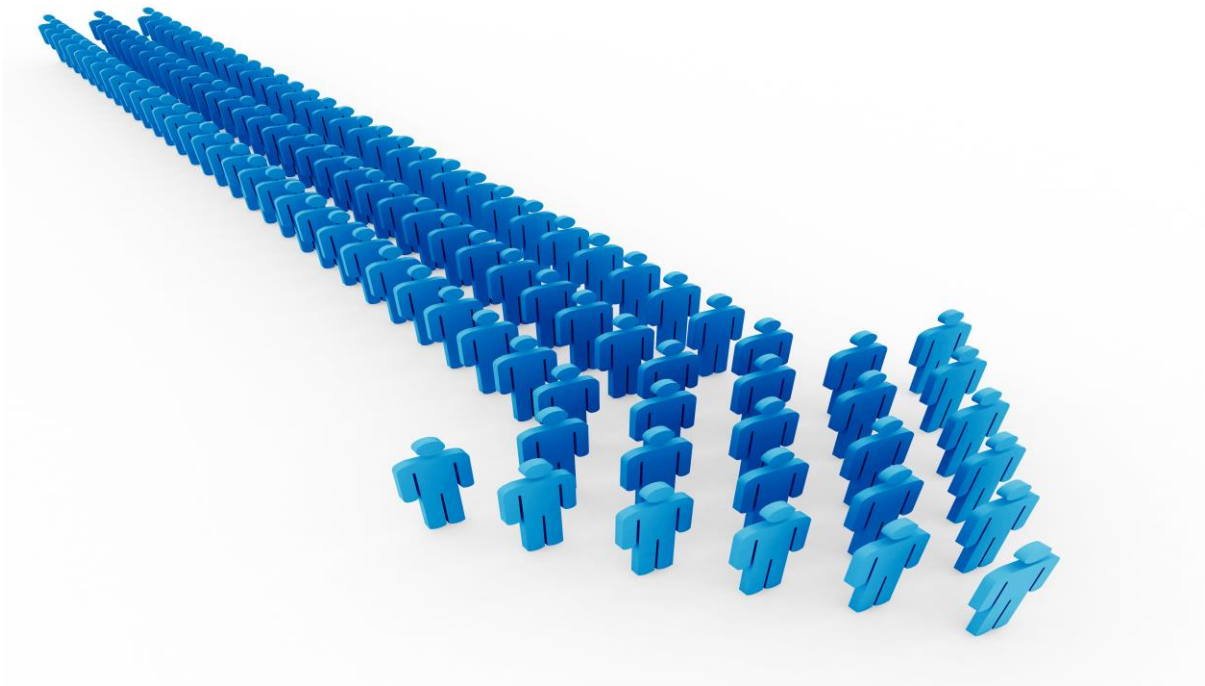


MLQ30

Management and Leadership Questionnaire

User Manual



Reviewed by **BUROS CENTER FOR TESTING**

MLQ30 Management and Leadership Questionnaire

User Manual

John Beazer and Allan Cameron

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1. Introduction

This User Manual gives an overview of the application, administration, interpretation and reliability and validity of the MLQ30 normative questionnaire. Evidence for the reliability and validity is presented against some of the key criteria in the EFPA Review Model for the Description and Evaluation of Psychological Tests (Bartram, 2002). The EFPA Review Model was produced to support and encourage the process of harmonizing the reviewing of tests. It provides a standard set of criteria to assess the quality of tests. These cover the common areas of test review such as norms, reliability, and validity.

1.1 Purpose of MLQ30 questionnaire

The MLQ30 questionnaire was designed to provide information about an individual's management and leadership competencies and skills. The MLQ30 competency model measures 30 dimensions of management and leadership competence covering 6 key areas (Figure 1). These cover the transformational and transactional aspects of managerial and leadership activity.

Figure 1. Key areas of management and leadership



1.2 Versions of questionnaire

There are two versions of the questionnaire. The normative version of the questionnaire requires a test taker to rate their current performance on different competencies on a 5 point Likert scale ranging from “Emerging” to “Elite”. The normative version has two scales measuring Impression Management and Self-Deception in addition to the 30 scales that measure management and leadership competencies. The questionnaire consists of 192 statements (6 items per scale) and most test takers complete the test in less than 30 minutes. Table 1a-b below defines what each of the competency scales measure.

The ipsative version of the questionnaire presents test takers with blocks of three competency statements, and the task is to identify the competency that the test taker does 'best', and the competency that the test taker does 'least' well. There are 100 blocks of three items, and the majority of people complete the test in less than 30 minutes.

1.3 Development of competency framework

The first phase in the development of the assessment was a wide-ranging literature review during which we examined theories and models of management and leadership, competency frameworks, self-assessment tests, and 360-degree feedback survey instruments.

The key purpose of the review was to gather information about management and leadership competencies. We adopted Bartram’s (2002) definition of competencies as “behavioral repertoires” or “sets of behaviors that are instrumental in the delivery of desired results.” Competencies, according to Bartram, are behaviors that support the attainment of organizational objectives. In the context of leadership, they describe what it is that people in leadership positions do in order to meet their objectives and how they go about achieving their goals and targets. The output from the literature review was a long list of possible management and leadership competencies recorded on a spreadsheet.

In the second phase, our goal was to build a draft management and leadership framework in the format of a typical competency framework--that is, in a format similar to the Consortium for Research on Emotional Intelligence’s Emotional Competence Framework (Consortium for Research on Emotional Intelligence in Organizations, 1998) or SHL’s Universal Competency Framework (Bartram, 2012).

These competency frameworks are made up of hierarchical clusters of competencies. For example, the SHL Universal Competency Framework is a three-tier framework with 8 key areas (for example, “Creating and conceptualizing”), 20 competency dimensions (for example, “Formulating strategies and concepts”), and 112 competency components (for example, “Sets and develops strategies”).

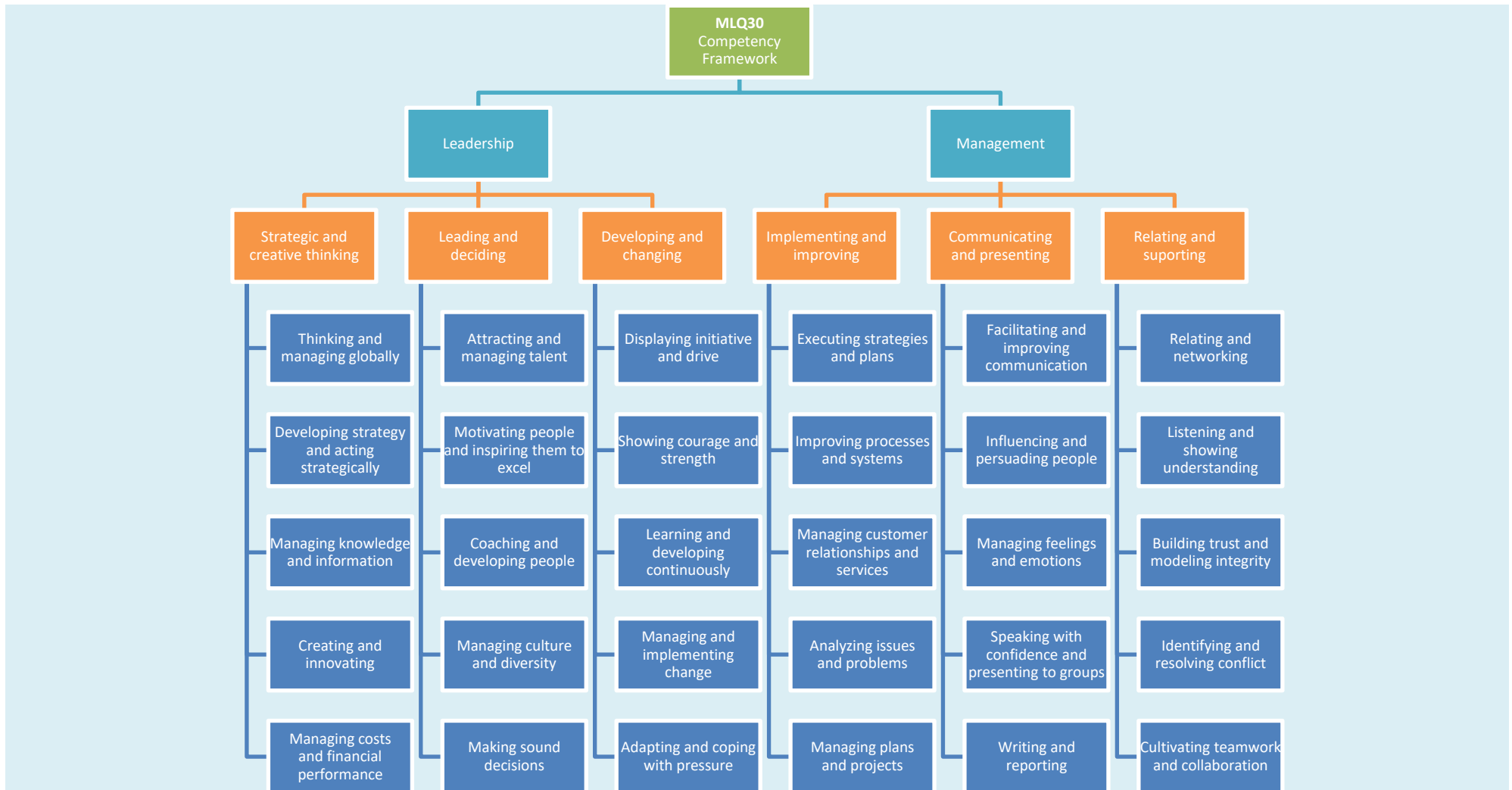
Table1a. What the MLQ30 leadership scales measure

Leadership/Transformational Competencies		
1	Strategic and Creative Thinking	Competency Requirements
1.1	Thinking and managing globally	Keep up to date with global trends, review the company's position, develop business relationships in other countries.
1.2	Developing strategy and acting strategically	See the big picture, pick up changes in the marketplace, review and analyze the business unit's strategy.
1.3	Managing knowledge and information	Keep up with advances in business area, benchmark performance against industry leaders, seek advice from experts.
1.4	Creating and innovating	Help people to think differently about a problem, get buy-in for creative ideas, turn novel ideas into reality.
1.5	Managing costs and financial performance	Read and interpret financial reports, set financial targets, review and improve financial performance.
2	Leading and Deciding	Competency Requirements
2.1	Attracting and managing talent	Help new employees get up to speed quickly, give people challenging job assignments, monitor people's performance.
2.2	Motivating people and inspiring them to excel	Communicate high expectations of people, trust capable people to do their work, celebrate team achievement.
2.3	Coaching and developing people	Provide people with assignments to develop their skills, give timely coaching, act as a role model for development.
2.4	Managing culture and diversity	Define acceptable workplace behavior, challenge bias and intolerance, act as a role model of inclusive behavior.
2.5	Making sound decisions	Assess options and risks, consult people and take their views and ideas into account, act decisively.
3	Developing and Changing	Competency Requirements
3.1	Displaying initiative and drive	Start tasks right away, get things done quickly, be ready to go the extra mile.
3.2	Showing courage and strength	Do what is right despite personal risk, say no when necessary, have the courage to take tough decisions.
3.3	Learning and developing continuously	Seek feedback, set personal development goals, show a sense of humor and perspective.
3.4	Managing and implementing change	Sell the benefits of change, model the change expected of others, establish roles and structures to support change.
3.5	Adapting and coping with pressure	Adapt quickly to new situations, handle stress successfully, keep composure in difficult circumstances.

Table 1b. What the MLQ management scales measure

Management/Transactional focus		
4	Implementing and Improving	Competency Requirements
4.1	Executing strategies and plans	Provide direction and support, delegate responsibility to the appropriate people, hold people accountable for delivery.
4.2	Improving processes and systems	Allocate responsibility for improvement, learn lessons from process breakdowns, improve business processes.
4.3	Managing customer relationships and services	Set high standards for customer service, exceed customer expectations, resolve customer issues quickly.
4.4	Analyzing issues and problems	Gather information from a wide variety of sources, approach problems from different angles, brainstorm possible solutions with others.
4.5	Managing plans and projects	Develop bold plans, obtain resources to carry out projects, manage critical dependencies and risks.
5	Communicating and Presenting	Competency Requirements
5.1	Facilitating and improving communication	Create a climate where people share views and ideas, exchange information with the team, bosses and stakeholders.
5.2	Influencing and persuading people	Promote views and ideas, influence people by addressing their needs and priorities, negotiate effectively.
5.3	Managing feelings and emotions	Know which emotions you are feeling and why, handle other people's feelings and emotions sensitively.
5.4	Speaking with confidence and presenting to groups	Demonstrate presence, communicate with self-assurance, give effective presentations to groups.
5.5	Writing and reporting	Produce clearly written reports, write effectively for different audiences, edit other people's written work skillfully.
6	Relating and Supporting	Competency Requirements
6.1	Relating and networking	Work effectively with other people, build rapport and keep others in the loop, use networks to get things done.
6.2	Listening and showing understanding	Put people at ease, pay attention to their feelings and emotions, listen without interrupting.
6.3	Building trust and modeling integrity	Act in accordance with values and principles, give consistent messages, keep promises.
6.4	Identifying and resolving conflict	Encourage debate, bring disagreements into the open, address and resolve conflict early.
6.5	Cultivating teamwork and collaboration	Set the team's direction and priorities, review the team's successes and failures, help team members work well together.

Figure 2. MLQ30 management and leadership competency framework



We used open card sorting to identify possible competency dimensions and help build a conceptual model of management and leadership based on competencies that had appeared regularly in our literature search. After numerous iterations/revisions, the MLQ competency framework emerged with management and leadership as the top tier building blocks in a three-tier framework. Each of these building blocks covered three key areas, and each key area was made up of five competency dimensions (Figure 2). The bottom tier in the model consists of 180 competency components (see Annex 1).

A recurrent theme in the literature is that management and leadership are different, and the concept model distinguishes between management competencies and leadership competencies. According to Kotter (2013, 1999), management is to do with the processes that keep an organization running—for example, processes such as planning, budgeting, measuring performance, and problem-solving. The function of management is to “produce products and services as you have promised, of consistent quality, on budget, day after day, week after week.”

In our concept model, there are 15 management competencies in three key areas defined as Implementing and Improving, Communicating and Presenting, and Relating and Supporting. These include competencies to do with managing processes and systems, handling customers, planning, running projects, speaking and presenting, resolving conflict, and team working. These are competencies that managers require to keep an organization functioning efficiently.

Kotter argues that leadership is to do with “taking an organization into the future, finding opportunities that are coming at it faster and faster, and successfully exploiting those opportunities. Leadership is about vision, about people buying in, about empowerment and, most of all, about producing useful change. Leadership is not about attributes, it’s about behavior.”

In our concept model, there are 15 leadership competencies in three key areas defined as Strategic and Creative Thinking, Leading and Deciding, and Developing and Changing. These include competencies to do with developing strategy, managing change, innovation, teaching and coaching, decision making, and finance. They also include competency components that capture the emphasis that Kotter and other leadership experts place on aligning people to the vision and achieving buy-in through communication, motivation, and inspiration.

This area of the framework also includes competency components covering some of the behaviors in Bass’ (2006) model of transformational leadership—for example, those to do with influencing people, motivating them, stimulating them, and treating them as individuals.

1.4 Production of assessment test

In the third phase of development, we transformed the competency framework into a pilot inventory in the format of a typical personality or behavioral style assessment test. In the assessment, items were presented in a random sequence, and respondents rated their performance using a five point Likert rating scale.

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Emerging	Developing	Competent	Superior	Elite
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Example item

Building rapport and keeping others in the loop

Reflecting the structure of the competency framework, the assessment test comprised 30 competency dimension scales. We added two scales measuring impression management (IM) and self-deception (SD) to the competency scales in order to throw light on the test taker's response style. Each scale had six items, and the items for these scales were drawn from IPIP scales (Goldberg, 2006) measuring these constructs.

We made the instrument available on our website as a free online assessment with a basic feedback report. After completing the assessment, respondents were asked to complete a personal details form that covered gender, age, ethnicity, nationality, employment, and job performance. We analyzed data from the free assessment at regular intervals using reliability and factor analysis, and we made changes to items to improve the reliability and scale structure of the instrument.

In the fourth phase of development, the MLQ30 user manual was written, and the final version of the assessment was implemented online with norms and a more comprehensive feedback report. The assessment was submitted to the the British Psychological Society's Psychological Testing Center (2012) and the Buros Center for Testing (Carlson et al, 2014) for review.

Both reviews called for a more detailed explanation of the development and rationale of the assessment. In 2014, we decided to update the manual addressing the issues raised by the reviews and examine the psychometric properties of the instrument based on a larger sample of data. We also decided to explore whether correcting for response bias/acquiescence might produce a different factor structure more consistent with the concept model.

Response bias is a common problem with normative assessments especially where the items are transparent. Recent studies in the field of personality (Rammstedt, Kemper, and Borg, 2013; Rammstedt, Goldberg, and Borg, 2010; Rammstedt and Kemper, 2011) suggest that the structure of instruments assessing the Big Five personality factors is sensitive to effects of acquiescent responding. When acquiescence was controlled for through ipsatization, the Big Five factor structure became much clearer and more congruent with simple structure.

In our second set of exploratory factor analysis, we ipsatized the data and investigated the factor structure of the scales with 1) ipsatized scores and 2) combined normative/ipsative scores (the mean of standardized normative and standardized ipsatized scores). Ipsatization transforms a respondent's scores relative to their average response so that their scale scores represent deviations from their average scale score. Factor analysis with the dual band scores produced solutions that bore closest resemblance to the concept model (see Chapter 5 for details).

1.5 Comparison with other competency frameworks

The MLQ30 is designed to capture generic/universal management and leadership competencies. The competencies that the MLQ30 assesses are not unique to the instrument, and the desirable sets of behaviors that they capture can be seen in other leadership and management competency frameworks under similar titles and labels.

Table 2 shows the MLQ30 competencies and comparable competencies in three other published competency frameworks:

- Universal Competency Framework published by the SHL Group (Bartram, 2012). The MLQ30 covers most of the competency dimensions in the UCF.
- Successful Manager's Handbook Leadership Wheel published by PDI (Gebelein, 2004). The MLQ30 covers the majority of the areas in the Leadership Wheel.
- Emotional Competence Framework published by the Consortium for Research on Emotional Intelligence in Organizations (1998). The MLQ30 covers many of the areas in the ECF.

1.6 Correlation with job performance

At the end of the online questionnaire, there is an optional form where respondents are asked to provide information about their job performance. Respondents are asked to assess their performance over the last year using a four point scale from *excellent* to *unsatisfactory*. Using the same scale, respondents are also asked to report how their line managers rated their performance.

We used this information to look at the relationship between the MLQ30 scales and job performance, and we found that all the scales correlated significantly with performance. The median correlation between the MLQ30 scales and job performance was 0.31 when the self-assessments were used, and the median correlation was 0.27 when the line manager assessments were used.

We also carried out regression analysis to throw light on which scales were the best predictors of job performance. A stepwise multiple regression was performed between job performance ratings as the dependent variable and the management and leadership competency scales as the independent variables (see Chapter 5 for details).

When the leadership scales were used as the independent variables, five leadership scales contributed significantly to the prediction of job performance: Displaying Initiative and Drive, Learning and Developing Continuously, Attracting and Managing Talent, Managing Culture and Diversity, and Adapting and Coping with Pressure. This indicates that high performing leaders have, among other things, initiative and drive; they are learning-oriented; place great emphasis on recruitment and development; are sensitive to cultural and diversity issues; and, they are adept at coping with pressure and stress.

When the management scales were used as the independent variables in the analysis, eight management scales contributed significantly to the prediction of job performance: Cultivating Teamwork and Collaboration, Analyzing Issues and Problems, Relating and Networking,

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Facilitating and Improving Communication, Improving Processes and Systems, Building Trust and Modeling Integrity, Listening and Showing Understanding, and Managing Feelings and Emotions. This indicates that key managerial skills are to do with team working, problem solving, relating and networking, communication, continuous improvement, trust and integrity, empathy, and emotional intelligence.

Table 2. Comparison with other competency frameworks

MLQ30	Universal Competency Framework	PDI Leadership Wheel	Emotional Competency Framework
Thinking and managing globally		Manage globally	
Developing strategy and acting strategically	Sets and develops strategies	Act strategically	
Managing knowledge and information	Manages knowledge		
Creating and innovating	Creates innovative products or designs	Leverage innovation	Innovativeness
Managing costs and financial performance	Controls costs and thinks in terms of profit, loss and added value	Employ financial acumen	
Attracting and managing talent	Recruits staff of a high caliber	Build talent	
Motivating people and inspiring them to excel	Motivates and empowers others	Engage and inspire	Leadership
Coaching and developing people	Provides staff with development opportunities and coaching	Coach and develop others	Developing others
Managing culture and diversity	Shows respect and sensitivity towards cultural and religious differences	Increase cultural competence	Leveraging diversity
Making sound decisions	Makes prompt, clear decisions which may involve tough choices or considered risks	Make sound decisions	
Displaying initiative and drive	Initiates and generates activity	Show drive and initiative	Initiative
Showing courage and strength		Lead courageously	Optimism
Learning and developing continuously	Identifies development strategies needed to achieve career goals and makes use of developmental or training opportunities	Learn continuously	Accurate self-assessment
Managing and implementing change	Devises effective change initiatives	Manage change	Change catalyst

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MLQ30	Universal Competency Framework	PDI Leadership Wheel	Emotional Competency Framework
Adapting and coping with pressure	Works productively in a high pressure environment	Show adaptability	Adaptability
Executing strategies and plans	Monitors performance against deadlines and milestones	Manage execution	Achievement drive
Improving processes and systems	Monitors and maintains quality and productivity	Manage and improve processes	Change catalyst
Managing customer relationships and services	Focuses on customer needs and satisfaction	Focus on customers	Service orientation
Analyzing issues and problems	Analyses numerical data, verbal data and all other sources of information	Analyze issues	
Managing plans and projects	Plans activities and projects well in advance and takes account of possible changing circumstances	Build realistic plans	
Facilitating and improving communication	Listens, consults others and communicates proactively	Foster open communication	Communication
Influencing and persuading people	Gains clear agreement and commitment from others by persuading, convincing and negotiating	Influence others	Influence
Managing feelings and emotions	Keeps emotions under control during difficult situations		Emotional awareness
Speaking with confidence and presenting to groups	Makes presentations and undertakes public speaking with skill and confidence	Speak with impact	Self-confidence
Writing and reporting	Writes clearly, succinctly and correctly	Write effectively	
Relating and networking	Relates well to people at all levels	Establish relationships	Collaboration and cooperation
Listening and showing understanding	Demonstrates an interest in and understanding of others	Listen attentively	Empathy
Building trust and modeling integrity	Demonstrates integrity	Establish trust	Trustworthiness
Identifying and resolving conflict	Manages conflict	Manage conflict	Conflict management
Cultivating teamwork and collaboration	Adapts to the team and builds team spirit	Promote collaboration and teamwork	Team capabilities

2. Applications and administration

The MLQ30n questionnaire is suitable for a range of assessment and development applications including selection, coaching, training, team building, and career counseling.

2.1 Applications

Selection

MLQ30 interpretive reports about a candidate's management and leadership style and competencies provide a structure for interviewers and candidates to discuss a candidate's potential strengths and weaknesses. In competency-based selection, the MLQ30 model provides a framework of thirty competencies to compare candidates against, and use as the foundation for a competency-based interview.

Assessment and development centers

The MLQ30 profiles also provide a source of information about a candidate's leadership level, style, strengths and development needs to put alongside information from in-tray and group exercises. The interpretive reports provide practical tips and suggestions for performance improvement for participants to consider alongside feedback from assessors.

Training and development

The MLQ30 questionnaire can help in the development of a company's existing staff in individual and group development contexts. The MLQ30 profile provides a structure for a member of staff and their line manager, mentor, trainer or coach to explore strengths and development needs. The development section of the interpretive report provides practical ideas and suggestions for learning and development for trainees to consider.

Team building

Sharing of MLQ30 profiles can help teams to understand the range of skills and competencies that the team possesses and how these might be deployed in projects. The creation of a MLQ30 team profile may also reveal gaps in the team's capability and help identify suitable team development activities.

Coaching and counseling

MLQ30 interpretive reports also provide a suitable structure for a coach to explore a client's management and leadership level, style, strengths, and potential development needs.

2.2 Administration

It is important that people who are asked to take the MLQ30 assessment test understand the purpose and process. Test takers typically want to know what the test measures, how it will be used, whether they will see their results, and who else will have access to their profiles. This information could be provided as part of a broader briefing about the assessment context, or it could be sent out with the invitation email to the online assessment session.

The MLQ30 questionnaire can only be administered online by MySkillsProfile and its partners. The service for individual customers provides a direct access service for individual customers to take the questionnaire, pay for the assessment by credit card, and download (or receive via email) the interpretive report in PDF format.

The corporate testing service works in a similar fashion except that test takers bypass the payment element, and test administrators have the option of determining how feedback reports are handled. The feedback handling options are that interpretive reports are sent to a) the test administrator, b) the test taker, or c) both the test administrator and test taker.

2.3 Norming

In order to interpret MLQ30 raw scores, we compare an individual's results against an international comparison group of people who have answered the questionnaire. The international comparison group is referred to as the norm group or standardization sample, and the comparison generates a Standard Ten Score (sten) for each scale.

Chapter 6 gives information about the composition of the norm group for the questionnaire. The collection of norms from different countries is an ongoing process, and additional norm tables will be added as required.

3. Scale descriptions

Each scale description table in this section contains elements covering the meaning of low scores, moderate scores, and high scores. The table also presents an example of the items from the scale. The final section of the table shows three other scales that the scale correlates highly with. These correlations are from the normative version general population sample. The full correlation matrix for the normative questionnaire is shown in Chapter 5.

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Factor 1. Strategic and creative thinking

Scale 1.1. Thinking and managing globally

Competency Description

Keep up to date with global trends, review the company's position, develop business relationships in other countries.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Discussing global business trends.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to think globally.

Or

Has some knowledge and understanding of how to manage a global business but needs more experience.

Low Scorer

Has little knowledge and experience of how to operate and compete globally.

Relationships with Other Scales

Positive

Strongest correlations with

Developing strategy and acting strategically
Managing knowledge and information
Managing costs and financial performance

Factor 1. Strategic and creative thinking

Scale 1.2. Developing strategy and acting strategically

Competency Description

See the big picture, pick up changes in the marketplace, review and analyze the business unit's strategy.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Developing the vision.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to manage strategy.

Or

Has some knowledge and understanding of how to develop and manage strategy but needs more experience.

Low Scorer

Has little knowledge and experience of how to develop and manage strategy.

Relationships with Other Scales

Positive

Strongest correlations with

Managing plans and projects
Thinking and managing globally
Managing costs and financial performance

Factor 1. Strategic and creative thinking

Scale 1.3. Managing knowledge and information

Competency Description

Keep up with advances in business area, benchmark performance against industry leaders, seek advice from experts.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Benchmarking performance against industry leaders.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to manage knowledge.

Or

Has some experience and understanding of knowledge management but needs to develop skills.

Low Scorer

Has little knowledge and experience of how to manage knowledge.

Relationships with Other Scales

Positive

Strongest correlations with

Developing strategy and acting strategically
Thinking and managing globally
Improving processes and systems

Factor 1. Strategic and creative thinking

Scale 1.4. Creating and innovating

Competency Description

Help people to think differently about a problem, get buy-in for creative ideas, turn novel ideas into reality.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Turning innovative ideas into reality.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to manage innovation.

Or

Has some knowledge and understanding of creativity and innovation but needs to improve skills.

Low Scorer

Has little knowledge and experience of how to manage creativity and innovation.

Relationships with Other Scales

Positive

Strongest correlations with

Developing strategy and acting strategically
 Managing and implementing change
 Influencing and persuading people

Factor 1. Strategic and creative thinking

Scale 1.5. Managing costs and financial performance

Competency Description

Read and interpret financial reports, set financial targets, review and improve financial performance.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Identifying how to improve financial performance.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to manage finance.

Or

Has some knowledge and understanding of financial management but needs to develop skills.

Low Scorer

Has little knowledge and experience of how to manage money.

Relationships with Other Scales

Positive

Strongest correlations with

Developing strategy and acting strategically
Managing plans and projects
Thinking and managing globally

Factor 2. Leading and deciding

Scale 2.1. Attracting and managing talent

Competency Description

Help new employees get up to speed quickly, give people challenging job assignments, monitor people’s performance.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Helping new employees get up to speed quickly.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to manage talent.

Or

Has some knowledge and understanding of talent management but needs to improve skills.

Low Scorer

Has little knowledge and experience of how to manage talent.

Relationships with Other Scales

Positive

Strongest correlations with

Coaching and developing people
 Motivating people and inspiring them to excel
 Cultivating teamwork and collaboration

Factor 2. Leading and deciding

Scale 2.2. Motivating people and inspiring them to excel

Competency Description

Communicate high expectations of people, trust capable people to do their work, celebrate team achievement.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Addressing work/life balance issues in the team.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to motivate team members.

Or

Has some knowledge and understanding of how to motivate people but needs to develop skills.

Low Scorer

Has little knowledge and experience of how to motivate people.

Relationships with Other Scales

Positive

Strongest correlations with

Cultivating teamwork and collaboration
 Attracting and managing talent
 Facilitating and improving communication

Factor 2. Leading and deciding

Scale 2.3. Coaching and developing people

Competency Description

Provide people with assignments to develop their skills, give timely coaching, act as a role model for development.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Building strong coaching relationships.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to coach team members.

Or

Has some knowledge and understanding of how to coach people but needs to improve skills.

Low Scorer

Has little knowledge and experience of how to coach people.

Relationships with Other Scales

Positive

Strongest correlations with

Attracting and managing talent
Cultivating teamwork and collaboration
Managing and implementing change

Factor 2. Leading and deciding**Scale 2.4. Managing culture and diversity****Competency Description**

Define acceptable workplace behavior, challenge bias and intolerance, act as a role model of inclusive behavior.

High Scorer**Competence Level**

Much more competent than the average manager in the comparison group.

Example scale item

Recruiting people from diverse backgrounds.

Moderate Scorer**Competence Level**

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to manage a diverse workforce.

Or

Has some knowledge and understanding of how to manage diversity but needs to improve skills.

Low Scorer

Has little knowledge and experience of how to manage a diverse workforce.

Relationships with Other Scales**Positive**

Strongest correlations with

Listening and showing understanding
Facilitating and improving communication
Motivating people and inspiring them to excel

Factor 2. Leading and deciding**Scale 2.5. Making sound decisions****Competency Description**

Assess options and risks, consult people and take their views and ideas into account, act decisively.

High Scorer**Competence Level**

Much more competent than the average manager in the comparison group.

Example scale item

Making well-considered decisions.

Moderate Scorer**Competence Level**

Demonstrates average/moderate level of competence.

Or

Is fairly confident about ability to make well-considered decisions.

Or

Has some knowledge and understanding of how to make well-considered decisions but needs to improve skills.

Low Scorer

Has little knowledge and understanding of how to make well-considered decisions.

Relationships with Other Scales**Positive**

Strongest correlations with

Analyzing issues and problems
Improving processes and systems
Managing plans and projects

Factor 3. Developing and changing

Scale 3.1. Displaying initiative and drive

Competency Description

Start tasks right away, get things done quickly, be ready to go the extra mile.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Being enthusiastic about new work challenges.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Shows a fair amount of initiative.

Or

Shows initiative in some situations but not in others.

Low Scorer

Does not demonstrate much initiative, enterprise and resourcefulness.

Relationships with Other Scales

Positive

Strongest correlations with

Building trust and modeling integrity
 Showing courage and strength
 Managing customer relationships and services

Factor 3. Developing and changing

Scale 3.2. Showing courage and strength

Competency Description

Do what is right despite personal risk, say no when necessary, have the courage to take tough decisions.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Taking stands in the face of strong opposition.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Shows a fair amount of grit and courage.

Or

Shows spirit and courage in some situations but not in others.

Low Scorer

Does not demonstrate much grit or courage.

Relationships with Other Scales

Positive

Strongest correlations with

Motivating people and inspiring them to excel
 Managing feelings and emotions
 Listening and showing understanding

Factor 3. Developing and changing

Scale 3.3. Learning and developing continuously

Competency Description

Seek feedback, set personal development goals, show a sense of humor and perspective.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Asking for feedback on your performance.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Shows a fair amount of interest in learning and self-development.

Or

Shows interest in learning and self-improvement in some situations but not in others.

Low Scorer

Does not demonstrate interest in learning and self-improvement.

Relationships with Other Scales

Positive

Strongest correlations with

Influencing and persuading people
 Making sound decisions
 Building trust and modeling integrity

Factor 3. Developing and changing

Scale 3.4. Managing and implementing change

Competency Description

Sell the benefits of change, model the change expected of others, establish roles and structures to support change.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Selling the benefits of change.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably proficient at managing change.

Or

Shows competence in managing change in some situations but not in others.

Low Scorer

Lacks knowledge and skills about how to manage change.

Relationships with Other Scales

Positive

Strongest correlations with

Coaching and developing people
Developing strategy and acting strategically
Executing strategies and plans

Factor 3. Developing and changing

Scale 3.5. Adapting and coping with pressure

Competency Description

Adapt quickly to new situations, handle stress successfully, keep composure in difficult circumstances.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Modifying course to suit changing circumstances.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably flexible and adaptable.

Or

Adapts and copes in some situations but not in others.

Low Scorer

Has difficulty adapting to changing circumstances.

Relationships with Other Scales Positive

Strongest correlations with

Displaying initiative and drive
Making sound decisions
Creating and innovating

Factor 4. Implementing and improving

Scale 4.1. Executing strategies and plans

Competency Description

Provide direction and support, delegate responsibility to the appropriate people, hold people accountable for delivery.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Assessing people's performance.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at implementing strategy.

Or

Has some knowledge and understanding of how to implement strategy but needs more experience.

Low Scorer

Has only a basic understanding of how to implement strategy.

Relationships with Other Scales Positive

Strongest correlations with

Attracting and managing talent
Coaching and developing people
Managing and implementing change

Factor 4. Implementing and improving

Scale 4.2. Improving processes and systems

Competency Description

Allocate responsibility for improvement, learn lessons from process breakdowns, improve business processes.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Identifying best practice in your area.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at improving systems.

Or

Has some knowledge and understanding of how to improve systems but needs more experience.

Low Scorer

Has only a basic understanding of how to improve systems.

Relationships with Other Scales

Positive

Strongest correlations with

Managing plans and projects
 Developing strategy and acting strategically
 Making sound decisions

Factor 4. Implementing and improving

Scale 4.3. Managing customer relationships and services

Competency Description

Set high standards for customer service, exceed customer expectations, resolve customer issues quickly.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Anticipating customer requirements.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at managing customer services.

Or

Has some knowledge and understanding of how to improve customer services but needs more experience.

Low Scorer

Has only a basic understanding of how to improve the service to the customer.

Relationships with Other Scales

Positive

Strongest correlations with

Displaying initiative and drive
Improving processes and systems
Motivating people and inspiring them to excel

Factor 4. Implementing and improving

Scale 4.4. Analyzing issues and problems

Competency Description

Gather information from a wide variety of sources, approach problems from different angles, brainstorm possible solutions with others.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Brainstorming solutions to problems.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at problem solving.

Or

Has some knowledge and understanding of how to solve organizational problems but needs more experience.

Low Scorer

Has only a basic understanding of how to solve organizational problems.

Relationships with Other Scales

Positive

Strongest correlations with

Making sound decisions
Improving processes and systems
Managing plans and projects

Factor 4. Implementing and improving

Scale 4.5. Managing plans and projects

Competency Description

Develop bold plans, obtain resources to carry out projects, manage critical dependencies and risks.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Developing clear and realistic project plans.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at managing projects.

Or

Has some knowledge and understanding of how to manage projects but needs more experience.

Low Scorer

Has only a basic understanding of project management.

Relationships with Other Scales

Positive

Strongest correlations with

Developing strategy and acting strategically
Improving processes and systems
Managing costs and financial performance

Factor 5. Communicating and presenting

Scale 5.1. Facilitating and improving communication

Competency Description

Create a climate where people share views and ideas

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Helping people to share views and ideas.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at managing team communications.

Or

Has some knowledge and understanding of how to manage communication within the team but needs more experience.

Low Scorer

Has only a basic understanding of managing communication within the team.

Relationships with Other Scales

Positive

Strongest correlations with

Listening and showing understanding
 Cultivating teamwork and collaboration
 Motivating people and inspiring them to excel

Factor 5. Communicating and presenting

Scale 5.2. Influencing and persuading people

Competency Description

Promote views and ideas, influence people by addressing their needs and priorities, negotiate effectively.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Influencing people's views and attitudes.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at influencing people.

Or

Has some knowledge and understanding of how to negotiate with and influence people but needs more experience.

Low Scorer

Has only a basic understanding of how to negotiate with and influence people.

Relationships with Other Scales

Positive

Strongest correlations with

Showing courage and strength
Identifying and resolving conflict
Speaking with confidence and presenting to groups

Factor 5. Communicating and presenting

Scale 5.3. Managing feelings and emotions

Competency Description

Know which emotions you are feeling and why, handle other people's feelings and emotions sensitively.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Knowing which emotions you are feeling and why.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at managing feelings and emotions.

Or

Has some knowledge and understanding of how to manage own and other people's feelings and emotions.

Low Scorer

Has only a basic understanding of how to manage own and other people's feelings and emotions.

Relationships with Other Scales

Positive

Strongest correlations with

Listening and showing understanding
Identifying and resolving conflict
Facilitating and improving communication

Factor 5. Communicating and presenting

Scale 5.4. Speaking with confidence and presenting to groups

Competency Description

Demonstrate presence, communicate with self-assurance, give effective presentations to groups.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Giving captivating presentations.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at giving presentations.

Or

Has some knowledge and understanding of how to give presentations but needs more experience.

Low Scorer

Lacks knowledge and experience of how to give effective presentations.

Relationships with Other Scales

Positive

Strongest correlations with

Influencing and persuading people
Showing courage and strength
Creating and innovating

Factor 5. Communicating and presenting

Scale 5.5. Writing and reporting

Competency Description

Produce clearly written reports, write effectively for different audiences, edit other people's written work skillfully.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Writing in plain English.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably competent in written work.

Or

Has some knowledge and understanding of how to write but needs more experience.

Low Scorer

Lacks knowledge and experience of how to write effectively for different audiences.

Relationships with Other Scales

Positive

Strongest correlations with

Analyzing issues and problems
Speaking with confidence and presenting to groups
Managing plans and projects

Factor 6. Relating and supporting

Scale 6.1. Relating and networking

Competency Description

Work effectively with other people, build rapport and keeping others in the loop, use networks to get things done.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Working effectively with peers.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at building relationships.

Or

Has some knowledge and understanding of how to build relationships but needs more experience.

Low Scorer

Lacks knowledge and experience of how to build effective work relationships.

Relationships with Other Scales

Positive

Strongest correlations with

Listening and showing understanding
Facilitating and improving communication
Cultivating teamwork and collaboration

Factor 6. Relating and supporting**Scale 6.2. Listening and showing understanding****Competency Description**

Put people at ease, pay attention to their feelings and emotions, listen without interrupting.

High Scorer**Competence Level**

Much more competent than the average manager in the comparison group.

Example scale item

Being a good listener.

Moderate Scorer**Competence Level**

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at listening.

Or

Has some knowledge and understanding of how to listen sensitively but needs more experience.

Low Scorer

Lacks knowledge and understanding of how to listen sensitively to other people.

Relationships with Other Scales**Positive**

Strongest correlations with

Managing feelings and emotions
Facilitating and improving communication
Relating and networking

Factor 6. Relating and supporting

Scale 6.3. Building trust and modeling integrity

Competency Description

Act in accordance with your values and principles, give consistent messages, keep promises.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Keeping promises and commitments.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at establishing trust.

Or

Has some knowledge and understanding of how to create trust but needs more business experience.

Low Scorer

Lacks knowledge and understanding of how to create trust.

Relationships with Other Scales

Positive

Strongest correlations with

Displaying initiative and drive
Making sound decisions
Showing courage and strength

Factor 6. Relating and supporting

Scale 6.4. Identifying and resolving conflict

Competency Description

Encourage debate, bring disagreements into the open, address and resolve conflict early.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Negotiating win-win outcomes.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at managing conflict.

Or

Has some knowledge and understanding of how to manage and resolve conflict but needs more business experience.

Low Scorer

Lacks knowledge and understanding of how to manage and resolve conflict at work.

Relationships with Other Scales

Positive

Strongest correlations with

Influencing and persuading people
 Managing feelings and emotions
 Listening and showing understanding

Factor 6. Relating and supporting

Scale 6.5. Cultivating teamwork and collaboration

Competency Description

Set the team's direction and priorities, review the team's successes and failures, help team members work well together.

High Scorer

Competence Level

Much more competent than the average manager in the comparison group.

Example scale item

Leading and facilitating team meetings.

Moderate Scorer

Competence Level

Demonstrates average/moderate level of competence.

Or

Presents as reasonably skilled at team building.

Or

Has some knowledge and understanding of how to build a team but needs more business experience.

Low Scorer

Lacks knowledge and understanding of how to build an effective team.

Relationships with Other Scales

Positive

Strongest correlations with

Facilitating and improving communication
 Coaching and developing people
 Motivating people and inspiring them to excel

Factor 7. Impression management

Scale 7.1. Impression management

Competency Description

Convey accurate profile of management and leadership strengths and weaknesses.

High Scorer

Competence Level

Much more self-critical than the average manager in the comparison group.

Example scale item

Practicing what you preach.

Moderate Scorer

Competence Level

Reveals average/moderate level of impression management.

Or

Presents a reasonably candid picture of competencies.

Or

Feels as much pressure as the average person to present a positive impression.

Low Scorer

Conscious use of inflated self-descriptions, faking, lying, or random responding.

Relationships with Other Scales

Positive

Strongest correlations with

Building trust and modeling integrity
Self-deception
Listening and showing understanding

Factor 7. Impression management

Scale 7.2. Self-deception

Competency Description

Give truthful picture of management and leadership competencies, do not seek to deceive self or other people.

High Scorer

Competence Level

Much more insightful than the average manager in the comparison group.

Example scale item

Being totally honest with yourself.

Moderate Scorer

Competence Level

Reveals average/moderate level of competence.

Or

Presents as reasonably insightful.

Or

Has some understanding of and insight into own management and leadership strengths and weaknesses.

Low Scorer

Lacks insight into own management and leadership strengths and weaknesses.

Relationships with Other Scales

Positive

Strongest correlations with

Impression management
Learning and developing continuously
Building trust and modeling integrity

4. Interpretation

4.1 Sten scores

The MLQ30 uses the standard ten (sten) scoring approach. To help professional advisers and managers understand what different sten scores mean, the MLQ30 interpretive model breaks the sten range into five leadership level categories. The meaning of each of the categories is defined using percentile scores and descriptions of competence (Table 3).

The table below illustrates the approach, for example:

- A sten score of 8 in a MLQ30 scorecard indicates that the respondent has Level 5 management and leadership skills which they should make the most of / exploit.
- A sten score of 5 in a MLQ30 scorecard indicates that the respondent has Level 3 management and leadership skills which they should endeavor to work on.
- A sten score of 4 in a MLQ30 scorecard indicates that the respondent has Level 2 management and leadership skills which they should try to develop.

Table 3. MLQ30 scoring approach

Sten	Percentile Meaning	Level	Competence
8-10	A score of 8 is higher than about 90% of the comparison group	5	Very well-developed competency/key strength to capitalize on
7	A score of 7 is higher than about 75% of the comparison group	4	Well-developed competency/emerging strength
5-6	A score of 5 is higher than about 40% of the comparison group	3	Moderately well-developed competency/mid-range skill
4	A score of 4 is higher than about 25% of the comparison group	2	Less developed competency/embryonic skill
1-3	A score of 3 is higher than about 10% of the comparison group	1	Least developed competency/possible flaw

Table 4 shows how a respondent's sten scores relate to percentiles. For example, a sten score of 6 indicates that the respondent's management and leadership skills are more developed than those of about 60% of respondents in the international the comparison group.

Table 4. Relationship between stens and percentiles

Sten	Higher than % of respondents in the comparison group
10	99
9	95
8	90
7	75
6	60
5	40
4	25
3	10
2	5
1	1

4.2 Feedback report

The MLQ30 computer-generated feedback report has the following sections.

Introduction

Gives a brief introduction to the questionnaire explaining what the instrument measures and how the scoring system works.

MLQ30 competency framework

Provides concise descriptions of what each of the MLQ30 scales measure.

Leadership profile summary

Provides a summary of the results of the assessment covering five areas: leadership level, management versus leadership focus, task versus people approach, situational leadership effectiveness and impression management.

Level 5 leadership

Indicates the respondent's likely leadership level using a 5-level leadership framework (Table 5). The interpretation is based on the respondent's scores across all the scales and their current management level.

Management versus leadership focus

Measures the respondent's style using a management and leadership style matrix which classifies respondents into four styles shown on axes of management focus and leadership focus. These two factors measure the respondent's current level of competence in transformational and transactional competencies. The MLQ30 scorecards later in the report show the respondent's scores on the competency scales. The four styles are explained in the report.

Task/conceptual versus people/social focus

Assesses the respondent's style using a task/conceptual versus people/social matrix which classifies respondents into four groups shown on axes of task focus and people focus.

These two factors measure the degree to which the manager focuses on people/social factors and the degree to which he or she focuses on task/conceptual factors. These groups are explained in the report.

Table 5. Leadership framework

Level	Competencies
5	Outstanding leader who delivers exceptional performance through a combination of well-developed skills and competencies in management and leadership.
4	Effective leader who possesses many well-developed skills and competencies in management and leadership.
3	Competent manager who possesses moderately well-developed skills and competencies in management and leadership.
2	Junior-level manager with some moderately well-developed skills and competencies in management and leadership and some weaker areas and gaps.
1	Individual contributor who needs to boost management and leadership skills and competencies in order to join the management ranks.

Situational leadership effectiveness

Predicts how effective the respondent is likely to be in different leadership and management situations.

Management and leadership competency scorecards

Shows the respondent's results in the six key areas of management and leadership assessed by the questionnaire. Each scorecard shows the sten score, the percentile score and the respondent's current level of competence.

Next steps

The final section gives guidance on the next steps and access to a downloadable booklet of performance improvement tips and suggestions.

5. Reliability and validity

5.1 Internal consistency reliabilities

Table 6 presents internal consistency estimates based on Cronbach's Coefficient Alpha together with raw score SEMs for the MLQ30n. In the first standardization group of 878 respondents, the internal consistency reliabilities of the scales ranged from 0.78 to 0.92 and the median reliability for the scales was 0.86. In the second larger standardization group of 3,000 respondents, the internal consistency reliabilities of the scales ranged from 0.80 to 0.94 and the median reliability for the scales was 0.87.

The median reliabilities for both samples are in the category ($r=0.8$ to 0.89) defined as good by the EFPA Review Model for the description and evaluation of psychological and educational tests.

The Standard Error of Measurement (SEM) provides a tolerance figure or error band around a person's observed competency scale score. There is a 68 percent likelihood that a person's true score will be within one SEM of the observed score. The median scale raw score SEM was 1.75 in the first group and 1.69 in the second group.

This indicates that there is a 68 percent likelihood that a person's true score is likely to be about one sten either side of their observed score.

5.2 Scale intercorrelations

The intercorrelations between the scales are shown separately for the leadership and management scales in Tables 7a-b. These correlations are based on scales scores which have been transformed through partial ipsatization.

The procedure for calculating the transformed scale scores was as follows. First, we calculated normative scales scores and standardized the scores. Second, we calculated ipsatized scale scores (scale raw scores minus the average scale score) and standardized these scores. Third, we calculated the average of the two standardized scores. We used this scoring approach in order to remove response bias.

With response acquiescence removed, the correlations among the fifteen leadership scales ranged from -0.02 to 0.57 with a median correlation of 0.21. The correlations among the fifteen management scales ranged from -0.01 to 0.6 with a median correlation of 0.22.

Table 6. MLQ30n internal consistency reliabilities

Scale	1 st Standardization Group (N=878)				2 nd Standardization Group (N=3,000)			
	Alpha	Mean	SD	Raw Score SEM	Alpha	Mean	SD	Raw Score SEM
Thinking and managing globally	0.91	18.15	5.89	1.75	0.91	17.58	5.89	1.77
Developing strategy and acting strategically	0.86	20.88	4.78	1.88	0.89	20.37	5.17	1.72
Managing knowledge and information	0.85	21.29	4.74	1.88	0.84	21.06	4.58	1.83
Creating and innovating	0.87	22.13	4.61	1.76	0.86	21.49	4.60	1.72
Managing costs and financial performance	0.92	19.27	5.72	1.62	0.94	18.48	6.28	1.54
Attracting and managing talent	0.86	21.32	4.74	1.87	0.86	20.89	4.81	1.80
Motivating people and inspiring them to excel	0.83	22.37	4.34	1.95	0.84	22.09	4.48	1.79
Coaching and developing people	0.89	21.10	4.93	1.71	0.88	20.45	4.94	1.71
Managing culture and diversity	0.86	22.99	4.44	1.71	0.87	22.34	4.73	1.70
Making sound decisions	0.85	22.24	4.21	1.73	0.89	22.58	4.48	1.48
Displaying initiative and drive	0.83	23.25	4.15	1.79	0.85	23.28	4.21	1.63
Showing courage and strength	0.85	22.68	4.49	1.80	0.86	21.98	4.59	1.72
Learning and developing continuously	0.83	21.49	4.42	2.02	0.86	21.35	4.62	1.73
Managing and implementing change	0.87	21.01	4.57	1.73	0.86	20.60	4.65	1.74
Adapting and coping with pressure	0.86	22.64	4.37	1.70	0.86	22.47	4.43	1.66
Executing strategies and plans	0.85	22.23	4.28	1.77	0.85	21.76	4.37	1.69
Improving processes and systems	0.86	22.03	4.40	1.74	0.89	21.49	4.82	1.60
Managing customer relationships and services	0.89	23.10	4.39	1.52	0.90	22.89	4.57	1.44
Analyzing issues and problems	0.87	22.71	4.38	1.65	0.88	22.59	4.58	1.59
Managing plans and projects	0.86	20.77	4.66	1.83	0.90	20.45	4.98	1.58
Facilitating and improving communication	0.87	23.02	4.31	1.62	0.90	22.68	4.43	1.40
Influencing and persuading people	0.86	22.10	4.44	1.72	0.89	21.34	4.71	1.56
Managing feelings and emotions	0.83	22.11	4.45	1.87	0.87	22.05	4.68	1.69
Speaking with confidence and presenting to groups	0.85	21.76	4.72	1.84	0.88	21.03	5.13	1.78
Writing and reporting	0.89	21.65	5.02	1.73	0.89	21.54	5.10	1.69
Relating and networking	0.83	22.64	4.27	1.81	0.84	22.45	4.36	1.74
Listening and showing understanding	0.86	22.94	4.40	1.73	0.89	22.79	4.53	1.50
Building trust and modeling integrity	0.86	23.72	4.27	1.73	0.87	24.20	4.24	1.53
Identifying and resolving conflict	0.86	21.76	4.51	1.77	0.88	21.60	4.66	1.61
Cultivating teamwork and collaboration	0.86	22.78	4.33	1.74	0.87	22.70	4.46	1.61
Impression management	0.79	23.20	4.02	1.99	0.83	23.23	4.11	1.69
Self-deception	0.78	21.88	4.22	2.15	0.80	21.94	4.23	1.89
Median	0.86	22.12	4.64	1.75	0.87	21.85	4.60	1.69

Although nearly all the correlations are statistically significant in both matrices, the low strength of the majority of the correlations (three quarters are below 0.30) indicates that there is a good degree of independence between the scales.

5.3 Exploratory factor analysis

Principal components analysis with a forced extraction of three factors was performed on the MLQ30n management and leadership scales separately for women and men. The three factors extracted from the leadership scales and the management scales accounted for 49 percent of the variance in both extractions. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.81, well above 0.6 required for a good factor analysis. With a cut of 0.32 (10% overlapping variance) for inclusion of a scale in the interpretation of a factor, all the scales loaded on at least one of the factors.

Table 8a shows the loadings of the leadership scales on the factors. Main factor loadings are in bold, and secondary factor loadings at 0.3 and above are in bold italic. Three of the variables in the solution for women were complex: Motivating People and Inspiring Them to Excel, Learning and Developing Continuously, and Managing and Implementing Change. Two of the variables in the solution for men were complex: Creating and innovating, and Managing and Implementing Change.

Table 8a. Factor loadings for principal component analysis and varimax rotation for women and men on MLQ30 leadership scales (N=3,000)

Scale	Women			Men		
	F1	F2	F3	F1	F2	F3
Thinking and managing globally	0.16	0.74	-0.03	0.15	0.78	-0.09
Developing strategy and acting strategically	0.29	0.78	0.16	0.23	0.78	0.17
Managing knowledge and information	-0.09	0.71	0.25	0.12	0.64	0.19
Creating and innovating	0.49	0.14	0.26	0.34	0.17	0.42
Managing costs and financial performance	0.09	0.74	0.04	0.04	0.73	0.01
Attracting and managing talent	0.80	0.17	0.03	0.78	0.21	0.02
Motivating people and inspiring them to excel	0.60	-0.10	0.36	0.76	0.01	0.16
Coaching and developing people	0.79	0.17	-0.01	0.80	0.18	-0.05
Managing culture and diversity	0.47	-0.03	0.24	0.49	0.04	0.15
Making sound decisions	0.07	0.27	0.65	-0.02	0.17	0.66
Displaying initiative and drive	0.05	0.03	0.71	0.09	0.03	0.65
Showing courage and strength	0.23	0.09	0.48	0.41	0.10	0.23
Learning and developing continuously	0.42	0.10	0.44	0.26	0.01	0.63
Managing and implementing change	0.56	0.40	0.08	0.46	0.34	0.26
Adapting and coping with pressure	0.14	0.01	0.61	0.11	-0.02	0.71

Main factor loadings are in **bold**. Secondary factor loadings above 0.3 are in **bold italic**.

Factor 1 for women and Factor 1 for men were similar, and they match reasonably well the key area called Leading and Deciding in the concept model. Four of the five competency dimensions in this key area load on this factor at 0.45 (20% overlapping variance) or higher.

Table 7a. Leadership scale intercorrelations (N=3,000)

	Scale	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5
1.1	Thinking and managing globally	1	.47**	.40**	.16**	.37**	.15**	.04**	.13**	.13**	.01	-.02	.06**	.05**	.25**	.01
1.2	Developing strategy and acting strategically		1	.46**	.32**	.46**	.29**	.21**	.26**	.14**	.28**	.21**	.23**	.14**	.38**	.14**
1.3	Managing knowledge and information			1	.21**	.31**	.18**	.14**	.16**	.13**	.17**	.26**	.16**	.13**	.26**	.14**
1.4	Creating and innovating				1	.05**	.28**	.27**	.23**	.26**	.17**	.22**	.39**	.13**	.33**	.30**
1.5	Managing costs and financial performance					1	.16**	.05**	.15**	.01	.16**	.03*	.05**	.04*	.22**	.04*
2.1	Attracting and managing talent						1	.44**	.57**	.30**	.15**	.20**	.28**	.21**	.35**	.15**
2.2	Motivating people and inspiring them to excel							1	.37**	.34**	.21**	.30**	.27**	.33**	.23**	.20**
2.3	Coaching and developing people								1	.25**	.11**	.15**	.25**	.21**	.38**	.09**
2.4	Managing culture and diversity									1	.22**	.18**	.19**	.20**	.18**	.25**
2.5	Making sound decisions										1	.37**	.36**	.22**	.15**	.33**
3.1	Displaying initiative and drive											1	.34**	.21**	.21**	.35**
3.2	Showing courage and strength												1	.15**	.28**	.26**
3.3	Learning and developing continuously													1	.15**	.21**
3.4	Managing and implementing change														1	.26**
3.5	Adapting and coping with pressure															1

** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).

Table 7b. Management scale intercorrelations (N=3,000)

	Scale	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5
4.1	Executing strategies and plans	1	.36**	.22**	.26**	.34**	.27**	.30**	.10**	.22**	.13**	.25**	.14**	.21**	.22**	.43**
4.2	Improving processes and systems		1	.30**	.37**	.56**	.22**	.25**	.10**	.13**	.12**	.09**	.05**	.23**	.12**	.32**
4.3	Managing customer relationships and services			1	.17**	.18**	.30**	.21**	.17**	.08**	.08**	.24**	.22**	.27**	.22**	.29**
4.4	Analyzing issues and problems				1	.33**	.14**	.17**	.08**	.14**	.26**	.08**	.06**	.27**	.14**	.20**
4.5	Managing plans and projects					1	.13**	.24**	.04**	.17**	.18**	.01	-.01	.07**	.13**	.25**
5.1	Facilitating and improving communication						1	.28**	.36**	.18**	.16**	.42**	.51**	.33**	.31**	.52**
5.2	Influencing and persuading people							1	.19**	.34**	.17**	.25**	.16**	.14**	.37**	.28**
5.3	Managing feelings and emotions								1	.03	.11**	.33**	.60**	.29**	.36**	.26**
5.4	Speaking with confidence and presenting to groups									1	.23**	.17**	.03	.08**	.11**	.21**
5.5	Writing and reporting										1	.09**	.11**	.11**	.07**	.13**
6.1	Relating and networking											1	.45**	.23**	.35**	.41**
6.2	Listening and showing understanding												1	.33**	.37**	.34**
6.3	Building trust and modeling integrity													1	.22**	.32**
6.4	Identifying and resolving conflict														1	.31**
6.5	Cultivating teamwork and collaboration															1

** Correlation is significant at the 0.01 level (2-tailed).

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Looking at the loadings in excess of 0.71 (50% overlapping variance), it is clear that this factor captures some key skills to do with leading people—for example, recruiting employees, motivating and inspiring them, and coaching and developing them.

Factor 2 for women and Factor 2 for men resemble the key area labeled Strategic and Creative Thinking in the concept model, and four of the five competency dimensions in this key area load on the factor at 0.64 or higher (at least 40% overlapping variance). This factor captures a leader’s ability to think globally and strategically, their ability to manage the money, and their ability to manage knowledge and information.

There was also a similarity in the third factor for the sexes where four competency dimensions loaded on the factor: Making Sound Decisions, Displaying Initiative and Drive, Learning and Developing Continuously, and Adapting and Coping with Pressure. This factor captures a leader’s initiative and drive, learning orientation, decisiveness, and ability to cope with pressure. It covers some of the key area called Developing and Changing in the concept model.

Table 8b. Factor loadings for principal component analysis and varimax rotation for women and men on MLQ30 management scales (N=3,000)

Scale	Women			Men		
	F1	F2	F3	F1	F2	F3
Executing strategies and plans	0.12	0.53	0.38	0.04	0.44	0.46
Improving processes and systems	0.05	0.17	0.80	0.01	0.80	0.15
Managing customer relationships and services	0.37	0.12	0.27	0.26	0.31	0.10
Analyzing issues and problems	0.08	0.03	0.71	0.11	0.67	-0.04
Managing plans and projects	-0.13	0.29	0.73	-0.05	0.78	0.22
Facilitating and improving communication	0.59	0.43	0.00	0.63	0.08	0.34
Influencing and persuading people	0.13	0.71	0.17	0.19	0.17	0.62
Managing feelings and emotions	0.72	0.00	0.04	0.76	0.07	0.03
Speaking with confidence and presenting to groups	-0.12	0.67	0.11	-0.02	0.02	0.80
Writing and reporting	0.02	0.26	0.27	0.12	0.26	0.26
Relating and networking	0.54	0.43	-0.17	0.59	-0.08	0.40
Listening and showing understanding	0.83	0.09	-0.15	0.84	-0.04	0.06
Building trust and modeling integrity	0.55	-0.14	0.38	0.47	0.19	-0.18
Identifying and resolving conflict	0.40	0.47	0.08	0.64	0.10	0.28
Cultivating teamwork and collaboration	0.39	0.55	0.14	0.33	0.25	0.48

Main factor loadings are in **bold**. Secondary factor loadings above 0.3 are in **bold italic**.

In the management scales, Factor 1 for women and Factor 1 for men were similar, and they match reasonably well the key area called Relating and Supporting in the concept model. Five competency dimensions load on this factor at 0.45 (20% overlapping variance) or

higher. The loadings of the competency dimensions on the factor show that the factor is measuring a manager’s social competencies.

Factor 3 for women and Factor 2 for men covers some of the competency dimensions in the Implementing and Improving key area of the concept model. The highest loading competency scales indicate that this factor captures a manager’s ability in business processes, problem solving, and project management.

Factor 2 for women and Factor 3 for men covers communicating, presenting and influencing skills. The highest loading competency dimensions on this factor are Influencing and Persuading People, and Speaking with Confidence and Presenting to Groups.

5.4 Relationship with other measures

Transformational leadership

Rafferty and Griffin (2004) developed a 15-item measure of transformational leadership based on items adapted from measures produced by House (1998) and Podsakoff et al. (1990). Rafferty and Griffin’s short instrument assesses five dimensions of transformational leadership which they define as vision, inspirational communication, intellectual stimulation, supportive leadership, and personal recognition.

We embedded these items (Table 9) in a modified version of the MLQ30 and investigated the relationship between these marker variables and the MLQ30 scales.

Table 9. Transformational leadership marker variables

Scale	Transformational Leadership Items*
Vision	Showing a clear understanding of where the organization is going
	Showing a clear sense of where you want your unit to be in 5 years
	Having clear ideas on where the organization is going
Inspirational communication	Saying things that make employees proud to be a part of the organization
	Saying positive things about the work unit
	Encouraging people to see changing environments as situations full of opportunities
Intellectual stimulation	Challenging people to think about old problems in new ways
	Having ideas that have forced people to rethink some things that they have never questioned before
	Challenging people to rethink some of their basic assumptions about their work
Supportive leadership	Considering the team's personal feelings before acting
	Behaving in a manner which is thoughtful of people's personal needs
	Seeing that the interests of employees are given due consideration
Personal recognition	Commending people when they do a better than average job
	Acknowledging improvement in the quality of people's work
	Personally complimenting people when they do outstanding work

*Rephrased to fit the style of MLQ30 management and leadership items

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Five hundred and two respondents completed the modified questionnaire online. Just over 55 percent of respondents were men, and just under forty five percent were women. The average age of respondents was 40.2. Seventy percent of the sample described themselves as first-level or middle managers (equal proportions) and seventeen percent said they were top managers. The remaining twelve percent said they had no managerial responsibilities.

Table 10. Intercorrelations between MLQ30 primary scales and transformational leadership marker variables (N=502)

Scale	Vision	Inspirational communication	Intellectual stimulation	Leadership	Personal recognition
Thinking and managing globally	0.69	0.55	0.57	0.50	0.47
Developing strategy and acting strategically	0.88	0.72	0.74	0.60	0.63
Managing knowledge and information	0.77	0.69	0.67	0.59	0.64
Creating and innovating	0.70	0.76	0.93	0.64	0.69
Managing costs and financial performance	0.59	0.48	0.55	0.47	0.43
Attracting and managing talent	0.76	0.76	0.76	0.67	0.73
Motivating people and inspiring them to excel	0.67	0.87	0.75	0.73	0.92
Coaching and developing people	0.71	0.72	0.74	0.67	0.68
Managing culture and diversity	0.68	0.73	0.70	0.70	0.71
Making sound decisions	0.69	0.74	0.77	0.67	0.73
Displaying initiative and drive	0.72	0.76	0.72	0.66	0.75
Showing courage and strength	0.71	0.77	0.82	0.65	0.72
Learning and developing continuously	0.64	0.71	0.73	0.66	0.71
Managing and implementing change	0.81	0.80	0.77	0.62	0.64
Adapting and coping with pressure	0.69	0.75	0.77	0.66	0.71
Executing strategies and plans	0.80	0.78	0.76	0.66	0.72
Improving processes and systems	0.70	0.70	0.77	0.63	0.69
Managing customer relationships and services	0.64	0.75	0.71	0.63	0.74
Analyzing issues and problems	0.69	0.68	0.72	0.58	0.65
Managing plans and projects	0.73	0.64	0.73	0.58	0.62
Facilitating and improving communication	0.64	0.75	0.79	0.74	0.78
Influencing and persuading people	0.72	0.76	0.79	0.66	0.69
Managing feelings and emotions	0.56	0.66	0.69	0.74	0.70
Speaking with confidence and presenting to groups	0.65	0.72	0.74	0.59	0.69
Writing and reporting	0.59	0.58	0.60	0.60	0.60
Relating and networking	0.68	0.80	0.71	0.73	0.77
Listening and showing understanding	0.58	0.72	0.69	0.91	0.74
Building trust and modeling integrity	0.62	0.75	0.65	0.67	0.74
Identifying and resolving conflict	0.69	0.78	0.75	0.74	0.73
Cultivating teamwork and collaboration	0.73	0.79	0.75	0.69	0.79
Median	0.69	0.74	0.74	0.66	0.71

All correlations significant at 0.01 level.

Table 10 reveals a pattern of strong correlations between the MLQ30 scales and the marker variables. All correlations are significant at 0.01 level. The median correlations between the MLQ30 scales and the five transformational leadership scales ranged from 0.66 to 0.74. In the EPFA review model, correlations between 0.55 and 0.64 are defined as adequate, correlations between 0.65 and 0.74 are defined as good, and correlations at 0.75 and above are defined as excellent.

Table 11. Congruence between MLQ30 factor scales and transformational leadership scales (N=502)

MLQ30 Factor	Vision	Inspirational communication	Intellectual stimulation	Leadership	Personal recognition
Strategic and creative thinking	0.83	0.73	0.80	0.64	0.66
Leading and deciding	0.77	0.84	0.82	0.76	0.83
Developing and changing	0.79	0.84	0.84	0.72	0.78
Implementing and improving	0.79	0.79	0.82	0.68	0.76
Communicating and presenting	0.72	0.79	0.82	0.76	0.79
Relating and supporting	0.73	0.84	0.78	0.82	0.83
Median	0.78	0.81	0.82	0.74	0.79

All correlations significant at 0.01 level.

Table 11 shows the relationship between the MLQ30 factor scales and Rafferty and Griffin’s transformational leadership scales. Nearly all the individual and median correlations are in the range defined as good or excellent in the EPFA review model providing robust evidence of congruent validity.

Emotional competencies

The Emotional Competence Framework (ECF) published by the Consortium for Research on Emotional Intelligence in Organizations is defined as a generic competence framework that distills findings from a range of sources including management competence frameworks and research by Goleman (1998).

Just over one thousand three hundred respondents completed a modified version of the MLQ30 that included fifteen marker variables from the ECF (Table 12). Sixty percent of respondents were women and forty percent were men. The average age of respondents was 40 years.

The marker items were rephrased to fit into the style of the MLQ30, and respondents rated their competence against the items using the MLQ30 5-point Likert scale. The objective was to demonstrate the congruent validity between the two measures by correlating the MLQ30 factor scores and ECF key area scores.

Table 12. Emotional competence framework marker variables

Key Area	Competency Element
Self-awareness	Aware of their strengths and weaknesses
	Know which emotions they are feeling and why
	Present themselves with self-assurance; have "presence"
Self-regulation	Admit their own mistakes and confront unethical actions in others
	Meet commitments and keep promises
	Entertain original solutions to problems
Self-motivation	Set challenging goals and take calculated risks
	Pursue goals beyond what is required or expected of them
	Persist in seeking goals despite obstacles and setbacks
Social awareness	Respect and relate well to people from varied backgrounds
	Show sensitivity and understand others' perspectives
	Understand customers' needs and match them to services or products
Social skills	Are skilled at persuasion
	Build rapport and keep others in the loop
	Handle difficult people and tense situations with diplomacy and tact

Table 13 shows the relationship between the MLQ30 factor scales and the ECF marker variable scale scores. Nearly all the correlations are in the range defined as excellent in the EPFA review model providing further evidence of congruent validity.

Table 13. Congruence between MLQ30 factor scales and emotional competence marker variables (N=1,305)

MLQ30 Factor	Self-awareness	Self-regulation	Self-motivation	Social awareness	Social skills
Strategic and creative thinking	0.69	0.73	0.67	0.74	0.71
Leading and deciding	0.77	0.82	0.78	0.90	0.85
Developing and changing	0.80	0.86	0.82	0.84	0.84
Implementing and improving	0.75	0.84	0.75	0.84	0.80
Communicating and presenting	0.84	0.80	0.79	0.85	0.86
Relating and supporting	0.80	0.84	0.83	0.86	0.92
Median	0.78	0.83	0.79	0.85	0.85

All correlations significant at 0.01 level.

5.5 Relationship with job performance

Respondents were asked to report how their manager assessed their performance at their last performance appraisal using a 4-point scale (excellent, good, satisfactory, unsatisfactory) and to assess their own performance.

Table 14 shows the correlations between the competency dimension scale scores and three types of job appraisal ratings (self-ratings, line manager ratings, and a combination of the two) for respondents in the standardization group who volunteered information about their job performance. One thousand, eight hundred and eleven test takers provided self-assessment information and 1,685 provided information about boss' ratings.

The correlations between the competency scales and self-assessed job performance range from 0.2 to 0.36 with a median of 0.31. All 30 competency scales correlated significantly at the 0.01 level with job performance. The correlations between the competency scales and line manager ratings reported by the test taker ranged from 0.15 to 0.32 with a median of 0.27. Although the strength of the correlations is slightly weaker, the 30 competency scales correlated significantly at the 0.01 level with job performance. The strength of the correlations between the competency dimensions and job performance falls in between the self-ratings and the line manager ratings.

The range and strength of correlations in these analyses are consistent with those reported in the literature for personality scales. Robertson (1997) notes that even with meta-analytic corrections, the upper limits for the validity of personality variables against overall work performance variables are in the range of 0.25 to 0.4.

We used stepwise multiple regression to throw light on which of the competency dimensions might be the best predictors of job performance. Table 15a shows the results for the leadership scales when the combined job performance ratings were used as the dependent variable. R reached 0.397 after five independent variables had been entered into the equation.

The five independent variables were: Displaying Initiative and Drive, Learning and Developing Continuously, Attracting and Managing Talent, Managing Culture and Diversity, and Adapting and Coping with Pressure. This suggests that a leader's drive, learning orientation, people focus, cultural awareness, and mental toughness may contribute more strongly to how they perform or whether they derail than their ability to manage strategy, finance, and change.

Table 15a. Leadership scale predictors of job performance (N=1,685)

	Scales	R	R ²	Adj. R ²	SE of the Estimate
1	Displaying initiative and drive	.379	.137	.136	1.14849
2	Displaying initiative and drive, Learning and developing continuously	.381	.145	.144	1.14293
3	Displaying initiative and drive, Learning and developing continuously, Attracting and managing talent	.385	.148	.147	1.14118
4	Displaying initiative and drive, Learning and developing continuously, Attracting and managing talent, Managing culture and diversity	.393	.154	.152	1.13773
5	Displaying initiative and drive, Learning and developing continuously, Attracting and managing talent, Managing culture and diversity, Adapting and coping with pressure	.397	.157	.155	1.13582

Table 15b shows the results for the management scales when the combined job performance ratings were used as the dependent variable. R reached 0.377 after eight independent variables had been entered into the equation.

The eight independent variables were: Cultivating Teamwork and Collaboration, Analyzing Issues and Problems, Relating and Networking, Facilitating and Improving Communication, Improving Processes and Systems, Building Trust and Modeling Integrity, Listening and Showing Understanding, and Managing Feelings and Emotions.

These findings indicate that successful managers have well-developed team working and social skills, problem solving skills, an improvement focus, and the ability to handle feelings and emotions.

Table 14. Correlations between competency scales and job performance ratings

	Scale	Self-Assessment	Boss' Assessment	Combined Assessment
1.1	Thinking and managing globally	.20**	.15**	.19**
1.2	Developing strategy and acting strategically	.28**	.24**	.28**
1.3	Managing knowledge and information	.28**	.22**	.27**
1.4	Creating and innovating	.30*	.26**	.30**
1.5	Managing costs and financial performance	.22**	.18**	.21**
2.1	Attracting and managing talent	.32**	.29**	.32**
2.2	Motivating people and inspiring them to excel	.32**	.28**	.32**
2.3	Coaching and developing people	.32**	.27**	.31**
2.4	Managing culture and diversity	.24**	.21**	.24**
2.5	Making sound decisions	.32**	.28**	.33**
3.1	Displaying initiative and drive	.36**	.32**	.37**
3.2	Showing courage and strength	.32**	.28**	.32**
3.3	Learning and developing continuously	.32**	.30**	.33**
3.4	Managing and implementing change	.31**	.28**	.32**
3.5	Adapting and coping with pressure	.33**	.29**	.33**
4.1	Executing strategies and plans	.30**	.27**	.31**
4.2	Improving processes and systems	.34**	.28**	.32**
4.3	Managing customer relationships and services	.28**	.25**	.28**
4.4	Analyzing issues and problems	.31**	.27**	.31**
4.5	Managing plans and projects	.29**	.26**	.29**
5.1	Facilitating and improving communication	.27**	.24**	.27**
5.2	Influencing and persuading people	.31**	.27**	.31**
5.3	Managing feelings and emotions	.29**	.26**	.29**
5.4	Speaking with confidence and presenting to groups	.28**	.24**	.28**
5.5	Writing and reporting	.26**	.24**	.27**
6.1	Relating and networking	.32**	.27**	.32**
6.2	Listening and showing understanding	.24**	.20**	.23**
6.3	Building trust and modeling integrity	.31**	.26**	.31**
6.4	Identifying and resolving conflict	.31**	.26**	.30**
6.5	Cultivating teamwork and collaboration	.32**	.29**	.33**
	Median	0.31**	0.27**	0.31**

** Correlation is significant at the 0.01 level (2-tailed). N for self-assessments = 1,811. No for line manager and combined assessments = 1,685.

Table 15b. Management scale predictors of job performance (N=1,685)

	Scales	R	R ²	Adj. R ²	SE of the Estimate
1	Cultivating teamwork and collaboration	.325	.106	.105	1.16869
2	Cultivating teamwork and collaboration, Analyzing issues and problems	.347	.120	.119	1.15965
3	Cultivating teamwork and collaboration, Analyzing issues and problems, Relating and networking	.355	.126	.124	1.15632
4	Cultivating teamwork and collaboration, Analyzing issues and problems, Relating and networking, Facilitating and improving communication	.360	.130	.128	1.15411
5	Cultivating teamwork and collaboration, Analyzing issues and problems, Relating and networking, Facilitating and improving communication, Improving processes and systems	.365	.133	.131	1.15199
6	Cultivating teamwork and collaboration, Analyzing issues and problems, Relating and networking, Facilitating and improving communication, Improving processes and systems, Building trust and modeling integrity	.369	.136	.133	1.15055
7	Cultivating teamwork and collaboration, Analyzing issues and problems, Relating and networking, Facilitating and improving communication, Improving processes and systems, Building trust and modeling integrity, Listening and showing understanding	.372	.138	.135	1.14941
8	Cultivating teamwork and collaboration, Analyzing issues and problems, Relating and networking, Facilitating and improving communication, Improving processes and systems, Building trust and modeling integrity, Listening and showing understanding, Managing feelings and emotions	.377	.142	.138	1.14691

5.6 Demographics

Table 16 shows the correlations between the normative scales and management level, age, and gender in the MLQ30 standardization sample. There were statistically significant correlations related to management level, gender, and age but the observed differences are very small. All the statistically significant correlations are below 0.20 so there is no need for separate norms for men and women, or for managers at different levels or different age groups.

Management level

There were 19 correlations at the 0.01 level related to management level and 5 correlations at the 0.05 level. The correlations ranged from 0.02 to 0.19 and the median correlation was 0.11. The strongest correlations (0.15 and above) related to management level were:

- Speaking with confidence and presenting to groups
- Developing strategy and acting strategically
- Managing costs and financial performance
- Showing courage and strength
- Displaying initiative and drive
- Managing and implementing change

More senior managers tend to be slightly higher in these areas than junior managers.

Gender

Correlations ranged from 0.07 to -0.14 and the median correlation was -0.03. There were 12 correlations at the 0.01 level related to gender and 4 correlations at the 0.05 level. Only three correlations exceeded 0.10:

- Managing knowledge and information
- Managing costs and financial performance
- Thinking and managing globally

Women tend to score slightly lower in these competency areas than men.

Age

There were 20 correlations at the 0.01 level related to age and 3 at the 0.05 level. The correlations ranged from 0.01 to 0.18 and the median correlation was 0.11. The strongest correlations (0.13 and above) related to age were:

- Managing and implementing change
- Attracting and managing talent
- Coaching and developing people
- Showing courage and strength
- Executing strategies and plans
- Facilitating and improving communication
- Speaking with confidence and presenting to groups

Older managers tend to score slightly higher in these competency areas than younger managers.

Nationality

The largest groups of respondents were from the United States (N=1,494), the United Kingdom (N=395), Australia (N=270), and Canada (N=111). Analysis of mean scale scores revealed small but statistically significant differences in the scales related to nationality, but the sample sizes are too small to draw firm conclusions from (Table 17). We will evaluate the differences between the mean scales scores from respondents from different countries as the sample grows and publish country-related norms if these are justified.

Race

We also looked at whether there were differences in competency scores related to race. Table 18 shows the differences between the four main groups of respondents: White (N=1,127), Black (N=341), Asian (N=112) and Hispanic (N=82). As with nationality, the analysis revealed small but statistically significant differences in the majority of scales, but the sample sizes are not large enough to be certain about any differences related to race.

Table 16. Correlations with management level, gender and age (N=3,000)

	MLQ30n Scale	Management Level	Gender	Age
1.1	Thinking and managing globally	0.10**	-0.14**	0.02
1.2	Developing strategy and acting strategically	0.18**	-.011**	0.11**
1.3	Managing knowledge and information	0.13**	-0.11**	0.07**
1.4	Creating and innovating	0.13**	-0.05*	0.12**
1.5	Managing costs and financial performance	0.18**	-0.13**	0.10**
2.1	Attracting and managing talent	0.07	-0.02	0.17**
2.2	Motivating people and inspiring them to excel	0.09*	0.01	0.09**
2.3	Coaching and developing people	0.06	-0.02	0.15**
2.4	Managing culture and diversity	0.08*	0.01	0.10**
2.5	Making sound decisions	0.14**	-0.08**	0.12**
3.1	Displaying initiative and drive	0.15**	-0.01	0.09**
3.2	Showing courage and strength	0.16**	-0.09**	0.15**
3.3	Learning and developing continuously	0.04	0.02	0.01
3.4	Managing and implementing change	0.15**	-0.07**	0.18**
3.5	Adapting and coping with pressure	0.11**	-0.06*	0.11**
4.1	Executing strategies and plans	0.12**	-0.06*	0.14**
4.2	Improving processes and systems	0.11**	-0.04	0.11**
4.3	Managing customer relationships and services	0.09*	0.01	0.10**
4.4	Analyzing issues and problems	0.14**	-0.09**	0.11**
4.5	Managing plans and projects	0.14**	-0.09**	0.12**
5.1	Facilitating and improving communication	0.09*	0.01	0.13**
5.2	Influencing and persuading people	0.12**	-0.08**	0.11**
5.3	Managing feelings and emotions	0.05	0.04	0.06*
5.4	Speaking with confidence and presenting to groups	0.19**	-0.09**	0.13**
5.5	Writing and reporting	0.14**	0.04	0.07**
6.1	Relating and networking	0.05	0.02	0.06*
6.2	Listening and showing understanding	0.02	0.07**	0.06*
6.3	Building trust and modeling integrity	0.11**	-0.01	0.12**
6.4	Identifying and resolving conflict	0.09*	-0.05*	0.09**
6.5	Cultivating teamwork and collaboration	0.11**	0.00	0.12**
	Median	0.11**	-0.03	0.11**

Gender was coded 1 for male and 2 for female. ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Table 17. Differences in scale scores related to nationality

No	Scale	United States		United Kingdom		Canada		Australia		Sig.
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
1.1	Thinking and managing globally	16.64	5.93	15.96	5.50	18.26	5.19	17.17	5.22	0.02
1.2	Developing strategy and acting strategically	20.48	5.12	18.95	5.03	21.24	4.62	19.67	4.58	0.00
1.3	Managing knowledge and information	21.28	4.54	19.72	4.10	21.69	4.03	20.79	3.85	0.00
1.4	Creating and innovating	21.97	4.36	20.59	4.30	22.66	4.07	21.07	4.13	0.00
1.5	Managing costs and financial performance	18.52	6.28	16.92	6.45	18.26	5.90	17.19	6.30	0.00
2.1	Attracting and managing talent	21.11	4.74	20.18	4.33	21.85	4.32	20.54	4.22	0.01
2.2	Motivating people and inspiring them to excel	22.58	4.25	21.15	4.18	22.59	3.63	21.87	3.88	0.00
2.3	Coaching and developing people	20.62	4.86	19.81	4.63	20.97	4.67	20.33	4.32	0.09
2.4	Managing culture and diversity	22.73	4.59	21.88	4.40	23.09	3.90	22.56	4.04	0.05
2.5	Making sound decisions	23.07	4.23	21.78	4.10	23.29	4.19	22.33	3.83	0.00
3.1	Displaying initiative and drive	23.93	3.81	22.70	3.99	23.97	3.84	22.98	3.79	0.00
3.2	Showing courage and strength	22.59	4.34	21.21	4.30	22.68	4.07	21.64	4.21	0.00
3.3	Learning and developing continuously	21.75	4.44	20.09	4.29	21.22	4.43	20.84	4.18	0.00
3.4	Managing and implementing change	20.94	4.55	19.94	4.48	21.60	4.24	20.16	4.14	0.00
3.5	Adapting and coping with pressure	23.08	4.18	22.11	4.28	23.24	4.34	22.67	3.91	0.01
4.1	Executing strategies and plans	22.10	4.22	20.98	4.17	22.47	4.30	21.61	3.64	0.00
4.2	Improving processes and systems	21.86	4.68	20.22	4.60	22.07	4.71	21.19	4.18	0.00
4.3	Managing customer relationships and services	23.48	4.24	22.82	4.04	23.12	3.83	22.70	4.09	0.04
4.4	Analyzing issues and problems	23.21	4.40	21.45	4.12	23.21	4.55	22.19	4.01	0.00
4.5	Managing plans and projects	20.58	4.94	19.22	4.66	21.24	4.91	20.22	4.31	0.00
5.1	Facilitating and improving communication	23.20	4.07	22.37	3.90	23.37	3.93	22.86	3.87	0.03
5.2	Influencing and persuading people	21.65	4.56	20.78	4.46	22.68	3.89	21.08	4.11	0.00
5.3	Managing feelings and emotions	22.62	4.31	21.45	4.31	21.91	4.52	22.28	4.15	0.00
5.4	Speaking with confidence and presenting to groups	21.52	5.12	20.12	5.08	22.25	4.56	20.76	4.65	0.00
5.5	Writing and reporting	21.79	5.12	20.87	5.02	22.51	4.57	21.68	4.53	0.03
6.1	Relating and networking	23.00	3.95	21.82	4.15	22.93	4.26	22.66	3.85	0.00
6.2	Listening and showing understanding	23.36	4.18	22.27	4.12	22.91	4.12	23.25	3.90	0.00
6.3	Building trust and modeling integrity	25.16	3.64	23.07	3.92	24.91	3.27	24.20	3.67	0.00
6.4	Identifying and resolving conflict	22.06	4.39	20.80	4.40	22.51	4.13	21.49	4.28	0.00
6.5	Cultivating teamwork and collaboration	23.14	4.12	22.21	4.09	23.26	4.57	22.59	3.83	0.01
7.1	Impression management	23.99	3.70	21.94	3.39	23.51	3.48	23.10	3.72	0.00
7.2	Self-deception	22.47	3.96	20.87	3.77	22.28	4.40	21.49	3.73	0.02
	Median	22.29	4.38	20.93	4.30	22.55	4.28	21.63	4.10	0.00

Ns: United States = 1,494, United Kingdom = 395, Australia = 270, Canada = 111, Others = 730.

Table 18. Differences in scale scores related to race

No	Scale	White		Black		Asian		Hispanic		Sig.
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	
1.1	Thinking and managing globally	16.33	5.61	19.16	5.56	20.66	5.73	19.44	5.50	0.00
1.2	Developing strategy and acting strategically	19.82	4.96	21.42	5.20	22.17	5.32	21.99	5.11	0.00
1.3	Managing knowledge and information	20.76	4.31	22.21	4.48	22.36	4.92	22.37	4.60	0.00
1.4	Creating and innovating	21.44	4.24	22.08	4.74	22.43	4.51	22.52	4.64	0.01
1.5	Managing costs and financial performance	17.72	6.28	19.84	6.06	20.63	5.75	19.96	5.96	0.00
2.1	Attracting and managing talent	20.70	4.47	21.44	5.00	22.29	5.02	22.28	5.04	0.00
2.2	Motivating people and inspiring them to excel	22.02	4.01	22.93	4.71	23.21	4.68	23.34	4.72	0.00
2.3	Coaching and developing people	20.17	4.68	21.17	5.13	21.79	5.22	21.70	4.81	0.00
2.4	Managing culture and diversity	22.22	4.40	23.38	4.72	23.22	4.36	24.33	4.19	0.00
2.5	Making sound decisions	22.65	4.04	23.09	4.56	23.31	4.78	23.70	4.53	0.04
3.1	Displaying initiative and drive	23.47	3.73	23.91	4.31	24.05	4.32	24.40	4.22	0.04
3.2	Showing courage and strength	21.99	4.28	22.73	4.47	22.98	4.30	23.35	4.55	0.00
3.3	Learning and developing continuously	20.98	4.32	22.38	4.75	22.34	5.07	22.60	4.60	0.00
3.4	Managing and implementing change	20.51	4.41	21.15	4.91	21.63	4.73	21.84	4.43	0.00
3.5	Adapting and coping with pressure	22.77	4.08	22.60	4.60	22.86	4.67	23.38	4.39	0.52
4.1	Executing strategies and plans	21.71	4.01	22.30	4.57	22.73	4.83	22.51	4.36	0.01
4.2	Improving processes and systems	21.27	4.52	22.49	4.98	22.72	5.09	22.80	4.70	0.00
4.3	Managing customer relationships and services	23.11	4.08	23.44	4.68	24.00	4.64	24.44	4.61	0.01
4.4	Analyzing issues and problems	22.67	4.28	22.83	4.64	23.39	4.79	23.79	4.48	0.07
4.5	Managing plans and projects	20.04	4.72	21.21	5.12	22.11	5.26	22.00	4.91	0.00
5.1	Facilitating and improving communication	22.90	3.89	23.17	4.72	23.34	4.54	23.30	4.44	0.49
5.2	Influencing and persuading people	21.23	4.39	22.09	4.87	22.49	4.66	22.46	4.78	0.00
5.3	Managing feelings and emotions	22.09	4.26	22.69	4.73	22.39	4.66	22.96	4.69	0.07
5.4	Speaking with confidence and presenting to groups	21.03	4.96	21.62	5.29	22.21	4.94	21.96	5.33	0.02
5.5	Writing and reporting	21.46	4.94	22.17	4.98	22.05	5.07	22.40	4.87	0.05
6.1	Relating and networking	22.58	3.89	23.15	4.46	22.95	4.43	23.59	4.24	0.03
6.2	Listening and showing understanding	23.01	4.06	23.28	4.62	23.11	4.53	23.48	4.85	0.63
6.3	Building trust and modeling integrity	24.56	3.67	24.67	4.20	24.28	4.39	25.27	4.14	0.33
6.4	Identifying and resolving conflict	21.59	4.31	22.37	4.56	22.48	5.04	23.05	4.35	0.00
6.5	Cultivating teamwork and collaboration	22.77	3.98	23.45	4.64	23.75	4.59	23.73	4.36	0.00
7.1	Impression management	23.35	3.56	23.94	4.19	23.70	4.66	23.96	4.20	0.05
7.2	Self-deception	21.81	3.90	22.74	4.16	22.60	4.42	23.21	4.26	0.00
	Median	21.76	4.28	22.55	4.71	22.66	4.71	23.01	4.60	0.00

Ns: White = 1,127, Black = 341, Asian = 112, Hispanic = 82, Others/not stated = 1,269.

6. Norms

6.1 Characteristics

The standardization norm group for the normative questionnaire consists of an incidental sample of 3,000 respondents who completed the instrument online. The group included individuals who had taken the test as part of a corporate assessment process and individual customers who had taken the direct access test.

Table 19 shows the gender and age characteristics of the sample. Fifty eight percent were women and 42 percent were men. The mean age of the sample was 40.2 years and the standard deviation was 11.0. Eighty percent of respondents were aged 25 to 44 with roughly equal numbers of respondents in each of the three age categories in this age range. Eight percent were in the 16 to 24 age band, and 12 percent were in the 55+ age band.

Table 19. Gender and age characteristics of standardization sample (N=3,000)

Age	Male	Percent	Female	Percent	Total	Percent
16-24	105	8.33%	133	7.64%	238	7.93%
25-34	324	25.71%	479	27.53%	803	26.77%
35-44	369	29.29%	456	26.21%	825	27.50%
45-54	331	26.27%	469	26.95%	800	26.67%
55+	130	10.32%	203	11.67%	333	11.10%
Total	1,260	100.00%	1,740	100.00%	3,000	100.00%

The nationality distribution of the international comparison group is shown in Table 20. About one half of the respondents were from the United States, and one quarter of respondents were from the United Kingdom, Australia, and Canada.

Table 20. Nationality of respondents in standardization sample (N=3,000)

Country	N	Percent
United States	1,494	49.8
United Kingdom	395	13.2
Australia	270	9.0
Canada	111	3.7
Other countries	730	24.3
Total	3,000	100.0

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The sample distribution by race/ethnicity is shown in Table 21. It is important to note that four out of ten respondents chose not to state their race so this table gives an approximate idea of the distribution based on those who identified their race. Of those that stated their race, about 60 percent described themselves as White and about 20 percent described themselves as Black. About one in 20 respondents was Asian or Hispanic.

Table 21. Race of respondents in standardization sample (N=1,799)

Country	N*	Percent
White	1,127	62.65%
Black	341	18.95%
Asian	112	6.23%
Hispanic	82	4.56%
Mixed	58	3.22%
Chinese	11	0.61%
Other	68	3.78%
Total	1,799	100.00%

*1,201 respondents chose not to state their race

Table 22 shows the reported management level of respondents in the standardization sample. Junior and middle managers form the majority of the sample. Forty one percent of respondents described themselves as junior managers, 29 percent said they were middle managers, 10 percent reported that they were senior managers, and 20 percent said they had no managerial responsibilities.

Table 22. Management level of respondents in the standardization sample (N=3,000)

Level	N	Percent
Junior	1,224	40.8
Middle	867	28.9
Senior	312	10.4
None	597	19.9
Total	3,000	100.0

Table 23 shows the top twenty sectors in the comparison group from which about half of the comparison group came from. It gives an idea of the wide range of occupational backgrounds that respondents came from. The two most common sectors in the group were education and health services.

Table 23. Top twenty sectors in the standardization sample (N=3,000)

Level	N	Percent
Education	256	8.5%
Health services	226	7.5%
Government	108	3.6%
Agribusiness	86	2.9%
Consulting	63	2.1%
Manufacturing	51	1.7%
Retail/wholesale	50	1.7%
Non-profit	47	1.6%
Consumer products	43	1.4%
Commercial banking	42	1.4%
Accounting	39	1.3%
Advertising/marketing	39	1.3%
Engineering	39	1.3%
Food/beverage	38	1.3%
Sales	38	1.3%
Financial services	36	1.2%
Social services	30	1.0%
Construction	27	0.9%
Medical/healthcare	27	0.9%
Transportation	25	0.8%
Other	1,690	56.3%
Total	3,000	100.0%

6.3 Norms table

Norms for the normative questionnaire are shown in Table 24.

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Table 24. MLQ30n standardization sample (N=3,000)

Scale		1	2S	3	4	5	6	7	8	9	10
1.1	Thinking and managing globally	6	7	8-10	11-13	14-17	18-20	21-23	24-26	27-29	30
1.2	Developing strategy and acting strategically	6-9	10-11	12-14	15-17	18-20	21-22	23-25	26-28	29	30
1.3	Managing knowledge and information	6-11	12-13	14-16	17-18	19-20	21-23	24-25	26-27	28-29	30
1.4	Creating and innovating	6-11	12-13	14-16	17-18	19-21	22-23	24-25	26-28	29	30
1.5	Managing costs and financial performance	6	6-7	8-11	12-14	15-17	18-21	22-24	25-28	29	30
2.1	Attracting and managing talent	6-9	10-12	13-15	16-18	19-20	21-23	24-25	26-27	28-29	30
2.2	Motivating people and inspiring them to excel	6-11	12-14	15-17	18-19	20-21	22-23	24-26	27-28	29	30
2.3	Coaching and developing people	6-9	10-12	13-15	16-17	18-20	21-22	23-24	25-27	28-29	30
2.4	Managing culture and diversity	6-11	12-14	15-17	18-19	20-22	23-24	25-27	28	29	30
2.5	Making sound decisions	6-12	13-15	16-17	18-19	20-22	23-24	25-26	27-28	29	30
3.1	Displaying initiative and drive	6-13	14-16	17-18	19-21	22-23	24-25	26-27	28	29	30
3.2	Showing courage and strength	6-11	12-14	15-17	18-19	20-21	22-23	24-26	27-28	29	30
3.3	Learning and developing continuously	6-11	12-13	14-16	17-18	19-20	21-23	24-25	26-28	29	30
3.4	Managing and implementing change	6-10	11-12	13-15	16-17	18-20	21-22	23-24	25-27	28-29	30
3.5	Adapting and coping with pressure	6-12	13-15	16-17	18-19	20-22	23-24	25-26	27-28	29	30
4.1	Executing strategies and plans	6-11	12-14	15-17	18-19	20-21	22-23	24-25	26-27	28-29	30
4.2	Improving processes and systems	6-10	11-13	14-16	17-18	19-21	22-23	24-25	26-28	29	30
4.3	Managing customer relationships and services	6-12	13-15	16-17	18-20	21-22	23-24	25-27	28	29	30
4.4	Analyzing issues and problems	6-11	12-14	15-17	18-20	21-22	23-24	25-26	27-28	29	30
4.5	Managing plans and projects	6-9	10-12	13-15	16-17	18-19	20-22	23-24	25-28	29	30
5.1	Facilitating and improving communication	6-11	12-15	16-17	18-20	21-22	23-24	25-26	27-28	29	30
5.2	Influencing and persuading people	6-10	11-13	14-16	17-18	19-21	22-23	24-25	26-28	29	30
5.3	Managing feelings and emotions	6-11	12-14	15-17	18-19	20-21	22-23	24-26	27-28	29	30
5.4	Speaking with confidence and presenting to groups	6-9	10-12	13-15	16-18	19-20	21-23	24-26	27-28	29	30
5.5	Writing and reporting	6-10	11-13	14-15	16-18	19-21	22-23	24-26	27-28	29	30
6.1	Relating and networking	6-12	13-15	16-17	18-20	21-22	23-24	25-26	27-28	29	30
6.2	Listening and showing understanding	6-12	13-15	16-17	18-20	21-22	23-24	25-27	28	29	30
6.3	Building trust and modeling integrity	6-13	14-17	18-19	20-22	23-24	25-26	27	28	29	30
6.4	Identifying and resolving conflict	6-11	12-13	14-16	17-18	19-21	22-23	24-25	26-28	29	30
6.5	Cultivating teamwork and collaboration	6-12	13-15	16-17	18-20	21-22	23-24	25-26	27-28	29	30
7.1	Impression management	6-13	14-16	17-18	19-21	22-23	24-24	25-27	28	29	30
7.2	Self-deception	6-12	13-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	30

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