom)</td>
<td>6/47 = 12.76 percent</td>
</tr>
<tr>
<td>Serving in a Foreign Country</td>
<td>3/47 = 6.38 percent</td>
</tr>
<tr>
<td>Having a Poor Leader</td>
<td>3/47 = 6.38 percent</td>
</tr>
<tr>
<td><strong>Institutional</strong></td>
<td></td>
</tr>
<tr>
<td>Officer Candidate School (OCS)(^a)</td>
<td>6/47 = 12.76 percent</td>
</tr>
<tr>
<td>Officer Basic Course (OBC)</td>
<td>6/47 = 12.76 percent</td>
</tr>
<tr>
<td>Ranger School</td>
<td>4/47 = 8.51 percent</td>
</tr>
</tbody>
</table>

**Note:** \(^a\)OCS is a precommissioning experience; that is, candidates receive this experience before they are commissioned as an officer.

<table>
<thead>
<tr>
<th>Overlapping experiences</th>
<th>No. of officers who identified the experience as:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beneficial</td>
</tr>
<tr>
<td>1) Battalion Operations Officer</td>
<td>2</td>
</tr>
<tr>
<td>2) Division G3 Staff Officer</td>
<td>1</td>
</tr>
<tr>
<td>3) Brigade S4</td>
<td>1</td>
</tr>
<tr>
<td>4) ROTC(^a) (Advanced Camp)</td>
<td>2</td>
</tr>
<tr>
<td>5) ROTC</td>
<td>2</td>
</tr>
<tr>
<td>6) OBC</td>
<td>6</td>
</tr>
<tr>
<td>7) Officer Advanced Course</td>
<td>1</td>
</tr>
<tr>
<td>8) OCS</td>
<td>6</td>
</tr>
<tr>
<td>9) Airborne School</td>
<td>2</td>
</tr>
</tbody>
</table>

**Table I.** Beneficial experiences identified by three or more officers

**Table II.** Experiences identified as beneficial and non-beneficial – overlapping experiences

Note: \(^a\)ROTC = Reserve Officer Training Corps, a precommissioning experience.
It was suggested that experiences identified as beneficial would be rated higher on the essential elements than those identified as non-beneficial. Dependent t-tests were computed for each element. Each element was rated significantly higher for the beneficial experiences than the non-beneficial experiences (see Table III). Thus, the beneficial experiences were characterized as being more challenging, relevant (purposive), social in nature, reflective, and more likely to enhance self-efficacy, than non-beneficial experiences.

It was suggested that the challenge and self-efficacy elements will be represented by an intrapersonal component, and the social and relevant elements will be represented by an interpersonal component. Cluster analysis (CA) was the data analytic method chosen to assess the viability of P2. CA, like factor analysis (FA), is concerned with uncovering the underlying structure in the data, that is, both techniques seek to reduce a large number of variables to a smaller number of factors or clusters. CA sorts variables or elements into clusters using distance measures, such that the distance between clusters is maximized and the differences within clusters minimized. FA extracts a set of factors from a correlation matrix such that the variables within a factor are highly correlated and variables within a factor do not correlate with other factors. Thus, FA is sensitive to the size of correlations and correlation coefficients tend to be less reliable when estimated from small samples (Tabachnick and Fidell, 2001). Tabachnick and Fidell (2001) suggest a sample size of at least 300 when conducting a FA, while Comrey and Lee (1992) note that a sample size of 50 is considered poor. Osborne and Costello (2004) show that the subject to variable ratio is an important influence in the “goodness” of factor analysis, and that a “large” subject to variable ratio is preferred. They suggest that even with large subject to variable ratios and sample sizes (e.g. 20:1 ratio or N > 1,000), and with strong factor loadings and clear factor structures, factor analysis can yield error rates up to 30 percent. On the other hand, CA is not as sensitive to small samples as is FA. In fact, Kim et al. (2004) suggest that CA can be difficult to apply when sample sizes are large because the persons-by-persons matrix becomes unwieldy. Considering the limitations of each method and the sample-variable characteristics in this study, CA was used as the data analytic tool for sorting different variables into clusters.

Clusters were identified using hierarchical tree clustering with the City-block (Manhattan) distance measure and the single linkage rule. The distance measure joins objects (elements) together using similarities (dissimilarities) or distance between objects when forming clusters. Once clusters were formed, the distances between the

<table>
<thead>
<tr>
<th>Elements</th>
<th>Beneficial</th>
<th>Not beneficial</th>
<th>Δs</th>
<th>Dependent t-tests*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Challenge</td>
<td>3.39</td>
<td>1.83</td>
<td>1.56</td>
<td>12.64</td>
</tr>
<tr>
<td>Relevance</td>
<td>3.52</td>
<td>2.27</td>
<td>1.25</td>
<td>13.31</td>
</tr>
<tr>
<td>Sociality</td>
<td>3.52</td>
<td>2.39</td>
<td>1.13</td>
<td>11.84</td>
</tr>
<tr>
<td>Reflectivity</td>
<td>3.92</td>
<td>2.04</td>
<td>1.88</td>
<td>10.83</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>3.29</td>
<td>1.46</td>
<td>1.83</td>
<td>27.70</td>
</tr>
</tbody>
</table>

Note: *all test statistics at p < 0.001; n = 47; 0 to 4 scale; SD = standard deviation; Δs= mean differences
new clusters were determined via the single linkage rule; put differently, the linkage rule determined whether two clusters were similar enough to be linked.

The CA supports $P2$ and $P3$ (see Figure 1). The five elements are represented by two clusters. One cluster can be labeled intrapersonal and consists of the elements challenge and self-efficacy. The other cluster can be labeled interpersonal and consists of the elements sociality and relevance. The reflective element stands alone, that is, it is distinct from the intra and interpersonal clusters, but is, nonetheless, related to these clusters. The distance between reflectivity and the interpersonal cluster is smaller (15.43) than the distance between reflectivity, the interpersonal cluster and the intrapersonal cluster (15.67). This may be a function of the single linkage distance metric that determines distances between clusters based on the two closest objects in the different clusters. Yet, an examination of the correlation matrix of the five elements supports the identified structure (see Table IV). For example, reflectivity is most highly

<table>
<thead>
<tr>
<th>Element</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Challenge</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Self-efficacy</td>
<td>0.58</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Sociality</td>
<td>0.43</td>
<td>0.40</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Relevance</td>
<td>0.18</td>
<td>0.26</td>
<td>0.43</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>5) Reflectivity</td>
<td>0.45</td>
<td>0.53</td>
<td>0.55</td>
<td>0.52</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Notes:** $n = 47$; for two-tailed tests, $r_s > 0.39$ are associated with $p$-values $\leq 0.004$; for $r = 0.26$, one-tailed test, $p < 0.05$; $r = 0.18$ is not statistically significant.

**Table IV.** Zero-order correlations for the five elements
related to the social element, $r = 0.55$, $p < 0.0001$, followed by self-efficacy, $r = 0.53$, $p < 0.0001$. And, on average, reflectivity is more highly related to the interpersonal cluster, $r = 0.54$ than it is to the intrapersonal cluster, $r = 0.49$. Additionally, the elements within a cluster are more highly related than elements between clusters, on average.

**Corollary 3a.** It was suggested that reflectivity would mediate the relationship between self-efficacy and the social element. Baron and Kenny (1986) suggest that four empirical events need to exist to test for mediation. First, self-efficacy would need to be significantly associated with sociality; this is true, $r = 0.40$, $p < 0.004$. Second, self-efficacy must be significantly associated with reflectivity, this is true, $r = 0.53$, $p < 0.004$. Third, reflectivity must be significantly associated with sociality, this is true, $r = 0.55$, $p < 0.004$. And fourth, when reflectivity is controlled, the significant self-efficacy-sociality association significantly decreases.

Hierarchical linear regression was used to test for mediation (Pedhazur, 1997). Self-efficacy alone explains 15.96 percent of the variance in sociality, $\beta = 0.39$, $t = 2.98$, $p = 0.004$. When reflectivity was controlled, or partialed out, the relationship between self-efficacy and sociality was significantly reduced; specifically, the relationship was no longer statistically significant, $\beta = 0.15$, $t = 1.05$, $p = 0.298$, and $\Delta R^2 = 1.6$ percent. The amount of variance in sociality explained by self-efficacy dropped by 90 percent after controlling for reflectivity, indicating almost complete mediation. Reflectivity explained 30 percent of the variance in sociality, $\beta = 0.47$, $t = 3.31$, $p = 0.002$, with self-efficacy in the model.

**Summary and conclusion**

This study used an existential-phenomenological framework to better understand the essential features and structure of leadership development experiences. Beneficial experiences were rated higher than non-beneficial experiences on five elements: self-efficacy, challenge, sociality, relevance, and reflectivity. Self-efficacy and challenge were highly related and identified as an intrapersonal cluster; sociality and relevance were moderately related and identified as an interpersonal cluster; reflectivity, although on average most highly related to all other elements, remained a distinct element that may serve as a bridge between the intrapersonal and interpersonal components. These elements are an expanded set of those provided by Van Velsor and McCauley (2004) and, like Day (2001) and O’Connor and Quinn (2004), it is suggested that elements constitute a structure for leadership development experiences that may serve to facilitate the development of both human capital (intrapersonal competence) and social capital (interpersonal competence).

The present study suggests that beneficial leadership development experiences are associated with the acquisition of competencies that are critical for effective leadership. Although the competency approach to leadership is not new (e.g., Day, 2001; Horey et al., 2004; Goldstein and Ford, 2002; Young and Dulewicz, 2005), the link between the characteristics of an experience and competency development has yet to be empirically examined in the literature (save this study). For example, although Young and Dulewicz (2005) empirically linked personal characteristics to competencies of officers in the (British) Royal Navy, and Day (2001) suggested that certain (broad) experiences, like job assignments and action learning, may be related to the development of human or social capital, neither study explored how the characteristics of an experience may
be related to competency development. However, aspects of the Day (2001) and Young and Dulewicz (2005) studies converge, and dovetail with the findings of the present study.

Day (2001), for example, discussed how competencies were related to the development of human and social capital, as in the present study; and, although Young and Dulewicz (2005) identified four competency clusters relevant to effective command and leadership in the Royal Navy, the four clusters may be more parsimoniously identified as two. Two of the four competencies – align and interact – are interpersonal in nature. Align is concerned with aligning people and getting them moving in the right direction. Interact involves working through other people to get things done. Hence, both of these competencies are social in nature. The other two competencies – conceptualize and create success – are intrapersonal in nature. Create success focuses on delivering performance through personal commitment and a determination to succeed; conceptualize is a process of transforming cerebral activities – critical analysis and judgment – into a vision that provides clear direction for team members.

Thus, the works of Day (2001) and Young and Dulewicz (2005), and the present study, together, provide a framework for a leadership development model that links personal characteristics of the leader, and elements of leadership development experiences, to competency development. Ostensibly, the link between personal characteristics and leadership development features could be made. Future research may want to examine these relationships as well as the features and structural nature of leadership development experiences proposed in this study. For example, does reflectivity, indeed, serve as a bridge between the intrapersonal and interpersonal? Are there other features of leadership development experiences that were not considered in this study, for example, those related to strategic (Avolio, 2005) or organizational competence? In addition, this study focused more on aggregate data, that is, experiences that were shared and the differences between beneficial and non-beneficial experiences. It may be valuable to explore the range of experiences tied to the individual officer and seek to understand one’s phenomenological reality in the context of more basic principles of leadership development behavior. Moreover, future research may want to test the propositions put forth in this study in a larger sample of leaders in different settings, for example, in other military branches and in non-military environments.

Note
1. Permission for research was granted by the relevant Institutional Review Boards.

References


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