

Technical Report

Learning Effectiveness Indicator™ (LEI™)

Introduction: Learning Effectiveness Contributes to Performance--No Matter Where You Are

Each individual can be evaluated along two dimensions: performance and potential. A considerable amount of effort is spent clarifying the standards for performance and often less effort is directed toward measuring potential. In fact, too often we describe potential by using the language of performance.

If we are truly seeking to enhance our overall effectiveness - either by boosting performance or leveraging potential - we need to find strategies to unleash potential to perform better across more roles and functions. ***The core of potential is Learning Effectiveness: quickly learning and applying a lesson from experience.***

Everyone is a learner. Our learning patterns range from analyzing all that needs to be done to use a new skill to accessing others who do something well in order to mimic the behavior to trial and error efforts. But, how quickly can you do this and apply the insight to real, everyday challenges? ***The purpose of the Learning Effectiveness Indicator™ is to identify important dimensions of Learning Effectiveness.***

The Dimensions

After an extensive review of literature on adult learning with special focus on learning in managerial roles, a list of Effectiveness Dimensions was generated.ⁱ

The dimensions were defined by a panel of learning experts, and the definitions were later shared with a range of managers from all economic sectors (government, non-profit, for-profit, and military) for comment and suggestion. The responses from the expert panel to the pragmatic, real-time manager led to prioritizing the dimensions of Learning Effectiveness that are central to the speed of translating experience into actions.

These dimensions are:

Dimension	Description
Energetic	Actively extracts lessons from experience; initiates with others to access their perspectives; seeks feedback; pursues challenges.
Emergent	Anticipates outcomes in situations; open to ideas; enjoys novel perspectives; stimulated by ambiguity.
Blended	Thinks broadly, seeks divergent perspectives to simulate synthetic thinking; adjusts quickly to changing conditions; seeks "best practices."
Innovative	Tests ideas; sees "failed" experiments as information; tries different ways of doing things; asks others for their learning strategies.
Explorative	Analyzes for underlying reasons for situations; shows interest in others' ideas; easily detaches to take perspective.

Behaving consistently in all of these dimensions will insure a quick learning moment, no matter the situation. This will enhance an individual's overall ability to respond effectively.

Since each individual is a learner, the question remained: If an individual is not Learning Effective, what factors are at play that creates a Resistance to Learning Effectiveness? The expert panel agreed that each Effectiveness Dimension existed on a continuum, such that some behaviors created Effectiveness Resistance. These are defined as follows:

Dimension	Description
Passive	Uses path of least resistance, cautious, waits for others to share, avoids feedback, prefers the familiar.
Single-Minded	Sticks with "what" has happened in a situation; focuses on the present; comfortable with standardization.
Small Scope	Comfortable with a general explanation for situations; perfectionistic; prefers simple analysis.
Stabilizer	Seeks extensive evidence before acting; has narrow interests; avoids risks; uses a primary tactic when problem-solving.
Explanatory	Prefers pragmatic, realistic information as the only source when problem-solving; sticks with answers and unlikely to change point of view; explains rather than asks; quick to decide based on history.

Each of these Resisters to Effectiveness plays a part in slowing down the learning moment. The more of these resisters present in an individual's behavior, the slower the learning will be. You are encouraged to understand how these work against Learning Effectiveness.

Items and Scales

An initial pool of items was created for each Effectiveness Dimension for testing. Using various contrasting groups of managers and leaders, analytic studies were completed to select those items relevant to the Effectiveness Dimensions. Twenty-five behavioral descriptions were selected, five for each Effectiveness Dimension and Resistance Dimension.

Reliability

The consistency of results from an instrument is essential in evaluating the usefulness of the tool over time. Two methods have been traditionally used to evaluate result consistency: internal correlations of response patterns and correlations of two administrations to the same group. Alpha coefficients were produced using data from initial groups (n=174) who were involved in a test-retest analysis (which had six to nine-week intervals), each with correlations (averaged) as follows:

Dimension	Test-Retest	Alpha
Energetic	.94	.97
Emergent	.92	.95
Blended	.94	.97
Innovative	.92	.93
Explorative	.91	.96

Validity

While measuring consistency is the primary goal of evaluating reliability, testing the accuracy and “truthfulness” of the instrument requires multiple validity methods. No instrument is ever really “proven.” At best, we can claim estimations of validity through correlation studies with other tools, experimental and predictive studies, and rater studies. To test the validity of the dimensions, contrasting group studies were implemented with means presented as follows. The groups were selected based on predictions of their likely strengths, given their careers. Means for their results are provided below.

Contrasting Group Means

Dimension	A n=36	B n=35	C n=31	D n=37	E n=35
Energetic	13.7	13.4	12.2	13.4	13.2
Emergent	12.6	14.2	12.9	12.7	12.5
Blended	12.9	14.3	13.9	12.8	13.6
Innovative	12.9	14.1	13.5	14.3	13.5
Explorative	12.6	13.9	12.3	12.6	14.1

Groups: A=High potentials from financial services company; B=Innovation group from multi-national product development division of a chemical products company; C=high potentials from financial services firm; D=managers from marketing division of large advertising agency; E=high potential managers from pharmaceutical company.ⁱⁱ

It is reasonable to assume that certain groups, as suggested in the table above, will have somewhat higher scores on some behaviors over others. This initial evidence supports the constructions related to Learning Effectiveness Dimensions.

Selected Correlations with Other Tools

Dimension	E:I	S:N	Ct	In	Cf	Do	ExI	Ex
Energetic	-.73	.09	.03	.21	.09	.67	.69	.71
Emergent	.03	.34	.35	.10	.11	.11	.44	.09
Blended	.07	.54	.42	.17	.15	.05	.09	.21
Innovative	-.37	.34	.21	.22	.33	.03	.21	.04
Explorative	-.53	.12	.44	.29	.23	.09	.11	.09

Scales: E:I, S:N from the MBTI®; Creative Temperament (CT), Independence (In), Conceptual Fluency (Cf), and Dominance (Do) from the CPI 260™; Expression of Ideas (ExI) and Extraversion (Ex) from the TAIS® tool.ⁱⁱⁱ

Correlations with other tools provide convergent evidence that the scales are related to other behavioral measures which have substantial evidence to support their results. While a perfect correlation between variables is not expected, some common meaning between the variables is to be

expected. For example, the concept of Energetic should correlate highly with measures of Expression of Ideas (ExI) and Extraversion (Ex).

Note that negative correlations with the MBTI® tool suggest strong relationships on the E, S, T, or J side of the scales.

Cautions

All inventories are to be viewed with caution, regardless of the legacy of evidence to support the instrument. The Learning Effectiveness Indicator™ (LEI™) is a tool designed to encourage users to think about how to enhance their learning effectiveness.

Interpretations

The most important aspect of interpretation of a self-report tool is the individual's validation of the results. With the LEI™, the following aspects need to be covered:

- The framework and the role of Learning Effectiveness in general
- The experience of taking the LEI™ and initial reactions
- The situations that require the individual to be a “quick” learner (so that connections can be made with the model)
- Effectiveness Dimension scores and what they represent in terms of an individual's behavior
- Overall Effectiveness score, reflecting the sum of all of the factors
- Resistance Dimension scores and how these behaviors play out in an individual's behavior
- Overall Effectiveness Resistance, reflecting the sum of all of the Resistance Dimensions
- Summary of the evidence and solicitation of behaviors to address

ⁱ Research on adult learning and leader effectiveness from writers such as Kolb, Kaplan, Lombardo, Argyris, Swap, and McCauley.

ⁱⁱ Participating organizations include: Pfizer, CDC Management Team, NOBLIS, Raytheon, ConAgra, Disney, Mass Mutual, Fidelity, General Motors, US NAVY, and US ARMY.

ⁱⁱⁱ The MBTI® is the registered trademark of the Myers-Briggs Type Indicator Trust; the CPI 260™ is the trademark of CPP, Inc.; and the TAIS® is the registered trademark of Enhancement Performance Systems, Inc. Information about these tools can be found at www.qualifying.org.