

Systematic Innovation Tool Applicability



Problem Modeling	Technical Application Score	notes	Business Application Score	notes
Cause and Effect Chain (CEC)	A	identifies root causes	A	identifies root causes
Functional Modeling	A	removes mental inertia by focusing on functions rather than components	B	can get complicated especially when capturing harmful, excessive and insufficient actions
Process Function Analysis	A	chronological series of functional models	B	can get complicated capturing all of the process steps
Perception Mapping	-	not effective for tech systems problem ID	B	points to correct problem to work on
Perception Mapping + CEC	-	not effective for tech systems problem ID	A	adds Root Cause Analysis
Su-Field Analysis	A	Possibly most effective tool set	B	analogy - excellent for breaking mental inertia
Technical Contradiction	B	easier to solve than Phy Con but less robust solutions	B	easier to solve than Phy Con but less robust solutions
Physical Contradiction	A	harder to solve than Tech Con but more robust solutions	A	harder to solve than Tech Con but more robust solutions
Patent Analysis	A	much more effective than simple legal maneuvering	n/a	no patents in business systems
Contradiction Matrix - parameter focus	A	creates clear understanding of improvement requirements	B	parameters are not universally accepted but great at focusing on requirements for effective resolution
Solution Modeling	Technical Application Score	notes	Business Application Score	notes
Contradiction Matrix - Principle ID	B	most useful for intro to principles	C	most useful for training, not statistically validated
40 Inventive Principles	A	statistically validated and excellent for mental inertia breaking	B	developed for technical but with business examples, not statistically validated
Effects and Knowledge DBs	A	proprietary software and data bases are best resources	B	not well organized but quite applicable
76 Standard Inventive Solutions	A	statistically validated and excellent for mental inertia breaking	B	developed for technical - analogy
Separation Algorithm	A	statistically validated and excellent for mental inertia breaking	B	analysis algorithm is strong but associated Principles not statistically validated
Satisfaction Algorithm	B	different cut of Separation	C	different cut of Separation
By Pass Algorithm	B	different cut of Separation	C	different cut of Separation
Trimming	A	directly support s on technical trend	A	directly supports one business trend
Feature Transfer	A	power concept for mental inertia breaking and innovative solution generation	B	drives organizational or business process design
Trends	A	Statistically validated but not all trends have application algorithms developed as of yet	B	early development stages
Ideal Final Result	A	established best possible outcome for maximizing solution	A	established best possible outcome for maximizing solution
Others	Technical Application Score	notes	Business Application Score	notes
Resource Analysis	A	helps understand and id available resources for solutions	A	helps understand and id available resources for solutions

Note - regardless of score, each tool is superior to most commonly used practice of problem modeling guesses followed by "brain storming"

Go to InnomationLLC.com for more information on TRIZ and Systematic Innovation for Business

Copyright 2009, DW Conley, all rights reserved