

Technical Report 1327

Far Transfer of Leadership Training: Concepts, Experiences, and Applications

Thomas Rhett Graves

Robert J. Pleban

U. S. Army Research Institute

MAJ Zachary Mundell

United States Military Academy

Brian Perdomo

Auburn University

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**United States Army Research Institute
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Thomas Rhett Graves

Robert J. Pleban

U. S. Army Research Institute

MAJ Zachary Mundell

United States Military Academy

Brian Perdomo

Auburn University

Consortium Research Fellows Program

Fort Benning Research Unit

Scott E. Graham, Chief

April 2013

U.S. Army Research Institute for the Behavioral and Social Sciences

6000 6th Street, Bldg. 1464

Fort Belvoir, Virginia 22060

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FAR TRANSFER OF LEADERSHIP TRAINING: CONCEPTS, EXPERIENCES, AND APPLICATIONS

EXECUTIVE SUMMARY

Research Requirement:

Previous research on training transfer has tended to focus on measuring how well trainees have retained over time what they learned. While researchers have preferred a quantitative methodology, that preference may have led them to emphasize *near transfer* over *far transfer*—emphasizing questions concerning how much information trainees can recall over questions concerning whether and how trainees used what they learned. In this research, we focused on how graduates of the Platoon Leader 300 (PL300) course described their experiences of using what they learned in PL300 in everyday settings and in field exercises; that is, how they perceived the process of transferring to other settings the knowledge and skills they learned in the course.¹

The key products of this research are a thematic framework that describes the situations and experiences of PL300 graduates in using what they learned in the course. Based on the thematic framework, we also developed the Leadership Knowledge Application Scale (LKAS) to measure themes emphasized when course graduates apply what they learned. Three key benefits to this research include: (1) extending our scientific understanding of transfer by focusing on far transfer (rather than near transfer) using a mixed-methods research design, (2) a thematic framework that may be used as a cuing protocol to help analyze leadership situations and potentially facilitate increased far transfer of knowledge and skills, and (3) the LKAS may be used to assess scenarios within field exercises to see if training is eliciting themes intended by training designers. Such information may be useful in designing and evaluating targeted training scenarios.

Procedure:

We used a cross-sectional and mixed-methods research design, focusing on cadets who completed the capstone Platoon Leader 300 (PL300) course at the United States Military Academy (USMA). First, we surveyed cadets ($N=494$) at the end of the course to identify key concepts. Then, we asked cadets ($N=87$), who had completed the course 2 to 15 months earlier, to write about experiences they had applying concepts, examples, and skills learned from the course that addressed a situation in their everyday lives. From this data, we developed a thematic framework that described what cadets were aware of during these everyday experiences. The thematic framework was used to develop the Leadership Knowledge Application Scale (LKAS) to measure how salient these themes were when cadets made sense of and solved leadership problems. Finally, we used the LKAS to collect data from cadets ($N=124$) who had just completed their final Summer Field Exercises (FX), prior to graduation from the

¹ The Platoon Leader 300 (PL300) course is a capstone leadership course in the Department of Behavioral Sciences and Leadership (BS&L) at the U.S. Military Academy (USMA). The PL300 course duration is one term, which is approximately 5 months.

USMA. These cadets had completed the PL300 course 10 to 20 months earlier. The cadets were asked to describe problems they encountered in the FX and how they applied concepts, examples, or skills learned in PL300 to solve those problems. They also rated how relevant each of the themes was to them while they were working through the problems they described.

Findings:

Content analyses identified key concepts related to the course, such as (a) leadership theories and role behaviors, (b) follower interactions, (c) self-reflection, and (d) addressing self and unit setbacks. Thematic analyses of cadets' accounts indicated that 72% ($n = 63/87$) cadets produced detailed to very detailed responses when asked how they had used what they learned in PL300. There were 23 meanings identified by the thematic analysis. These meanings fell into five categories: (a) influencing stability or change, (b) developing as a leader, (c) developing as a unit, (d) supporting individual Soldiers in the unit, and (e) conducting the mission. For cadets who had just completed the FX, 82% ($n = 102/124$) provided detailed answers to our questions on the LKAS. Various LKAS factors were associated with the different types of problems that cadets encountered during the field exercises. In particular, these thematically relevant problems were related to (a) frustration with peer leadership, (b) motivating a stressed platoon, and (c) understanding the mission. LKAS factors were also associated with different types of concepts from the PL300 course, including (a) types of leadership, (b) subordinate care and counseling, and (c) communication and negotiation.

Utilization and Dissemination of Findings:

This research improved our understanding of how trainees may transfer knowledge and skills acquired in training to solve problems in a novel context. Findings based on the thematic analysis and the assessment following the FX may help course planners, training designers, and instructors to target specific themes and subthemes when developing course materials and training scenarios for the PL300 course or similar leadership courses at the junior officer level. Preliminary results from the thematic analysis and the data collection from the FX, using the LKAS, have been provided to the PL300 course proponent. In addition, aspects of this research were presented at the Association for Psychological Science Annual Convention in Chicago, IL, 26 May 2012.

FAR TRANSFER OF LEADERSHIP TRAINING: CONCEPTS, EXPERIENCES, AND APPLICATIONS

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Far Transfer of Leadership Training: Concepts, Experiences, and Applications

Introduction

When people learn something in one setting and then apply what they learned in another, the process is termed *transfer of learning* or *transfer of training*—or, at times, just *transfer* (Thorndike, 1932). For Army leadership training, transfer is the key goal captured in the motto *Be-Know-Do* (Department of the Army, 2006; *FM 6-22*). Starting with individuals who have strong character and values (*Being*), the Army teaches the knowledge and skills (*Knowing*) they will need to be effective leaders (*Doing*). Ultimately, Army leaders will engage in the *Doing* of leadership, applying what they have learned. Army education and training publications further reflect this focus on application. For example, the *Army Training Concept 2012-2020* (Army Training and Doctrine Command, 2011) and the Army Learning Model (Army Training and Doctrine Command, 2011; *Army Learning Concept 2015*) both emphasize that Soldiers and leaders are prepared to use what they have learned to perform their duties effectively across a wide variety of operational settings.

In support of this objective, our research focused on transfer for a specific Army leadership course. Past research on transfer, particularly in military settings, has focused on how specific knowledge and skills are retained over time, moving from the training setting to the applied setting. While our concerns were similar, we approached transfer from a different perspective; that is, we looked at how graduates have consciously applied their knowledge and skills in various personal and professional settings. To accomplish this, we concentrated on the U.S. Military Academy's (USMA's) Platoon Leader 300 course, a capstone leadership course, and sought to understand from an experience-near perspective how cadets adapted and used what they learned in the course (Klein, 2006; Van Merriënboer & Kester, 2008). With this understanding, administrators and instructors for PL300, as well as developers of leadership field exercises (FX), may be better positioned to facilitate transfer for critical leadership knowledge and skills.

The research objectives were to:

- determine key concepts from the PL300 course that may carry over to other settings,
- identify particular everyday life situations in which cadets applied PL300 knowledge and skills, and to describe what cadets were aware of in these situations (2 to 15 months after completing the course), and
- develop and administer an inventory to measure the features of problem solving situations cadets paid attention to when applying PL300 knowledge and skills in a leadership field exercise (10 to 20 months after completing the course).

Rationale for the Research Effort

Trainees in organizational settings often view their purpose for learning in a practical way: they expect to use what they learn. The Army is no different. Being able to use what one has learned is a hallmark of having learned. Certainly, a few trainees are looking for nothing more than a passing grade on an exam and, having achieved it, forget what they learned (Pollio & Beck, 2000). For most trainees, however, real learning is evident when they become aware that they can do something they could not do before or, similarly, that they have gotten better at doing something they were already doing well (Marton & Booth, 1997). Army learners recognize value in knowing how to use what they have learned, especially when doing so allows them to achieve goals that are important both personally and to the Army.

Learning sciences researchers have tended to investigate transfer in terms of how trainees acquire, retain, and apply knowledge and skills in different settings. Often, researchers have selected a criterion that concerns how well the specific details of what was taught has been retained over time and/or have sought to isolate specific variables influencing this retention (Blume, Ford, Baldwin, & Huang, 2010). This approach tends to isolate the parts of the transfer process, studying them apart from natural contexts. As a consequence, the part task approach de-emphasizes the perspective of learners, including their purpose for using what they have learned. An alternative approach is to look at transfer as it arises in everyday settings, as a whole task in which trainees are purposefully engaged (Klein, 2006; Van Merriënboer & Kester, 2008). From this perspective, a critical component of transfer concerns how individuals use what they know in ways that are meaningful to them (Marton & Booth, 1997).

Transfer from the Learner/Knowledge Users' Perspective

By understanding the transfer from the perspective of knowledge users, we may gain insight into transfer processes, experiences, and potential ways to enhance transfer (Marton & Booth, 1997; Marton & Tsui, 2002). When people engage in transfer, they are often guided by personally meaningful goals to use what they have learned. They have a purpose. People's purposes are shaped by the specific problems they face in their present situation and by their past successes and failures in other situations in which they have sought to apply what they know (Greeno, Smith, & Moore, 1993).

Consider, then, two basic perspectives we might take with respect to transfer. We could view it in terms of what, when, where, and how it happens, i.e., the objective construct of 'transfer.' Also, we could view it in terms of what it means to the person who has actually used what he or she has learned, i.e., the *experience of transferring* knowledge and skills (Marton & Booth, 1997). For the Army, both perspectives are important. It is necessary for us to understand both what Soldiers and leaders have learned as well as how they perceive and make sense of situations in order to adapt their knowledge and skills in ways that may not have been directly addressed in training.

Types of Transfer

In this review, we focus on two ways in which the learning sciences have categorized transfer, i.e., near transfer and far transfer. Researchers distinguish between near and far transfer based on the different types of content learned, the types of situations in which knowledge and skills were applied, and the types of processes involved in how knowledge and skills were being used (see Reder & Klatzsky, 1994).

Near Transfer

Near transfer research focuses on the well-defined aspects of training domains—i.e., clear-cut concepts and problems that have specific and correct solutions (Spiro et al., 1991; Mayer & Wittrock, 2006). When solving problems of this type, like an arithmetic problem, there is not much to be disputed about one's answer—it is correct or incorrect. There are many benefits to seeking to understand transfer on this basis. Such an approach, however, can bias research toward measurement of transfer outcomes (e.g., correct answers on a test) over descriptions of contextualized transfer processes (Burke & Hutchins, 2007). From this perspective, transfer comes to look like simple recall and/or reproduction of learned knowledge and skills within different contexts.

Military research has tended to focus on near transfer. In doing so, researchers have addressed factors such as the structure of training and work environments (Springs, 2007; Toney, 2007; Williams, 2008); the fidelity and complexity of simulations (Ellis, Lowes, Matheny, & Norman, 1968; Micheli, 1972; Hart, Hagman, & Bowne, 1990; Bessemer, 1991; Carretta & Dunlap, 1998; Kaempff & Blackwell, 1990); the types of training techniques employed (Ammons, Ammons, & Morgan, 1954; Caro, 1970); and the effects of practice and repetition (Wrisberg & Winter, 1983). Even given its coverage of many factors that may influence transfer, much of the research was designed to measure how well former trainees retained the facts and/or later demonstrated the same skills they learned in training (Hill & Kress, 1979; Leibrecht, Wampler, & Pleban, 2009). On this basis, applied research has emphasized *near transfer*—a type of transfer that tends to be *specific* and *reproductive* (Robertson, 2001). *Specific* in that what was tested is similar to what was taught; *reproductive* in that what was taught and tested did not have to be adapted very much before it was applied.

Far Transfer

Far transfer introduces complexity into how researchers conceptualize transfer. Far transfer emphasizes the ill-defined aspects of training domains. When engaged in far transfer, knowledge users use what they have learned to make sense of their situation, to perceive the problem they face as relevant to what they know, and to create novel solutions (Spiro et al., 1991; Lynch, Ashley, Alevan, & Pinkwart, 2009). When engaged in far transfer, knowledge users often must make novel connections among the things they know and construct new understandings based on their experiences of using what they have learned. This constructive process enables them to be effective in solving the problems they are presently addressing (Bruner, 1991; Kraiger, 2008). In learning sciences, this process has been described as

productive thinking—i.e., a person is producing something new out of his or her existing knowledge and skills in order to address a specific problem (Wertheimer, 1945). From a researcher’s standpoint, measuring recall and retention is straightforward compared to determining how individuals are transforming what they know to address unanticipated problems. When looking at far transfer, researchers need to focus on what learners have actually done with what they learned, and how they make sense of and describe what they are doing in those situations.

Productive Thinking in Far Transfer

Two critical settings define the transfer process: the one in which learning took place, the source, and the one in which learned knowledge and skills are applied, the target (Reder & Klatzsky, 1994). It would seem that far transfer is more likely to take place when settings for learning and for application are dissimilar. Such a situation calls on knowledge users to be flexible and adaptive in how they use what they know. It also calls on them to be perceptive in being able to recognize how the target situation is relevant to what they have learned, even if the target has only a few obvious cues to link it to the source (Gibson, 1977; Schwartz, Chase, & Bransford, 2012). In this sense, ill-defined problems seem to require transfer that is *general*, having a broad application, and *productive*, creating new understanding (Bruner, 1991; Marton & Booth, 1997; Polanyi, 1966). Transfer becomes a matter of the learner being able to perceive the relevant commonalities between sources and targets such that previously learned knowledge and skills can be elicited and used (Gibson, 1977; Wertheimer, 1945). When the source and target are perceived to be more similar than different, it may be easier to carry over and apply what was learned (Lave & Wenger, 1991).²

When a target setting is very different from the source, transfer requires knowledge users to be perceptive, creative, and aware of what they know and how to use it (Gagné & Briggs, 1974). It also requires them to be systematic so that they do not overly generalize and misapply what they have learned (Schwartz, Chase, & Bransford, 2012). A knowledge user may benefit from understanding how to perceive and interpret new situations in terms of general characteristics that are relevant to the knowledge and skill domain they are seeking to apply (Spiro et al., 1991; also see McCaffrey, 2012; “generic parts technique”). Ultimately, what they end up doing in those situations may look unlike what they initially learned, particularly when their behavior is viewed from an external observer’s perspective.

Far Transfer of Leadership Training and the USMA PL300 Course

Our effort to explore far transfer focused on the USMA Platoon Leader 300 Course. PL300 is a capstone course that prepares cadets for the responsibilities they will assume during

² It is also important to note that a target setting that appears to us to be too much like the source setting can also hinder us in using what we thought we knew. This phenomenon is referred to as *functional fixedness*: our thinking process can become stuck, as we are failing to perceive aspects of our situation that are critical to new insights during our problem solving process (Dunker, 1945). Fixedness can disrupt our ability to adapt familiar knowledge and skills to novel situations (Mednick, Pollio, & Loftus, 1973), and can be intensified by having recent prior experience using knowledge and skills to solve problems in a familiar context when we later try to use our knowledge and skills in an unfamiliar context (German & Barrett, 2005). Fixedness may be thought of as a failure to perceive novel cues due to the presence of familiar cues.

and following their final years at the Academy. The PL300 course supports the USMA's goal of developing leaders for the U.S. Army Officer Corps.³ The course documentation states the following objectives: (a) "Cadets are better, more self-aware leaders who are capable of reflecting on and learning from their life and leadership experiences," and (b) "Cadets can apply relevant frameworks, concepts and theory to leadership situations."⁴ The course stresses how to apply leadership theory and concepts to concrete life situations and encourages cadets to do so in a way that is reflective and self-aware. It is for this reason that PL300 seemed an ideal starting point to explore the experience of far transfer.

Learning to be an Army leader requires that cadets blend the knowledge and skills they learn in their formal education with the understandings they derive from experience (Kail, 2007). Leadership experience develops based on making difficult decisions in complex and unpredictable settings, and seeing the consequences of those decisions. To support the success of cadets as future Army leaders, USMA merges leadership theory and practice. In merging theory and practice, USMA creates an environment in which cadets learn leadership by applying what they have learned to address a variety of day-to-day situations (USMA, Office of the Dean, 2007). Cadets' everyday educational environment encourages far transfer, moving the learning process from the classroom to other areas of their lives. Our research explored this transfer process for the PL300 course.

Research Design

The intent of the research is exploratory and descriptive. While it is reasonable to develop metrics and hypotheses beforehand when planning to conduct research on the specific and reproductive characteristics of transfer, a hypothesis testing approach may not be as effective for addressing the general and productive characteristics of transfer. A hypothesis testing approach would assume beforehand parity between what was taught and its routine applications, such that transfer can be operationally defined, quantified, and measured. The present situation, however, requires us to initially explore the first-person perspectives of learners—as users of knowledge—and the ways in which they become aware of transforming and using what they have learned (Marton & Booth, 1997; Marton & Tsui, 2004). Then, this initial step is followed by more measurement-focused approaches.

The research design was mixed-method and cross-sectional. We combined qualitative (meaning-centered) and quantitative (measurement-centered) methods to address far transfer of leadership training within a variety of situations cadets encountered in their daily personal lives and in their professional field training exercises. Figure 1 depicts the research design and process.

³ Henning (2006, pg. 10) has estimated that each year up to 25% of newly commissioned officers have come from USMA.

⁴ See PL300 Leadership Course Guide in Appendix A.

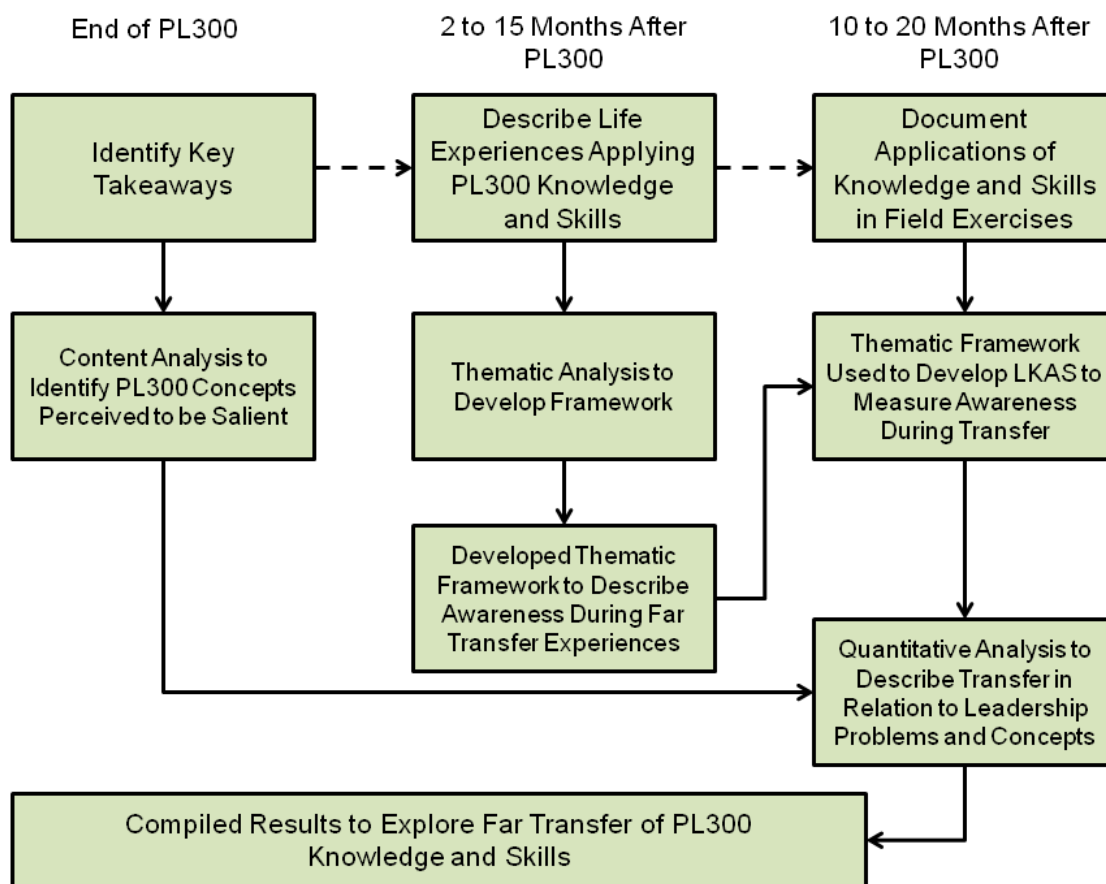


Figure 1. Diagram of the Research Design and Process

Note in Figure 1 that the research was conducted in three phases, moving top down, from left to right in the diagram. While the findings from each of the three phases could be treated independently, in this research they were used to conceptually inform each other.⁵

In the first phase, we addressed which of the knowledge and skills taught in the class are most salient to cadets at the end of the course. These are knowledge and skills assumed to be retained and likely carried over to other contexts to be used. To accomplish the analysis of key concepts, we asked cadets to list their top 3 to 5 takeaway concepts from the course as well the top 3 to 5 tenets from their leadership philosophy term papers. We applied basic content analysis techniques to identify the most frequent terms and concepts cadets listed. We explored the independent structure of each set of lists as well as compared them to the course guide (Appendix A).

Next, we needed to determine what graduates were aware of when using the knowledge and skills they learned in PL300. We asked another group of PL300 graduates, enrolled in upper level courses in the USMA Department of Behavioral Sciences and Leadership, to provide

⁵ In the context of qualitative research, this approach is referred to as the constant comparative technique (Glaser & Strauss, 1968) or triangulation (Creswell, 1998).

written accounts of specific experiences using what they learned in PL300 to address problems arising in their everyday personal and professional lives (See Appendices B and C). These cadets had completed PL300 approximately 2 to 15 months earlier (i.e., 1 to 3 terms). We analyzed their written responses for consistent meanings to develop a thematic framework (see Graves, Rauchfuss, & Wisecarver, 2012) describing what they were generally aware of in situations in which they applied what they had learned. This analysis allowed us to describe the types of situations in which PL300 knowledge and skills were being used as well as what perceptions and meanings were typically associated with these experiences.

The thematic framework was used to guide development of the Leadership Knowledge Application Scale (LKAS), designed to measure how cadets attended to different aspects of their target situation when they applied knowledge and skills learned in PL300. To translate the thematic framework into a measurement tool, we used techniques described in Graves et al. (2010) and in Graves, Rauchfuss, and Wisecarver (2012). We used a variety of psychometric techniques for construct validation (confirmatory factor analysis) and reliability analysis (Cronbach's alpha and item-total correlations) to evaluate how well the LKAS measures in accord with the thematic framework on which it was developed.

Finally, to measure what cadets attended to in situations in which they applied PL300 knowledge and skills, we administered the LKAS to cadets as they were completing their summer field exercises at Camp Buckner, NY (See Appendix D for the LKAS). These cadets had completed PL300 10 to 20 months earlier (i.e., 2 to 4 terms). The cadets were asked to identify two problems they encountered during the field exercises in which they had used their PL300 knowledge and skills and to respond to the LKAS items in terms of these experiences. We used their responses to identify relationships between the types of problems they reported encountering and the patterns of themes/factors describing what they attended to in those situations.

Although each data collection involved a different sample of cadets, the findings were compared to explore experiences of far transfer among graduates of the PL300 course. This approach allowed us to sample a variety of PL300 experiences cadets have had as well as the diverse situations in which they applied what they learned. Ultimately, the goal of the effort was to explore far transfer from the perspective of graduates of the PL300 course. This objective allowed us to understand better the perceptual processes and meanings that may support graduates in making sense of situations in which they are able to apply what they learned, in particular, over the longer term and in situations that differ from those of their initial training.

Analysis of Critical Concepts

In the first phase of the research, we focused on what cadets who had just completed the course most often indicated were the salient concepts they had learned. We assumed that the concepts they most frequently identified would be those likely to be used in other settings. This was accomplished using content analysis methods (Krippendorff, 2004).

Method

At the end of PL300, cadets ($N = 494$) were asked to list their top three to five takeaways from the course as well as top 3 to 5 tenets from their leadership philosophy papers. Cadets were informed that their participation was voluntary and the information they provided would be used to help to improve the PL300 course.

The cadets' written responses were entered into a text database. Summative content analysis was used to identify quantitative patterns of key words within the cadets' written responses to the questions. The analysis focused on high frequency words, and contextual words that were closely associated with these words (see Ryan & Bernard, 2000; Hsieh & Shannon, 2005). The results were derived using the AntConc 3.2.4w (Anthony, 2011) concordance software. The findings allowed us to compare their responses to the content described in the course guide as well as to explore the independent structure of the respective lists.

Results

Key Takeaways from the PL300 Course

First, we analyzed the cadets' written responses to our question about key takeaways from the course. We tabulated the word frequency for each word in the database. We excluded common grammatical words, such as prepositions and articles, that did not indicate content conceptually relevant to the course (e.g., 'to', 'an', 'the'). Table 1 presents the top 25 most frequently listed conceptual words by frequency rank and frequency within the database.

Table 1
Top 25 Conceptual Words Cadets Identified as Takeaways from PL300

F Rank	Conceptual Word	Frequency
1	Leadership	288
2	Counseling	160
3	Emotional	111
4	Intelligence	110
5	Group	108
6	Transformational	97
7	Leader	80
8	Power	78
9	Bases	65
10	Reflection	59
11	Influence	58
12	Authentic	50
13	Tactics	48
14	Change	47
15	Failure	43
16	Mentor	43
17	Motivation	43
18	Learning	38
19	Models	35

Table 1 (Continued)

Top 25 Conceptual Words Cadets Identified as Takeaways from PL300

F Rank	Conceptual Word	Frequency
20	Development	34
21	Mental	32
22	Theory	27
23	Groups as Open Systems Model (GOSM)	29
24	Cohesion	27
25	People	27

Note that certain terms on the list tend to go together, such as ‘leadership’ and ‘leader’ or, for readers familiar with popular psychological concepts, ‘emotional’ and ‘intelligence.’ Each key word was examined to understand how it was related to other words in the database, using key-word-in-context and word cluster analysis techniques.⁶ Variations on root words were examined and associated words were identified. For example, using the root ‘lead*,’ words such as ‘leading,’ ‘leader,’ and ‘leadership’ were examined together to identify frequently associated words. Appendix E (Table 1.E) presents the detailed results of the key word and cluster analysis. The cluster analysis allowed us to begin to pool terms that were conceptually related, distilling the initial list of top 25 key terms into a shorter list with denser semantic content associated with each of the terms.

Tenets from Cadets’ Leadership Philosophy Papers

We also analyzed cadets’ written responses that identified what they felt were critical PL300 leadership tenets they had explored in their leadership philosophy papers. Following the same analysis approach as above, we identified the top 25 conceptual words based on frequency counts and then conducted a key-word-in-context and word cluster analysis. Table 2 presents the top 25 conceptual words describing critical leadership tenets.

Table 2

Top 25 Tenets from Leadership Philosophy Papers

Rank	Conceptual Word	Frequency
1	Example	161
2	Lead	138
3	Subordinates	120
4	Soldiers	52
5	Care	49
6	Leadership	47
7	Respect	45
8	Leader	40
9	Know	38
10	Integrity	33
11	Communication	29
12	Competence	29
13	Others	29
14	Yourself	29

⁶ Cluster size was set for 2 to 6 word phrases.

Table 2 (Continued)
Top 25 Tenets from Leadership Philosophy Papers

Rank	Conceptual Word	Frequency
15	People	28
16	Self	27
17	Personal	26
18	Work	26
19	Leading	24
20	Unit	23
21	Caring	21
22	Team	21
23	Confidence	19
24	Trust	19
25	Front	18

In Table 2, note again that some frequently used words can be combined based on similarity, such as ‘Lead,’ ‘Leadership,’ and ‘Leader.’ Prepositions, articles, and other common grammatical words were excluded from the analysis. We examined each key conceptual word to understand how related to other words in the database. Variations on root words were examined and closely associated words were identified. Table E.2 in Appendix E presents the results of a key word and cluster analysis of the cadets written descriptions of PL300 leadership tenets they explored in their leadership philosophy papers. Again, Table E.2 can be read in the same way as Table E.1. It identifies how the initial list of the top 25 highest frequency terms are distilled into more semantically dense concepts by looking at how the words cluster together across the cadets’ lists. This table was included for the reader who would like to follow more closely the process by which concepts were formed from the basic content of the cadets’ lists.

Comparison of Takeaways and Tenets

Finally, we compared the two analyses for Takeaways and Tenets side-by-side to identify parallel concepts the cadets identified in responding to the two questions. Similar concepts were determined based on being clustered with regularity on the cadets’ lists. When compared side-by-side, concepts with apparently similar meaning, i.e., exhibiting similar patterns of word associations, were grouped together. Table 3 presents this comparison of parallel concepts.

Table 3
Comparison of Top Takeaways and Tenets

Parallel Concepts	Course Takeaways	Tenets in Paper
Leadership Theories and Role Behaviors	Lead, Leading, Leadership, Transformational, Transform, Authentic, Authenticity, Change, Develop, Development	Leading by Example, Leading from the Front, Lead, Leadership, Leader, Leading, Confidence
Follower Interactions	Counseling, Counsel Emotional Intelligence Motivate, Motivation	Subordinates, Soldiers, Care, Know, Knowing, Others, People, Caring, Trust, Unit, Team, Work, Respect
None	Bases of Power, Influence Tactics	<i>Not in Top 25</i>
Self-Reflection	Reflect, Reflection Learn, Learning	Yourself, Self, Personal, Integrity

Table 3 (Continued)
Comparison of Top Takeaways and Tenets

Parallel Concepts	Course Takeaways	Tenets in Paper
Addressing Self and Unit Setbacks	Fail, Failure	Failure Tolerant (Leader)
None	Mentor, Mentorship, Mentoring	<i>Not in Top 25</i>
None	Model, Mental Models, GOSM, Theory, Theories	<i>Not in Top 25</i>
None	<i>Not in Top 25</i>	Communication
None	<i>Not in Top 25</i>	Competence

Based on the comparison presented in Table 3, it appears that the course takeaways and tenets in the papers parallel each other along the lines of (a) leadership theories and role behaviors, (b) follower interactions, (c) self-reflection, and (d) addressing self and unit setbacks. While words related to power and influence, mentorship, and theories/models were frequent in the key takeaways lists, they were not on the top 25 list of tenets from the papers. Likewise, ‘communication’ and ‘competence’ were not specifically mentioned in the top 25 for course takeaways, although they are mentioned in the cadets’ tenets from their leadership philosophy papers.

Lastly, we drew key terms from the PL300 course guide and compared these to the key concepts and tenets identified by the cadets. The results are presented in Table 4.

Table 4
Frequency of Key PL300 Course Guide Topics in Cadets’ Course Takeaways and Tenets

Lesson	Course Guide Lesson/Topic	Course Takeaways Frequency	Tenets in Paper Frequency
	<i>Self-Assessment</i>	2	0
1	Introduction	--	--
2	Learning from Experience: Leader Growth Model (LGM)	20	0
3	Learning from Experience: Failure (Tolerance)	43	17
4	Learning from Experience: Crucibles	6	0
5	Mental Models	32	0
6	Decision-Making	16	3
7	Emotional Intelligence (EI)	113	9
	<i>Leadership Theories</i>	2	0
8	Transformational Leadership	72	5
9	Full Range Leadership	3	0
10	Leader Competency Inventory (LCI) Survey Results	0	0
11	Authentic Leadership	50	1
12	Guest Speaker (Instructor Option)	0	0
13	Experiential Case Study	0	0
14	Class Drop (Administrative)	--	--
15	Bases of Power	52	0
16	Influence Tactics	44	0
17	Integrative Case Study	0	0
18/19	Motivation I & II	43	10
20	Integrative Case Study	0	0

Table 4 (Continued)
Frequency of Key PL300 Course Guide Topics in Cadets' Course Takeaways and Tenets

Lesson	Course Guide Lesson/Topic	Course Takeaways Frequency	Tenets in Paper Frequency
21	Mid-Term (Administrative)	--	--
22	Class Drop (Administrative)	--	--
23	Mid-Course Review and Feedback	--	--
Organizational Leadership		0	0
24/25	Counseling and Leader Development; Counseling Experience	162	0
26	Negotiations	17	0
27	Group Development	22	1
28	Guest Speaker Dean's Hour	--	--
29	Group Structural Dimensions	4	0
30	Socialization	4	1
31	Group Conflict	7	0
32	Cohesion	27	3
33	Integrative Case Study	--	--
34	Organizational Structure	1	0
35	Class Drop	--	--
36	Organizational Change	4	0
37	Multi-Cultural Leadership	5	0
38	Experiential Case Study	0	0
39	Guest Speaker	0	0
40	Course Wrap-Up	--	--

Note: Lessons 14, 21-23, 28, 33, 35, 40 described administrative tasks within the course, and were not included in our analysis. Rows 18/19 both focus on motivation and rows 24/25 both focus on counseling, therefore these rows were combined in the table.

Using the course guide to direct our analysis of course takeaways, we found that concepts related to counseling [Frequency (f) = 162] were highest ranked, with emotional intelligence following (f = 113). Concepts related to transformational leadership (f = 72), bases of power (f = 52), and authentic leadership (f = 50) were also frequently noted. Concerning tenets from the leadership philosophy papers, failure tolerance (f = 17) was the most frequently noted, followed by concepts related to motivation (f = 10). It is notable that many of the course topics from the guide were not specifically listed as tenets from the leadership philosophy papers, while the course takeaways were more frequently described. This is likely due to the leadership philosophy papers having had a more personal and applied focus, whereas the takeaways were focused more on the conceptual content of the course, as was the course guide.

Based on these analyses, we have some insight into what cadets identified as critical concepts at the end of the course; those concepts one would anticipate them applying in other areas of their personal and professional lives. The preceding data collection addressed conceptual data (i.e., what knowledge and skills may be transferred); following this, we focused on the experience of transfer (i.e., what PL300 graduates attended to in situations in which they applied knowledge and skills they learned in the course).

Analysis of Training Transfer Experiences

In order to determine how graduates were using knowledge and skills they learned in PL300, we collected data from another group of PL300 graduates. We asked them to provide written accounts of specific experiences using what they learned in PL300 to address problems arising in their everyday personal and professional lives (See Appendices B and C). We analyzed their written responses to develop a thematic framework. The thematic framework was intended to present the meanings that were consistent across course graduates' descriptions of applying what they learned in the course (see Pollio, Graves, & Arfken, 2005).

Method

Graduates of PL300 who were currently enrolled in various upper-level courses in the USMA Department of Behavioral Science and Leadership were solicited to participate. Participating cadets ($N = 87$) had completed the PL300 course either one ($n = 1$), two ($n = 42$), or three ($n = 38$) terms prior, covering a period of approximately 2 to 15 months following PL300. Most cadets (49%; $n = 43/87$) felt they had done a little better than other cadets in the class; 30% ($n = 26/87$) felt they had done the same as other cadets. Most cadets rated PL300 as equivalently difficult (35%; $n = 30/87$) or slightly easier (42%; $n = 37/87$) than other classes at USMA. Table 5 summarizes the demographic characteristics of the participating cadets.

Table 5
Demographic Characteristics of Participating Cadets

Demographic Characteristics	N	% of Sample
Total	87	100
Year in School		
Cow (Juniors)	4	5
Firsties (Seniors)	83	95
Gender		
Male	63	73
Female	23	27
Age		
20-21	29	33
22	38	44
23-26	20	23
Anticipated Graduation Year		
2011	83	96
2012	3	4
Year Taken PL300		
2009	38	47
2010	42	52
2011	1	1

Note: Some cadets did not answer all demographic questions. Percentages reported were calculated based on total number of cadets responding to a question. Reported percentages vary +/- 1% due to rounding.

Prior to data collection, cadets were briefed about the research and informed consent forms were administered. During data collection, cadets were asked to fill out a brief demographic questionnaire (Appendix B). Then, they were asked to complete a questionnaire that asked them to write about personal experiences they had applying what they learned in the PL300 course (Appendix C). On the questionnaire, they were first asked to list three situations in which they used an idea, procedure, or example, etc., learned in the course. They were then asked to select one situation from their list and to answer a few questions about it: when did the situation occur; what was the idea, procedure, example, etc., they applied. Finally, cadets were asked to describe in detail their experience in the situation they had selected.

We opted for an open-ended questioning format because it would be more sensitive to the cadets' experiences and perspectives (Sudman & Bradburn, 1982). We did not want to assume what knowledge and skills cadets would have retained from PL300, nor how they would have experienced using what they learned. Instead, we designed the questionnaire to ask cadets to tell us how they applied the knowledge and skills they acquired in PL300 to their personal and professional lives (Graves et al., 2010; Graves, Rauchfuss, & Wisecarver, 2012). This allowed the graduates of the course to determine the relationship between what they learned and how they applied it.

The responses indicated that cadets were able to answer our questions, with 42% ($n = 37/87$) providing in-depth and detailed responses. In all, 72% ($n = 63/87$) of cadets provided responses with sufficient detail to indicate they recalled PL300 course content and could identify examples of how they used what they had learned. The remaining 28% ($n = 24/87$) of responses indicated marginal transfer, with either course content being described with insufficient detail or very little information being presented about how content from PL300 had been applied in everyday life. We focused our analysis on the 72% who provided in-depth descriptions of transfer experiences, with reference to the other 28% as appropriate.

For this analysis, we focused on identifying how participants made sense of and communicated about their transfer experiences (Graves et al., 2010; Graves, Wisecarver, & Rauchfuss, 2012). The method was text-based and interpretive, and allowed us to identify patterns of themes in the written narratives using thematic analysis (Pollio, Henley, & Thompson, 1997; Boyatzis, 1998). To accomplish the thematic analysis, the first author coded the written narratives into a draft thematic framework. Coding was done by reading through the cadets' descriptions and developing a set of themes for each. The themes that emerged from each description were compared to each other, and similar meanings were further grouped together. Themes that repeated across the cadets' accounts were grouped into a thematic framework. The draft thematic framework was then presented to the research team. The team worked with the draft framework to explore and to revise it. Final decisions on the framework were made with reference to the cadets' specific descriptions to ensure the fidelity of the interpretation (see Pollio, Graves, & Arfken, 2005; Graves et al., 2010).

A thematic framework is comprised of a set of specific, related themes. Themes are meanings that repeat across individual narratives when they are read together as a whole text (Graves et al., 2010). When each individual's narrative is read on its own, it may exhibit one, or

more themes, instead of a comprehensive set of themes. However, when all narratives are read together and in reference to one another, themes echo between them as similar meanings reoccur (see the ‘hermeneutic circle’ as described in Gadamer, 1960; 1987; Thiselton, 2009). It is those reoccurring meanings that are identified as themes, which are further combined to build a thematic framework. Once the readers notice that themes are reoccurring and that no new themes are emerging, the thematic analysis is complete (Pollio, Graves, & Arfken, 2005).⁷

The thematic analysis presented has two points of emphasis. First, we sought to understand the types of situations in which PL300 knowledge and skills were used. Second, we sought to understand what the cadets perceived in those situations (i.e., the themes), and the circumstances that give the themes their contextual meaning.

Results

Situations Described

In order to get cadets thinking about how they have applied what they learned in PL300 we asked them to “Think of three times that *you* used an idea, procedure, example, etc., *you* learned in PL300 to address a situation *you* encountered in *your* everyday life” and to list these on the questionnaire. Following this, cadets were then asked to pick one of the situations they listed and to describe in detail what they experienced in that situation (see Pollio, Graves, & Arfken, 2005). The situations that cadets selected to describe in detail occurred, on average, $M = 5.08$ months ($sd = 3.82$ mo.; range = 0.25 to 14 mo.; $N = 71$) prior to the data collection. A few cadets noted that the situation they described was ‘ongoing’ or ‘all the time.’ Table 6 presents a list rank ordered by the number of times a particular type of situation was listed. Note that not all cadets listed three situations, with a few listing “I don’t know,” or “Can’t remember.” These responses were not considered in the ranking.

Table 6
Situations in which Cadets Described Applying Ideas, Procedures, or Examples from PL300

Situation	Example	N	% Total	% Valid
Self-development/reflecting on past performance	Analyzing strengths and weaknesses; using failures to develop self; getting ready for commissioning	39	15	19
Being in a specific leader role	PSG; XO of Company	33	13	16
Caring for/Correcting/Counseling Subordinates	Providing counseling to a Plebe; teaching others	26	10	13

⁷ This method differed from the content analysis approach used previously because it was based on texts with greater complexity. The content analysis used previously was based on lists of course takeaways and tenets.

Table 6 (Continued)

Situations in which Cadets Described Applying Ideas, Procedures, or Examples from PL300

Situation	Example	N	% Total	% Valid
Completing assignments for other classes	Writing a reflection paper	24	9	12
Working with and developing groups	Assembling staff; dealing with section leaders; managing change in a group; leading a meeting	24	9	12
Participating in Field Exercises	BEAST; Crucibles	19	7	9
Motivating and Understanding Motivations of Others	Inspiring a team to accomplish goals; watching how other leaders work	14	5	7
Negotiating/Bargaining	Buying a car	11	4	5
Leading a sports or project team	Being Captain of Rugby/Swim Team	8	3	4
Addressing moral or ethical concerns	Evaluating interactions of individuals; leading an honor investigation	4	2	2
No response	"Don't know," "Can't remember;" left blank	59	23	
TOTAL RESPONSES			261	202

The most prevalent type of situation described involved reflecting on one's self and one's experiences as a leader. Following this, cadets described specific leadership roles they had occupied, engaging in activities to support subordinates (such as counseling), completing assignments for other classes, and working with and developing groups. These are presented to give the reader a feel for the types of situations in which cadets applied PL300 course content; these situations, however, do not describe what cadets were aware of when they were applying PL300 course content.

Thematic Analysis of Cadets' Descriptions

After tabulating situations in which cadets reported applying what they learned in PL300, we conducted a thematic analysis to focus on their more detailed descriptions of their particular experiences. The following describes in detail each theme and subtheme that emerged when reading across the cadets' written descriptions of their experiences.

Context: Influencing Stability and Change. The context was determined based on identifying what general set of assumptions seemed to cut across the cadets' accounts, serving as the context for their accounts. When cadets described their experiences of applying what they learned in PL300 to everyday life situations, three central characteristics contextualized what

they described. The first characteristic concerns the ways in which cadets acknowledged that, in a leadership role, they could influence their situation. That is, they occupied a role in which they could act purposefully to make something happen or stop something from happening. The second, and related, characteristic concerned two ways in which they described influencing their situation: they could keep things the same or they could change them. More often than not, the cadets' written descriptions emphasized change, possibly reflecting the emphasis placed on transformational leadership in the PL300 course. Third, the situations described were often interpersonal and interdependent, focused socially rather than individually—how well they performed as leaders depended on the performance of the group they led. Very seldom did cadets describe situations that did not involve other people, whether these other people were subordinates, peers, and supervisors, and/or teammates, family members, friends, and strangers.

Within this context, four key themes were emphasized across the cadets' written descriptions. These themes were: (a) Developing as a Leader, (b) Developing as a Unit, (c) Supporting Soldiers in the Unit, and (d) Conducting the Mission. Various subthemes were associated with each of these themes.

Theme 1: Developing as a Leader. The first theme concerned how cadets focused on their development as leaders, particularly in relation to their followers and the various challenges they encountered when leading them. Cadets described being aware of how they “grew” as leaders by reflecting on and analyzing tensions and conflicts that arose for them, helping them to become “more confident and self-aware” (P27).⁸ Six main subthemes define the meanings associated with this theme. The subthemes concerned: (a) clarity of purpose and communication, (b) developing sources of power and influence, (c) being diplomatic, unbiased, and fair, (d) having enduring influence, (e) learning from successes and failures, and (f) establishing competence, trustworthiness, and respect.

Subtheme 1.a: Clarity of Purpose and Communication. Cadets described thinking through what they wanted to happen and then crafting a message to be understood readily and acted on by those whom they were leading. This subtheme was described in the following ways:

- *I sought to develop a talk to give my company that would inspire them to internalize or at least identify with the ideas I was speaking about...(P32).*
- *You have a certain leadership philosophy, but also a plan to implement your ideas with others...(P68).*
- *I kept the company well-informed with all the information I am passed down from higher.... I gave them the run-down on what will happen if they do well and what will happen if they do poorly. They all understood and accepted it (P48).*

Subtheme 1.b: Developing Sources of Power and Influence. Cadets described how, when interacting with their followers, they sought to influence what followers believed and how they behaved, using various sources and types of power. Some examples:

⁸ Each participant was assigned a participant number. These numbers are cited following quotations to assure the reader that the themes presented are representative of the participants as a group rather than focused on a small subset of participants to the exclusion of most other participants.

- Authentic leadership was important in the field because *no one would follow someone who did not carry out what he ordered* (P24).
- I knew I could not immediately command referent or expert power, so *I built my bases of power from legitimate and coercive sources before I gained the respect of my platoon* (P33).

Subtheme 1.c: Being Diplomatic, Unbiased, and Fair. Cadets described working to develop personal characteristics of fairness and diplomacy by being unbiased in how they judged subordinates' beliefs and behaviors. Many cadets also acknowledged that this was for them reciprocal, and they sought to be open-minded about criticism they received. Some examples:

- Listening to feedback from others...*constructively taking criticism in a non-personal way* (P29).
- I understand that *I have positional power*, but I also learn that *I am their peer and I need to show that I care about them* (P45).
- I was platoon leader, and I had to counsel someone *I tried to be as fair as possible, and look at the situation as neutral as possible* (P60).

Subtheme 1.d: Having Enduring Influence. Some cadets were aware that their leadership would or would not continue to influence the beliefs and behavior of their followers when they were not present. For example:

- The values instilled by transactional leaders *are typically forgotten once the leader is removed* from the scenario. However, the *values and influence of a transformational leader endure* (P47).
- Inspire others to do well *by setting an example for them* (P6).
- *I left the room for 10 minutes. When I returned the movie was playing. No one accepted responsibility for this action. I eventually figured out who did it and that he was not present when I said to not put a movie on. No one told him not to put the movie on. I spoke to those individuals and told them that I interpreted their actions as disrespect. To gain compliance, I forced them to reconduct an evening study period until they can perform it properly without playing video games or watching movies* (P34).

Subtheme 1.e: Learning from Successes and Failures. Cadets described reflecting on how well they performed in 'past leadership experiences' and using those experiences to draw lessons, not get discouraged, and continue 'pushing on' (P15). They described learning from the leadership experiences whether they had in fact been successful or not. Some cadets also detailed the various mistakes they had made as leaders, for instance, micromanaging subordinates (P62) or judging someone too quickly (P84). Some examples:

- It was a very *different and discouraging experience for me because I had never performed poorly in a leadership position before*. The temptation was to feel sorry for myself, however *I had learned reflection...turning the failure into a learning experience* (P2).

- He/she was worried about being identified as a ‘dirt bag’ cadet. I responded by saying ‘no’ and explained that that many of my closest friends at the Academy had brigade boards and were better because of it. *I emphasized that it was more important for him/her to learn from the events and move on* (P79).
- I had assumed that it had been another person, when later after investigating a bit another individual came to light. My blame was mostly centered on the first person because I hadn’t seen past his outward personality. *I completely misjudged the individual at fault* (P84).

Subtheme 1.f: Establishing Competence, Trustworthiness, and Respect. Cadets described the importance of establishing among followers a perception of themselves as competent and trustworthy leaders, and being respected by others. The following are some examples:

- I was the only female in my squad and I was *originally rated very low by my peers*. I used a lot of transformational leadership to *change my squad’s opinion of me* (P10).
- The difficulty was *convincing these individual squad leaders from different companies to trust me and accept me* as part of the larger effort in order to obtain a smooth functioning organization that would benefit us all (P16).
- *I could not face my platoon without being myself*. I was *honest with them and I hold nothing back* when I interact with my platoon (P52).

Theme 2: Developing as a Unit. With respect to the second theme, cadets described how they interacted with, developed, and maintained the unit or group they were leading. The focus of this theme is at a group level, rather than the level of specific individuals, as one cadet noted “[t]he importance of the unit must come before an individual, but must be always balanced with the Soldiers always” (P65). Merging the individual with the group was a common aspect of this theme. There were six subthemes associated with this theme. These are: (a) delegating authority to unit leaders, (b) encouraging productivity, efficiency, and effectiveness, (c) fostering cohesion, identity, and loyalty, (d) enforcing standards, (e) diffusing tension, and (f) determining willingness and ability to follow.

Subtheme 2.a: Delegating Authority to Unit Leaders. Cadets describe seeking a balance between leading and being over-controlling. Some cadets reported working to overcome their own tendencies to micromanage subordinates. Some examples:

- I mentored the PSG and consoled her in private, and *allowed her to counsel the squad leader under my supervision*. I felt this was the best course of action because it *allowed her to develop and let her maintain her authority, without me overshadowing her* (P28).
- I was having a hard time leading my peers because *I was trying to control them too much*. After I *gave them room to breathe, I began getting a positive response from them* (P37).

Subtheme 2.b: Encouraging Productivity, Efficiency, and Effectiveness. Some cadets described various ways that they encouraged their unit to work together, particularly to increase productivity, efficiency, and effectiveness of the unit. Some examples:

- *I needed to bring together my cadre subordinates as well as over forty new cadets to create a well-performing unit (P33).*
- *I thought of the situation, how it would take dedication on all our parts, and inserted myself into roles that the team would need to watch me being active in the project, so I could inspire them to do the same (P68).*

Subtheme 2.c: Fostering Cohesion, Identity, and Loyalty. Cadets described their efforts to create, develop, and maintain a unique identity for the group they were leading, something in which all the Soldiers could feel a part and that would motivate them to work as a team. Some examples:

- *I got my team together to do a lock-in so we could all build and strengthen bonds past just being on the track together. We did many team building activities and new friendships were formed...It was a success...but we still have a long way to go. The problems on our team are not something that can be fixed in a short period of time. The whole attitude needs to change (P11).*
- *To help build team cohesion. We spent time together outside of work....The team became a more cohesive unit and continue to grow together (P18).*
- *My classmates and I worked to shape the culture of our company when we took leadership positions by creating a new identity (P31).*
- *Because our staff included many Cows who were just scrambled into the company, we used some team building exercises to bond (P63).*

Subtheme 2.d: Enforcing Standards. Cadets described how they maintained discipline and standards in the groups they were leading. Some examples:

- *We had them be an active part of building the rules and guidelines for the team (P18).*
- *While preparing an introductory briefing...I thought about how to avoid compliance and resistance as outcomes. While I possess reward, coercive, and legitimate power as the CO, I try to rely on referent and expert power to inspire my classmates and subordinates. I arranged the talk along those lines and succeeded with a large number of people (P32).*
- *I experienced ostracism from some of my peers as a result of me holding an upperclassman to the standard. I also grew stronger as a person and as a leader (P55).*

Subtheme 2.e: Diffusing Tension. Cadets described taking on a diplomatic role, managing conflicts that arose between individuals in the group they were leading. Some examples:

- *Most people think negotiation is positional bargaining; however, this is often less productive (P12).*
- *In my job as section leader, I had to reach out to him to using my legitimate power to get him to open the door. I got a little resistance, but he complied quickly and the door was opened (P75).*
- *Given the bad situation we were in, the squad leader chose to complain rather than make the situation better. I needed to boost morale in the platoon (and squad) because it would make the training better and make the situation better. I basically talked to the squad and listened to their concerns/complaints and agreed that the training was challenging, but the situation wasn't that bad (P77).*

Subtheme 2.f: Determining Willingness and Ability to Follow. Cadets described the 'difficulties' of 'stepping into' a leadership role (P26). The central question appeared to be how to get others to 'willingly follow' them (P52). With respect to this subtheme, they also describe situations in which they observed other leaders having problems getting their Soldiers to follow, because of a 'lack of influential leadership' (P20). While most focused on being in a leadership role, a few cadets described this subtheme from the perspective of a follower. Some examples:

- *I had a company rep refuse to investigate a case I assigned to them. I tried to explain why this was important and how it would help him gain experience and know-how on investigations. He still wouldn't budge so I tried to persuade him with a negative COR and explain the military grade effect. He still didn't budge (P78).*
- *A chain of command member who is condescending constantly comes in and checks up to make sure I know what I am doing and to give me specific details. I hate being micromanaged, especially by someone I am not personally fond of. I reacted by being short and distant with the person. Not helping the situation at all (P85).*

Theme 3: Supporting Soldiers in the Unit. The third theme is related to the second in that it is focused on the unit. What distinguished this theme from the second is that the cadets described zeroing in on individual members of their unit, seeking to affect the individual follower. There were five subthemes associated with this theme. These are: (a) developing autonomy and responsibility, (b) having empathy and understanding, (c) developing capabilities and talents, (d) motivating performance, and (e) identifying a role within the unit.

Subtheme 3.a: Developing Autonomy and Responsibility. Cadets described empowering and supporting individuals within their group to complete particular tasks. For example:

- *Building trust in the group by empowering others to take responsibility...I would call certain plays that entrusted certain people to perform (P30).*

Subtheme 3.b: Having Empathy and Understanding. Cadets described 'understanding better' the unique personality and life experiences of individual followers, and working with that understanding to develop individuals within the group (P21). A few cadets described this

subtheme from the perspective of the individual to whom empathy and understanding was shown. Some examples:

- I had him as a Plebe the year prior and knew *he was not very intrinsically motivated* to begin with, but after *talking to him and discovering how his home life was affecting his performance was a good experience for me* as a leader because *I learned how important it is not to assume and to truly care and get to know your Soldiers* (P46).
- I learned that *personally caring about your subordinates makes them feel more comfortable* around you (P51).
- I had gotten into a personal dilemma and had a few friends approach me because they had experienced the same or similar issues. *I felt comfortable talking to them, whereas I shut out those I felt could not relate* (P86).

Subtheme 3.c: Developing Capabilities and Talents. Cadets described finding ways to identify and develop the capabilities and talents of their followers. Some examples:

- *I wanted to leave a positive impression* on the underclassmen even after I graduated....I knew that *transformational leaders create better subordinates and future leaders* (P47).
- *I was firm with my cadets for the first few days.* I made sure *they were learning all they could.* I motivated them when challenging tasks were at hand (P51).

Subtheme 3.d: Motivating Performance. Cadets described using different techniques to motivate their followers to perform well. A few cadets described their experiences of how others have motivated them. Some examples:

- My team was not doing very well and so we brought it in a huddle before the beginning of an inning. *I talked to the team to try to motivate them* to win the game (P35).
- *I am motivated to practice hard every day* because I know that soon I will end my career as a _____. I want to extend my season as long as possible. I experience days that I don't want to practice but my *teammates then in turn help to keep me motivated* (P49).
- I've been trying to *instill some individual motivation in them because when we play for something we play well* (P53).

Subtheme 3.e: Identifying a Role Within the Unit. A few cadets described helping certain individual followers find their own role or niche within the group. For example:

- Some people don't care about external factors. They *want to make a personal impact and to do that they have to be personally connected* (P53).

Theme 4: Conducting the Mission. The fourth theme concerned how cadets made sense of and managed the task or mission on which the group was working. While the first theme focused on cadets as individual leaders, and the second and third themes focused on the group and individuals within the group, the final theme focuses on what leaders and followers

are doing together as a group. This theme is composed of four subthemes. These are: (a) dividing up the work, (b) setting short-term and long-term goals, (c) addressing challenges, difficulties, constraints, and schedules, and (d) monitoring progress.

Subtheme 4.a: Dividing up the Work. Cadets described being careful to divide the work evenly among members of the group. They did this in order not to overburden themselves or any individual. Some examples:

- ...they try to get me to do an unfair amount of the work. I have to negotiate and make deals with them to avoid this and make the workload more even (P41).
- I had to lead by example, but also shoulder the work evenly so no one would feel overburdened (P69).

Subtheme 4.b: Setting Short-Term and Long-Term Goals. Cadets described planning a task or mission in terms of setting goals for the short-term and long-term. They reported using various techniques for establishing goals. Some examples:

- I used the concept of *mental models* to determine how to plan a mission (P17).
- The goal was to have my subordinates set goals for themselves not just the three pillars..., but also into their personal lives and hobbies/clubs. These all needed to be achievable goals and I ran into the most conflict when my platoon goals set by my platoon leader were too hard for my subordinates to achieve (P54).
- Picking a zone of negotiations and not going above or below it (P67).

Subtheme 4.c: Addressing Challenges, Difficulties, Constraints, and Schedules. Cadets described various situations in which they had to take action to reduce conflicts and handle challenges to accomplishing their task or mission. Some examples:

- Interacting with my classmates at ____ school, I used the storming, norming, forming lessons to understand how our group dynamics were evolving (P14).
- During a particular mission...we failed the mission and were told to restart the mission. This angered most of the platoon and nobody really wanted to continue on. As a platoon sergeant during this period I talked to my peers in a way that they would continue to put forth their best efforts (P38).

Subtheme 4.d: Monitoring Progress. Cadets described monitoring the progress of the task or mission they were conducting, particularly regarding milestones and deadlines. Some examples:

- It was the most efficient way to pass down information with quick deadlines even though I'd rather talk to people's faces (P50).

- Trying to appeal to these different individuals was difficult, and *still is a work in progress*, but it is a war that I am winning with the knowledge of what it takes to inspire Soldiers to the right thing... (P54).
- ...most of the time I'm analyzing what I've done, said, or thought, and really asking what it did (P7).

Summary of the Thematic Analysis

The themes presented here are the points of focus in cadets' descriptions of what they were aware of when they applied what they learned in PL300. In this sense, the themes represent cues for action within the described situation that elicited transfer of PL300 knowledge and skills. The following thematic framework (Figure 2) describes the meanings that were consistent in cadets' written descriptions of how they applied PL300 course content.



Figure 2. Themes in Cadets' Accounts of Experiences of Transfer of Leadership Training

Development of the Leadership Knowledge Application Scale

Having addressed the main takeaways and tenets from the course (i.e., conceptual content), and the cadets' experiences of using what they had learned (i.e., experiential content), we sought to develop a way to measure how particular types of situations and problems were eliciting awareness and application of knowledge and skills from PL300. Content and thematic analyses provided an in-depth view of what cadets found important about the course and what they were aware of when they transferred what they learned into new situations. Content and thematic analyses, however, did not allow us to measure preferences cadets may have with respect to how they perceived and made sense of situations in which they applied PL300 knowledge and skills. Using a quantitative approach, we sought to measure these preferences.

To measure cadets' perceptual preferences when applying PL300 knowledge and skills, we developed the Leadership Knowledge Application Scale (LKAS), a 23-item scale developed based on the thematic framework. For each subtheme, items were developed to measure at the level of themes (or, in this case, factors). The items were written to reflect the language used in the cadets' descriptions, thereby maintaining fidelity to their experience. Each item was paired with a 5-point relevance rating scale: (1) Not Relevant, (2) Somewhat Relevant, (3) Relevant, (4) Very Relevant, and (5) Essential (Graves et al., 2010; Graves, Rauchfuss, & Wisecarver, 2012).

With such a scale, it becomes possible to make inferences about the pattern of preferences that may influence how cadets perceive situations in which they could use what they learned in PL300. In addition, it becomes possible to provide concrete feedback to individuals and groups of cadets about their preferences. The LKAS is not a measure of an individual's ability to transfer knowledge and skills, but instead it measures how cadets tend to perceive situations into which they may transfer what they have learned. This type of information may support transfer of knowledge and skills by providing an analytic template to assist cadets in thinking through and making sense of different types of leadership problems they may encounter. The scale is context sensitive in that it focuses cadets on their own specific situation, when they are in a leadership role during field exercises or other similar situations. That said, the scale could also be used with predesigned scenarios and/or applied in other training and research contexts. Appendix F presents a table of 23 LKAS items in relation to the themes/factors they were intended to measure.

The wording of particular items on the LKAS was intended to capture the specific meanings associated with each of the themes in the framework. The LKAS is therefore a measurement instrument with content grounded in the experiences of cadets, designed with reference to the specific experiences they described. The LKAS was designed in this way in order to target the training population of PL300 graduates, but also other similar junior officer leadership courses.

Transfer to the Summer Field Exercises

After the LKAS was developed we conducted another data collection with cadet graduates of PL300 following their Summer Field Exercises. This data collection was intended to determine what LKAS themes/factors cadets attended to when transferring PL300 knowledge

and skills to leadership problems encountered in the field exercise setting. The content analysis in the first phase of this research focused on the salient course content, and the thematic analysis in the second phase explored how cadets applied what they learned in the course. In the final phase, the LKAS allowed us to understand better the interplay of concrete leadership problems with how cadets perceived and made sense of these problems, and how they applied what they learned in PL300.

Method

Participants and Procedure

We administered the LKAS to a group of PL300 graduates cadets ($N = 124$), who had just completed their final Summer Field Exercises at Camp Buckner, NY. Cadets were equally selected from each of the exercise scenarios conducted in order to capture a variety of possible training experiences. After briefing the cadets on the purpose of the research and their rights as participants, we asked them to read and sign the informed consent forms. The first form they were asked to complete included some basic demographic questions (see Appendix B). The demographics of the sample are presented in Table 7.

Table 7
Demographic Characteristics of Participating Cadets

Demographic Characteristics	N	% of Sample
Total	124	100
Year in School		
Cow (Juniors)	1	1
Firsties (Seniors)	122	99
Gender		
Male	108	87
Female	16	13
Age		
19-20	14	11
21	73	59
22-25	37	30
Anticipated Graduation Year		
2011	1	1
2012	121	98
2013	1	1
Year Taken PL300		
2009	1	1
2010	62	58
2011	44	41

Note: Reported percentages are based on the total number of cadets responding to an item. Percentages vary +/- 1% due to rounding.

Cadets were asked to rate how well they felt they performed in the course, compared to other cadets. Most cadets (45%; $n = 54/120$) responded that they did ‘a little better than other cadets’ in PL300. The second most common response was that they had done ‘about the same as other cadets’ in the course (35%; $n = 42/120$). In addition, they were asked to rate the difficulty of PL300 compared to other courses at USMA. Most cadets (51%; $n = 61/120$) responded that

the course was ‘a little easier’ than other courses at USMA. The majority of remaining responses were gathered around ‘much easier’ (22%; $n = 26/120$) and ‘same difficulty’ (20%; $n = 24/120$).

Next, the LKAS was administered to cadets. The LKAS began with a set of open-ended questions intended to allow cadets to describe the particular situations on which they focused their responses on the scale (see Appendix D). Cadets were asked first to recall and describe two problems they worked to resolve during the field exercises when in either a Platoon Sergeant or Platoon Leader position. Cadets were then asked to identify the particular PL300 concept or example that was useful to them when working to resolve each of the problems they described. Finally, the cadets were asked to rate how relevant each of the 23-items on the LKAS were to them when working to resolve each of the problems they described. Ratings were made on a 5-point scale: (1) Not Relevant, (2) Somewhat Relevant, (3) Relevant, (4) Very Relevant, and (5) Essential (see Graves et al., 2010; Graves, Rauchfuss, & Wisecarver, 2012).

Results

Psychometric Properties of the Leadership Knowledge Application Scale

In order to calculate scores for each item and factor, cadets’ ratings of the two problems they described were averaged for each item and then related items were averaged for thematic factor scores (Graves et al., 2010). The ratings were averaged first in order to stabilize measures of preference by removing some of the unique variance due to the particular characteristics of each of the situations cadets had described. Following this, standard psychometric analyses were conducted, including assessments of Cronbach’s reliability coefficient and item-total correlations (Nunnally & Bernstein, 1994).

Reliability. The reliabilities of each of the thematic factors on the LKAS were good to very good, between $\alpha = 0.76$ and $\alpha = 0.87$. Table 8 presents the reliability coefficients and item-total correlations for each of the thematic factors on the LKAS.

Table 8
LKAS Means, Standard Deviation (sd), Item-Total Correlations, and Reliabilities (Coefficient α) Organized with Respect to the Thematic Framework

Theme	Subtheme	Mean (sd)	Item-Total Correlation	α (# Items)
Context		3.62 (0.86)		0.76
	Influencing Change	3.77 (0.96)	0.64	(2)
	Influencing Stability	3.48 (0.93)	0.64	

Table 8 (Continued)

LKAS Means, Standard Deviation (sd), Item-Total Correlations, and Reliabilities (Coefficient α) Organized with Respect to the Thematic Framework

Theme	Subtheme	Mean (sd)	Item-Total Correlation	α (# Items)
Theme 1: Developing as a Leader		3.83 (0.74)		0.86
	1.a: Clarity & Purpose of Communication	4.25 (0.82)	0.63	(6)
	1.b: Developing Sources of Power & Influence	3.62 (1.00)	0.57	
	1.c: Being Diplomatic, Unbiased, & Fair	4.06 (0.92)	0.72	
	1.d: Having Enduring Influence	3.68 (1.04)	0.57	
	1.e: Learning from Successes & Failures	3.48 (1.13)	0.67	
	1.f: Establishing Competence, Trustworthiness, Respect	3.90 (0.90)	0.74	
Theme 2: Developing as a Unit		3.57 (0.78)		0.84
	2.a: Delegating Authority to Unit Leaders	3.93 (0.87)	0.53	(6)
	2.b: Productivity, Efficiency, & Effectiveness	3.65 (0.86)	0.69	
	2.c: Developing Cohesion, Identity, & Loyalty	3.34 (1.21)	0.65	
	2.d: Enforcing Standards	3.29 (1.14)	0.68	
	2.e: Diffusing Tension	3.42 (1.12)	0.58	
	2.f: Willingness & Ability to Follow	3.65 (1.03)	0.59	
Theme 3: Supporting Soldiers in the Unit		3.43 (0.87)		0.87
	3.a: Developing Autonomy & Responsibility	3.46 (1.07)	0.60	(5)
	3.b: Having Empathy & Understanding	3.49 (1.03)	0.67	
	3.c: Developing Capabilities & Talents	3.24 (1.11)	0.75	
	3.d: Motivating Performance	3.52 (1.06)	0.71	
	3.e: Identifying Role with Platoon	3.42 (1.13)	0.74	
Theme 4: Conducting the Mission		3.80 (0.73)		0.79
	4.a: Dividing up the Work	3.69 (0.90)	0.55	(4)
	4.b: Setting Short-Term & Long-Term Goals	3.54 (1.05)	0.52	
	4.c: Addressing Challenges, Difficulties, Constraints, and Schedules	3.81 (0.96)	0.68	
	4.d: Monitoring Progress	4.17 (0.82)	0.68	

Cronbach's α for each of the thematic factors was above the customary value of $\alpha = 0.70$ for applied research (Schmitt, 1996). This indicates that the LKAS is measuring reliably for each of the themes. The item-total correlations for each of the items were above the customary threshold of 0.40 (Nunally & Bernstein, 1994). No items appear to require removal based on this criterion.

Confirmatory Factor Analysis. A confirmatory factors analysis (CFA) was conducted to test whether the thematic framework (as a theoretical model) was a good fit for the LKAS measurement model. CFA tests the goodness of fit between a hypothesized factor structure and how it is being measured (Kline, 2005). In this case, we did not conduct an exploratory factor analysis first, instead using the thematic framework to derive our hypothesized factor structure for testing on the present sample.⁹ Schreiber et al. (2006) and Kline (2005) were used to guide the CFA analyses.

⁹ If one has already has a theoretical model to use in developing a hypothesized factor structure, exploratory factor analysis is unnecessary as a prelude to confirmatory factor analysis (see Kline, 2005).

Confirmatory factor analysis tends to be very sensitive to irregularities in data. The data were checked for outliers using the boxplot technique. Outliers were identified for five cases across the 23 variables. For these cases, the outlying score was replaced with the series mean (Schreiber et al., 2006). Mean replacement was used rather than case deletion because of the small sample size (i.e., $N < 200$) (Kline, 2005).

Analyses were conducted in AMOS (*Analysis of Moments Structure*; Arbuckle, 2006) using the maximum likelihood estimation algorithm, and models were compared using five fit indices: (a) the root mean squared error of approximation (RMSEA; Browne & Cudeck, 1993), (b) root mean square residual (RMSR; Schreiber et al., 2006), (c) comparative fit index (CFI; Bentler, 1990), (d) Bollen's incremental fit (IFL^2), and (e) the minimum discrepancy statistic (CMIN/df; Carmines & McIver, 1981). Due to the small sample size and applied nature of the research, we specified criteria for acceptable fit as $RMSEA < 0.10$; $CFI > 0.85$; $IFL^2 > 0.85$; $RMSR < 0.10$; $CMIN/df < 3$. Table 9 presents the model complexity and fit indices for the CFA test of the LKAS factor structure.

Table 9
Confirmatory Factor Analysis Test for Reduced Item Structure

Model	Removed Items	χ^2	RMSEA	CFI	IFL^2	RMSR	CMIN/df
Full	--	425.7 $df = 220$	0.087 Lo90 = 0.075 Hi90 = 0.100	0.825	0.83	0.017	1.935
1 Item Removed	Monitoring Progress	359.1 $df = 199$	0.081 Lo90 = 0.067 Hi90 = 0.094	0.856	0.86	0.016	1.804
2 Items Removed	Monitoring Progress & Leader Influence	311.1 $df = 179$	0.077 Lo90 = 0.063 Hi90 = 0.092	0.873	0.877	0.015	1.738
3 Items Removed	Monitoring Progress, Leader Influence, & Diffusing Tension	272.7 $df = 160$	0.076 Lo90 = 0.060 Hi90 = 0.091	0.882	0.886	0.015	1.705

Note: Three items were removed based on modification indices. Lo90 and Hi90 respectively indicate the upper and lower bounds of the confidence interval for the RMSEA.

As indicated in Table 9, fit was improved by reducing the model by three items, retaining 20 items across the five hypothesized factors. The reduced model may achieve a better balance between the complexity of the thematic framework and ideal of parsimony for the LKAS measurement model. The reduced LKAS measurement model still appears to be able to measure the hypothesized factors described by the thematic framework.

For this sample, items related to Monitoring Progress (item 4.d), Leader Influence (item 1.d), and Diffusing Tension/Negotiation (item 2.e) were not found to be contributing to the measurement of the hypothesized factors, as they appeared to contribute to variance across multiple factors. Each reduction of the model was statistically significant: Full Model – Monitoring Progress, $\Delta\chi^2 (df = 21) = 66.6, p < .001$; Full Model – Monitoring Progress & Leader

Influence, $\Delta X^2 (df = 41) = 114.6, p < .001$; Full Model – Monitoring Progress, Leader Influence, and Diffusing Tension/Negotiation, $\Delta X^2 (df = 60) = 153, p < .001$.

After testing the reduced item models, we tested the latent factor structure of the model to see if reduced factors led to a more parsimonious measurement model. For the first reduction, we combined items related to the Context (Stability and Change) with those related to Conducting the Mission, as both can be interpreted as focusing on immediately present events related to the mission. Following this test, we further reduced the factor structure by combining items related to Supporting Soldiers in the Unit with those related to Developing as a Unit, as both are focused on unit members and their functions. Results of the analysis of factor structure are presented in Table 10.

Table 10
Confirmatory Factor Analysis Test for Reduced Factor Structure

Model	Combined Factors	X^2	RMSEA	CFI	IFI ²	RMSR	CMIN/df
Reduced Item Model	--	272.7 $df = 160$	0.076 Lo90 = 0.060 Hi90 = 0.091	0.882	0.886	0.015	1.705
-1 Factor	Context (Stability & Change)	305.0 $df = 164$	0.084 Lo90 = 0.069 Hi90 = 0.098	0.853	0.857	0.016	1.860
-2 Factors	Context (Stability & Change), & Supporting Soldiers	314.9 $df = 168$	0.085 Lo90 = 0.070 Hi90 = 0.099	0.845	0.849	0.017	1.886

We tested alternative models to see if reduced factor structure improved the parsimony of the LKAS measurement model. Reducing the number of factors also reduced the fit indicated by the selected indices, indicating that these changes did not improve the models. There was a significant difference between the reduced item model (starting point) and the model that was reduced by one factor in the first step, $\Delta X^2 (df = 4) = 32.3, p < .001$; however, there was not a significant difference between the model reduced by one factor (first step) and the model reduced by two factors, $p = .06$ (second step). In addition, the models with fewer latent factors had worse fit than the initial model, indicating that of the models tested the five-factor model had the better fit for this sample. It is important to note that this was only a preliminary analysis and, based on these results, additional research on the factor structure is warranted.¹⁰

Alternative models may have better fit for this sample, but these models may also be less generalizable to other samples. Making too many changes to our initially proposed model, using this sample, could lead to over-specification, a situation in which we would end up modeling particulars unique to this sample and thereby reduce the generalizability of the model (Kline,

¹⁰ For readers who are curious about exploring this model in greater depth and considering further research on alternative models for LKAS, we present the results of an exploratory principle components analysis in Appendix G. This exploratory analysis has no bearing on our current results, but may be useful for future research.

2005). Based on these results, we retained the LKAS measurement model for our analysis. Table 11 presents the standardized factor loadings between the LKAS factors.

Table 11
Standardized Factor Loadings on LKAS

LKAS Factors	Context	Theme 1	Theme 2	Theme 3	Theme 4
Context: Influencing Stability and Change	--	0.66	0.71	0.62	0.50
Theme 1: Developing as a Leader	0.66	--	0.89	0.60	0.78
Theme 2: Developing as a Unit	0.71	0.89	--	0.94	0.78
Theme 3: Supporting Soldiers in the Unit	0.62	0.60	0.94	--	0.85
Theme 4: Conducting the Mission	0.50	0.78	0.78	0.85	--

Standardized loadings among the factors indicate that the measurement model is oblique (i.e., correlated) rather than orthogonal (i.e., uncorrelated). This is to be expected given the interrelated nature of the themes derived from the cadets' descriptions of their experiences. Particular factors that appear to share higher variance are Supporting Soldiers in the Unit and Developing as a Unit; Developing as a Leader and Developing as a Unit; as well as Supporting Soldiers in the Unit and Conducting the Mission. These relationships may indicate avenues for further research.

Statistical Analysis of Focal Themes in Cadets' Field Experiences

Given that we had a conceptually valid measurement model, we moved on to look at how particular themes/factors were emphasized by cadets during their field exercises. Table 12 presents thematic factors and LKAS items rank ordered by mean, enabling us to identify what thematic factors and items tended to be most emphasized by the cadets during the field exercises, irrespective of the types of problem they addressed. A dashed line indicates the mean value for a factor; items falling above the mean are those we viewed as more emphasized, and those below the mean, as less emphasized.

Table 12
LKAS Factors/Items Ranked by Mean

Theme/Factor	Subtheme	Mean (sd)
Theme 1: Developing as a Leader		3.83 (0.74)
	1.a: Clarity & Purpose of Communication	4.25 (0.82)
	1.c: Being Diplomatic, Unbiased, & Fair	4.06 (0.92)
	1.f: Establishing Competence, Trustworthiness, Respect	3.90 (0.90)
	1.d: Having Enduring Influence	3.68 (1.04)
	1.b: Developing Sources of Power & Influence	3.62 (1.00)
	1.e: Learning from Successes & Failures	3.48 (1.13)

Table 12 (Continued)
LKAS Factors/Items Ranked by Mean

Theme/Factor	Subtheme	Mean (sd)
Theme 4: Conducting the Mission		3.80 (0.73)
	4.d: Monitoring Progress	4.17 (0.82)
	4.c: Addressing Challenges, Difficulties, Constraints, and Schedules	3.81 (0.96)
	4.a: Dividing up the Work	3.69 (0.90)
	4.b: Setting Short-Term & Long-Term Goals	3.54 (1.05)
Context: Stability and Change		3.62 (0.86)
	Influencing Change	3.77 (0.96)
	Influencing Stability	3.48 (0.93)
Theme 2: Developing as a Unit		3.57 (0.78)
	2.a: Delegating Authority to Unit Leaders	3.93 (0.87)
	2.b: Productivity, Efficiency, & Effectiveness	3.65 (0.86)
	2.f: Willingness & Ability to Follow	3.65 (1.03)
	2.e: Diffusing Tension	3.42 (1.12)
	2.c: Cohesion, Identity, & Loyalty	3.34 (1.21)
	2.d: Enforcing Standards	3.29 (1.14)
Theme 3: Supporting Soldiers in the Unit		3.43 (0.87)
	3.d: Motivating Performance	3.52 (1.06)
	3.b: Having Empathy & Understanding	3.49 (1.03)
	3.a: Developing Autonomy & Responsibility	3.46 (1.07)
	3.e: Identifying Role with Platoon	3.42 (1.13)
	3.c: Developing Capabilities & Talents	3.24 (1.11)

Note: Dashed line represents the mean value for the items composing a factor. Items above the line are the most emphasized as relevant focal points in the transfer process. Those below the line are de-emphasized focal points.

Table 12 describes the LKAS factors/items ranked by mean. We used these findings to determine what themes/factors and items are being emphasized overall. The most emphasized theme/factor is Developing as a Leader, followed by Conducting the Mission.

With respect to Developing as a Leader, the most emphasized items were Clarity and Purpose of Communication ($M = 4.25$), Being Diplomatic, Unbiased, and Fair ($M = 4.06$), and Establishing Competence, Trustworthiness, and Respect ($M = 3.90$). Learning from Successes and Mistakes was the least emphasized item ($M = 3.48$).

Conducting the Mission is the second most emphasized theme/factor. For this theme/factor, the most emphasized items were Monitoring Progress ($M = 4.17$), and Addressing Challenges, Difficulties, Constraints, and Schedules ($M = 3.81$). The least emphasized item was Setting Short-Term and Long-Term Goals ($M = 3.54$). The remaining themes, on which progressively less emphasis was placed, include Context: Continuity and Change, Developing as Unit, and Supporting Soldiers in the Unit.

Themes/Factors Associated with Problems Encountered

To explore in detail the relationships between particular types of problems cadets encountered during the FX and the themes/factors that they emphasized on the LKAS, a series of exploratory analyses were conducted using logistic regression (backwards selection). This statistical technique begins with a full model, which includes all potential predictor variables, and then iteratively removes predictors based on their relationship to a dichotomous criterion.¹¹ This statistical technique enabled us to identify significant associations between types of problems and LKAS factors.

On the LKAS, cadets were asked to describe two problems they encountered during the FX and then respond to the LKAS items in terms of each of the problems they listed. To prepare the data for statistical analysis, two raters iteratively coded the listed problems into five categories. The coding was conducted by reading through each problem, creating a temporary category, and progressing to the next problem, each time refining the overarching concept and label as needed to define the emerging category. This procedure was done until all problems had been categorized (see Boyatzis, 1998). The level of detail cadets provided in describing the problems they encountered was measured by length of response (number of characters). The problem descriptions were, on average, $M = 137.2$ characters ($sd = 91.3$; $N = 123$).

The identified problem categories were: (a) frustration with peer leadership, (b) difficulties managing a stressed platoon, (c) understanding the mission, (d) communication breakdowns, and (e) maintaining accountability of people and items. The criterion variable was whether cadets listed at least one problem in the related category. Table 13 presents the results of an exploratory analysis of LKAS factors associated with problems encountered in the FX.

Table 13

Exploratory Analysis of LKAS Factors Associated with Problems Encountered in the FX

Problem Category / Percentage Reporting	LKAS Factor	β_{sd}	Wald X^2	p	Odds
Frustration with Peer Leadership 29% ($n = 36/124$)	Conducting the Mission	-0.78	7.41	0.006	0.46
	Developing as a Unit	0.78	6.71	0.010	2.18
Motivating a Stressed Platoon 38% ($n = 47/124$)	Developing as a Leader	0.51	6.01	0.014	1.66
Understanding the Mission 63% ($n = 78/124$)	Conducting the Mission	0.68	6.65	0.010	1.96
	Developing as a Unit	-0.45	2.97	0.085*	0.64

Note: β_{sd} is a standardized beta weight. *Factor is marginally significant, $0.05 < p < 0.10$. No LKAS factors were associated with Communication Breakdown (25%; $n = 31$) or Maintaining Accountability of People and Items (11%; $n = 14$).

Frustration with Peer Leadership was defined in terms of problems related to cadets leading or being led by peers. This problem was associated with two LKAS factors, *Wald X^2* ($df = 2$) = 9.82, $p = 0.007$, *Nagelkerke R^2* = 0.11. Cadets who rated Conducting the Mission as less

¹¹ While there are some concerns with using stepwise regression models expressed in the research literature, for exploratory purposes, it is an acceptable technique to use. Even so, when evaluating results it is important to consider that the procedure can potentially increase the number of false positive relationships identified (Cohen, Cohen, West, & Aiken, 2002).

relevant, and those who rated Developing as a Unit as more relevant, were more likely to have reported problems related to Frustration with Peer Leadership.

The duration and physical intensity of the field exercise had the effect of stressing and fatiguing the platoons that cadets were leading. Cadets who identified problems related to Motivating a Stressed Platoon were more likely rate Developing as a Leader as more relevant, $Wald X^2 (df = 1) = 6.58, p = 0.01, Nagelkerke R^2 = 0.07$.

Problems related to Understanding the Mission were coded based on cadets reporting that they had trouble making sense of the mission, requirements of the mission, and/or particular events that arose in the context of executing the mission. Understanding the Mission was associated with two LKAS factors, $Wald X^2 (df = 2) = 7.46, p = 0.024, Nagelkerke R^2 = 0.08$. In association with this problem, cadets were more likely to view the LKAS factor Conducting the Mission as more relevant and Developing as a Unit as less relevant.

No LKAS themes/factors were associated with Communication Breakdown (25%; $n = 31/124$) and Maintaining Accountability of People and Items (11%; $n = 14/124$).

Themes/Factors Associated with Concepts Applied

Following our analysis of the types of problems cadets encountered in their field exercises, we looked at whether LKAS factors were associated with the types of PL300 concepts they reported applying. For the analysis, we again used logistic regression (backward selection). The concepts that cadets reported applying were coded as follows: (a) types of leadership, (b) subordinate care and counseling, (c) bases of power and influence, (d) self-reflection and learning skills, (e) failure tolerance, (f) mentoring and being mentored, (g) scientific models and theories, (h) communication and negotiation, and (i) competence. We coded the cadets' use of PL300 concepts based on our previous coding scheme, developed from the course takeaways and tenets. The average response was $M = 121.06$ characters ($sd = 96.04; N = 124$). Table 14 presents the results of the exploratory analysis.

Table 14
Exploratory Analysis of LKAS Factors Associated with Applications of PL300 Concepts

Problem Category / Percentage Reporting	LKAS Factor	β_{sd}	$Wald X^2$	p	Odds
Types of Leadership 31% ($n = 38/124$)	Supporting Soldiers in the Unit	0.57	6.64	0.010	1.77
Subordinate Care and Counseling 40% ($n = 50/124$)	Supporting Soldiers in the Unit	0.52	6.44	0.011	1.68
Communication and Negotiation 9% ($n = 11/124$)	Supporting Soldiers in the Unit	-1.67	11.16	0.001	0.19
	Conducting the Mission	1.06	5.46	0.020	2.89

Note: β_{sd} is a standardized beta weight.

When cadets reported applying PL300 concepts related to Types of Leadership, they were more likely to also rate LKAS items related to Supporting Soldiers in the Unit as more relevant, $Wald X^2 (df = 1) = 7.40, p = 0.007, Nagelkerke R^2 = 0.08$. No other LKAS factors were significantly associated with applications of concepts related to Types of Leadership.

When cadets reported applying concepts related to Subordinate Care and Counseling, it was again associated with rating items associated with Supporting Soldiers in the Unit as more relevant, $Wald X^2 (df = 1) = 7.10, p = 0.008$, Nagelkerke $R^2 = 0.08$. No other LKAS were associated with Subordinate Care and Counseling.

When cadets reported applying concepts related to Communication and Negotiation, they tended to view LKAS items related to Supporting Soldiers in the Unit as less relevant, and LKAS items related to Conducting the Mission as more relevant, $Wald X^2 (df = 2) = 17.79, p < 0.001$, Nagelkerke $R^2 = 0.30$. No other LKAS factors were related to applications of concepts related to Communication and Negotiation.

No LKAS factors were associated with applications of concepts related to Bases of Power and Influence (23%; $n = 29/124$), Self-Reflection and Learning Skills (11%; $n = 13/124$), Failure Tolerance (1%; $n = 1/124$), Mentoring and Being Mentored (1%; $n = 2/124$), Scientific Models and Theories (18%; $n = 22/124$), and Competence (1%; $n = 1/124$).

Discussion

A critical goal of Army leadership education and training is its application in operational settings. Leadership—as a domain of knowledge and skills—tends to be ill-defined, given that leaders address problems in operational settings that are ambiguous and complex. These problems require them to be creative and adaptive when applying what they have learned; that is, they need to think *productively* when using their knowledge and skills (cf. Wertheimer, 1945; Schwartz, Chase, & Bransford, 2012).

From successes and mistakes, leaders learn over time how to apply their knowledge and skills in a variety of situations (Kail, 2007). They begin to transform what they have learned to fit their individual goals and needs (Polyani, 1967, “tacit knowledge”). To understand this transformative process required us to focus on far transfer. We focused on far transfer of leadership training, utilizing a mixed-method design that combined qualitative and quantitative methods to explore far transfer as it occurred in naturalistic settings (Klein, 2006). We sought to address the experience of far transfer for cadet graduates of the Platoon Leader 300 course at the U.S. Military Academy. We looked at (a) what cadets identified as key concepts at the end of the course, (b) how course graduates applied what they had learned to everyday personal and professional problems (2 to 15 months after PL300), and (c) what they paid attention to in field exercises in which they used what they had learned when in the role of Platoon Sergeant or Platoon Leader (10 to 20 months after PL300).

Overview of the Findings

We approached this research from a largely exploratory standpoint. No previous research had looked specifically at far transfer of leadership knowledge and skills, particularly from the perspective of knowledge users/course graduates. Understanding the experiences and perspective of course graduates may be useful to PL300 course administrators and instructors in planning and executing various initiatives related to PL300 and in focusing cadets currently

taking the course on the ultimate goal for the knowledge and skills they are learning: that is, transferring what they have learned to other settings.

In the first phase of the research, we described what cadets felt were the main things they had learned in the PL300 course. These cadets identified key takeaways and leadership tenets, focusing on four general categories: (a) leadership theories and role behaviors, (b) follower interactions, (c) self-reflection, and (d) addressing self and unit setbacks. These four categories were derived from a content analysis of most frequent words and closely related words in the cadets' written responses. With respect to course content described in the course guide, we found that cadets tended to focus on concepts related to counseling, emotional intelligence, transformational leadership, bases of power, and authentic leadership. Failure tolerance and motivation were also focal points identified in their leadership philosophy papers, although these concepts were emphasized to a lesser degree than in course takeaways.

Second, we collected written accounts of experiences in which course graduates reported applying what they had learned in PL300. Based on written accounts, we developed a thematic framework consisting of five focal meanings. Approximately 72% of participating cadets were able to describe in reasonable detail how they applied what they learned in PL300 to everyday life situations (e.g., providing counseling to a Plebe, managing change in a work group or sports team, or leading an honor investigation). Key themes in their descriptions were: (a) developing as a leader, (b) developing as a unit, (c) supporting Soldiers in the unit, and (d) conducting the mission.¹² These were contextualized by the cadets' intent to change things, or keep things the same, in their situation. In the thematic framework, each of the themes was further defined by sets of related subthemes.

Third, we used the thematic framework to develop the LKAS. The LKAS was designed to focus PL300 course graduates on specific situations/problems they had when in the role of a Platoon Leader or Platoon Sergeant as well as what stood out to them when they were applying what they had learned in the PL300 course. The LKAS enabled us to measure cadets' perceptual and meaning making preferences within applied leadership problem-solving situations.

Finally, we used the LKAS to collect data from course graduates at the end of a field exercise. Participating cadets identified two problems that they encountered during the field exercises, when they were either in a Platoon Leader or Platoon Sergeant role. They also described the PL300 concepts and examples that they applied in their situation to address the problem(s) they encountered. We used the thematic framework to conduct a construct validation with confirmatory factor analysis on this sample. The results indicated a reasonable fit between the thematic framework and the LKAS measurement model; we concluded that the proposed model was conceptually valid.

For additional exploratory analyses, we coded problems and concepts into categories and looked at how different types of problems and concepts were related to patterns of responding on the LKAS. This provided some insight as to what types of problems emerging in the field

¹² It is interesting to note that meanings related to conducting a mission did not come up in the end-of-course concept lists, making this theme a critical focal point of situations in which PL300 knowledge and skills are being applied versus recalled.

exercises that were eliciting meanings related to LKAS factors. We determined that problems related to frustration with peer leadership, managing a stressed platoon, and understanding the mission were associated with various LKAS factors. In addition, LKAS factors were associated with PL300 concepts related to types of leadership, subordinate care and counseling, as well as communication and negotiation. While the findings here were not extremely robust, there may be potential for LKAS to be used in evaluating individual training scenarios to ensure the intended themes/factors are being emphasized in training. In the case of this research, effects may have been diluted due to the broad variety of problems that cadets listed, which subsequently needed to be coded into categories that had fairly wide parameters. A larger sample may have improved our ability to code problem and concept categories with more distinct boundaries.

Far Transfer Findings

Within each of our research efforts, the cadets identified concepts and skills learned throughout the PL300 course, although particular parts of the course were emphasized. Points of emphasis included types of leadership—e.g., transformational or authentic leadership—as well as concepts related to counseling, communication, and motivation. One unexpected finding was the large percentage of cadets (72%) who were able to describe in detail how they had applied what they learned in the course 2 to 15 months earlier. The percentage was similar on the LKAS. That is, 82% of cadets gave detailed answers to our transfer-related questions following the field exercise (10 to 20 months after PL300).

Although there is much debate in the literature about the actual rate of transfer, with some researchers reporting percentages as low as 10% of course content actually transferring to applied settings (see Georgenson, 1982; also Fitzpatrick, 2001, for commentary). Our findings may reflect the high level of support that cadets receive for transferring their leadership knowledge and skills within the USMA environment (see Aguinis & Kraiger, 2009). Alternately, these relatively high percentages of transfer may be an artifact of how we approached our analysis, using methods distinct from those typically applied in the research literature. The positive 72% transfer rate may be attributed to our open-ended approach. This approach allowed cadets to define for us how they were using what they learned in the course, rather than presupposing what they ‘should’ have learned and then testing them based on that determination. Saks (2002) has noted that at one year 70% of trainees reporting transfer is reasonable, as opportunities to transfer learning to the job increase over time. While our approach may have provided insight into the process of far transfer in the field, it may have also limited comparability of transfer rates with those published in the literature. This potential limitation of the method to address far transfer should be noted for future research.

The thematic framework that emerged in the second phase of this research was considerably more complex than we had anticipated, indicating the variety of concerns that elicited PL300 knowledge and skills for cadets in their everyday life situations. This finding indicates that future research may focus on reducing the number of elements in the framework by specifying the relationships among the various themes and subthemes, and utilizing a larger sample.

The Thematic Framework and Whole Task Training

Current research in education has begun to emphasize the value of whole-task models for training complex knowledge and skill domains, particularly when the knowledge and skills are not readily decomposable. While part-task models focus on particular facts and step-by-step sequences in learning, whole task models focus on presenting learners with increasingly complex tasks with interrelated elements (Van Merriënboer & Kester, 2008). Moreover, recent research has suggested that experts tend to perceive and categorize problems in terms of deep structural features that enable them to recognize similarities among problems arising across distinct contexts (Gentner, Loewenstein, & Thompson, 2003). Novices tend to focus on the superficial features of problems, i.e., the particulars of the situation. Leadership is one such area in which using whole task models in training may be particularly applicable. The thematic framework we developed may be used to support educational tasks related to scenario development for training and/or activities that concern in-depth analysis of leadership situations.

To revisit and summarize the thematic framework, the following statement presents the framework in terms of a first-person perspective (see Riessman, 1993), reflecting far transfer as a whole task. This statement is intended to reflect the general themes describing the transfer experience that emerged across cadets' accounts, rather than the statement of any one cadet:

When I am in a situation in which I am applying what I learned in PL300, I am aware of my role with respect to others. More often, I am in a leader role, less often in a follower role. I am aware that there are some things in the situation that I need to change and some things that I need to keep the same. My focus tends to be on changing things.

I become aware of how challenges help me to see who I am as a leader. As a leader, I know I need to think through and clearly communicate my intentions. Further, I need to establish my authority, develop and exercise power, and maintain my influence over time. I must also be careful to be diplomatic, unbiased, and fair in my decisions and in my treatment of others. While I sometimes make mistakes, I reflect on and learn from them. Ultimately, I seek to establish that I am a competent and trustworthy leader, deserving of respect from my followers.

I am aware of the unit that I am leading. I focus on whether the unit is willing and able to follow me. As a leader, I cannot do everything, so I have to delegate tasks to other leaders within my unit. I am aware of the need to encourage my unit to be productive, efficient, and effective, and to enforce the standards that the Army and I have established for the unit. Finally, I look for ways to develop unit identity, cohesion, and loyalty. I work to develop in the unit a sense of being part of something important and larger than any one person. To this end, I am also careful to manage conflicts that arise between individuals within the unit.

I am aware of the individual Soldiers that make up the unit I lead. I help them to understand what they each contribute to the unit, developing their unique capabilities and talents. I understand that different things can motivate different Soldiers, so I work to become aware of what these individual motivations are. I help individual Soldiers to develop autonomy in what they do, and a sense of personal responsibility for the outcomes of their work. Finally, I try to be understanding of differences between people and to have empathy for others' perspectives and life experiences.

Finally, I am aware of conducting a specific mission. There are things that need to get done on time, so I divide up the responsibilities in a reasonable way. I set goals, for both the short-term

and long-term, and monitor our progress toward those goals. When the unit encounters challenges, constraints, or other difficulties, I make sure they are addressed.

As it represents a whole task model, the thematic framework presents a schema for interpreting situations in which PL300 knowledge and skills may be applied. Under untrained circumstances, a cadet may only attend to one or another aspect of their experience; however, using the framework as analytic tool, they could potentially make sense of their leadership situation from multiple perspectives. As an analytic tool, the framework may be useful in helping cadets to focus their attention on aspects of their situation they may not have otherwise considered. The framework could be applied in whole task training situations as well as in field settings, after PL300 training is complete to encourage transfer of PL300 knowledge and skills.

Organizing cadets' sensemaking processes with respect to the thematic framework may also help them with problem-solving (Sheckley & Bell, 2006). From a whole-task perspective, problem solving is a matter of restructuring how we perceive a problem. By reframing how we perceive a problem, we may recognize solutions where we may not have otherwise noticed them before (see Wertheimer, 1945). By analyzing a whole-task, using a template or framework, a cadet may be better able to see their situation in different ways, thereby enhancing their ability to apply what they have learned (McCaffrey, 2012). Figure 3 describes, in terms of a general structure, the overlapping components of whole-task transfer.

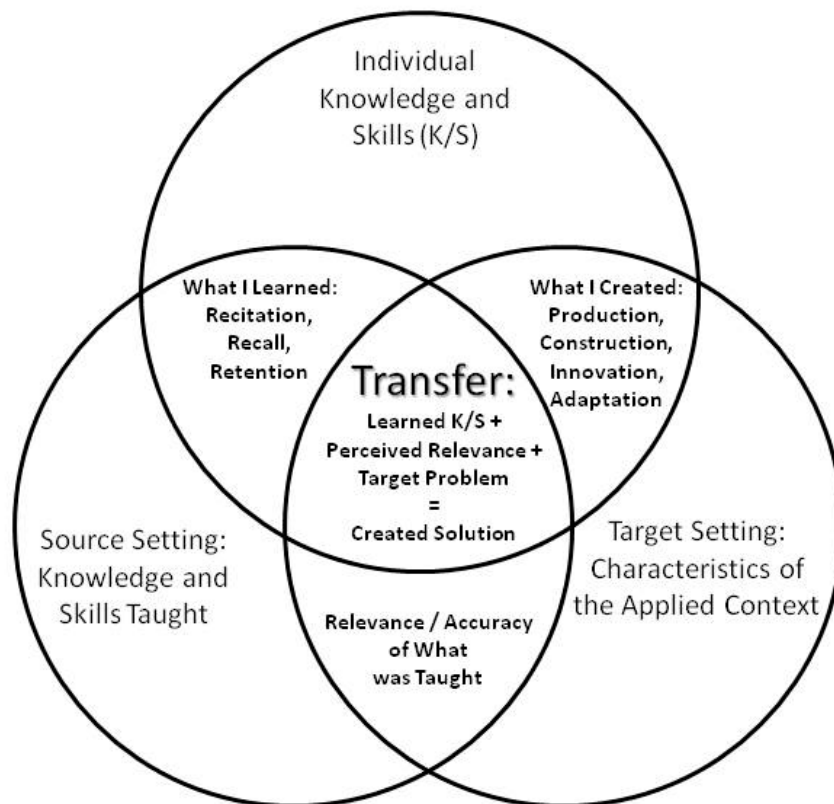


Figure 3. General Structure of Whole-Task Transfer

The general structure of whole-task transfer is presented as a Venn Diagram in Figure 3 to emphasize the composite and overlapping aspects of transfer. As depicted in the diagram, transfer involves both a source setting in which specific knowledge and skills were taught as well as target setting in which knowledge and skills are applied. The source and target settings are represented by the lower two circles. The source and target settings each have their own unique characteristics; where they overlap indicates the accuracy or relevance of what was taught when it is considered in terms of the problems that characterize the target setting.

As represented by the uppermost circle in Figure 3, transfer involves an individual learner, who has acquired particular knowledge and skills in the source setting, information that may potentially be recalled and used in a target setting. A whole-task understanding of transfer takes into account the source setting, the target setting, and the individual learner in such a way that it can describe how the learner applies what he or she knows, how he or she perceives the relevance of what he or she knows to a particular problem, and whether he or she is able to create a solution on the basis of this intersection of elements. If one considers only 1 or 2 of the 3 components of transfer, it may tend to bias how we understand transfer. For instance, only considering the individual and the source setting may tend to emphasize recitation, recall, and retention of knowledge and skills; whereas only considering the individual and the target setting may only emphasize production, construction, innovation, and adaptation of knowledge and skills.

The thematic framework we developed in this research seeks to target the central, overlapping part of the Venn diagram, focusing cadets on how they are perceiving the problem they are seeking to solve. Much of the scientific research to date has focused on one or another aspect of the whole-task model of transfer. As it is focused on the intersection of elements, a thematic framework could serve as a template to guide perceptual and meaning making aspects of problem solving and thereby potentially facilitate far transfer of leadership knowledge and skills.

Transfer and Metacognition

Metacognition has been defined as ‘thinking about thinking,’ originally coined in the context of how people manage their memory processes (see Flavell, 1971; Metcalfe & Shimamura, 1994). One of the questions suggested by this research concerns how and what learners become aware of when applying and transferring something they learned. That is, what is the generalizable characteristic of ‘thinking about thinking’ when one is engaged in far transfer. What our findings suggest, particularly regarding the thematic framework, is that awareness seems specific to the content domain and the meaningful cues in the environment that elicit existing knowledge and skills in order to *do* something (Gibson, 1977). The participants rarely used terms in their accounts of far transfer that were suggestive of thinking in depth about their own psychological processes. Their focus, instead, seemed to be ‘outward’ rather than ‘inward’ regarding the situation they faced, the particulars of the situation, and on describing a mediating framework of meanings that guided how they were making sense of the situation (i.e., the thematic framework) in order to act. Cognition as a focal point in their experience seemed to recede, with their knowledge about leadership and past experiences related to leadership coming to the foreground.

One way to address this may be to look at parallels between processes related to understanding information and those related to applying information. It may be possible, given a particular orientation to what one is learning, to be more flexible in how one is able to use knowledge and skills across different settings. For instance, Fyrenius, Wirell, and Silén (2007) interviewed medical students to derive descriptions of the students' different approaches to achieving understanding and application of their knowledge and skills. They labeled the four approaches: (a) sifting, (b) building, (c) holding, and (d) moving. The labels for these approaches were chosen to express what students described doing with information. *Sifting* is a technique of understanding that is focused on copying and condensing information, often gathered from teachers or books. *Building* adds some complexity to the process by constructing understanding by determining how it relates to previous knowledge and experiences. *Holding* is a process of reorganizing and restructuring information, within the context of pursuing a goal, such as being able to explain what one has learned. Finally, *moving*, is the most complex. *Moving* focuses on strategies to look at information from multiple perspectives, using different modalities and techniques to make sense of what one is learning. Ultimately, *moving* is focused on being able to apply what one has learned. The first two techniques—sifting and building—would seem focused most on near transfer, whereas the second two techniques—holding and moving—would seem more focused on far transfer.

An approach to teaching focused on exposing learners to many variations in examples and applications of the concepts they are learning may be very useful if the learners are also exposed to a template or a schema for how to interpret what they are learning (Schwartz, Chase, & Bransford, 2012). With such a template, learners would possess a tool with which to transform and adapt what they are learning to novel situations and problems (Gentner, Loewenstein, & Thompson, 2003). In this sense, the current use of case studies in PL300 is apropos; any classroom activities that incorporate everyday life experience with the concepts being taught will likely be beneficial in helping cadets build up a framework for making sense of novel situations in which they may be called on to apply what they have learned.

When initially undertaking this research, we had expected that there would be a clear metacognitive component within the thematic framework, reflecting that far transfer would be executed in a self-aware way. However, it seems that being aware that one is transferring was less significant than recognizing the characteristics of the situation that indicate an opportunity to use what one has learned. Exposure and practice with the thematic framework in concrete, everyday situations may help to develop a metacognitive awareness of what one is doing when applying leadership knowledge and skills in everyday situations while remaining close to the knowledge and skills relevant to the course. What effect this awareness could have, however, is unknown. From one standpoint, having a component of training that is focused on how to transfer acquired knowledge and skills has been shown to be beneficial to later transfer (Van Merriënboer & Kester, 2008). From another standpoint, being too self-aware of what you are doing when engaged in well-practiced and complex tasks can inhibit performance (i.e., “choking”; cf. Baumeister, 1984). That said, Pleban, Graves, et al. (2011) did find positive results using a thematic framework to train cadets to recognize and make sense of ethical dilemmas emerging in role-played exercises in a USMA negotiations course. There may be benefit to additional experimentation, applying the framework within the PL300 course, field exercises, or other settings.

Enhancing Productive Thinking

When people figure out how to use what they know in unexpected or unfamiliar situations, they have in a sense created new knowledge by transforming what they have previously learned (see Schwartz, Chase, & Bransford, 2012). With more and more experiences of this type, what they know may become increasingly transformed. People take what they know and fit it to their own personal commitments; they develop a personal understanding of how they can use knowledge and skills in practical ways to do things that are important to them (see Polyani, 1962; Bruner, 1991). For his own context, Martin Buber (1951/1999) described the idea well, "...let that which is recognized as right, as just, as true...through one's influence take seed and grow in the form suited to individuation" (pg. 13). What any one individual learns becomes more and more his or her own as they use it in everyday life. On that basis, a good way to understand the process of far transfer is from the perspective of people who have engaged in it, as the process can be very difficult to recognize just by observing individual behavior or by administering an exam (Pollio, Henley, & Thompson, 1997). To understand how transfer may operate as a process through which knowledge is adapted and transformed we needed to understand how knowledge users attended to and made sense of problems they encountered, how they perceived what they know as relevant to the problems they have identified, and how they figured out ways to apply their knowledge to those problems.

With respect to transfer in the field exercises, among the more interesting findings was the relationship that emerged between some problems that cadets reported encountering and the particular themes/factors that they emphasized when interpreting their situation. First, problems related to frustration and tension arising from peer leadership appeared to shift the cadets' focus away from the mission and toward concerns related to developing as a unit. Second, cadets were aware of focusing on developing as leaders when trying to manage and motivate a stressed and/or fatigued platoon. Finally, when cadets were having problems understanding and executing specific aspects of their mission, they tended to focus on themes related to conducting the mission, but they deemphasized developing as a unit. One could ask whether these are in fact the most effective areas to focus attention when addressing the specified problems. These findings indicate shifting points of attention in relation to specific types of problems cadets had encountered, implying that the thematic framework may be useful as a template that could be used to assist cadets in making sense of particular leadership situations they are experiencing. The template might also be used to encourage a thorough analysis of situations in which cadets are expected to apply their leadership knowledge and skills, considering possibilities for how to make sense of their situation that they may not have otherwise considered.

When problem solving, it can be beneficial to intentionally manipulate one's own perspective on a problem, eliciting many potential solutions for evaluation (Wertheimer, 1945). This process of shifting perspectives has been described as 'bracketing and variation' (Ihde, 1987). Bracketing is when one identifies and suspends assumptions about a problem—acknowledging and putting aside what one immediately perceives and thinks about a problem in order to elicit additional possible interpretations (Gadamer, 1960; 1987). Variation involves recalling or imagining as many examples of a type of a problem in order to identify parameters that are stable and those that vary across the examples (Ihde, 1987). This is conceptually analogous to Schwartz's contrasting cases approach to training and education (see Schwartz, &

Bransford, 1998; Schwartz, Chase, & Bransford, 2012). The thematic framework we developed in this effort may help cadets vary their perspective when engaged in solving leadership related problems that may require PL300 knowledge and skills to be applied.

Conclusions and Recommendations

Leadership is often practiced in complex and ambiguous situations, addressing problems that have no single correct solution. For this reason, we chose to investigate how PL300 course graduates have actually used what they learned in PL300 rather than test them on their retention of factual knowledge and concrete skills learned in the course. We asked them to reflect on their experiences and to recognize in those experiences how they had applied what they were taught. Further, we asked them to describe what they were aware of in those situations. As a task to represent far transfer, this would seem more representative—i.e., how they actually adapt and use their knowledge and skills—than would a basic knowledge test.

This research explored alternative ways to assess far transfer and productive thinking rather than near transfer of knowledge skills, which often rely on recall and recitation (Ford & Weissbein, 1997). There are two key products of this research: the thematic framework and the Leadership Knowledge Application Scale (LKAS). The thematic framework describes what course graduates are aware of in situations in which they applied their PL300 knowledge and skills. Based on the thematic framework, we developed the LKAS. The LKAS was designed to measure preferences course graduates may have when perceiving and interpreting particular leadership situations in which they could apply or have applied PL300 knowledge and skills.

The results of this research may be useful in the following ways:

- **Task helper for analyzing leadership situations.** The thematic framework may be used as a cueing protocol to help cadets analyze situations in which they could apply knowledge and skills acquired in the PL300 course. As a cueing protocol, the themes and subthemes would help cadets to think through situations and explore different potential ways to apply their knowledge and skills. The framework works as a cognitive schema to help mediate the transaction between what cadets have learned and the situations in which they are called on to apply this knowledge.
- **Aiding training developers in empirically analyzing field-training scenarios.** Training developers may use the Leadership Knowledge Application Scale (LKAS) to evaluate how well field-training scenarios are eliciting appropriate knowledge and skills from participating cadets. Moreover, training scenarios could be developed and refined empirically using LKAS findings. In this latter use, scenarios could be designed to target themes/factors specifically.
- **Informing cadets about how they perceive leadership situations.** Trainers may use the LKAS to provide feedback to cadets about their general perspective and perceptual preferences concerning different leadership situations they have experienced, comparing individual cadets' responses in relation to those of their peers. The findings could be used to examine similarities and differences in how individuals perceive events. The

LKAS results could be used in a course to facilitate discussion about using knowledge and skills in operations, and developing flexibility and creativity in how one applies what one has learned. Some research has suggested that preparing learners for transfer in this way may increase the likelihood of later transfer (Reder & Klatzsky, 1994; Van Merriënboer & Kester, 2008).

The thematic framework gives us an understanding of how cadets, as a group, make sense of situations in which they apply what they have learned. The LKAS enables us to measure what themes are emphasized when cadets are engaged in evaluating particular situations and applying what they have learned in those situations. Reilly (2006) has noted that one of the critical characteristics of thinking that differentiates novices from experts is the “ability to perceive and reproduce large meaningful patterns in a domain” (pg. 17). The thematic framework and LKAS may be useful tools in working with individual cadets to perceive these meaningful patterns for the leadership domain. The LKAS can be used to measure and provide feedback to individual cadets concerning how they perceived a leadership problem relative to their peers. With this information in hand, feedback to cadets as individuals and as a group may be used to stimulate group discussions concerning cadets’ reasons for why they chose to interpret the situation from one perspective rather than another. The outcome anticipated is that they will enhance their skill at shifting their points of focus within a situation to address the different aspects of problem solving situations they may encounter in the future.

The Army tends to be very practical about what it expects from training. Training helps to make operations more efficient, effective, and safe. Like other organizations, the Army has an associated goal of investing in the Force and its future success (cf. Blume, Ford, Baldwin, & Huang, 2010). For this reason, instructors and training administrators are concerned with whether and in what ways trainees actually use what they learned. Ultimately, what these stakeholders want to know is whether a particular training program has been successful, having had a positive effect on how former trainees can now apply knowledge and skills to perform critical tasks (Ford & Weissbein, 1997). As mandated by the Army Learning Model (TRADOC, 2011), better strategies are needed to ensure learning effectively transfers to the operational environment. It would seem, based on this research, that the PL300 course provides cadets with useful knowledge and practical skills that can be readily applied in everyday personal and professional contexts. The thematic framework and LKAS may further support longer-term transfer of leadership knowledge and skills to operational contexts.

With the end of the wars in Iraq and Afghanistan, a slower operational tempo may lead to changes in the time allocated to training and the content of that training. Further, the situations into which knowledge and skills are transferred are changing. One clear lesson that has emerged from the past decade concerns the difficulties involved in preparing the officer corps for every situation they could potentially face during a deployment or when leading Soldiers in garrison. It is critical to the success of the Army that junior officers receive training in knowledge and skills that can be readily transferred across a variety of operational settings. Moreover, it is critical that junior officers develop an ability to be more effective in uncertain situations, against rapidly adapting enemies. Tools and models that support far transfer of knowledge and skills to operational contexts may help to develop the expertise junior officers need to be perceptive, deliberate, and effective leaders.

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Acronyms

α	Cronbach's Reliability Coefficient Alpha
AMOS	Analysis of Moments Structure
ATC	Army Training Concept
β_{sd}	Slope of the Regression Line Given in Standardized Units
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMIN/df	Minimum Discrepancy Statistic
ΔX^2	Delta Chi-Squared (Difference Between Chi-Squared Values)
EI	Emotional Intelligence
η^2_p	Eta Squared (Partialed Variance)
F	Fisher's Statistic; Between-Group Variability / Within-Group Variability
f	Frequency Count
FM	Field Manual
FX	Field Exercise
GOSM	Groups as Open Systems Model
IFI Δ^2	Incremental Fit Index Delta Squared (Bollen's Incremental Fit)
LCI	Leader Competency Inventory
LGM	Leader Growth Model
LKAS	Leadership Knowledge Application Scale
M	Mean; a statistical index
N	Number of participants (sample size)
p	Probability of a False Positive Result
PL300	Platoon Leader 300 (United States Military Academy Course)
R	Correlation; Effect Size for the Regression Model
RMSEA	Root Mean Square Error of Approximation
RMSR	Root Mean Square Residual
sd	Standard Deviation; a statistical index
TRADOC	Training and Doctrine Command
USMA	United States Military Academy

APPENDIX A

PLATOON LEADER 300 COURSE GUIDE

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UNITED STATES MILITARY ACADEMY

WEST POINT, NEW YORK

PL300 MILITARY LEADERSHIP COURSE GUIDE

**ACADEMIC YEAR 2010-2011
Spring Semester
PL300**

**DEPARTMENT OF BEHAVIORAL
SCIENCES AND LEADERSHIP**

COURSE INTRODUCTION

3 January 2011

Class of 2012,

Welcome to PL300 – Military Leadership! It is my hope and expectation that PL300 is your most memorable and relevant class at West Point. Every PL300 faculty member is uniquely qualified. Each was hand selected based on their demonstrated excellence as a platoon leader and a company level commander, then educated at one of our Nation’s finest graduate programs. That said, PL300 is all about *You and Your growth as a leader*.

Military Leadership, as a course, comes at just the right time in your cadet career. You’ve had two important military leadership experiences; this past summer and last semester, and you will serve in an important leadership position next summer prior to your First Class year.

I promise you will finish this semester more self aware as a leader. You will learn leadership theories, models and concepts and be required to integrate them in *Your* individual leader development. Leadership is an art, but there is indeed science involved in equipping the artful leader. Your leadership within the Corps is just as important as your future service as an officer, so we’ll ask you to apply these frameworks in “grey and green” settings.

Our Nation needs strong leaders and *You* are responsible for *Your* own learning and development. It is our distinct privilege to be facilitators in your development.

For More Than Ourselves

ERIC G. KAIL
COL, FA
PL300 COURSE DIRECTOR

COURSE INTRODUCTION

Course Purpose

As a result of this course, cadets are capable of integrating new knowledge, experiences, and reflection to lead soldiers and military organizations more effectively in a culturally diverse, changing world. *In short, cadets leave this course as better leaders.* To achieve this, PL300 has two main goals:

1. Cadets are better, more self-aware leaders who are capable of reflecting on and learning from their life and leadership experiences.

The Cadet Leader Development System (CLDS) emphasizes the importance of this course goal:

Self-awareness is critical to being a commissioned leader of character. To the extent that cadets graduate with a better sense of who they are, their strengths, their weaknesses, their biases and tendencies, this ingredient of development will contribute to the development of self-aware leaders.¹³

It becomes evident at this point why PL300 is not a class about answers, checklists or recipes, why it is open and not closed, and why we emphasize process and not content. Each cadet brings to the table their own set of relevant and meaningful experiences and perspectives. Our intent in the course is not to provide the right perspective, but to challenge cadets to better understand themselves, to integrate new knowledge and to therefore shed new light on what they believe (through the incorporation of new concepts and theories), and to prepare them to do this for themselves for the remainder of their lives.

2. Cadets can apply relevant frameworks, concepts and theory to leadership situations.

In essence the “application” goal, it is our intent to demonstrate throughout the course the relevance of human and organizational behavior concepts, and their inherent ability to allow us to comprehend more clearly and lead more effectively. Cadets will appreciate and internalize certain concepts while dismissing others. Integral to the achievement of this goal is enhancing the ability to “think through” situations, and draw from well-researched behavioral and social science theories.

Students who complete this course leave able to effectively able to apply theoretical content rather than simply reciting definitions and key words. In a changing world, facts and memorization are perishable, but the capabilities described above will endure for a lifetime.

¹³ USMA Circular 1-101, p. 22

COURSE INTRODUCTION

The Mentor Relationship

You will find a mentor as a part of this course. An integral part of your PL300 learning experience is building a relationship with a mentor. Two of your three major writing assignments (the LRE and the LPP) involve developmental meetings with a mentor. The purpose of the meetings is to both share and gain information, generally focused on your individual portion of the major writing assignment. For example, in your *Leader Reflective Essay* (LRE), you share your strengths and weaknesses (Part A of the assignment) with your mentor in order to gain his/her recommendations and improvement strategies. Similarly, in the *Leadership Philosophy Paper* (LPP), you share your leadership philosophy (Part A of the assignment) and learn your mentor's philosophy. In both of these examples, the mentor interaction is a graded portion of the writing assignment (Part B of the assignment).

Find your mentor early! The process of identifying a mentor and cultivating a relationship is not something that can be done at the last minute. For the purpose of PL300, your mentor should meet the following guidelines:

- **Someone here at USMA**
- Senior to you in age with significant life and professional experience
- Officer, Non-Commissioned Officer, Warrant Officer (active or retired)
- Coaches and others with significant leadership experience may be considered on a case-by-case basis
- Fellow cadets and your family members are **not** appropriate
- Your current TAC Officer/NCO by exception only

Your mentor is both key in your PL300 learning experience *AND* a part of your graded assignments. Find yours early, meet with them often, and make the most of the learning opportunity.

COURSE INTRODUCTION

Evaluation and Grading

Your instructor will evaluate your performance on graded requirements in PL300 in comparison with criteria and standards that represent the faculty's judgment of exemplary performance. The *Lesson Objectives* for each lesson will guide you in determining how to focus your effort. The following key terms from your lesson objectives are provided below for clarity.

Differentiate: To give a detailed account of distinctions between related theories, concepts, things or events.

Summarize: To express assigned material in concise form without losing key implications of reading.

Illustrate: To make plain, clear and intelligible a term, concept or theory by means of figures, examples, comparisons, etc.

Infer: To draw conclusions or make generalizations suggested by a specific set of data.

Classify: To place concepts, terms, objects, words or situations in categories according to specific criteria.

Relate: To bring into logical or natural association by stating the connection between concepts, theories, terms issues, etc.

Predict: To use a concept, theory or principle to forecast an outcome.

Explain: To use a given theory or concept, to account for the occurrence of a given phenomenon.

Apply: To use learned material such as rules, concepts, principles or theories to solve a problem in a given situation.

Compare: To state similarities by bringing theories, concepts, paradigms, or principles together for the purpose of demonstrating likeness.

Contrast: To state dissimilarities by bringing theories, concepts, paradigms or principles together for the purpose of demonstrating unlikeness.

Analyze: To break down a situation, issue or event into its component parts, summarizing relationships among components.

COURSE INTRODUCTION

Synthesize: To combine separate elements into an orderly, functional, structured new whole.

Graded Events

LEADER DEVELOPMENT PORTFOLIO	450 total points
Journey Line and Narrative (JL)	(50 points)
Leader Reflective Essay (LRE)	(150 points)
Leader Philosophy Paper (LPP)	(250 points)
MIDTERM EXAM	150 points
TEE	200 points
INSTRUCTOR POINTS (Participation/Preparation)	<u>200 points</u>
Total	1000 points

Your final grade in PL300 is based on the percentage of total possible course points that you earned on your Graded Requirements, your Instructor Grade and the TEE. The percentages and letter grade equivalents are:

A+	97-100%	A	93-96.9%	A-	90-92.9%
B+	87-89.9%	B	83-86.9%	B-	80-82.9%
C+	77-79.9%	C	73-76.9%	C-	70-72.9%
D	67-69.9%	F	0-66.9%		

Grades and Their Meaning

"A" Work: (1) Complies with Dean's Criteria, and is theoretically sound; (2) Is organized and unified in presentation, e.g. accurately and effectively uses concepts in assessment and application; (3) Maintains a level of excellence throughout, and shows originality and creativity in the design of leader actions; (4) Is free of errors in grammar, punctuation, word choice, spelling and format, e.g. meets the requirements of correctness and style.

"B" Work: Meets the requirements in (1), (2), and (4) above, but demonstrates less originality or creativity.

"C" Work: Meets the requirements in (1) and (2), but contains relatively little creativity or originality and a few flaws. Reads like a first draft.

"D" Work: Fails to realize several critical elements of (1) thru (4), and to meet some of the criteria in significant ways.

"F" Work: Fails to realize several critical elements of (1) thru (4); does not meet the criteria, and contains serious errors or flaws.

As you will note in these descriptions of graded work, you will be evaluated for the style and organization of your written work, and not just the theoretical content. The

COURSE INTRODUCTION

established Dean's writing standards of correctness, style, organization and substance will always apply.

COURSE INTRODUCTION

PL 300 Course Overview AY 11-2			
Lesson #	Date	Lesson Topic	Major Course Events
Self-Assessment			
1	6/7 JAN	Introduction	
2	8/10 JAN	Learning from Experience I – LGM	
3	11/12 JAN	Learning from Experience II – Failure	LCI Survey Suspense
4	13/14 JAN	Learning from Experience III – Crucibles	
5	18/19 JAN	Mental Models	Mentor Selected (Course Intro)
6	20/21 JAN	Decision-Making	JL Due 211600JAN11 (Annex A)
7	24/25 JAN	Emotional Intelligence	
Leadership Theories			
8	26/27 JAN	Transformational Leadership	
9	28/31 JAN	Full Range Leadership	
10	1/2 FEB	LCI Survey Results	
11	3/4 FEB	Authentic Leadership	
12	7/8 FEB	Guest Speaker (Instructor Option)	LRE Due 081600FEB11 (Annex B)
13	9/10 FEB	Experiential Case Study	
14	11/14 FEB	Class Drop	
15	15/16 FEB	Bases of Power	
16	17/18 FEB	Influence Tactics	
17	22/23 FEB	Integrative Case Study	
18	24/25 FEB	Motivation I	
19	28 FEB / 1 MAR	Motivation II	
20	2/3 MAR	Integrative Case Study	
21	4/7 MAR	Mid-Term WPR (Dean's Hour)	Dean's Hour 07MAR11
22	8/9 MAR	Class Drop	
23	10/11 MAR	Mid-Course Review and Feedback	
Organizational Leadership			
24	21/22 MAR	Counseling and Leader Development	
25	23/24 MAR	Counseling Experience	Counseling Lab
26	25/28 MAR	Negotiations	
27	29/30 MAR	Group Development	
28	31 MAR / 1 APR	Guest Speaker Dean's Hour	
29	4/5 APR	Group Structural Dimensions	
30	6/7 APR	Socialization	
31	8/11 APR	Group Conflict	
32	12/13 APR	Cohesion	
33	14/15 APR	Integrative Case Study	LPP Due 141900APR11 (Annex C)
34	18/19 APR	Organizational Culture	
35	20/21 APR	Class Drop	
36	22/25 APR	Organizational Change	
37	26/27 APR	Multi-Cultural Leadership	
38	29 APR / 2 MAY	Experiential Case Study	
39	3/4 MAY	Guest Speaker	Guest Speaker
40	5/6 MAY	Course Wrap-Up	ECR Due

SELF-ASSESSMENT

Lesson 1: Introduction

Lesson Objectives:

Explain why you are taking PL300 and how it will fit into your personal development.

Explain why PL300 occurs during cow year.

Student Preparation:

Lesson Reading: Course Guide Introduction
“The Leader Growth Model and Leader Development” by Z. Mundell (pp. 1-5)

Key Concept: Leader Growth Model (See Annex H)

Lesson 2: Learning from Experience I – Leader Growth Model

Lesson Objectives:

Illustrate the Leader Growth Model and relate it to your own development and learning.

Explain challenges and benefits of leader growth and development.

Student Preparation:

Lesson Reading: “Chapter 3: You Must Lead Yourself First” by Greg Hastings (pp. 7-18)

Key Concept: Leader Growth Model (See Annex H)

SELF-ASSESSMENT

Lesson 3: Learning from Experience II – Learning from Failure

Lesson Objectives:

Infer the role of failure in leader development.

Relate personal failure experience to the Leader Growth Model.

Student Preparation:

Lesson Reading: “The Failure-Tolerant Leader” by Farson and Keyes (pp. 19-26)

Key Concepts: Failure Tolerance

Due: LCI Survey Suspense

Lesson 4: Learning from Experience III - Crucibles

Lesson Objectives:

Relate the crucible concept to your life experiences.

Analyze how crucibles influence your development.

Contrast adversity with a crucible experience.

Student Preparation:

Lesson Reading: “Crucibles of Leadership (HBR OnPoint Enhanced Edition)” by Warren G. Bennis and Robert J. Thomas (pp. 27-36)

Key Concepts: Crucible Experience
Learning from Difference
Prevailing over Darkness
Meeting Great Expectations

SELF-ASSESSMENT

Lesson 5: Mental ModelsLesson Objectives:

Explain how mental models are formed and their influence on leader behavior.

Illustrate how common attribution bias errors impact your effectiveness as a leader.

Apply double-loop learning to leader growth.

Student Preparation:

Lesson Reading: “Mental Models” by MAJ Jordon Swain (pp. 37-44)

Key Concepts:

- Mental Model
- Fundamental Attribution Bias Error
- Self-serving bias
- Halo Effect
- Confirmation Bias
- Stereotyping
- Single-Loop and Double-Loop Learning

Due: Mentor Name (See Course Introduction, pg. iii).

Lesson 6: Decision-MakingLesson Objectives:

Differentiate the ways in which leaders make decisions.

Apply decision making.

Student Preparation:

Lesson Reading: “Leader’s Guide to Decision Making” by LTC Eric G. Kail (pp. 45-53)

Key Concepts:

- Rational Decision Making
- Intuitive Decision Making
- Recognition Primed Decision Making

DUE: Journey Line NLT 081600FEB11 (See Annex A).

SELF-ASSESSMENT

Lesson 7: Emotional Intelligence

Lesson Objectives:

Illustrate the connection between emotional intelligence and leader effectiveness.

Compare/contrast levels of emotional intelligence between leaders.

Analyze a leader's performance and relate it to his/her emotional intelligence.

Student Preparation:

Lesson Reading: "What Makes a Leader? (HBR OnPoint Enhanced Edition)" by Daniel Goleman (pp. 55-66)

Key Concepts:

- Self-Awareness
- Self-Regulation
- Motivation
- Empathy
- Social Skill

LEADERSHIP THEORIES

Lesson 8: Transformational LeadershipLesson Objectives:

Summarize transformational leadership components and behaviors.

Infer why transformational leaders are necessary in a dynamic, changing world.

Student Preparation:

Lesson Reading: “Transformational Leadership: What a Leader in a Values-Based Organization Must Strive to Exercise” by LTC B.B. Banks (pp. 93-101)
Annex E and F of PL300 Course Guide

Key Concepts: Transformational Leadership Components
Transformational Leader Behaviors
Outcomes of Transformational Leadership
TFL Model (See Annex E)

Lesson 9: Full Range LeadershipLesson Objectives:

Differentiate between transformational and transactional leadership behavior.

Apply the full range model of leadership.

Student Preparation:

Lesson Reading: Review Lesson 8 readings
Annex E and F of PL300 Course Guide

Key Concepts: Transactional Leadership (introduced in class by instructor)
TFL Model (See Annex E)
Full-Range Model of Leadership (See Annex F)

LEADERSHIP THEORIES

Lesson 10: Leadership, Character, Identity (LCI) Survey ResultsLesson Objectives:

Identify key leadership traits you possess.

Summarize the impact of these traits on your leader identity.

Apply the results of this survey to your Authentic Leadership.

Student Preparation:

Lesson Reading: As assigned by instructor

Key Concepts: As assigned by instructor

Lesson 11: Authentic LeadershipLesson Objectives:

Summarize how authenticity impacts leader effectiveness.

Illustrate what facets of your life influence your ability to develop your authentic self.

Student Preparation:

Lesson Reading: “Discovering Your Authentic Leadership” by Bill George et. al.
(pp. 67-76)

Key Concepts: Life Story
Authentic Self
Values and Principles
Extrinsic and Intrinsic Motivation
Support Teams
Integrated Life
Empowering Others

LEADERSHIP THEORIES

Lesson 12: Guest Speaker

Student Preparation:

Lesson Reading: PL300 Course Guest Speaker Bio and reading TBD.

Due: LRE PAPER NLT 081600FEB11 (See Annex B)

Lesson 13: Experiential Case Study

Lesson Objectives:

Apply relevant concepts from previous lessons to discuss a leader's role in leading others.

Student Preparation:

Lesson Reading: Case Study TBD by Instructor

Lesson 14: Class Drop

LEADERSHIP THEORIES

Lesson 15: Bases of PowerLesson Objectives:

Classify the Six Bases of Power.

Predict the outcomes of using a particular base of power.

Apply various contexts and the best power base to use as a leader.

Student Preparation:

Lesson Reading: Power and Influence by MAJ Jacob Miller (pp. 77-92)

Key Concepts:

- Coercive Power
- Reward Power
- Legitimate Power
- Expert Power
- Referent Power
- Information Power

Lesson 16: Influence TacticsLesson Objectives:

Predict which influence tactics you are likely to use given what you know about yourself and the situation.

Illustrate how influence tactics can help you build your bases of power.

Student Preparation:

Lesson Reading: Review Lesson 15 Reading

Key Concepts:

Pressure Tactics	Consultation Tactics
Exchange Tactics	Personal Appeals
Coalition Tactics	Legitimizing Tactics
Ingratiating Tactics	Collaboration Tactics
Rational Persuasion	Apprising Tactics
Inspirational Appeals	

LEADERSHIP THEORIES

Lesson 17: Integrative Case Study

Lesson Objectives:

Apply relevant concepts from previous lessons to discuss a leader's role in leading others.

Student Preparation:

Lesson Reading: Case Study TBD by Instructor

Lesson 18: Motivation I

Lesson Objectives:

Explain an individual's level of motivation using different theories of motivation.

Apply expectancy and equity theories.

Student Preparation:

Lesson Reading: "Chapter 6: Motivation Theories" by John R. Schermerhorn, Jr., James G. Hunt, Richard N. Osborn (pp. 103-123).
Annex G

Key Concepts: Expectancy Theory
Expectancy
Instrumentality
Valence
Equity Theory

LEADERSHIP THEORIES

Lesson 19: Motivation II

Lesson Objectives:

Explain an individual's level of motivation using different theories of motivation.

Illustrate the influence of feedback on motivation.

Apply motivational theories to your own cadet experiences.

Student Preparation:

Lesson Reading: "Goal Setting Theory" (pp. 125-128)

Key Concepts: Four Conditions for Successful Goal Setting
Practical Applications of Goal Setting

Lesson 20: Integrative Case Study

Lesson Objectives:

Apply relevant concepts from previous lessons to discuss a leader's role in leading others.

Student Preparation:

Lesson Reading: Case Study TBD by Instructor

Lesson 21: Mid-Term Exam

Dean's Hour Exam on Monday, 7 March, 1250-1345 hrs.

Location TBD.

Student Preparation:

Prepare case/movie clip provided by instructor.

Review Lessons 1-20.

LEADERSHIP THEORIES

Lesson 22: Class Drop

Lesson 23: Mid-course Review and Feedback

Student Preparation:

Lesson Reading: Review Course Introduction (Course Guide Preface)

ORGANIZATIONAL LEADERSHIP

Lesson 24: Counseling and Leader DevelopmentLesson Objectives:

Summarize leader behaviors and skills that facilitate an effective counseling session.

Compare/contrast counseling resources available to Army leaders.

Student Preparation:

Lesson Reading: “Effective Counseling Skills” by J. Geraci (provided by instructor)
“FM 6-22, Annex B” (pp. 129-148)

Key Concepts: Essential Leader Characteristics
Genuineness
Unconditional Positive Regard
Empathy
Active Listening
Attending Behaviors
Questioning Skills
Listening Skills

Lesson 25: Counseling ExperienceLesson Objectives:

Apply effective leader behaviors to the counseling process and receive feedback in order to improve counseling skills.

Synthesize key leadership concepts in preparation for real-world counseling scenarios.

Student Preparation:

Lesson Reading: Review Lesson 24 Readings
Counseling Scenarios (provided by instructor)
Counseling Observation Worksheet (provided by instructor)

Key Concepts: Essential Leader Characteristics
Genuineness
Unconditional Positive Regard
Empathy
Active Listening
Attending Behaviors
Questioning Skills
Listening Skills

ORGANIZATIONAL LEADERSHIP

Lesson 26: NegotiationsLesson Objectives:

Summarize why leaders negotiate.

Illustrate the importance of negotiation preparation.

Student Preparation:

Lesson Reading: “A Simple Guide to Principled Negotiations” By Z. Mundell (pp. 149-154)

Key Concepts:

- Parties
- Positions
- Interests
- Reservation Price
- BATNA
- Target Price
- ZOPA

Lesson 27: Group DevelopmentLesson Objectives:

Infer how leaders influence group formation.

Student Preparation:

Lesson Reading: “Group Development” by MAJ Miller (pp. 155-160)
Group Case Study (TBD by your Instructor)

Key Concepts:

- GOSM
- Stages of Group Development:
 - Forming
 - Storming
 - Norming
 - Performing
 - Adjourning

ORGANIZATIONAL LEADERSHIP

Lesson 28: Guest Speaker

Student Preparation:

Lesson Reading: PL300 Course Guest Speaker Bio and reading TBD.

Lesson 29: GOSM: Structural Dimensions

Lesson Objectives:

Summarize the Groups as an Open Systems Model (GOSM) and the impact on leader behavior.

Infer how group membership impacts individual behavior.

Explain the formation and structural dimensions of groups.

Student Preparation:

Lesson Reading: “Groups as Open Systems” (pp. 161-164)
“Structural Dimensions of a Group” by MAJ Matthew (pp. 165-173)
Group Case Study (TBD by your Instructor)

Key Concepts: GOSM
Group Structural Dimensions
Roles
Status
Norms
Composition
Cohesion

ORGANIZATIONAL LEADERSHIP

Lesson 30: GOSM: SocializationLesson Objectives:

Explain the leader's role in the socialization process.

Summarize how to design an effective socialization process.

Classify the three goals of socialization.

Student Preparation:

Lesson Reading: "Socialization Overview" (pp. 175-178)
"Transformational Processes" (pp. 179-185)
Group Case Study (TBD by your Instructor)

Key Concepts: Socialization Considerations
Commitment
Internalization
Innovation
Psychological Contract

Lesson 31: GOSM: Group ConflictLesson Objectives:

Explain the sources of group conflict.

Compare/contrast the benefits and detriments of group conflict.

Apply appropriate group conflict management strategies.

Student Preparation:

Lesson Reading: "Group Conflict" (pp. 186-196)
Group Case Study (TBD by your Instructor)

Key Concepts: Seven Sources of Conflict
Strategies for Managing Group Conflict

ORGANIZATIONAL LEADERSHIP

Lesson 32: GOSM: Cohesion

Lesson Objectives:

Analyze the fundamentals of group cohesion and understand the impact of your leadership on the group.

Explain how leaders assess and build cohesion in teams.

Relate task and social cohesion to team performance.

Student Preparation:

Lesson Reading: “Chapter 15: Team Cohesion in Sport” by Richard H. Cox (pp. 197-213)

“The Army Crew Team” by Scott Snook (pp. 269-279)

Group Case Study (TBD by your Instructor)

Key Concepts: Team Cohesion
Task Cohesion
Social Cohesion
Team Building
Cohesion Intervention Strategies

Lesson 33: Integrative Case Study

Lesson Objectives:

Apply relevant concepts from previous lessons to discuss a leader’s role in leading others.

Student Preparation:

Lesson Reading: Case Study TBD by Instructor

Due: LPP NLT 141900 APR 11 (See Annex C)

ORGANIZATIONAL LEADERSHIP

Lesson 34: Organizational CultureLesson Objectives:

Explain organizational culture and the leader's role in assessing it.

Analyze the levels of organizational culture.

Compare/contrast functional and dysfunctional basic assumptions of organizational culture.

Student Preparation:

Lesson Reading: "Chapter 2: The Levels of Culture" by Edgar H. Schein
(pp. 215-221)

Key Concepts: Artifacts
Espoused Values
Basic Underlying Assumptions

Lesson 35: Class Drop**Lesson 36: Organizational Change**Lesson Objectives:

Predict the need for organizational change.

Analyze potential sources of resistance to change.

Apply Kotter's eight-step change process.

Student Preparation:

Lesson Reading: "Leading Change: Why Transformation Efforts Fail" by John P. Kotter (pp. 223-233)

Key Concepts: Sources of Resistance
Kotter's Eight Steps
Embedding Mechanisms
Reinforcing Mechanisms

ORGANIZATIONAL LEADERSHIP

Lesson 37: Multi-Cultural Leadership

Lesson Objectives:

Explain how differences in culture impact interpersonal relationships and your effectiveness as a leader.

Student Preparation:

Lesson Reading: “Multi-Cultural Leadership Considerations”
(distributed by instructor)

Key Concepts: Power Distance
Uncertainty Avoidance
Gender Egalitarianism
Individualism
Humane Orientation

Lesson 38: Experiential Case Study

Lesson Objectives:

Apply relevant human and organizational behavior concepts from previous lessons towards an interactive experience.

Student Preparation:

Lesson Reading: TBD

ORGANIZATIONAL LEADERSHIP

Lesson 39: Guest Speaker

Student Preparation:

Lesson Reading: PL300 Course Guest Speaker Bio and reading TBD.

Lesson 40: Course Wrap-up

Lesson Objectives:

Apply relevant concepts from PL300 to discuss a leader's role in leading teams and organizations.

Student Preparation:

Lesson Reading: TBD by instructor

Due: End-of-Course Reflection (See Annex D).

ORGANIZATIONAL LEADERSHIP

ANNEX A

**Journey Line and Reflection Narrative
PL300 – Military Leadership**

Due: **211600JAN11** (Lesson 6)
Weight: 50 Points
Length: **Journey Line and 2-3 double-spaced page narrative**

How have my life experiences shaped me as a leader?

ASSIGNMENT:

This assignment has two parts: a creative representation of your journey AND a corresponding narrative to explain the impact of the events in your journey line.

Journey Line: Chart your significant life events and crucible experiences, using time and emotion as your axes. Imagination and creativity are valued. This is an opportunity to express yourself – previous submissions have utilized videos, posters, pictures. Specific guidance will be provided by your instructor.

Reflection Narrative: Considering your journey line, write a 2-3 page narrative that answers the question “Who Am I?” At a minimum, you must discuss your core values, your purpose in life, and how you have gotten to where you are now. You should address in detail at least two crucibles and how these experiences have transformed you (how you think, who you are, your leadership style).

Some questions to consider:

- Have certain people helped to shape your personal identity?
- What have you done in your life that has added meaning?
- What are your future plans or goals?
- How do you describe yourself?

ANNEX B

**Leader Reflective Essay
PL300 – Military Leadership**

Due: **081600FEB11** (Lesson 12)
Weight: 150 Points
Length: **6-7 double-spaced pages**

Where am I now as a leader?

ASSIGNMENT:

PL300: Military Leadership has two course goals. The first deals with developing reflective capacity in leaders while the second goal is focused on enhancing your ability to apply evidence-based leadership theory to your own life and experiences. The leader reflective essay is designed to provide a structured means with which you can reflect on and learn from your past leadership experiences and to present you with an opportunity to apply relevant course content to those experiences and your development as a leader. ***For this assignment you need to consider your past leadership experiences, your strengths and weaknesses, and your future development as a leader.***

Strengths

The first portion of the assignment is to talk about **two strengths** you currently possess as a leader. In this section of the paper you should clearly list and define each of the two strengths. You should then provide concise and relevant examples from your own leadership experiences that illustrate these strengths. The most important part of this section is to then include a robust discussion of course content that justifies why each particular area or characteristic is a strength for you as a leader. (approximately 2-3 pages)

Weaknesses

The second portion of the assignment is to discuss **two weaknesses**, or areas of development, you currently face as a leader. In this section of the paper you should clearly list and define each of the two weaknesses. You should then provide concise and relevant examples from your own leadership experiences that illustrate these weaknesses and how they have adversely impacted your performance as a leader in the past. The most important part of this section is to then include a robust discussion of course content that justifies why each particular area or characteristic is relevant to effective leadership. (approximately 2-3 pages)

Mentor Discussion

After you spend time considering your strengths and weaknesses, you will discuss that information with your mentor. The purpose of this discussion is twofold:

- First, you will get input from your mentor on what they think about your strengths and weaknesses (i.e. are the strengths necessarily important, do they actually agree that your weaknesses are something you should be concerned with, etc.)
- Secondly, you will get your mentor's advice for how to improve your performance as a leader by specifically focusing on your two weaknesses or areas of development.

ANNEX B

In your essay you will summarize this discussion with your mentor, ensuring to include their input on your strengths and weaknesses and their recommendations for improvement.
(approximately 1 page)

Action Plan

The final portion of this paper is to develop an action plan for addressing your weaknesses and improving your leadership in the future. This plan should be ***specific*** and ***action-oriented***. Rather than talking in vague terms about things you could do, you should explicitly discuss steps you will take in order to address your deficiencies and improve your leadership performance. Your action plan should integrate and discuss each component of the leader growth model.
(approximately 1 page)

Successful papers will:

- Have a professional essay format to include appropriate grammar, spelling, structure, etc.
- Use concise personal examples to effectively demonstrate strengths and weaknesses. The best papers, however, will not consist primarily of story-telling. Instead, they will use stories only as necessary to demonstrate effective reflection and application of course content.
- Be well organized and clearly convey the main points within each section of the paper.
- Include an in-depth and accurate discussion of course content to justify the relevance of each strength or weakness mentioned in the essay.

ANNEX B

LRE Grading Rubric

Strengths (approximately 2-3 pages)	WT	Score
Identify (clearly identify and define) 2 personal strengths	5	
Illustrate strengths with personal leadership experience	15	
Analysis of concepts / Depth of theory development	30	
Subtotal	50	
Areas for Improvement / Weakness (approximately 2-3 pages)		
Identify (clearly identify and define) 2 personal weaknesses	5	
Illustrate weaknesses with personal leadership experience	15	
Analysis of concepts / Depth of theory development	30	
Subtotal	50	
Mentor Feedback (approximately 1 page)		
Summarize mentor session and his/her feedback	15	
Discuss mentor's advice / specific recommendations for improvement	15	
Subtotal	30	
Action Plan (approximately 1 page)		
Discuss specific steps/actions that you will take for future development	10	
Clearly/concisely integrate leader growth model into discussion	10	
Subtotal	20	
Grammar and Coherence (You can only loose point here)		
Free of Spelling/Grammar Errors/Essay Flows		
Mentor discussion documented		
Subtotal		
TOTAL	150	

ANNEX C
Leadership Philosophy Paper
PL300 – Military Leadership

Due: **141900APR11** (Lesson 33)
Weight: 250 Points
Length: **8-10 double-spaced pages**

How will I lead?

If you search Amazon.com or you Google for “leadership books” you will find hundreds of examples of personal leadership philosophies – works such as *Lincoln On Leadership*, or *Jesus on Leadership*. This paper is a condensed version of *your* book: *Smith on Leadership*, or *Johnson on Leading*, or _____’s *3 Habits of a High Speed Leader*. It is to serve both as a testament to others of your personal leadership philosophy and as a future reference for your own use.

ASSIGNMENT:

Take approximately eight to ten pages to tell the world about your own leadership philosophy.

Your Leadership Tenets (50 points each)

Organize these pages into three key principles or tenets. Your discussion on each of these principles or tenets will include the following:

- Clearly identify what you believe about leadership in the form of a principle or tenet (your principle should not be simply a concept from the course such as “my principle is to be ‘emotionally intelligent’”).
- Summarize why you believe your principle / tenet is essential to leading others with personal stories, examples or experiences.
- Illustrate how a theory or concept that we covered in this course supports the effectiveness of your principle in the context of leading others. This is where you use theory to infer the effectiveness of your principle. Your ability to summarize different theories than those you analyzed in your leader reflective essay will demonstrate increased creativity as mentioned in the grading criteria for the course.
- Each leadership principle should answer these questions: What do you believe? Why do you believe it? (Illustrate with stories, examples, experiences, etc.) How will what you believe help you lead yourself, others, teams, and organizations?

Your Mentor Discussion Summary (50 points)

You must share your philosophy with your mentor. The purpose of mandating this conversation is to reinforce the idea that we get our own leadership philosophies from a variety of inputs (our background, our parents, our experiences, other leaders, what we read, etc.). Take approximately one to two pages to:

- Summarize the session with your mentor *and his/her feedback on your leadership philosophy*
- Identify (and analyze in comparison to your own) the main tenets of your mentor’s leadership philosophy.
- Provide an example(s) of how your mentor puts their philosophy into practice.

ANNEX C

Your individual leadership philosophy in practice. (50 points)

For this portion of your LPP you have two options. You are only required to choose one of these two options and will not receive additional credit for completing both options.

Option A: Assess your growth since you arrived at West Point and discuss your development path as you move forward.

When you prepared your Leader Reflective Essay, you reflected on your own development as a leader, met with your mentor to get advice, and identified specific steps you needed to take to continue your growth and development as a leader. This is an opportunity to continue that reflection with a focus on how it pertains to your leadership philosophy. In this discussion you must address the following questions:

- How has your understanding of the science behind the art of leadership developed?
- How have you grown as a leader since arriving at West Point? How is that growth/development relevant to your leadership philosophy?
- What specific steps do you need to take to continue your growth after completing this course as you strive to lead in accordance with your designated tenets or principles?

Option B: Create a video to portray your leadership philosophy.

With this option you are encouraged to unleash your creativity. This is an opportunity to produce a video that captures the three tenets of your leadership philosophy ***and where you are in your endeavor to lead in accordance with those tenets.*** Your grade for this portion will be based on the creativity, quality, and professionalism of your presentation. ***This video must be created entirely by you. It is not acceptable to edit together clips from movies, TV shows, etc. to develop your video.***

Your Leadership Philosophy Paper will be assessed by the following:

1. Does the reader know who you are after reading this paper?
2. Will the reader understand your leadership principles?
3. Will the reader have a feel for what you believe about human nature, motivation, and leading others and why you believe it?
4. Will the reader have a feel for what you believe about successfully leading teams and organizations and why you believe it?
5. Do you use vivid and compelling stories and examples (i.e. could you deliver this as a speech at a leadership conference without putting people to sleep?)
6. Did you demonstrate proper use of course theories and concepts?

Successful papers will:

- Use multiple stories and examples to effectively illustrate your principles.
- Be specific and in-depth in the application of PL300 concepts and theories, and will demonstrate a solid understanding of concepts and theories applied. Remember that you only have about 2 – 2 ½ pages of space per principle to effectively discuss the above requirements; ***do your best to be concise in your writing.***

ANNEX C

LPP Grading Rubric

Principle/Tenet 1 (approximately 2 pages)	WT	Score
Clearly identify and define leadership principle or tenet	5	
Describe why principle/tenet is essential to leading others through a personal leadership example(s)/experience	20	
Illustrate how course theory or concept supports effectiveness of principle/tenant in the context of leading others	25	
Subtotal	50	
Principle/Tenet 2 (approximately 2 pages)		
Clearly identify and define leadership principle or tenet	5	
Describe why principle/tenet is essential to leading others through a personal leadership example(s)/experience	20	
Illustrate how course theory or concept supports effectiveness of principle/tenant in the context of leading others	25	
Subtotal	50	
Principle/Tenet 3 (approximately 2 pages)		
Clearly identify and define leadership principle or tenet	5	
Describe why principle/tenet is essential to leading others through a personal leadership example(s)/experience	20	
Illustrate how course theory or concept supports effectiveness of principle/tenant in the context of leading others	25	
Subtotal	50	
Mentor Philosophy (approximately 1-2 pages)		
Summarize mentor session and his/her feedback	20	
Identify mentor's main tenets	15	
Discuss how mentor puts philosophy into practice	15	
Subtotal	50	
Your Philosophy in Practice (approximately 1-2 pages or video)		
Option A: Discuss personal growth/development and specific steps necessary for continued growth as a leader.	50	
Option B: Video summary of leadership tenets and where you are in your endeavor to lead in accordance with those tenets.	50	
Subtotal	50	
Grammar and Coherence (You can only loose point here)		
Free of Spelling/Grammar Errors/Essay Flows		
Mentor Discussion Documented		
Subtotal		
TOTAL	250	

ANNEX D
End of Course Reflection
PL300 – Military Leadership

Due: **In class** on Lesson 40 (5/6 May 11)
Weight: Instructor Weighted (part of Instructor Points)
Length: **1-2 doubled-spaced pages**

How have I changed as a result of my PL300 experience? How will this affect where I am going as a leader?

ASSIGNMENT:

Consider the Leader Growth Model we have used throughout the course and discuss how you developed as a leader over the semester. Some questions to address:

- How have you grown as a leader?
- What new knowledge are you taking away from this course?
- How has deep reflection affected your development?
- How will it help you in the future?
- Are there areas in which you believe the course should be improved? How?
- If PL300 did not affect your personal development, you must address why and suggest areas in which the course can be improved.
- Please consider the Course Purpose and Course Goals listed below... Did you achieve these goals? If so, how did PL300 facilitate your achievement?

Course Purpose

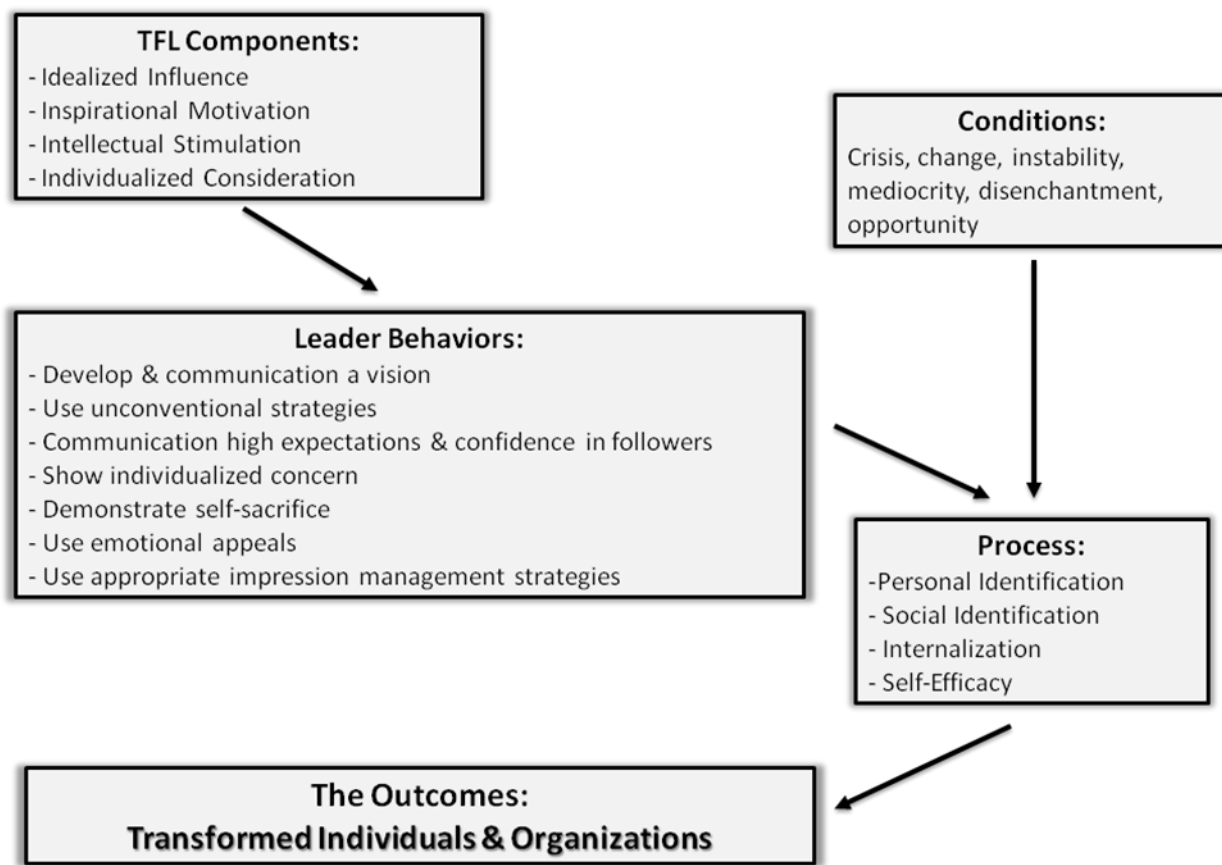
As a result of this course, cadets are capable of integrating new knowledge, experiences, and reflection to lead soldiers and military organizations more effectively in a culturally diverse, changing world. *In short, cadets leave this course as better leaders.* To achieve this, PL300 has two main goals:

Course Goals

1. Cadets are better, more self-aware leaders who are capable of reflecting on and learning from their life and leadership experiences.
2. Cadets can apply relevant frameworks, concepts and theory to leadership situations

ANNEX E

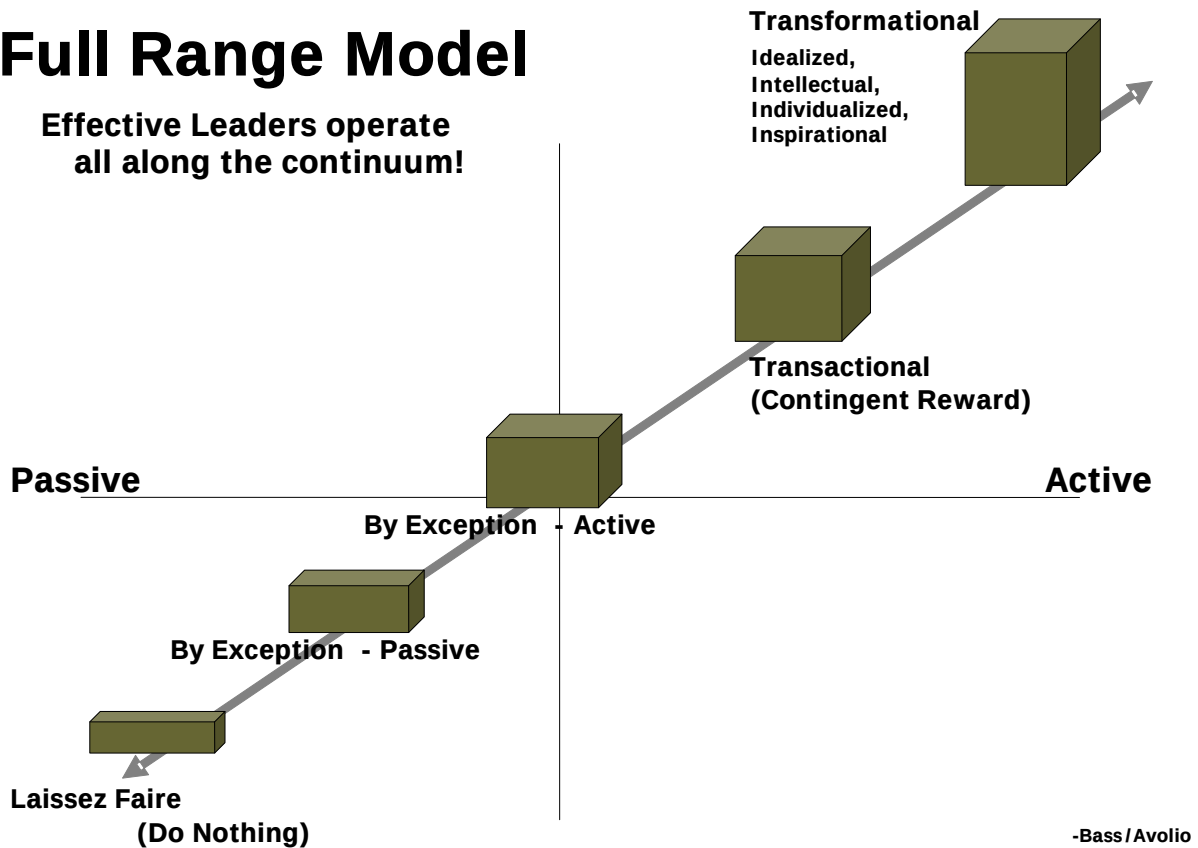
Transformational Leadership Model



ANNEX F

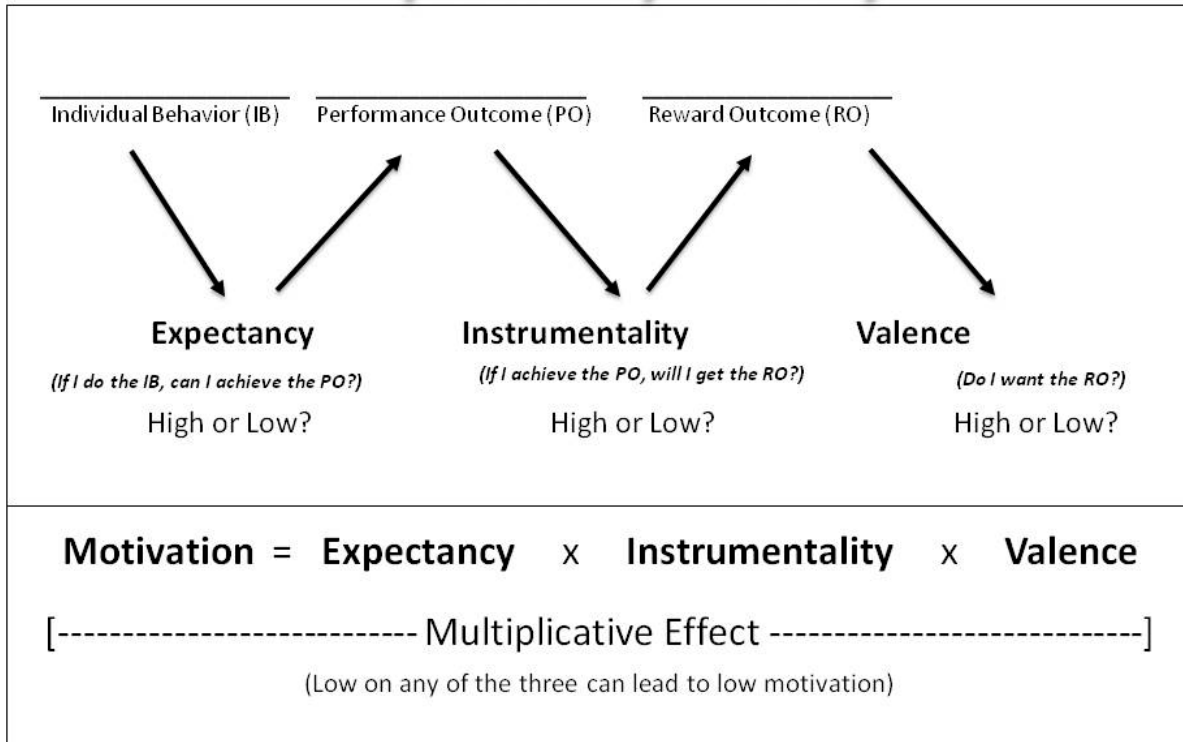
Full Range Model

Effective Leaders operate
all along the continuum!

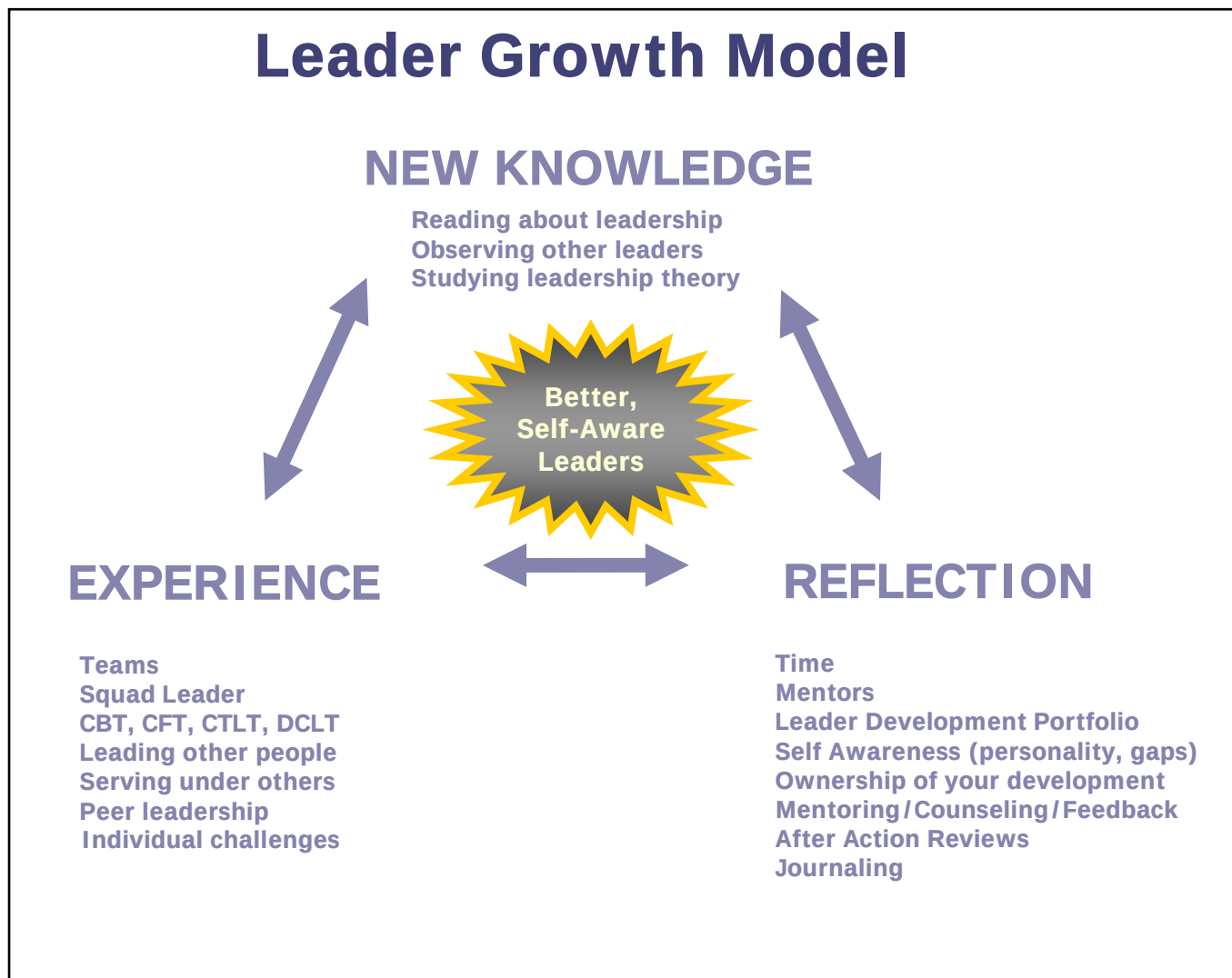


ANNEX G

Expectancy Theory



ANNEX H



APPENDIX B

DEMOGRAPHIC QUESTIONNAIRE

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DEMOGRAPHIC QUESTIONNAIRE

Cadet X Number: _____ Date: _____

INSTRUCTIONS: Please respond to the following questions.

(1) Age: _____

(2) Gender: Male Female

(3) Cadet Class at USMA: Cow Firstie

(4) Year you anticipate graduating from the USMA: _____

(5) Have you had the PL300 Leadership course in the Department of Behavioral Sciences and Leadership?
Yes No

(6) If you have had PL300, in what semester and year did you have the course?

Semester: Fall Spring Summer Year: _____

(7) Compared to other Cadets in your class, how do you feel you performed in the course? (Please select one of the following responses).

- a. Much better than other Cadets in my PL300 class
- b. A little better than other Cadets in my PL300 class
- c. About the same as other Cadets in my PL300 class
- d. A little worse than other Cadets in my PL300 class
- e. Much worse than other Cadets in my PL300 class
- f. I'm not sure/cannot provide a rating

(8) Comparing your PL300 class to other classes you have taken at USMA, how difficult was your PL300 class? (Please select one of the following responses).

- a. It was much more difficult
- b. It was a little more difficult
- c. It was about the same difficulty as other classes
- d. It was a little easier
- e. It was much easier
- f. I'm not sure/cannot provide a rating.

PLEASE CONTINUE TO THE LEADERSHIP KNOWLEDGE APPLICATION SCALE

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APPENDIX C
EXPERIENCE QUESTIONNAIRE

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EXPERIENCE QUESTIONNAIRE

INSTRUCTIONS: We are interested in your personal experiences of using what you learned in your PL300 course to address personal and professional situations in your everyday life. In order to help us understand your experience of using what you learned, please respond to the following questions.

- 1)** Think of three times that you used an idea, procedure, example, etc., you learned in PL300 to address a situation you encountered in your everyday life. Please list these in the space below.

a)	
b)	
c)	

- 2)** Please select one of the situations listed above that you feel you can best describe in greater detail. Answer the following questions with respect to that specific situation.

a) Approximately how many months ago did this situation occur? _____

b) Briefly describe what (idea, example, procedure, etc.) you learned in PL300 that you used in this situation:

--

- 3)** In the space below, and on the back of this page, please describe in detail what you experienced in this situation (you will be provided as many sheets of paper you need to provide what you feel is a complete description of what you experienced).

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APPENDIX D

LEADERSHIP KNOWLEDGE APPLICATION SCALE (LKAS)

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LEADERSHIP KNOWLEDGE APPLICATION SCALE

INSTRUCTIONS: Think back on the field exercises you just completed. Recall two problems that you worked to solve while in a leadership role (e.g., Platoon Leader or Platoon Sergeant). The following questions will ask about your specific problem-solving experiences.

Cadet X Number: _____

Date: _____

(1) Think of two problems that you worked to resolve during your field leadership experience, when you were either a Platoon Sergeant and/or a Platoon Leader. Please briefly describe these two problems in the spaces below.

Problem A.	
Problem B.	

(2) In the two spaces below, please describe a concept, example, etc., you learned in your PL300 Capstone Leadership Course that was useful to you in working on each of the problems you listed above.

(For 'Problem A.' please describe the related concept, example, etc., in the space for 'Concept/Example A.'; for 'Problem B.' please describe the related concept, example, etc., in the space for 'Concept/Example B.').

Concept/ Example for Problem A.	
Concept/ Example for Problem B.	

PLEASE CONTINUE ON THE FOLLOWING PAGE

(3) Please rate how relevant each of the following concerns was for you when working to resolve **Problem A** during your field exercises?

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Recognizing I need to change certain things in the situation	NR	SR	R	VR	E
2	Recognizing I need to keep certain things the same in the situation	NR	SR	R	VR	E
3	Communicating a clear purpose to my subordinates	NR	SR	R	VR	E
4	Developing my sources of power and/or influence in my unit	NR	SR	R	VR	E
5	Exhibiting confidence, openness, diplomacy, and fairness in how I lead	NR	SR	R	VR	E
6	Ensuring that my leadership continues to have influence when I am not around	NR	SR	R	VR	E
7	Reflecting on my successes and failures in order to grow	NR	SR	R	VR	E
8	Being respected as a consistent, competent, and trustworthy leader	NR	SR	R	VR	E
9	Delegating appropriate authority to subordinate leaders	NR	SR	R	VR	E
10	Monitoring whether my unit is productive, efficient, and effective	NR	SR	R	VR	E
11	Determining whether my unit is willing and/or able to follow my leadership	NR	SR	R	VR	E
12	Negotiating and/or diffusing tensions within my unit	NR	SR	R	VR	E
13	Being consistent in enforcing discipline and high standards	NR	SR	R	VR	E
14	Building unit cohesion, identity, and loyalty	NR	SR	R	VR	E
15	Encouraging Subordinates to be independent and accountable for their work	NR	SR	R	VR	E
16	Helping individuals understand how they fit in to the unit (i.e., his/her role)	NR	SR	R	VR	E
17	Figuring out what I can do to motivate different individuals	NR	SR	R	VR	E
18	Listening to, and having empathy/understanding for, Soldiers' perspectives	NR	SR	R	VR	E
19	Working to develop my Soldiers' individual strengths, capabilities, and/or talents	NR	SR	R	VR	E
20	Dividing the work in a reasonable way among subordinates	NR	SR	R	VR	E
21	Setting short-term and long-term goals to accomplish our mission	NR	SR	R	VR	E
22	Adjusting our activities to account for time schedules and/or other constraints	NR	SR	R	VR	E
23	Keeping track of what is happening, and where we are, in the mission	NR	SR	R	VR	E

PLEASE CONTINUE ON THE FOLLOWING PAGE

(4) Please rate how relevant each of the following concerns was for you when working to resolve **Problem B** during your field exercises?

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Recognizing I need to change certain things in the situation	NR	SR	R	VR	E
2	Recognizing I need to keep certain things the same in the situation	NR	SR	R	VR	E
3	Communicating a clear purpose to my subordinates	NR	SR	R	VR	E
4	Developing my sources of power and/or influence in my unit	NR	SR	R	VR	E
5	Exhibiting confidence, openness, diplomacy, and fairness in how I lead	NR	SR	R	VR	E
6	Ensuring that my leadership continues to have influence when I am not around	NR	SR	R	VR	E
7	Reflecting on my successes and failures in order to grow	NR	SR	R	VR	E
8	Being respected as a consistent, competent, and trustworthy leader	NR	SR	R	VR	E
9	Delegating appropriate authority to subordinate leaders	NR	SR	R	VR	E
10	Monitoring whether my unit is productive, efficient, and effective	NR	SR	R	VR	E
11	Determining whether my unit is willing and/or able to follow my leadership	NR	SR	R	VR	E
12	Negotiating and/or diffusing tensions within my unit	NR	SR	R	VR	E
13	Being consistent in enforcing discipline and high standards	NR	SR	R	VR	E
14	Building unit cohesion, identity, and loyalty	NR	SR	R	VR	E
15	Encouraging Subordinates to be independent and accountable for their work	NR	SR	R	VR	E
16	Helping individuals understand how they fit in to the unit (i.e., his/her role)	NR	SR	R	VR	E
17	Figuring out what I can do to motivate different individuals	NR	SR	R	VR	E
18	Listening to, and having empathy/understanding for, Soldiers' perspectives	NR	SR	R	VR	E
19	Working to develop my Soldiers' individual strengths, capabilities, and/or talents	NR	SR	R	VR	E
20	Dividing the work in a reasonable way among subordinates	NR	SR	R	VR	E
21	Setting short-term and long-term goals to accomplish our mission	NR	SR	R	VR	E
22	Adjusting our activities to account for time schedules and/or other constraints	NR	SR	R	VR	E
23	Keeping track of what is happening, and where we are, in the mission	NR	SR	R	VR	E

THANK YOU FOR YOUR TIME IN RESPONDING TO OUR QUESTIONS

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APPENDIX E
KEY WORD AND CLUSTER ANALYSES

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Table E.1

Results of Key Word Cluster Analysis for Critical Concepts in the Course

Rank	Key Root Word/Concept	Associated Words/Concepts
1	Lead, Leading, Leader, Leadership	Transformational, authentic, philosophy, styles, growth, failure tolerant, good, better, by example, not easy to, effective, change, is hard/difficult, culture, development
2	Counsel, Counseling	How to, effectively/properly, subordinates, NCO, session, exercise, experience, importance, lab
3	Emotion, Emotional	Intelligence, importance of, analyzing, aspects of, application
4	Intelligence, Intelligent	See # 3
5	Group, Groups	Development, dynamics, cohesion, conflict, structure, dimensions, stages of formation
6	Transformational, Transform	See #1
7	Leader	See #1
8	Power	Bases of, influence, tactics, how to use, theory, types, valuable
9	Bases	See #8
10	Reflect, Reflection	On experiences, a chance to, forced to, opportunities to, how to, on my leadership, my persona, my personal views, requirement to, self-, important, key, critical, formal, focus, honest, growth, helps to analyze, useful
11	Influence	See #8
12	Authentic, Authenticity	See #1
13	Tactics	See #8
14	Change	See #1
15	Fail, Failure	Allow to, prevent, okay to, tolerance of, learning about, don't fear, constructive, try new things
16	Mentor, Mentorship, Mentoring	Having, program, relationship, discussions, for growth, helpful, was nice, finding, forced me to, system, talking to, using/utilizing, honesty, attention
17	Motivate, Motivation	Ways to, ability to, of others, your subordinates, your people, theories, expectancy, valence, goal setting
18	Learn, Learning	Be able to, new things, be a sponge, from experience, from failure, never stop, always continue to, requires constant, double-loop, tools to, teaching
19	Model, Models	Growth, expectancy, full range leadership, GOSM, mental models, challenge, faulty, role
20	Develop, Development	See #1
21	Mental	See #19
22	Theory, Theories	Expectancy, motivation, goal-setting, equivalence, transformational, classroom discussion, how to apply; See #19
23	GOSM	See #19
24	Cohesion	Building, group, team, unit, problems with, dealing with conflict, improving
25	People	Dealing with, understanding, working with, influencing, being professional, viewing different, wanting to follow, punishing, negotiating with

Table E.2

Results of Key Word Cluster Analysis for Tenets in Leadership Philosophy Papers

Rank	Key Root Word/Concept	Associated Words/Concepts
1	Example	Lead(ing) by, set(ing) the, be a good, always be the, for others, learn by, live the, personal
2	Lead	By example, from the front, take every opportunity to, a humble life(style), as you are, for your people, to the situation, with confidence, with emotional intelligence, 'don't manage, lead,' 'lead, train, and fight'
3	Subordinates	Know your, (genuine) care for, love your, empower(ing), develop(ing), listen to, individual care for, loyalty to, motivate, always place first, attention to, being fair with, compassion for, empathy, fight for, support(ing), learn from, responsible for, well-being of, needs before your own, suffer with, treat(ing) professionally
4	Soldiers	See #3
5	Care	See #3
6	Leadership	See #2; servant, transformational, opportunities for, adaptive, attitude reflects, 'calm, composed,' cohesion through, committing to, competence, (inspire and) develop in others, by setting priorities, 'attitude-professionalism-discipline,' visionary
7	Respect	Mutual, treat others with, culture of, dignity and, '(exercise authority), earn,' golden rule, 'respect, dignity, trust,' for subordinates/superordinates, for subordinates' time, give/giving
8	Leader	See #2, #6; also, authentic, failure tolerant, grow as a, personable, decisive, great, caring, inspiring, sees beyond, level-headed, active (or passive), approachable, flexible/adjustable, effective, empathetic, cares for others, must be visionaries, sincere
9	Know, Knowing	See #3
10	Integrity	Personal, acting with, honor/courage and, demonstrate, and being true, moral courage, upholding your
11	Communication	Open (lines), effective, trust, lines are open, "open door" policy, proper, 'trust, teamwork, communication'
12	Competence	Across unit, and knowing your weaknesses, in everything you do, 'fun, preparation, competence,' increasing, strive for
13	Others	See #3; Treat with dignity/respect, put others before self, allow to take risks, set example for, care for, meet needs of, communicate with, confidence in, develop and align values of, empower, help, inspire, do not micromanage (unless necessary), 'lead others as you want others to lead you'
14	Yourself	Being, knowing, being true to, don't ask if you wouldn't do it, be responsible for, 'better yourself and the group,' care for, challenge/expect more, govern, keep making better, subordinates before, don't quit on
15	People	See #3; utilize, leverage skill of
16	Self	Development, awareness (and personal growth), improvement, confidence, sacrificing, control, reflection, expression, know(ing) one's
17	Personal	Responsibility, accountability, character, growth, example, excellence, interest, vs. professional
18	Work	Ethic, hard, 'for a strong, cohesive unit,' team, 'balancing work and play,' 'doesn't work for me,' invested in your, 'surprised if it doesn't work'
19	Leading	See #2, #6, #8
20	Unit	Positive, strong, cohesive, influence my, anchor of, develop unique identity, building trust, freedom in, moral guide for, put time/effort into, is a family, pride, 'when you leave, it must be better'

Table F.2

Results of Key Word Cluster Analysis for Tenets in Leadership Philosophy Papers (Continued)

Rank	Key Root Word/Concept	Associated Words/Concepts
21	Caring	See #3
22	Team	See #18, #20
23	Confidence	See #2
24	Trust	See #3, #6, #11, #13
25	Front	See #2, #3; 'Lead from the front,' 'showing emotion in front of subordinates'

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APPENDIX F

LEADERSHIP KNOWLEDGE APPLICATION SCALE ITEMS IN RELATION TO THE THEMATIC FRAMEWORK

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Table F.1
Leadership Knowledge Application Scale Items and their Associated Thematic Meaning

Theme	Subtheme	LKAS Item
Context	Influencing Change	Recognizing that I need to change certain things in the situation
	Influencing Stability	Recognizing that I need to keep certain things the same in the situation
Theme 1: Developing as a Leader		
	1.a: Clarity & Purpose of Communication	Communicating clear purpose to my subordinates
	1.b: Developing Sources of Power & Influence	Developing my sources of power and/or influence in my unit
	1.c: Being Diplomatic, Unbiased, & Fair	Exhibiting confidence, openness, diplomacy, and fairness in how I lead
	1.d: Having Enduring Influence	Ensuring that my leadership continues to have an influence when I am not around
	1.e: Learning from Successes & Failures	Reflecting on my successes and failures in order to grow
	1.f: Establishing Competence, Trustworthiness, Respect	Being respected as a consistent, competent, and trustworthy leader
Theme 2: Developing as a Unit		
	2.a: Delegating Authority to Unit Leaders	Delegating appropriate authority to subordinate leaders
	2.b: Productivity, Efficiency, & Effectiveness	Monitoring whether my unit is productive, efficient, and effective
	2.c: Cohesion, Identity, & Loyalty	Building unit cohesion, identity, and loyalty
	2.d: Enforcing Standards	Being consistent in enforcing discipline and high standards
	2.e: Diffusing Tension	Negotiating and diffusing tensions within my unit
	2.f: Willingness & Ability to Follow	Determining whether my unit is willing and/or able to follow my leadership
Theme 3: Supporting Soldiers in the Unit		
	3.a: Developing Autonomy & Responsibility	Encouraging subordinates to be independent and accountable for their work
	3.b: Having Empathy & Understanding	Listening to, and having empathy/understanding for, Soldiers' perspectives
	3.c: Developing Capabilities & Talents	Working to develop my Soldiers' individual strengths, capabilities, and/or talents
	3.d: Motivating Performance	Figuring out what I can do to motivate different individuals
	3.e: Identifying Role with Platoon	Helping individuals understand how they fit in to the unit (i.e., his or her role)
Theme 4: Conducting the Mission		
	4.a: Dividing up the Work	Diving the work in a reasonable way among subordinates
	4.b: Setting Short-Term & Long-Term Goals	Setting short-term and long-term goals to accomplish our mission
	4.c: Addressing Challenges, Difficulties, Constraints, and Schedules	Adjusting our activities to account for time schedules and/or other constraints
	4.d: Monitoring Progress	Keeping track of what is happening, and where we are, in the mission

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APPENDIX G

EXPLORATORY PRINCIPLE COMPONENTS ANALYSIS OF THE LEADERSHIP KNOWLEDGE APPLICATION SCALE

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Principle Components Analysis of LKAS

For researchers who wish to test alternate models for the LKAS, we present an exploratory principle components analysis below. This analysis uses the field exercise sample ($N = 123$) cadets. Varimax rotation was used to identify orthogonal, independent factors. The KMO sampling adequacy of 0.89 was above the threshold criterion of 0.60, and Bartlett's test was rejected (Nunnally & Bernstein, 1994). PCA produced a four-component model, explaining 65.7% of the variance in scores on the LKAS. Table E-1 presents the components model.

Table G-1
Results of Principle Components Analysis of LKAS Items

Theme/Item	Loadings			
	1	2	3	4
Context: <i>Recognizing I need to change certain things in the situation</i>	0.74			
1.a: <i>Communicating a clear purpose to my subordinates</i>	0.70			
1.c: <i>Exhibiting confidence, openness, diplomacy, and fairness in how I lead</i>	0.69			
1.e: <i>Reflecting on my successes and failures in order to grow</i>	0.69			
2.f: <i>Determining whether my unit is willing and/or able to follow my leadership</i>	0.66			
1.f: <i>Being respected as a consistent, competent, and trustworthy leader</i>	0.65			
Context: <i>Recognizing that I need to keep certain things the same in the situation</i>	0.59	.052		
2.b: <i>Monitoring whether my unit is productive, efficient, and effective</i>	0.54			
1.b: <i>Developing my sources of power and/or influence in my unit</i>	0.52			
2.d: <i>Being consistent in enforcing discipline and high standards</i>		0.76		
3.a: <i>Encouraging subordinates to be independent and accountable for their work</i>		0.69		
2.c: <i>Building unit cohesion, identity, and loyalty</i>		0.69		
4.b: <i>Setting short-term and long-term goals to accomplish our mission</i>		0.68		
2.a: <i>Delegating appropriate authority to subordinate leaders</i>	0.41	0.54		0.44
1.d: <i>Ensuring that my leadership continues to have influence when I am not around</i>	0.51	0.53		
3.b: <i>Listening to, and having empathy/understanding for, Soldiers' perspectives</i>			0.82	
3.d: <i>Figuring out what I can do to motivate different individuals</i>			0.81	
3.c: <i>Working to develop Soldiers' individual strengths, capabilities, and/or talents</i>		0.54	0.65	
3.e: <i>Helping individuals understand how they fit in to the unit (i.e., his/her role)</i>		0.57	0.57	
2.e: <i>Negotiating and/or diffusing tensions within my unit</i>			0.53	
4.d: <i>Keeping track of what is happening, and where we are, in the mission</i>				0.83
4.c: <i>Adjusting our activities to account for time schedules and/or other constraints</i>				0.81
4.a: <i>Dividing the work in a reasonable way among subordinates</i>			0.41	0.50

Note: All component loadings less than 0.40 were excluded.