



Methods and Statistical Summary

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Overview

LMAP – for Leadership Multi-Rater Assessment of Personality – is a reliable and valid assessment of thirteen personality traits. Like a snapshot of a person’s personality, the unique combination of traits that form an **LMAP Profile** reflect a person’s distinctive personality.

LMAP was developed within the context of a large and growing body of research which shows a complex of personality traits that are consistently associated with high performance and a distinct set of traits associated with decreased performance in management and leadership roles.

LMAP draws from an extensive library of interpretive reports that reflects hundreds of combinations of the 13 traits. An **LMAP Report** provides leaders with in-depth, plain English, expert analysis of how the leader is perceived by peers, direct reports, their manager, and internal or external clients. The **LMAP Report** is intended to be a “conversation starter,” to educate leaders and to stimulate insights and a sense of personal accountability around leadership behaviors. The conversation drives a Self-Development Plan and (ideally) a commitment to implement the Self-Development Plan over a one year timeframe.

LMAP helps to inform and guide leadership development and is intended to be used with a trained HR/OD professional in seminars or for coaching.

LMAP is not to be used for selection, placement, promotion, or salary decisions.

The Training Need Served by LMAP

Three things are extremely hard. Steel. A Diamond. To Know Oneself.

- Benjamin Franklin

Research studies and everyday experience demonstrate that few leaders are “naturals” – most do not have a personality style that allows them to easily set the tone for open, honest, supportive communications and to drive teamwork in professional environments that require teamwork. Most leaders need education and training to learn to demonstrate the kinds of behaviors that facilitate leadership, management, communications and teamwork ... especially in today’s high tech, high speed, high stress work environments.

The personal and interpersonal behaviors demonstrated by professional staff are a huge source of stress in the workplace. David Campbell, a Senior Fellow at the Center for Creative Leadership, reports, “We’ve had managers come to our center who actually defined leadership as the ability to inflict pain.” Harvey Hornstein, (of Columbia University), surveyed 1000 people and found that 90%, at some point in their career,



claimed that they had worked for a “brutal boss,” who publicly humiliated them or blamed them for his own failures. Hornstein – who focused on extreme behavior only (brutal bosses) says at least 20% of employees report to a manager who is a brutal boss.

Well-respected Psychologist Robert Hogan (Chairman, Organizational Psychology, University of Oklahoma) contends that personality is the leading cause of employee stress and discontent. He cites studies showing that “since the 1950’s – 70% of employees surveyed have said that the worst, most stressful part of their job is their immediate boss.” Hogan says that common personality traits such as shyness, indecisiveness, apprehension, over aggressiveness, arrogance, and self-absorption are so common and undermine performance so much that they are the leading cause of managerial incompetence.

Beyond the “hard” research showing relationships between personality and performance, it is common knowledge that personality plays out in work performance:

- The results of a U.S. Census Bureau study of three thousand employers revealed that attitude is the most important factor in a hiring decision. On a scale of 1 to 5, with 5 ranking as very important, attitude was at 4.6, followed by communication skills at 4.2, work experience 4.0, and references at 3.4.
- A 2002 survey of Fortune 1000 company executives showed that leadership and management skills are the most sought after, with technology skills a distant third. The executives stated that currently one out of every three employees is unable to collaborate effectively with co-workers and that employment success in the future would increasingly depend on the ability to demonstrate the personality traits that allow for high levels of teamwork and cooperation in the workplace.
- A survey of one hundred fifty CEOs revealed that the most common reason for a senior executive to be terminated was a lack of insight into their behavior; 77 percent of the CEOs said “the newly departed were in desperate need of an impartial, no-holds-barred performance evaluation.”

These are the training and development needs that **LMAP** is designed to serve. And in serving employees, teams and organizations also benefit: according to a survey by Personnel Decisions Inc. in 1998, 80% of respondents said they’d be more likely to stay with a company that offered 360-degree feedback, yet only 12% were receiving it.

Studies show that investing in multi-raters: is a good value to an organization: professionals who receive multi-rater feedback improve more than those who do not (Hazucha, Hexlett, Schneider, 1993); professionals who have the most room to improve and perhaps need to improve the most, benefit the most (Smither, London, Vasilopoulous, et. Al, 1995); and leaders who are open to multi-rater feedback and conscientiously follow up with their Development Plan at regular intervals almost always show dramatic improvements (Goldsmith, 1998).



What is Personality?

While many (lay) people think of personality as strictly internal motivations, thoughts and feelings, most psychologists define personality as behavior – how you act.

- *The pattern of traits characterizing an individual person, trait here meaning any psychological characteristic of a person, including dispositions to perceive different situations similarly and to react consistently despite changing stimulus conditions, values, abilities, motives, defenses, and aspects of temperament, identity or personal style.*

Benjamin Wollman, Dictionary of Behavioral Science

- *The most outstanding and salient impressions a person creates on others.*
Gardner Lindzey, Theory of Personality
- *The pattern and regularity of behavior over time.*
Raymond Cattell, The Scientific Analysis of Personality
- *A person's typical behavioral traits and characteristics*
Richard Arvey, Fairness in Selecting Employees

Many people also think of personality as “hardwired” and unchangeable. Inasmuch as personality encompasses an individual’s typical cognitive, emotional and behavioral patterns – and these patterns often remain unchanged – it is easy to misunderstand this to mean personality cannot be changed, that personality is “hardwired.”

In fact, most cognitive, emotional and behavioral patterns are habits – unconscious ingrained reactions to situations. These habits do not emerge from self-conscious, self-directed effort because no effort is made to self-manage these cognitive, emotional and behavioral responses. These ingrained habits are simply “default behaviors” – behaviors that people revert to out of habit when they choose to not consciously think about their cognitions, feelings or behavior. This is rather like a person who is afraid to speak in public and claims to have always been a bad public speaker, despite having never taken a public speaking course. Or, the slow reader that says that they will always be a slow reader despite having never taken a speed reading course.

For most people, the gap between their current unconscious behavioral habits and a conscious, thoughtful effort to manage their behavior is huge; with some effort, most people can modify their thoughts, feelings and behavior. The cognitive behavioral therapy literature speaks to the efficacy of change in all of these domains of personality (cognitive, emotional, behavioral). It is this gap between habitual behavior and conscious self-management of behavior, that huge opportunity for leadership development and growth exists and that the **LMAP** development process targets.



¹Most people act and react out of habit and do little to consciously manage their thoughts, feelings and behaviors. When a person is educated around the reality of and methods for self-managing their thoughts, feelings and behaviors, they find that there is much greater flexibility in these domains than they'd assumed. The goal of the **LMAP** development process is to help leaders learn to “think before acting” this is accomplished by;

1. Educating a leaders around their cognitive and behavioral predispositions (“default behaviors”);
2. Discussion with the leader around the notion that leaders have some responsibility for their behavior and for managing that behavior;
3. Stimulating thinking around cognitive and behavioral options (productive alternatives to “default behavior”);
4. Using methods to help a leader make conscious efforts to think before acting and to consciously self-manage their behavior; further refining these methods with practice;
5. Keeping the conversation going around leadership behaviors – confronting challenges a leader has in consciously self-managing his or her behavior; soliciting input and feedback from co-workers about their behavior; and making changes where doing so will raise productivity and/or decrease work-related stress.

It is important to stress that even relatively small changes in behaviors can yield significant gains. Much as a conductor uses a baton to quiet the horn section and bring up the strings, people can learn to consciously orchestrate their own behavior.

LMAP helps a leader better understand his or her strengths, struggles and weaknesses, and to develop the self-management skills required to fully leverage their strengths and to most effectively manage areas of counterproductive behavior.

Research Background

LMAP draws upon research conducted by the author from 2001 to 2008 using the **LMAP** instrument. **LMAP** also draws on a wide body of research that demonstrates that specific behaviors facilitate management and leadership performance (High Performance Behaviors) and other specific behaviors interfere with performance (Counterproductive Behaviors):

- *Classic studies on leadership effectiveness in business settings* in writings by Bass (1981); Bennis (1985); Kanter (1983); Mintzberg (1973); Kotter (1988); Quinn (1988); Likert (1967); Stogdill (1963); Yukl (1988); Peters (1987); Kelley and Caplan (2002); Collins (2001)
- *Studies on the impact of personality on leadership, management and communications skills in aviation safety* by Ginnett (1986, 1989); Helmrich (1986, 1990); Chidester, Kanki, Foushee, (1990).



- *Research on the multiple intelligences* by Gardner (1993); Goleman (1995); Sternberg (1997).
- *Positive psychology* by Seligman (1993, 2004); Baker (2003); Buckingham and Coffman (1999).
- *Big 5 Personality Theory* by Robert Hogan, 1995, 1999; Paul Costa and Robert McCrae, 1994, 1998); Hoffman, 2002.
- *Circumplex Theory* by Guttman (1954); Leary (1954, 1957); Schaeffer (1961); Schaeffer and Plutchik (1966); Becker and Krug (1964); Lafferty and Cooke (1971); Wiggins (1979; 1982; 1989; 1991); Warren, Cooke, and Gratzinger (1991); Plutchik and Conte (1997).

Circumplex Theory and Models

It is from this last domain, Circumplex Theory, that the **LMAP** has its strongest roots. A circumplex is a two-dimensional model that describes expected relationships among a number of variables (Guttman, 1954). The measurement theory that has been applied to the interpersonal circle postulates that variables in the interpersonal domain are arranged into a circular array in two-dimensional space known as a circumplex (Guttman, 1954).

The birth of the contemporary movement in interpersonal psychology and its use of the circumplex was marked by a series of articles that appeared in the early 1950's (Freedman, Leary, Ossario & Coffey, 1951; LaForge, Leary, Naboisek, Coffey & Freedman, 1954). Although this group developed their circle without the advantage of Guttman's (1954) model of a circumplex, their decision to order the 16 interpersonal variables in a circular fashion around the axes of control and affiliation was, as Wiggins puts it, 'particularly prescient.' (Acton and Revelle).

A circumplex is an explicit integrative framework specifying the relations of variables to each other. The relationship among variables is said to be circular, implying an ordering of variables that is without beginning or end, in which similar variables are closer to one another on the circle, variables that are semantic or behavioral opposites are located. (James Schmidt, Ph.D., www.interpersonalcircle.com)

The **LMAP Profile** follows this tradition of a circular organization of the 13 traits whereby the most highly related traits (e.g. Rigidity and Need for Control; or Conscientiousness and Achievement Drive) are proximal and negatively related (orthogonal) traits are on opposite sides of the Profile (e.g. Rigidity and Openness to Feedback or Achievement Drive and Dependence). This circular design and the core of personality traits measured is something the **LMAP Profile** shares with other circumplex-based personality assessments, see below:



The LMAP Profile compared to other circumplex-based personality assessments

LMAP (2001, 2005, 2006,2008)	Leary (1957)	Schaefer (1959, 61, 64)	Human Synergetics Lafferty (1971)	Wiggins Circumplex (1995)
1. Helpfulness	Helpful/Nurturing	Democratic	Humanistic-Encouraging	Cooperative/Helpful
2. Sociability	Affiliation/Friendly	Cooperative	Affiliative	Sociable/Outgoing
3. Approval Seeking	Clinging/Self-Effacing	Accepting	Need for Approval	All-loving/Absolving
4. Dependence	Dependent	Protective-Indulgent	Dependence	Dependent/Self-Doubting
5. Tension	Apologetic/Fearful	(none)	Avoidant	Abasive/Helpless
6. Hostility	Aggressive/Hostile	Authoritarian	Power	Controlling/Dictatorial
7. Rigidity	Rebellious/Distrustful	Possessive	Oppositional	Suspicious/Rigid
8. Need to Control	Aggressive/Hostile	Authoritarian	Power	Controlling/Dictatorial
9. Competitiveness	Competitive	(none)	Competitive	Competitive
10. Conscientiousness	Organizing/Ordering	Persistence	Perfectionism	(none)
11. Achievement Drive	Assertive/Responsible	(none)	Achievement	Assured/Ambitious
12. Innovation	Independent	Imagination	Self-Actualization	Confident/Self-Reliant
13. Openness to Feedback	(none)	(none)	(none)	(none)

Though the **LMAP** has roots in and similarities to other circumplex based models – the **LMAP** is mainstream and measures many of the same traits measured by other contemporary, *non*-circumplex-based personality assessments (see examples below). There is high agreement in the field of psychology that there are ten to fifteen core personality traits in a basic personality profile. Though the names of traits may vary by instrument, and even where trait names differ across assessments, most personality instruments have more similarities than differences from one another.

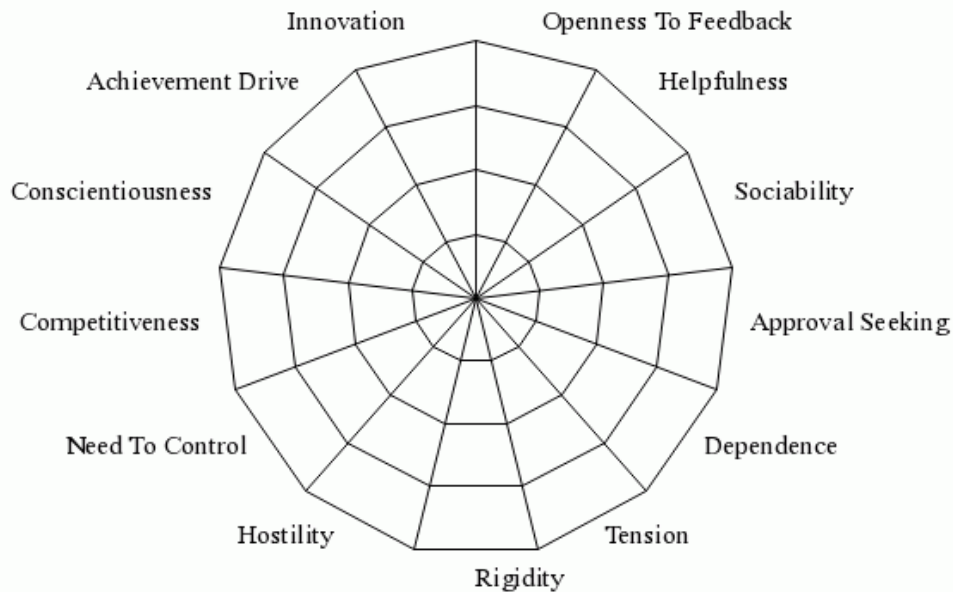
The LMAP compared to other non-circumplex-based personality assessments

LMAP	Caliper Profile	Assess Personality	Edwards Inventory	Neo-Big 5 Personality
1. Helpfulness	Empathy	Positive Abt People	Nurturance	Empathy/Consideration
2. Sociability	Sociability	Sociability	Affiliation	Warmth – Outgoing
3. Approval Seeking	Accommodation	Need to Be Liked	Succorance	Accommodation
4. Dependence	Self-Structure (low)	Self-Reliance (low)	Deference	Compliance (Deferent)
5. Tension	Anxiety	Emotional Evenness	Abasement	Worry
6. Hostility	Aggressiveness		Dominance	
7. Rigidity	Rigid / Flexible	Objectivity (low)	Change (low)	Rigid / Flexible
8. Need to Control	Aggressiveness	Organized/Structure	Dominance	Assertiveness
9. Competitiveness	Ego Strength			Compliance/Competitive
10. Conscientiousness	Conscientiousness	Detail Interest	Order	Orderliness/Competence
11. Achievement Drive	Assertiveness	Assertiveness	Achievement	Need to Achieve
12. Innovation	Idea Orientation	Structure (low)	Intrapeption	Imagination / Curiosity
13. Openness to Feedback	(none)	(none)	(none)	(none)



The LMAP Profile

The **LMAP Profile** is a circumplex with 13 scales, each scale measuring a distinct personality trait. On the **LMAP Profile**, the center point equals zero and the four concentric circles mark the 25th, 50th, 75th, and 100th percentiles. Percentile scores allow for comparison of the participant's raw scores to those in the **LMAP** database. Traits with the longest/largest shaded areas have the greatest impact on behavior and smaller shaded areas have less influence on behavior



The **LMAP Profile** can be heuristically divided into four main sectors of traits that measure related dimensions of behavior: Teamwork Traits, Deference Traits; Domineering Traits; and Task Mastery Traits.

The Teamwork Traits: The Teamwork Traits include Openness to Feedback, Helpfulness and Sociability. These traits share a focus on cooperation and collaboration and in some cases, enjoying time spent with others. Introverts can have strong teamwork skills with high scores on Openness to Feedback and Helpfulness – traits oriented around patience, listening and getting along well with others – but not necessarily reflect a need to be with others as in classic extraversion and needs for affiliation. Extraversion is seen in Sociability and Approval Seeking.

The Deference Traits: The Deference Traits include Approval Seeking, Dependence, and Tension. In combination these traits focus on following the lead of others and tend to yield passive, unassertive, “deferential” behaviors where conflict and risk are avoided. Humility and loyalty are assets of these traits; indecisiveness and low confidence are liabilities.

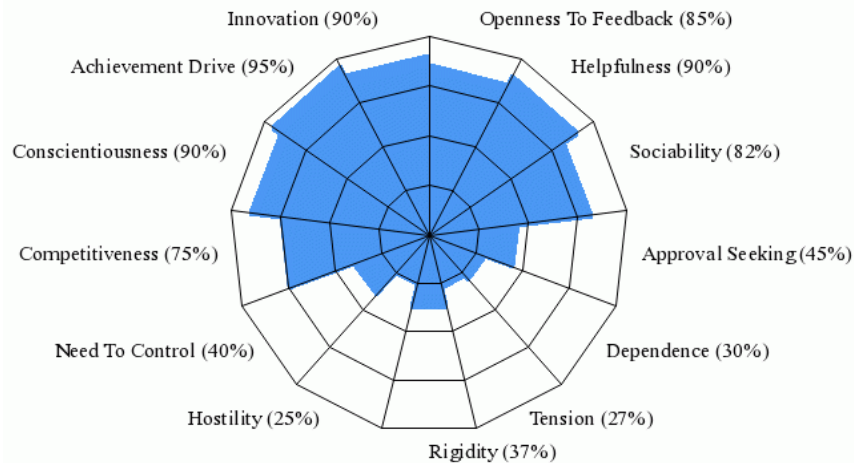


The Domineering Traits: The Domineering Traits include Tension, Rigidity, Hostility, Need for Control, and Competitiveness. In combination these traits focus on getting and maintaining control. Hostility is not required for a dominating, inflexible and aggressive style to emerge. Drive, decisiveness and passion are assets of these traits; self-centeredness and inflexibility are liabilities.

The Task Mastery Traits: The Task Mastery Traits include Competitiveness, Conscientiousness, Achievement Drive, and Innovation. In combination these traits share a focus on achieving goals and doing high quality work. Combined with Teamwork Traits, the Task Mastery Traits form the High Performance Leadership Profile.

The High Performance Leadership Profile

The High Performance Leadership Profile combines traits from the teamwork and task mastery domains. A top-heavy **LMAP Profile** like the example below is representative of results from the **LMAP** research studies and (more generally) of a wide range of research studies on the personality traits associated with leadership effectiveness (see Validity Studies below).



Six **LMAP** traits – all in the upper half of the **LMAP** Profile – are associated with high performance: Conscientiousness, Achievement Drive, Innovation, Openness to Feedback, Helpfulness, and Sociability. Many combinations of these six traits can create a leadership style balanced with a focus on results, quality, innovation, and teamwork.

Counterproductive Traits

The research also identifies seven **LMAP** traits – called counterproductive traits – that get in the way of high performance: Competitiveness, Hostility, Need to Control, Rigidity, Tension, Dependence, and Approval Seeking.

LMAP Profile Analysis



Personality traits do not operate in a vacuum; they interact with and are influenced by the presence or absence of the other personality characteristics. The impact of a counterproductive or high performance trait can be heightened or diminished by the presence of other prominent traits in a Profile. This is perhaps most important to remember with the Approval Seeking and Competitiveness traits which while associated with decreased performance, show the weakest pattern of association, and are strongly colored by the other prominent traits in an **LMAP Profile**. In fact, this is one of the central advantages of the **LMAP** system: it analyses what traits are the most prominent in a Profile and then provides an interpretive report that explains how a unique combination of traits interact and create a unique leadership style. In some cases an **LMAP Report** will explicitly interpret around area of personality conflict or ambivalence; in other cases an **LMAP Report** may provide interpretations and ask the reader questions to stimulate introspection and self-inquiry around traits and behaviors that appear in conflict.

An **LMAP Profile** typically includes assets and liabilities; few people have *only* high performance traits – most have areas of struggle, where desired behaviors don't come naturally; or are hot buttons that set us off. Most people have one or several of the high performance traits and most have some counterproductive traits.

The Development of LMAP

Development work on **LMAP** began in 1998 by Ronald Warren. The assessment was originally named **MAP11** and was renamed **LMAP** after the instrument evolved from 11 to 13 assessment scales.

Ron worked with a team of four psychologists (Roger Lipson, Ph.D. – who is currently associated with LMAP LLC–, Dick Harding, Ph.D., Amy Creglow, MA, and Bob Bergman, MA – all former Gallup researchers) – to write and test the initial assessment items and the scoring logics (Warren wrote the assessment reports) while Ron was an employee at Kenexa (Lincoln NE). Four rounds of data collection and statistical studies (reliability, validation, standardization) were completed in 2001, 2002, 2004 and in 2005.

In 2005, the web-hosting of the **LMAP** Assessment was moved from the Kenexa servers to Psychtests.com. Working with a team led by Ilona Jeraback Ph.D., Ron and the Psychtest research team implemented major upgrades to the entire **LMAP** system. Over the past three years, upgrades to the **LMAP** Assessment (items, norms, user interfaces, logics and report changes) have continued – with the following benchmarks achieved in major product upgrades in 2006 and 2008:

- Increased the number of **LMAP** assessment items from 64 to 132
- Added Hostility & Openness to Feedback scales to the **LMAP Profile** model
- Expanded the **LMAP** typology library from 74 to 219 types in 2006 and to 285 types in 2008



- Revised **LMAP** reports to reflect updated research in personality and organizational development theory and practice. Current publications and development exercises were added to reports.
- An **LMAP** Assessment Centre was developed for users to log-in with a password, enroll Feedback Raters, and to complete assessments at their convenience.

In 2008, LMAP conducted validation studies with a sample of just over 1000 senior managers and executives (n = 1013). This sample was collected during 2006 and 2007 with leaders and executives from healthcare, consulting, venture capital, financial services, transportation, food, and communications.

In this Summary, reliability and validity results are provided for the 2006 and 2008 studies – reflecting a different mix of industries, settings, and samples – using the current version of **LMAP** with 13 assessment scales and 132 assessment items.

Research Samples

In the first data collection, in 2000, a version of the **LMAP** assessment containing 92 candidate items was administered to 102 managers and individual professionals in a high technology firm, each rated by 5 to 7 co-workers. Statistics were run and assessment items were eliminated or added. In the second data collection, in April of 2001 a sample of 163 participants from eight companies participated in the project as part of a training program. The participants were managers and professionals, each rated by 4 to 8 co-workers (a total of 713 raters). The resulting data was analyzed and the assessment items were reduced from 90 to the 64 items.

The last **LMAP** statistical studies conducted with Kenexa in 2004 had a sample of 887 target leaders, averaging 7 feedback raters each. In this sample,

- Approximately 400 participants were commercial airline pilots using **LMAP** in an FAA-mandated crew-resource management program;
- Approximately 200 participants were hospital executives in an executive team-building and coaching program;
- Approximately 50 senior executives and 100 managers and individual contributors completed **LMAP** as part of a training program.
- (A sample of 48,768 self-assessments, collected in 2002, was also analyzed and informed modifications in the eventual **LMAP** assessment.)

In August 2005, an additional sample of 183 healthcare executives and senior managers was added to the database. In late 2006 a sample of 501 senior managers and executives – on average rated by 9 Feedback Raters – were added to the database. In early 2008, studies were completed on a sample of 1013 senior managers and executives – on average rated by 12 Feedback Raters – who completed **LMAP** during 2006 and 2007.

This document reports, for the most part, on 2006 and 2008 studies.



Reliability Studies

In 2006, 68 assessment items (obtained from “research items” we’d been collecting for several years) were added to the original 64 items, raising the item total to 132 items.

APA standards for Cronbach’s alpha coefficients require .70 for “desirable” and above .80 for “ideal.” **LMAP Self Ratings** are in the desirable and ideal ranges with 2006 and 2008 studies showing alpha coefficients that range from **0.70 to 0.93**. **LMAP Feedback Ratings** are all in the ideal range with 2006 and 2008 studies showing alpha coefficients that range from **0.80 to 0.98**.

On the next page, Table 1 (2006) and Table 1a (2008) show Cronbach's Alpha, SE, SD for Self Ratings; Table 2 (2006) and Table 2a (2008) show Cronbach's Alpha, SE, SD for Feedback Ratings

Table 1: Cronbach's Alpha, SE, SD for Self Ratings – 2006 study (n = 501)

Scale	Cronbach's Alpha	Number of Items	Mean	Median	Standard Deviation	Standard Error of Measurement	Obtained Low Score	Obtained High Score
Helpfulness	0.91	11	44.89	45	6.77	0.5	11	55
Sociability	0.88	9	36.67	37	5.75	0.42	0	45
Approval Seeking	0.86	7	20.52	21	5.31	0.39	7	33
Dependence	0.75	10	19.89	20	4.75	0.35	10	36
Tension	0.77	10	21.14	21	5.05	0.37	11	35
Rigidity	0.76	11	21.61	22	4.84	0.36	11	37
Hostility	0.76	10	20.7	21	5.08	0.38	10	35
Need to Control	0.82	10	19.91	20	5.39	0.4	10	41
Competitiveness	0.78	11	24.24	24.2	5.68	0.42	11	40
Conscientiousness	0.83	10	37.22	38	6.08	0.45	18	50
Achievement Drive	0.90	11	47.22	48	6.15	0.45	15	55
Innovation	0.93	10	39.43	40	6.83	0.51	10	50
Openness to Feedback	0.80	12	47.17	48	5.61	0.42	24	58

Table 1a: Cronbach's Alpha, SE, SD for Self Ratings – 2008 Study (n = 1013)

Scale	Cronbach's Alpha	Number of Items	Mean	Median	Standard Deviation	Standard Error of Measurement	Obtained Low Score	Obtained High Score
Helpfulness	0.82	11	43.51	44.00	5.546	0.176	11	55
Sociability	0.78	9	35.71	36.00	5.024	0.160	13	45
Approval Seeking	0.84	7	20.65	20.00	5.019	0.159	7	35
Dependence	0.74	10	21.79	21.00	5.486	0.174	10	36
Tension	0.78	10	22.13	22.00	5.582	0.177	10	45
Rigidity	0.72	11	23.32	23.00	5.295	0.168	11	40
Hostility	0.82	10	21.54	21.00	5.694	0.181	10	42
Need to Control	0.73	10	27.26	27.00	5.987	0.190	11	48
Competitiveness	0.78	11	36.84	37.00	5.795	0.184	18	50
Conscientiousness	0.75	10	46.09	46.00	5.185	0.165	15	55
Achievement Drive	0.89	11	39.32	39.00	5.570	0.177	10	50
Innovation	0.76	10	21.61	22.00	5.598	0.178	10	41
Openness to Feedback	0.70	12	45.07	45.00	5.212	0.166	24	58

Feedback Ratings

Table 2: Cronbach's Alpha, SE, SD for Feedback Ratings – 2006 Study (n = 501)

Scale	Cronbach's Alpha	Number of Items	Mean	Median	Standard Deviation	Standard Error of Measurement	Obtained Low Score	Obtained High Score
Helpfulness	0.98	11	44.2	45.38	5.42	0.4	11	52
Sociability	0.95	9	36.47	37	4.19	0.31	13	44
Approval Seeking	0.92	7	17.8	17.86	2.7	0.2	7	26
Dependence	0.87	10	19.9	19.4	3.08	0.23	12	31
Tension	0.90	10	19.11	18.83	3.23	0.24	13	32
Rigidity	0.93	11	20.63	19.91	3.77	0.28	14	36
Hostility	0.96	10	18.79	17.91	4.54	0.34	10	38
Need to Control	0.94	10	18.54	18	3.84	0.28	12	33
Competitiveness	0.94	11	23.35	22.49	4.12	0.30	13	41
Conscientiousness	0.92	10	36.81	37.27	4.04	0.3	18	45
Achievement Drive	0.96	11	46.2	46.8	4.62	0.34	15	52
Innovation	0.97	10	39.4	39.94	4.47	0.33	10	47
Openness to Feedback	0.93	12	46.95	47.67	4.41	0.33	24	55

Table 2a: Cronbach's Alpha, SE, SD for Feedback Ratings – 2008 Study (n = 1013)

Scale	Cronbach's Alpha	Number of Items	Mean	Median	Standard Deviation	Standard Error of Measurement	Obtained Low Score	Obtained High Score
Helpfulness	0.92	11	43.39	43.80	4.534	0.142	11	54
Sociability	0.84	9	35.85	36.12	3.733	0.117	13	44
Approval Seeking	0.88	7	17.77	17.80	2.592	0.081	7	28
Dependence	0.79	10	21.72	20.74	4.077	0.128	13	33
Tension	0.81	10	20.00	19.56	3.818	0.120	10	30
Rigidity	0.81	11	21.97	21.56	4.037	0.127	13	51
Hostility	0.85	10	19.97	19.22	4.755	0.149	10	41
Need to Control	0.94	10	25.67	24.89	4.617	0.145	14	48
Competitiveness	0.86	11	37.61	38.36	4.466	0.140	18	50
Conscientiousness	0.82	10	45.33	46.17	4.304	0.135	15	55
Achievement Drive	0.81	11	39.35	39.57	3.881	0.122	10	49
Innovation	0.95	10	19.19	18.68	4.454	0.140	10	40
Openness to Feedback	0.80	12	45.23	46.00	4.342	0.136	18	54



Validity Studies

Validity studies have been conducted since the first release of the assessment in 2001, 2004, 2006, and 2008. Validity studies prior to 2006 used the original 11 **MAP11** assessment scales; more recent studies use the current 13 **LMAP** assessment scales.

2008 Validation Studies

The 2008 validation studies analyzed data from 1013 senior managers and executives primarily from the consulting and healthcare industries in 2007 and 2008 who completed the current version of **LMAP** with 13 assessment scales, 140 assessment items.

One-way ANOVAs, between groups design, used co-worker ratings of effectiveness for each leader in five areas:

1. Performance compared to others in a similar position (Q142)
2. Ability to get along with others (Q143)
3. Ability to produce results (Q144)
4. Leadership ability (Q145)
5. Overall effectiveness in his/her current job (Q146)

Participants were rated according to a 7-point scale:

- | | |
|-----------------------------|--------------------------|
| 1. Bottom 2% = rating of 1 | 5. Top 25% = rating of 5 |
| 2. Bottom 10% = rating of 2 | 6. Top 10% = rating of 6 |
| 3. Bottom 25% = rating of 3 | 7. Top 2% = rating of 7 |
| 4. Top 50% = rating of 4 | |

Because the sample was mainly composed of very high performing leaders – on average leader effectiveness ratings placed participants in the Top 18 - 20% – we created a “curve” for the raw scores and recoded effectiveness scores into 7 groups according to the following criteria:

1. Lowest rating to 4.67 = Bottom 2%
2. 4.67001 to 5.17 = Bottom 10%
3. 5.17001 to 5.81 = Bottom 25%
4. 5.81001 to 6.13 = Top 50%
5. 6.13001 to 6.38 = Top 25%
6. 6.38001 to 6.68 = Top 10%
7. 6.68001 to highest rating = Top 2%.



For the vast majority of analyses, significant differences were found for each **LMAP** scale ($p < .01$). In short,

- Analyses for Performance Compared to Others in a Similar Position (Q142) showed significant differences ($p < .01$) for all scales except for Competitiveness ($< .235$).
- Analyses for Ability to Get Along with Others (Q143) showed significant differences ($p < .01$) for all scales.
- Analyses for Ability to Produce Results (Q144) showed significant differences ($p < .01$) for all scales except for Competitiveness ($< .08$). See Table 3.
- Analyses for Leadership Ability (Q145) showed significant differences ($p < .05$) for all scales, and all but Competitiveness ($< .027$) were significant at ($p < .01$). See Table 4.
- Analyses for Overall Effectiveness in Current Job (Q146) showed significant differences ($p < .05$) for all scales, and all but Competitiveness ($< .027$) were significant at ($p < .01$). See Table 5.

Table 3: ANOVA: Ability to Produce Results (Q144) & Personality Traits – 2008

Scale / Trait	F Value	ANOVA Probability
Helpfulness	27.39	0.000
Sociability	21.54	0.000
Approval Seeking	4.40	0.000
Dependence	18.47	0.000
Tension	34.41	0.000
Rigidity	21.76	0.000
Hostility	15.33	0.000
Need to Control	9.16	0.001
Competitiveness	3.99	0.000
Conscientiousness	16.86	0.000
Achievement Drive	50.23	0.000
Innovation	53.97	0.000
Openness to Feedback	34.51	0.000



Table 4: ANOVA: Leadership Ability (Q 145) & Personality Traits – 2008

Scale / Trait	F Value	ANOVA Probability
Helpfulness	27.39	0.000
Sociability	21.54	0.000
Approval Seeking	4.40	0.000
Dependence	18.47	0.000
Tension	34.41	0.000
Rigidity	21.76	0.000
Hostility	15.33	0.000
Need to Control	9.16	0.001
Competitiveness	3.99	0.000
Conscientiousness	16.86	0.000
Achievement Drive	50.23	0.000
Innovation	53.97	0.000
Openness to Feedback	34.51	0.000

Table 5: ANOVA: Overall Effectiveness (Q 146) & Personality Traits - 2008

Scale / Trait	F Value	ANOVA Probability
Helpfulness	27.39	0.000
Sociability	21.54	0.000
Approval Seeking	4.40	0.000
Dependence	18.47	0.000
Tension	34.41	0.000
Rigidity	21.76	0.000
Hostility	15.33	0.000
Need to Control	9.16	0.001
Competitiveness	3.99	0.000
Conscientiousness	16.86	0.000
Achievement Drive	50.23	0.000
Innovation	53.97	0.000
Openness to Feedback	34.51	0.000

2006 Validation Studies

The 2006 validation studies analyzed the current 13 **LMAP** assessment scales with 132 assessment items (expanded from the original 11 **LMAP** assessment scales with 64 assessment items).



Validation studies used peer ratings of job performance in five domains:

1. Performance compared to others in similar position
2. Ability to get along with others
3. Ability to produce results
4. Leadership ability
5. Overall effectiveness in his/her current job (Q 146)

A sixth, Composite Score (of #1, #2, #3, and #4 above) was also used in analyses.

Ratings on the five domains of performance used a 7- point rating scale

1 = Bottom 2% 2 = Bottom 10% 3 = Bottom 25%
 4 = Top 50% 5 = Top 25% 6 = Top 10% 7 = Top 2%

A one-way ANOVA between groups design analysis revealed significant differences in assessment scale scores for all 13 **LMAP** scales as shown below in Table 6 (the three rating levels in the ANOVA were Group 1: performance ratings of 1, 2 or 3; Group 2 = performance ratings of 4 or 5; Group 3 = performance ratings of 6 or 7).

Table 6: ANOVA: Overall Effectiveness Rating (Q 146) and Personality Traits

Scale / Trait	F Value	ANOVA Probability
Helpfulness	27.39	0.000000
Sociability	21.54	0.000000
Approval Seeking	4.40	0.013575
Dependence	18.47	0.000000
Tension	34.41	0.000000
Rigidity	21.76	0.000000
Hostility	15.33	0.000163
Need to Control	9.16	0.000000
Competitiveness	3.99	0.020172
Conscientiousness	16.86	0.000000
Achievement Drive	50.23	0.000000
Innovation	53.97	0.000000
Openness to Feedback	34.51	0.000000

One-way ANOVA, between groups design analysis on the Composite Score revealed significant differences on all scales except for Competitiveness (see Table 7 below).



Table 7: ANOVA: Composite Job Performance Ratings and Personality Traits

Scale / Trait	Min Mean	Max Mean	Min Diff	Min Diff	F Value	ANOVA Probability
Helpfulness	0	64	26	64	34.92	0.000000
Sociability	0	63	25	63	29.42	0.000000
Approval Seeking	4	55	9	51	4.92	0.008308
Dependence	37	86	24	49	21.39	0.000000
Tension	33	90	25	56	42.14	0.000000
Rigidity	36	85	24	49	25.00	0.000009
Hostility	38	57	10	19	12.39	0.000441
Need to Control	32	55	15	23	8.07	0.000000
Competitiveness	43	74	7	31	2.56	0.080459
Conscientiousness	0	60	18	60	14.30	0.000002
Achievement Drive	0.	66	29	66	61.73	0.000000
Innovation	0	66	32	66	67.99	0.000000
Openness to Feedback	0	65	28	65	38.621	0.000000

Given that the performance ratings of 182 of 183 of the senior executives in the 2006 sample scored in the Top 50% of performance ratings, T-tests were run to compare those rated in the Top 50% and Top 25% versus those in rated the Top 10% and Top 2%. As shown in Table 8 below, significant differences on all 13 **LMAP** scales:

Table 8: T-tests: Composite Scores and Personality Traits (2006)

Scale / Trait	Mean Difference	Probability
Helpfulness	24.49	.0001
Sociability	22.49	.0001
Approval Seeking	-9.93	.0191
Dependent	-23.27	.0001
Tension	-29.63	.0001
Rigidity	-24.71	.0001
Hostility	-19.98	.0001
N Control	-15.09	.0001
Competitiveness	-11.07	.0063
Conscientiousness	21.11	.0001
Achievement Drive	28.01	.0001
Innovative	30.27	.0001
Openness to Feedback	28.11	.0001



The Early Studies: 2001

The first statistical explorations were undertaken in 2001. We began with an exploratory factor analysis, examining factor structure. Analysis was performed using SPSS version 10 with principal axis factoring, Varimax rotation, and Kaiser normalization. Using the Eigenvalues more than or equal to 1 criterion, 10 factors were extracted (see Table 9 below). The cumulative percent of variance explained in the rotated matrix is 55.88% with 10 factors, it reached 50% at 7 factors, the *a priori* objective.

Table 9: Eigenvalues and Total Explained Variances

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.969	25.348	25.348	9.439	14.982	14.982
2	8.821	14.002	39.350	5.649	8.966	23.948
3	4.262	6.765	46.115	3.918	6.218	30.167
4	2.706	4.296	50.411	3.917	6.217	36.384
5	1.734	2.752	53.163	3.141	4.986	41.370
6	1.428	2.267	55.430	3.069	4.871	46.241
7	1.358	2.156	57.586	2.881	4.573	50.814

A rotated factor matrix identified 7 distinct factors listed below. Due to the similarities of the traits measured in the subscales, factor extraction and rotation were incapable of discriminating between some of the subscales, as the following was observed:

- Factor 1: Controlling, Rigid, and Helpfulness (with negative coefficients)
- Factor 2: Achieving and Innovative
- Factor 3: Dependent and Tense
- Factor 4: Conscientious
- Factor 5: Need for Approval
- Factor 6: Competitive
- Factor 7: Sociable

In a second validity study completed in 2001, feedback respondents (those completing the **LMAP** survey for the target leader) were asked to rate a leader's performance in seven domains (overall performance on the job; performance compared to others in similar position; ability to get along with others; ability to produce results; innovation and creativity; teamwork skills; leadership ability). These seven items were correlated with each assessment scale individually and then combined to create an aggregate overall performance factor. Correlations were then computed to determine the relationship between the 11 personality scales and performance.

In this 2001 study, all the scales, except for Competitiveness, showed moderate to relatively high correlations to performance and were significant at the .01 level (Openness to Feedback was added in 2006). In absolute terms, the significant



correlations ranged from .203 to .620. Innovation had the greatest positive impact on performance (.620), Tension had the strongest negative effect (-.523). With the exception of the Approval Seeking Scale, all correlations supported the model by their direction and magnitude, providing evidence of construct validity of **LMAP** and, is consistent with the literature on leadership effectiveness. Results are shown in Table 10 below:

Table 10: Correlations of Traits to Performance

Scale	Overall	Compared to others	Produce Results	Creativity	Teamwork	Leadership	Aggregate Performance
Helpfulness	.402**	.408**	.337**	.401**	.617**	.415**	.572**
Sociability	.373**	.361**	.346**	.416**	.519**	.444**	.545**
Approval Seeking	.094*	.103**	.041	.155**	.284**	.070	.203**
Dependence	-.382**	-.394**	-.446**	-.350**	-.167**	-.493**	-.406**
Tension	-.413**	-.444**	-.391**	-.385**	-.411**	-.507**	-.523**
Hostility	-.328**	-.353**	-.292**	-.334**	-.538**	-.344**	-.486**
Rigidity	-.214**	-.225**	-.162**	-.235**	-.493**	-.218**	-.373**
Need to Control	.038	.000	.094*	.035	-.200**	.062	-.038
Competitiveness	.486**	.482**	.470**	.383**	.409**	.456**	.521**
Conscientiousness	.554**	.531**	.563**	.561**	.352**	.530**	.597**
Achievement Drive	.501**	.500**	.519**	.715**	.369**	.573**	.620**

** Correlation is significant at the .01 level (2-tailed) * .05 level (2-tailed)

Self-Assessment versus Feedback Ratings and Performance

Since only the Feedback Ratings data is described in the above analyses, it is worth noting that for the most part, analyses using Self-Assessment data were spotty: self-assessment scores on the **LMAP** scales were not systematically related to performance ratings.

Summary: The 2008 and 2006 studies reified the general lay of the land of the high performance and counterproductive traits:

1. Helpfulness, Sociability, Conscientiousness, Achievement Drive, Innovation and Openness to Feedback were strongly positively associated to high performance;
2. Dependence, Tension, Rigidity, Hostility, and Need to Control were strongly negatively associated to ratings of job performance; and
3. Approval Seeking and Competitiveness generally show statistically significant relationships to performance ratings but the results are weaker, and in the case of Competitiveness, intermittent.

As noted, the research supports anecdotal observations around Approval Seeking and Competitiveness. The statistics suggest and experience supports that these traits are especially sensitive to other prominent traits within an **LMAP** Profile.

- Approval Seeking, when accompanied by Dependence and Tension, tends to be expressed in deference and a reticence to lead. Approval Seeking, when



accompanied by Achievement Drive and Innovation tends to be expressed (in part) as a desire for teamwork and facilitates collaboration and cooperation.

- Competitiveness, when grouped with high performance leadership traits, especially the teamwork traits (Openness to Feedback, Helpfulness, and Sociability), can operate as an asset and is expressed as drive, energy, and a passion for success. The teamwork traits appear to hold the egotism in check and even highly competitive people can be team players. However, when Competitiveness is grouped with Rigidity, Hostility, or Need for Control, these traits reinforce the egocentrism and a prominent need to be right and the Competitiveness operates as an additional obstacle to teamwork.

Face Validity:

Though face validity is considered the weakest form of validity, it is nonetheless important to be able to demonstrate. **LMAP** fits in comfortably with the wider research literature on 1. the relationship of personality traits to effectiveness in a professional role; 2. the contemporary literature on leadership effectiveness, and 3. the OD research and theory around teamwork. The 13 traits assessed in **LMAP** measure the kinds of attitudes and behaviors that one would expect to be linked to job performance: this is because it is well understood that an individual's ambitions, assertiveness, flexibility, confidence, and social skills are called forth in carrying out the types of individual and team goals and objectives that a professional encounters in the information-age workplace.

Face validity has also been demonstrated in

1. The consistency between rater comments about a leader and that leader's scores on **LMAP** items and scales. Written comments and **LMAP** items and scale scores are consistent and point to similar behavioral strengths or shortcomings.
2. Leaders reporting positively about the accuracy of the **LMAP**: how their scores on the assessment items and scales and the narrative report accurately reflect what they have heard in the past about their behavioral assets and struggles.
3. Team members in a team intervention commenting about the relevance of the **LMAP** for addressing specific development needs *in other team member* – that is in fact raised in that other team member's **LMAP**.

Overall, it is our experience using the **LMAP** with high performing professionals that the assessment clearly and specifically points out areas where there is a history of behavioral assets and/or liabilities in leadership, management, communications, and teamwork.

Summary: The results of the statistical studies illustrate that **LMAP** has a solid foundation of reliable and valid measures that reflect strong criterion and construct validity. Furthermore, face validity is clear within the instrument and bolstered by the **LMAP** measures and outcomes which show it falls within the existing research literature on the relationship between personality traits and performance on the job.



What differentiates **LMAP** is its use of plain-English narrative reports that clearly communicate to leaders the impact of their most prominent personality traits and behaviors on their orientations to projects, teamwork, conflict, and leadership.

Discussion: The LMAP and Related Research on Job Effectiveness

Corporate folklore says that when you make your top salesperson the sales manager, you lose your best salesperson and the team gets a lousy manager. This bromide implies huge differences between personality characteristics that drive success in sales versus success in management. In fact, high performers are alike in more ways than they differ. They share a preference for demanding work that provides challenges; they are intellectually flexible and optimistic, and they are supportive and encouraging. On balance, the personality traits that help make managers successful are the same traits that help make salespeople, professionals — and even commercial airline pilots effective.

Many other studies are consistent with the results of the **LMAP** study in 2001 that is explained in the Validity section above. In a 1991 study, published by Gratzinger, Warren, and Cooke in *Measures of Leadership* (Clark and Clark editors), researchers used a 360-degree circumplex personality assessment (called Acumen WorkStyles) and found that with a sample of 556 managers, those who were ranked in the top 10 percent of effectiveness by co-workers had personality profiles dominated by “success traits” with high scores on measures of achievement, creativity, self-confidence, helpfulness and sociability. In contrast, managers who ranked in the lowest 10 percent of effectiveness had personality profiles dominated by counterproductive traits including dependence, apprehension, rigidity, and high needs for control. A similar study by Guest and Warren (in an unpublished monograph, Acumen International), with over 2,000 individual contributors rated by over 10,000 raters, found the same pattern whereby the most effective had a personality profile dominated by “success traits” and the least effective had profiles dominated by counterproductive traits.

Research by Cooke, Lafferty and Rousseau using the LifeStyles Inventory (a circumplex assessment published by Human Synergetics) that measures personality traits similar to those measured by **LMAP** show strong relationships between personality and symptoms of stress. Their studies found that people with a personality profile dominated by counterproductive traits (Need for Approval, Dependent, Tense, Rigid, Controlling, Competitive), experience more medical stress symptoms than people with a personality profile dominated by the success traits.

These studies are consistent with the findings reported in a 1993 *Harvard Business Review* article that describes a study of the personality styles and behaviors that make Bell Labs engineers successful. The study found that the most productive and valued engineers at Bell Labs were not those with the highest IQ or achievement test scores but those who excelled in teamwork, cooperation, and rapport. The engineers who formed alliances with other workers and used positive persuasion (versus authority or rank) and consensus building were the most successful. This study demonstrates how personality operates like a lens through which knowledge and skills are either sharpened or blurred.



The Big Five Model of Personality is widely used in organizational psychology work for employee selection and development. The Big Five measures five personality dimensions: conscientiousness, agreeableness, emotional stability, extraversion, and openness to new experiences. Research utilizing the Big Five finds that across professions, conscientiousness is the most consistent predictor of effectiveness. The conscientiousness dimension measures self-confidence, a sense of competence, organization, order, discipline, and the enjoyment of challenging work — essentially the same characteristics measured on the Conscientious and Achieving scales of the **LMAP**. Big Five studies also show that the attitudes and behaviors measured by the **LMAP** Helpfulness and Sociability scales are linked with higher job performance.

Counterproductive personality traits in others are a huge source of stress in the workplace. Harvey Hornstein, Ph.D., of Columbia University, surveyed 1000 people and found that 90 percent, at some point in their career, claimed that they had worked for a “brutal boss,” who publicly humiliated them or blamed them for his own failures. Hornstein estimates that at least 20 percent of employees report to a manager who is a brutal boss. His research is consistent with findings by David Campbell, a Senior Fellow at the Center for Creative Leadership, who says, “We’ve had managers come to our center who actually defined leadership as the ability to inflict pain.”

Robert Hogan, Ph.D., Chairman of the University of Oklahoma Organizational Psychology Department, notes counterproductive personality traits as the leading cause of employee stress and discontent. He cites studies showing that “since the 1950’s – 70 percent of employees surveyed have said that the worst, most stressful part of their job is their immediate boss.”

In a 1997 study of 511 company leaders, Richard Hagberg found that 70 percent were “loners,” dangerously insulated from other team members. These leaders were intellectually and technically skilled, but also self-absorbed, impatient, impulsive, manipulative, dominating, and critical of others. They lacked insight into their strengths and weaknesses and were abusive to others in the workplace. Hagberg recounts the story of a CEO impatiently waiting in line with his wife to renew his driver’s license. He becomes infuriated at how long it is taking to get served and says to his wife, “I have a lot to do. Don’t they know who I am?” She replies, “Yeah, you’re a plumber’s son who got lucky.” His wife’s comment gave him an abrupt insight into his outsized sense of self-importance — a self-importance and sense of entitlement that caused him — and others — difficulties in and out of work.

The Center for Creative Leadership (CCL) is a well-respected, nonprofit institute based in North Carolina that is dedicated to the study of management and executive leadership. Researchers at CCL coined the term “derailment” to describe how high-potential, fast-track managers are skipped over for promotions or are terminated because of personality flaws. CCL lists twenty-six derailment traits, including difficulty handling pressure, interpersonal insensitivity, a lack of team skills, arrogance, and relying too much on natural talents.



Studies from Commercial Aviation

In no other industry is the relationship between personality and performance on the job more dramatically and compellingly played out. Seventy-five percent of commercial airline accidents are caused by human error, with flight crew failure at the top of the list. Three out of four plane crashes would not have occurred if the crew had practiced effective management and communications to resolve a critical situation. How do such lapses in basic leadership, management, and communications skills occur in this highly trained commercial airline pilot population? The former deputy head of flight safety at Swissair said, “We can change switches and instruments, but not human nature. We’re all just ‘normal’ neurotics who must be taught to know and live with our problems and weaknesses.”

Because human error (more often called “crew error” today) is the leading cause of airline accidents, the FAA requires that the airlines provide training to pilots in Crew Resource Management (CRM). Crew Resource Management is the effective use of equipment, crewmembers, ground-based personnel, and technical skills to achieve a safe and efficient flight operation. Every US airline has a CRM course, sometimes referred to as “Captain’s Charm School,” that focuses on strengthening leadership, management, and communications skills.

Studies on flight crew effectiveness have been conducted since the mid-1980s by the Federal Aviation Association (FAA), the National Transportation Safety Board (NTSB), and the National Aeronautics and Space Administration (NASA). Research has been conducted using flight simulators, during flights, and through the utilization of recordings from cockpit voice recorders recovered from accidents.

The results of these studies are stunningly consistent and have found that:

1. Crews led by captains with strong social skills and a high need for achievement make the fewest errors.
2. Crews led by captains with below-average achievement motivation and a negative expressive style (rigid and controlling) make more errors.

Studies at the Air Force Academy obtained similar results. Flight crews led by captains who were controlling, focused only on tasks, and demeaned rather than encouraged others had the most errors. Captains who made the fewest errors showed the following behaviors:

- made use of all the available resources and delegated task responsibilities clearly
- communicated well with other crew members and established a cooperative tone
- established authority through competence rather than through rank
- encouraged others to be involved and provide input
- “walked the talk”



Using the 360-degree, Multi-Rater Method

Why use the multi-rater method? David Meyers conducted a study in which professionals self-rated their social and leadership skills. One hundred percent of the respondents self-rated their social skills in the top half. One in four respondents placed themselves in the top 1 percent in social skills. Only one in fifty said they were in the bottom 25 percent in leadership capability. Obviously the self-assessment method has shortcomings which cannot be overcome in using personality measures for employee selection purposes, but are easily overcome in their use for employee development but using a multi-rater method. Studies like David Myers – which are consistent with the **LMAP** validation studies that show the shortcomings of the self-assessment method – are one key reason that **LMAP** is a 360-degree multi-rater assessment.

Perhaps even more importantly, team-members interact with a leader based on their perceptions of that leader – not based on that leader’s self-perceptions. Leaders need reliable, valid, relevant feedback on how they are being perceived by team members in order to better self-manage their execution of leadership roles and responsibilities. Consistent with this, the bulk of the **LMAP** Report focuses on feedback by raters.

Reasons to Use Multi-Rater Feedback

1. Strong validity as tied to performance outcomes (e.g. measures of productivity, turnover, grievances, performance appraisal);
2. Signals employees that their professional development is valued by the organization;
3. Reinforces that feedback and communications within teams and between co-workers is valued;
4. Per 2 and 3, like any *system* a work system needs feedback to maintain and/or increase quality;
5. Research studies show that professionals who receive feedback on strengths and weaknesses improve more than those who do not receive feedback (Hazucha, Hexlett, Schneider, 1993);
6. Research shows that those professionals who have the most room to improve and perhaps need to improve the most, benefit the most from this feedback (Smither, London, Vasilopoulous, et. Al, 1995).
7. Follow-up studies show that those who share an action plan with co-workers are perceived as more effective than others (see publications by Marshall Goldsmith);
8. Allows people to communicate feedback that they might otherwise not feel comfortable communicating – and therefore do not;
9. Confidentiality facilitates the processing of feedback – sometimes critical feedback – while removing personal agendas and allowing professionals to hear feedback without getting defensive or feel publicly exposed;
10. Use of standardized assessment measures allows comparison of ratings of performance to an external objective criteria;



11. Provides personalized information for participants in a workshop or seminar that is didactic (e.g., a leadership seminar augmented by multi-rater feedback is a much more personalized experience);
12. People like it! Multi-rater feedback is usually rated as one of the most useful and interesting training activities that professionals participate in.

Goldsmith's Research on Multi-Rater Feedback and Leadership Development

The **LMAP** is built on the notion that most leaders need feedback from team members to improve performance. Quality improvement efforts in leadership are no different from other quality improvement programs: feedback is essential for understanding where the system works well and where to make improvements. Marshall Goldsmith's work helps to clarify what is needed for a leader to change their behavior in a way that increases their effectiveness on the job.

In 1998, Goldsmith completed a study with over 8,000 managers at a Fortune 100 company who received 360 degree feedback. He found strong relationship between how a leader 1. responded to feedback; and then 2. followed up on the feedback and, 3. How a leader's direct reports perceived the leader's effectiveness and improvement 18 months later. (see "The Impact of Direct Report Feedback and Follow-Up on Leadership," 2006, at: www.marshallgoldsmith.com/articles)

To respond to feedback, leaders were asked to spend 5-15 minutes with direct reports in a focused, two-way dialogue around their 360-results and behavioral goals. To follow-up, leaders were asked to again spend 5-15 minutes with direct reports in a focused, two-way dialogue around the leader's progress on previously identified areas for improvement. The results – 18 months after the assessment process was complete – are quite stunning:

1. 52% of the leaders "unresponsive to feedback" were rated as unchanged or less effective than 18 months earlier;
2. 53% who responded to feedback but did not follow-up were rated as unchanged or less effective. Moreover, 21% of those who neglected to follow-up were rated as "getting worse;" perhaps because leaders who raise expectations without delivering results increase dissatisfaction and decrease respect.
3. The more a leader responded to and followed-up, the greater the improvement ratings from direct reports:
 - 66% of leaders who did "a little follow-up" showed some improvement.
 - 95% who did "a lot of follow-up" showed dramatic improvements.

Within **LMAP** the Marshall Goldsmith studies are introduced in the introduction to the Openness to Feedback Scale Results and reprised in the Conclusion of the Report. In the Conclusion it is stated that Goldsmith's research shows that *being open to feedback about your leadership style and conscientiously following up on that feedback almost always leads to dramatic*



improvements. The leaders who created a Development Plan and had a series of 15 minute conversations about their progress had dramatic improvements in leadership. The Conclusion reminds the leader that Goldsmith's study shows that roughly a three hour a year investment in one's career can lead to very positive improvements.

Applying Goldsmith's Research to LMAP Applications

The **LMAP** is used to help professionals develop insight into their personality styles and behaviors and to better understand the positive and counterproductive impact of these styles on project skills, teamwork, conflict management, and overall leadership.

Leaders are provided with instructions for reading their **LMAP Report** and worksheets to help them process the information in their Report.

Each **LMAP Report** provides (in the Afterword) structure and direction for using the feedback within the Report to develop a Leadership Development Goal. Below are abstracts from the Afterword:

Afterword

Your **LMAP Report** offers you a unique opportunity to stop and think about the person you are and the person you want to be at work. By better understanding how others perceive your behavior at work you can make informed choices about which behaviors to accentuate and which to diminish to become a more effective leader. Your opportunity here is in learning to better manage the one thing over which you have total authority in your work – your behavior.

Creating a Leadership Development Goal

You have received a rich mix of feedback about your leadership style in this **LMAP Report**. The feedback provides a comprehensive overview of your preferences and predispositions, assets and liabilities, to help you consider meaningful questions like:

- Given your IQ, education, technical skills, and work ethic, do your behaviors work to optimize or diminish the value of these hard skills?
- What are the main themes in your **LMAP Report**?
- What are your behavioral assets and what are your behavioral liabilities?
- How does your personality facilitate or interfere with you working at your best?
- Which behaviors would you need to change to be at your best more often?
- Which behaviors would you need to start or stop to raise your productivity and satisfaction?
- Which behaviors would you need to start or stop to raise the productivity and satisfaction of other team members?
- Which behaviors reflect your unique talents and skills and which behaviors are signs of stress?
- Which behaviors would you need to start or to stop to move from the person you are to the person you want to be?



Almost always, the behaviors assessed in **LMAP** can be changed by anyone with the will to make it happen. Furthermore, a behavior change does not have to sound transformational to have a dramatic impact. Consider these simple behavior changes made by previous **LMAP** participants that turned out having a major impact on their work experience:

1. I will stop interrupting others. I will listen intently and let others have their full say.
2. I'll start to ask the tough questions that feel uncomfortable because I want to be "nice" to everyone.
3. I will start to show the consideration and courtesy to others that I expect for myself.
4. I won't raise my voice or yell at work – I will keep my voice controlled and pleasant.
5. I will learn to say "no" when asked to do more than I can do.
6. I will stop overanalyzing things to death and start taking more calculated risks.
7. I will start telling the people I work with how much I value their talents and efforts. I will stop assuming they already know this.
8. I will stop getting so upset about everyday hassles and stresses. For a little perspective I'll think of the person who just left the oncologist's office with bad news ...

After a second reading of your **LMAP Report**, completion of your **LMAP Worksheet**, and engaging in conversations about your **LMAP Report** (with a facilitator, coach, or other team members – depending on your **LMAP** application) you are to define your Leadership Development Goal: one behavior to start or stop. Your Leadership Development Goal is a commitment to change just one behavior and to remain committed over the following year.

A Three-Step Process to Leadership Development

One: Be open to feedback about your leadership style.

- Be OPEN. Don't get defensive about feedback: **LMAP** is a career development tool.
- ***Don't get furious, get curious.*** Use this opportunity to learn all you can about yourself.
- Most people have a mix of behavioral assets and liabilities and every behavior raised in every **LMAP Report** can be modified with an earnest effort.
- Clearly and concisely define a Leadership Development Goal.

Two: Thank your raters for their feedback and discuss what you've learned.

- Thank your raters for their time and effort to provide you feedback.
- Share your Leadership Development Goal and ask your raters for their suggestions and support.
- Do not share this **LMAP Report** with work associates.

Three: Conscientiously follow-up with your raters over the next year.

- Have quarterly 20-minute conversations with your raters about your Leadership Development Goal and ask them to talk honestly with you about your progress.



- Use accountability partners to test ideas, to define obstacles, and discuss your progress.

Hard as it is to believe, the research shows that employing these three steps dramatically improves leadership effectiveness.

Do the math: if you have 10 raters and spend 20 minutes with each, 3 times a year, you are making a 10-hour annual commitment, with good odds that you'll significantly increase your leadership effectiveness. Do the math: you'd be hard pressed to find a better career-ROI for 10 hours of any other activity.

LMAP 369 Feedback: If you are using the **369 Feedback** survey to structure and support your quarterly development process, **LMAP** will send you and your raters a survey in 3, 6 and 9 months. **369 Feedback** will provide you with feedback on your progress and rich information for your quarterly discussions.

What To Do Back on the Job

1. Promptly and graciously thank all your raters for their time, energy and comments.
2. Share your Leadership Development Goal with your team (some mix of manager, peers, direct reports, internal clients).. Ask for their input and feedback and be open to fine tuning your Leadership Development Goal. Thank them for their input.
3. If you are using **369 Feedback**, remind your raters that in 3, 6 and 9 months you will invite their feedback using a brief survey (4 ratings/4 comments) on your progress that you'd like them to complete. If you are not using **369 Feedback**, remind your raters that you will be having further conversations with them.
4. In 3, 6 and 9 months return to each rater to have a 20-minute conversation to discuss your progress and to make adjustments where appropriate.

The **LMAP** is intended to be a “conversation starter,” to educate leaders and to stimulate insights and a sense of personal accountability around leadership behaviors. The conversation drives a Leadership Development Goal and (ideally) a commitment to implement their Leadership Development Goal over a one-year timeframe.

To support this development process, we have developed the **LMAP 369 Feedback** – a web-based survey to structure and support your quarterly development process, **LMAP** will send you and your raters a survey in 3, 6 and 9 months. **369 Feedback** will provide you with feedback on your progress and rich information for your quarterly discussions. (End Afterword).



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