

Technical Issues

Items: 4 Layers, 7 Segments (Including Introduction)

Introduction

5 seconds

Technical Issues

Introduction

Creating an assessment requires completing the following processes:

- generating and testing items that make up the assessment
- correlating items and scales with independent variables
- estimating reliability and validity through various methods
- continuing to analyze data as the tool is used, making adjustments as needed

Type 360 and Leader Agility 360 are based on frameworks which provide the basic architecture for generating and testing items.

Various samples collected from 1995

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Various samples collected from 1995 until now have allowed for continuing item and scale analysis.

Core Layer

Core Frameworks

5 seconds

Technical Issues

Core Frameworks

Type 360 and Leader Agility 360 are assessments that are based on a theory or framework. Unlike tools that are the by-product of factor analytic studies indicating that within a set of questions there are several scales or aspects of behavior, these two assessments have a specific framework on which they are built.

Type 360 is based on Carl Jung's notion that four perceiving and four judging processes are used by all human beings to manage the challenges of everyday life. These processes are used in various patterns, which make for a typical response. The "typicalness of the response is why he called his model

Leader Agility 360 Report

Validity and Reliability

Core Framew...

System Creation

Combined Report

Type 360 Report

Core of the Survey

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The model is important for another reason. Jung gave us a way of thinking about how we can stretch to develop clearer perceptions and sounder judgments. If you tend to use "sensing" as perceiving, the Jungian model points to the observation that learning to access "intuiting" processes will enrich perception of a given experience. If you tend to use "thinking" for making decisions, Jung's model shows that "feeling" values and ideals are equally important in rounding out a wise decision.

Leader Agility 360 is based on Roger Pearman's research on core leadership dimensions. His work found that eight dimensions of leader behavior are present regardless of position or organizational context.

After twenty years of research, sixty-four items were selected that measure both the eight processes of type and the eight dimensions of leader agility. These same 64 items provide the behavioral bases for understanding how others experience the behavior of the individual being rated--whether looked at from the lens of personality or leadership.

Item Creation

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Test the item pool with appropriate samples

The initial samples used in the analysis of items came from several companies: Avon, McKinsey, Equity Residential, and the New York Governor's Office for Employee Relations. Various convenience samples were collected from the Midwest, North, East and Southeast companies and not-for- profits. These initial data sets provided the information necessary for item analysis. Items were dropped and others revised. European companies from England, Germany, and France contributed samples.

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An item such as "Actively generates and shares ideas" is intended to reflect the expression of extraverted intuition which also loads with the leadership dimension of managing complexity and change. "Anticipates multiple future outcomes" reflects introverted intuition and loads on the leadership dimension of managing complexity and change. The subtle but important difference in the language is reflected in the words "actively share" and "anticipates."

An individual who is actively sharing is engaged in an extraverted process (notice this does not say the individual IS an extravert). For a rater to perceive that a manager "anticipates" requires attention to more subtle clues about a complex internal process which is the source of any expression exposing consideration of future outcomes.

Settle on items for larger field testing

192 items were selected for the Type 360® tool. Analysis was replicated on the beta groups but only using those items that appear most useful for this tool. A few additional groups were added for a second round of analysis. Through additional analysis, this was reduced to 64 items.

Creating scales consonant with the theories underlying the tools

Given that two frameworks or theories are the basis of these instruments, considerable effort was made to select those items that were reflective of the intersection of mental processes as hypothesized by type and leadership dimensions as reported in the research. Selecting items that were most representative of this intersection is challenging.

A second consideration in setting up the scales on the instrument is the practical concern with the number of questions raters will answer. Users of instruments prefer fewer questions that cover a greater scope of behavior.

As is well known, however, fewer questions raise significant reliability issues and validity challenges as the instrument may lack comprehensive coverage of purported domains. A decision was made to select three items for each mental function within each leadership dimension.

This resulted in 8 items for each mental process and within each leadership dimension. With 8 items across eight dimensions, a total of 64 items were selected to cover both the eight mental processes of type and eight dimensions of leadership. (Note that due to web administration, the tool can be completed in 15-20 minutes; "click and go" process is very easy.)

Scale definitions of leadership competencies are:

Learning from experience

Individual uses various learning strategies to extract from experience best practices, guiding principles, or practical action plans. The desire to learn how his or her behavior affects others and systems is fundamental to a learning perspective. All experience is viewed as information from which learning can occur.

Adaptability and Flexibility

Being psychologically adaptable means that the individual has a range of behaviors from which to select when responding to a situation. A "flexible" individual does not become distressed with sudden change or surprises---in fact, he or she expects them. Being open and responsive to individuals and situations is basic to this quality.

Self Management

Regulating impulses and consciously directing energy into productive and creative activities are key to this quality. Understanding that emotional hijacking and flow are two sides of the same "coin" that are useful by the degree of self-regulation. Managing a range of responses rather than simply being reactive is critical to this competency.

Communication

Effective oral and written communication are central to this quality. Understanding others before seeking to be understood is a typical element of this perspective. Demonstrating a recognition that the meaning of the message resides in the receiver is central to this competency.

Utilizing Expertise

Using personal and team member expertise to solve problems is basic to this quality. While it is understood that most leaders gain only a fraction of expertise in a given industry, they know how to leverage the expertise around them.

Decisiveness

Making and implementing decisions are basic dimensions of this competency. Individuals who are decisive analyze options, then select priorities in a context of goals and values, and select what is believed to be the best course of action. Decisive individuals know which decision strategy to use given the capabilities of those on whom implementation depends (e.g. leader decision, leader-group decision, group decision).

Relationship Building/Maintenance

Understanding that relationships require different kinds of attention and varying strategies to strengthen is basic to this competency. The key to this competency is to build networks and maintain these over time. Fostering teamwork is essential.

Managing Complexity and Change

Leaders operate within multiple systems. Knowing that there are always unintended consequences is as important as dealing effectively with ambiguity. Working consciously within the paradoxes of organizational life and clarifying vision/purpose in the midst of uncertainty are hallmarks of this competency. Facilitating change which enhances the organizations requires attention to relationships and processes.

Mental Functions Definitions and Associated Type Preferences

- Analytical, Questioning, Reasoning (Extraverted Thinking)
- Expressively connecting with others, empathetic, exploring relationships (Extraverted Feeling)
- Focused on pragmatic, concrete "in the moment" information, utilitarian (Extraverted Sensing)
- Expressively linking and brainstorming ideas, exploring contexts and associations, "big picture thinking" (Extraverted Intuiting)
- Recalls precise detail, awareness of information, precise memory (Introverted Sensing)
- Anticipates, explores future implications, aware of possible outcomes (Introverted Intuiting)
- Works from a framework, point of view, precise analysis of causes and effects (Introverted Thinking)

- Concerns self with the implications of actions on others, values are manifest in choices/ actions, ideals oriented (Introverted Feeling)

Release of the instrument, usually as an experimental and research tool until sufficient data is collected for the tool developer to feel that the tool is robust.

While every reputable creator of similar tools knows that instruments are experimental until substantial samples have been collected, preferably with an international scope.

A sample of this magnitude would allow for cross cultural analysis, especially given the limitations of English as a second language. Type 36® and Leader Agility 360 will undergo revision numerous times as larger samples are generated.

It is best to treat this instrument, as any tool, with the awareness that as language and social meaning changes, so will the responses to items on instruments. As a result, the test developer is attuned to adjustments that may need to be made.

Validity and Reliability

5 seconds

Technical Issues

Validity and Reliability

Continue with research to further explore its reliability and validity

Reliability with a multiple rater instrument is problematic at best. Presumably any individual would take insights from an original data set and adjust behavior in order to become more effective. As a result, observer rating may change significantly from one time to the next, making test-retest reliability moot.

Internal consistency is also difficult to judge with a multi-rater for various reasons. First, the response patterns of the raters may say more about the raters than the instrument.



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Internal consistency is also difficult to judge with a multi-rater for various reasons. First, the response patterns of the raters may say more about the raters than the instrument.

Second, given the complexity of the instrument, an individual may be seen as effectively expressing a mental process while showing one dimension of leadership and much less effective in another dimension; thus, any analysis of that mental process would show considerable internal variation.

Nonetheless, using the data sets from the beta groups, the following table shows the internal consistency reliability results (do not associate the dimension with the mental process of type) :

Dimension K-R	Mental Process K-R
Learning .83	Extraverted Sensing .84
Flexibility .88	Extraverted Intuiting .90
Self management .91	Extraverted Thinking .88
Communication .85	Extraverted Feeling .84
Utilizing expertise .79	Introverted Sensing .79

Decisiveness .88	Introverted Intuiting .79
Building relationships .89	Introverted Feeling .71
Managing complexity .91	Introverted Thinking .80

N=3429

Validity estimates present special problems for multi-raters. Underlying trait analysis using factor analytic or item response techniques may reveal qualities that the raters have identified, but this cannot be said to be reflective of the individual being rated as he or she may have provided a different response pattern to the same items.

Further, correlational studies are problematic given that the variability that may be revealed could come from so many different sources. While these studies will be executed and reported on Type 360®, these are unlikely to be definitive given the complexity of the task with so many variance sources to be accounted for.

Two techniques that are reasonable to apply involve analysis of rater consistency and self validation of the results. The following two table provide these results on the current samples:

Inter-rater consistency

SCALE	Boss-Self	Boss- Direct Report	Boss-Peer	Direct Report-Peer
Learning	.69	.66	.65	.61
Flexibility	.72	.67	.68	.63
Self management	.75	.71	.78	.72
Communication	.79	.83	.77	.74
Utilizing expertise	.71	.69	.63	.64
Decisiveness	.81	.77	.74	.72
Building relationships	.75	.81	.72	.70
Managing complexity	.81	.74	.67	.71
Extraverted Sensing	.81	.73	.72	.70
Extraverted Intuiting	.83	.77	.77	.78
Extraverted Thinking	.86	.79	.81	.82
Extraverted Feeling	.81	.73	.73	.72
Introverted Sensing	.71	.67	.61	.65
Introverted Intuiting	.67	.61	.67	.62
Introverted Feeling	.69	.66	.59	.67
Introverted Thinking	.72	.75	.70	.71

N=36,144 raters

Report of Self validation ("scale data reflect my behavior")

SCALE --	Boss-Self
Learning	82%
Flexibility	81%
Self management	88%
Communication	91%
Utilizing expertise	75%
Decisiveness	81%
Building relationships	86%
Managing complexity	79%
Extraverted Sensing	82%
Extraverted Intuiting	86%
Extraverted Thinking	89%
Extraverted Feeling	82%
Introverted Sensing	82%
Introverted Intuiting	86%
Introverted Feeling	73%

N=783

We need to keep a critical eye toward these results. As to inter-rater consistency, we need to remember that there are notable trends reflected in this study that also are reported in other multi-rater analyses. For example, the Peer ratings are generally lower and have much greater variability than do either Boss or Direct Report ratings, as reflected above. This suggests a source of variability that is inherent in the role between Peers that is not an artifact of the instrument.

As to self-validation, we need to be acutely aware that individuals tend to respond with high rates of approval on reports that are primarily positive about themselves. While we would be alarmed with lower percentages, indicating a problem with the tool, we cannot be certain that the higher percentages are reflective of the strength of the instrument or the social conformity involved with reporting attributional data.

Over time more studies will be completed examining the scales and the likely evidence that the instrument is getting at the dimensions on which the tool is based.

Finally, the leadership dimensions are presented in the report in order of developmental importance. This is a proposition by the developer of the tool. Substantial empirical study will be needed in the years ahead to verify the veracity of this claim.

The rationale goes as follows: A leader who is having difficulty learning from experience is unlikely to have learned how to be flexible, the absence of which leads to self-management issues, which in turn manifests itself in the other leadership dimensions.

A leader who may be a good learner, has become quite agile in behavior, and has become good at managing his reactions, may discover that his lack of decisiveness as perceived by others is a serious issue affecting his ability to get things done in the organization.

In short, learning from experience is assumed to be the most critical quality, without which a manager is unlikely to succeed in the long term. However, it is the observation of the developer that the dimension of managing complexity is an essential competency for individuals to become executives.

There is a "glass ceiling" effect for those who cannot achieve this capability; they can see the prize but are unable to achieve it because of a perceived lack in understanding systems and change.

This is to say that while an individual may be quite effective in the previous seven dimensions of leadership as presented by Leader Agility 360, the eight dimensions, which build on the previous behaviors requires a set of skills and abilities well beyond the domains of the first seven. For some, even the most effective learners, the stretch required for managing complexity is too great.

Theory and item links

Type 360® and Leader Agility 360 are designed to reflect the intersection of two models related to behavior. As outlined in the theory module, extensive qualitative analysis of quantitative research was executed to identify the key underlying variables to leadership success and failure.

The second model, psychological type, is a framework that posits that the sources of our numerous expressions reside in mental processes, and a habit of mind we possess that produces typical reactions.

While most multi-raters attempt to explore a leadership framework or interpersonal behavior framework, this is the first attempt to link the two fields. The proposition is that psychological type is a universal element in human personality and provides a reasonable comprehensive framework to view behavior; if so, patterns in leadership behaviors should be evident.

Some familiar with psychological type through the MBTI® instrument may wonder why the sixteen types are not the primary framework for evaluating effectiveness. Type proposes eight mental processes that are fundamental to the way individuals perceive and judge experience.

It is not only the typical pattern we use (which forms our type) but the range of use of these processes that influence our effectiveness. For example, an ISTJ who only used Introverted Sensing and Extraverted Thinking would be quite limited and unable to adapt to the full range of challenges that present themselves. It is reasonable to assume that the ISTJ would use Extraverted Feeling and Extraverted Intuiting as the situation may demand.

The degree to which this occurs is likely to influence the perceptions of this individual's effectiveness. Type 360® is designed to provide such insights for managers and leaders in the hope of making them more aware of the mental resources they have access to or may need to develop in specific ways.

The users of Type 360® should NOT assume that the perceived types of the managers will be the same as the self-reported type of the manager. There is abundant evidence that an individual, for a number of reasons, may "act out of " his or her type. In such cases, it is illuminating for the manager to see that his or her behavior is being perceived in certain ways as (being different from) self reports, either from a personality perspective or leadership dimension perspective.

A deliberate effort was made in selecting items for the Type 360® to focus on expressions specific to the eight mental processes of type as related to a specific dimension of leadership. For example, the dimension of learning as a leader may utilize different mental processes for an individual than when he or she is utilizing expertise, which this tool reveals.

The specificity of this link provides for the important realization that mental resources used in one dimension of leadership behavior are available in others, should the individual become more aware and attuned to that process.

Likewise, the manager may learn that a certain behavior that he or she feels comfortable in expressing works against effectiveness in a given context. For example, being critical (an expression of Extraverted Thinking) may be easy and natural when Managing Complexity but when applied in Building Relationships indicates a weakness and source of ineffectiveness.

Each mental function has three items that are reflected in the eight dimensions of leadership. These items can serve as prompts to explore how the utilization of an individuals' natural mental resources can enhance effectiveness in the leadership role.

This is particularly important given the research (see *The Handbook of Leadership Development* by Van Velsor, et al) concluding that leadership development is related to enriching the abilities the individual has in order to function in the leadership role rather than trying to change the individual in some significant way to function in that role.

Psychological type is the only framework that posits a comprehensive set of processes available to each individual, that when developed and accessed, can enrich functioning.

Type 360 Report

5 seconds

Technical Issues

Type 360 Report

Your Type 360® Report provides you with essential insights on the (a) frequency, (b) importance, and (c) effectiveness of behaviors that relate to the eight mental resources or processes that make up your personality and psychological type. Your report gives you action tips to increase your effectiveness and a broader range of use of your mental resources. The sections of this report are as follows:

- Section 1: What the numbers and graphs mean
- Section 2: The characteristics of your raters (numbers in each category and frequency of contact)

The diagram illustrates the structure of the report, centered on a 'Core Framew...'. It is divided into five segments: 'Leader Agility 360 Report' (top), 'Validity and Reliability' (right), 'Item Creation' (bottom), 'Type 360 Report' (left), and 'Combined Report' (bottom-right).

The Report

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- Section 1: What the numbers and graphs mean
- Section 2: The characteristics of your raters (numbers in each category and frequency of contact)
- Section 3: Aggregate Summary (The “BIG Picture”) and Type Patterns
- Section 4: Data Integration
- Section 5: Blind Spots--self rater higher than all others average
- Section 6: Hidden Strengths--self rated lower than all others average
- Section 7: Analyzing and Reasoning Processes (Extraverted Thinking, T e)

- Section 8: Critiquing and Theorizing Processes (Introverted Thinking, T i)
- Section 9: Connecting with others, Demonstrating Empathy (Extraverted Feeling, F e)
- Section 10: Evaluating Merit, Values, Ideals (Introverted Feeling, F i)
- Section 11: Providing a Pragmatic Action Oriented Focus (Extraverted Sensing, S e)
- Section 12: Cataloging Information Precisely (Introverted Sensing, S i)
- Section 13: Seeing context, associations, and trends (Extraverted Intuiting, N e)
- Section 14: Visualizing future options, scenarios (Introverted Intuiting, N i)
- Section 15: Written comments on each dimension
- Section 16: Action tips
- Section 17: Your effectiveness plan

Personality or psychological type is a model about the use of eight basic mental processes common to all individuals. The model presumes that all eight processes are available to each individual; however, each of us relies on some processes more than others. This preference results in patterns, tendencies, and trends in behavior that are generally consistent over time and situation.

This report is designed to identify those aspects of the eight processes that you appear to use and how you use them. The goal of the report is to (a) clarify how you use the eight processes, (b) identify which processes you need to learn more about, and (c) suggests development of those processes you do not use as regularly or as efficiently. Note that observed behaviors associated with introverted processes are seen as by-products of the internal aspects of personality type.

Leader Agility 360 Report

5 seconds

The screenshot shows a software window titled "Leader Agility 360 Report" with a "Technical Issues" header. On the left, a scrollable text box contains the following text:

Knowing, flexing, and doing drive effectiveness. You have to "know" your current behavior and the desired behavior before you can implement adjustments. Being able to "flex" your range of behaviors enhances your effectiveness when you "do" what is required to lead in your context. Leader Agility 360 provides you with the knowing, suggestions for flexing, and an action plan to implement-to do what is required to be effective.

Your Leader Agility 360 Report provides you with essential insights on the (a) frequency, (b) importance, and (c) effectiveness of behaviors that make up the eight dimensions of leader agility. Your

On the right, a circular diagram is divided into four segments: "Leader Agility 360 Report" (top), "Validity and Reliability" (right), "Combined Report" (bottom), and "Type 360 Report" (left). The center of the diagram is a green circle labeled "Core Framew...". An arrow points from the text box to the "Leader Agility 360 Report" segment.

LA 360 Report

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Your Leader Agility 360 Report provides you with essential insights on the (a) frequency, (b) importance, and (c) effectiveness of behaviors that make up the eight dimensions of leader agility. Your report gives you action tips to increase your performance. The sections of this report are as follows:

- Section 1: What the numbers and graphs mean
- Section 2: The characteristics of your raters (numbers in each group and frequency of contact)
- Section 3: Aggregate summary (The "BIG Picture")
- Section 4: Matrix: Frequency, Effectiveness, Importance

- Section 5: Blind spots--self rater higher than all others average
- Section 6: Hidden strengths--self rated lower than all others average
- Section 7: Learning from Experience
- Section 8: Adaptability and Flexibility
- Section 9: Self-management
- Section 10: Communication
- Section 11: Decisiveness
- Section 12: Utilizing expertise
- Section 13: Relationship building and development
- Section 14: Managing complexity and change
- Section 15: Written comments on each dimension
- Section 16: Action tips
- Section 17: Your effectiveness plan

Agile leaders assess and quickly demonstrate the eight dimensions to effectively produce results. Engendering the commitment of those around them, agile leaders use the eight dimensions to fulfill the vision of the organization, department, or unit they have the privilege to lead.

Combined Report

5 seconds

Technical Issues

Combined Report

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The combined report is a comprehensive linking of the personality processes with leadership core dimensions. The report gives you data as to how the eight type processes link to the eight leader dimensions. In this report you can identify which aspects of your personality are contributing to your effectiveness as a leader and which may need to develop to increase your range of effectiveness.

For example, with Learning from Experience, you may find that your use of "sensing" works very well for you in many situations but the lack

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For example, with Learning from Experience, you may find that your use of "sensing" works very well for you in many situations but the lack of use of scenario reflection (a function of introverted intuiting) hinders your efforts to learn how to be strategic. Through developing a greater awareness and use of your introverted intuiting, you enrich your learning about how and when you are strategic or need to be more so.

The combined report illustrates how the linkage between personality and leadership are so interdependent that to talk about developing a leadership dimension with little or no attention to personality patterns is incomplete.