GLOSSARY OF ORGANIZATIONAL IMPROVEMENT TERMS

Accountability
A concept in ethics or governance, often used with concepts such as responsibility, answerability, blameworthiness, liability and other terms associated with the expectation of account-giving.

Accuracy
Accuracy is an important factor in assessing the success of data mining. When applied to data, accuracy refers to the rate of correct values in the data. When applied to models, accuracy refers to the degree of fit between the model and the data. This measures how error-free the model's predictions are. Since accuracy does not include cost information, it is possible for a less accurate model to be more cost-effective. Also see precision.

Activation function
A function used by a node in a neural net to transform input data from any domain of values into a finite range of values. The original idea was to approximate the way neurons fired, and the activation function took on the value 0 until the input became large and the value jumped to 1. The discontinuity of this 0-or-1 function caused mathematical problems, and sigmoid-shaped functions (e.g., the logistic function) are now used.

Activity
 What a program does with inputs to fulfill its mission.

Ad Hoc Query
The ability to create an immediate 'request for information' using an analytical reporting tool for a special purpose or to answer a specific business question.

Ad Hoc Report
An ad hoc report is created by sending a request or query, for specific information and the query results show the most current information in the format you specify.

Adverse Event
Harm to structure or function of the body and/or any negative effect which arises from that.

Affinity diagram
A tool used to organize and present large amounts of data (ideas, issues, solutions, problems) grouped into categories based on like characteristics.

Aggregate
It is a function that performs a computation on a set of values rather than on a single value. For example, finding the average or mean of a list of numbers is an aggregate function. All database management and spreadsheet systems support a set of aggregate functions that can operate on a set of selected records or cells.

Alerts and Notifications
These are automated messages or signals sent via email, pager, and so on that indicate that a predefined event or an error condition has occurred and that some action needs to be taken. Alerts allow users to receive critical business information in the quickest possible time.

Analysis
It is a process of breaking down of informational materials into their component parts, examining (and trying to understand the organizational structure of) such information to develop divergent conclusions by identifying motives or causes, making conclusions, and/or finding evidence to support generalizations. The fundamental forms of analysis are: Deduction, Induction, Pattern recognition, and Trend analysis.

Analytic Applications
They are software solutions designed to address a specific data analysis need, for example financial analysis or customer intelligence. These applications are ready to be deployed in order to fulfill data analysis needs of any business.

Andon
A Japanese term for a status-display station, a type of visual control that displays the process state using red, yellow and green symbols, such as a traffic light.

Antecedent
When an association between two variables is defined, the first item (or left-hand side) is called the antecedent. For example, in the relationship "when a prospector buys a pick, he buys a shovel 14% of the time," "buys a pick" is the antecedent.

API
An application program interface. When a software system features an API, it provides a means by which programs written outside of the system can interface with the system to perform additional functions. For example, a data mining software system may have an API which permits user-written programs to perform such tasks as extract data, perform additional statistical analysis, create specialized charts, generate a model, or make a prediction from a model.

Associations
An association algorithm creates rules that describe how often events have occurred together. For example, "when prospectors buy picks, they also buy shovels 14% of the time." Such relationships are typically expressed with a confidence interval.

Balanced Scorecard
It is a performance management tool that summarizes an organization's performance from multiple perspectives on a single page. It integrates performance measures into the basic management structure of the organization. The method consists of measuring business performance in four categories: financial performance, customer knowledge, internal business processes, and learning and growth.

Baseline
A snapshot of the state of inputs and outputs at a point in time for a particular process. A baseline should be recorded to establish a starting point to measure the changes achieved with any process improvement. It is the basis against which change is measured.

Backpropagation
A training method used to calculate the weights in a neural net from the data.

Batch
Accumulating multiple pieces of similar work prior to working on them; the opposite of one-piece flow.

Benchmarking.
A process of comparing organizational performance against other, similar operations or jurisdictions, or against a standard, past time-frame, while maintaining direct comparability of performance measures.

Beneficiaries
Those who benefit from community activities.

Best practice
A way of performing activities or executing processes that is generally considered superior to all other methods in terms of high performance and low cost when compared.

Bias
In a neural network, bias refers to the constant terms in the model (note that bias has a different meaning to most data analysts.) Also see precision.

Binning
A data preparation activity that converts continuous data to discrete data by replacing a value from a continuous range with a bin identifier, where each bin represents a range of values.

Bootstrapping
Training data sets are created by re-sampling with replacement from the original training set, so data records may occur more than once. In other words, this method treats a sample as if it were the entire population. Usually, final estimates are obtained by taking the average of the estimates from each of the bootstrap test sets.

Bottleneck
A point in a process where the rate of input is greater than the rate of output, limiting total output (also known as a choke point), the location of the constraint.

Breakthrough
A breakthrough is an improvement in an existing process to a never-before-seen level of performance, or the delivery of a brand new capability. By definition breakthroughs require extraordinary resources to achieve.

Breakthrough plans
A single-page plan that summarizes the objective, target, situation, strategies and sub-targets of a breakthrough.

Breakthrough strategy map®
A picture of the work an organization has decided it must do to achieve its longer range goals.

Brown paper fair
An event where a process map is presented and the audience is encouraged to engage actively by commenting on the process maps with post-it notes.

Build-to-order (BTO)
The manufacturing process where items are produced to order based on actual customer demand and configuration options.

Build-to-replenish (BTR)
The manufacturing process where items are scheduling for production based on actual shipment from finished goods inventory.

Burning platform
A looming crisis that demands immediate response; a reference to offshore drilling rigs when they catch fire.

Business analytics
The next generation of data mining that facilitates the flow of quality information as it happens, to enable faster actionable decision cycles.

Business case
A document outlining the justification for the initiation of a project. It includes a description of the business problem or opportunity, supporting data, a list of alternative solutions, their costs and benefits and a recommended course of action to seek resolution.

Business Environment

Business environment encompasses all those factors that affect a company's operations and includes customers, competitors, stakeholders, suppliers, industry trends, regulations, other government activities, social and economic factors, and technological developments. It is also known as Operating Environment.

Business Intelligence (BI)
A set of business applications and technologies for gathering, storing, analyzing, and converting data into information enabling future business strategies and decisions to be made . Business intelligence allows users (employees, customers, suppliers, and partners) to receive information that is reliable, consistent, understandable, easily manipulated, and timely. BI includes decision support systems, querying and reporting, online analytical processing (OLAP), statistical analysis, forecasting, and data mining.

Business Measure
A business metric is any type of measurement used to gauge some quantifiable component of a company's performance, such as return on investment, employee and student counts, revenues and expenses, etc.

Performance Management (BPM)
A set of processes that help organization's direct modeling or scenario exploration activities. BPM is focused on business processes such as planning and forecasting. It helps businesses discover efficient use of their business units, financial, human, and material resources. It helps users to consider the implications of alternative courses of action before they become operational.

Business plan
An operational guide for an organization that sets specific targets for outcomes; a follow-through of the strategic-planning process.

CART
Classification and regression trees. Cart is a method of splitting the independent variables into small groups and fitting a constant function to the small data sets. In categorical trees, the constant function is one that takes on a finite small set of values (e.g., y / n, low / medium / high). In regression trees, the mean value of the response is fit to small connected data sets.

Capability
The proportion of process runs that meet customer requirements.

Capacity
The maximum amount of product or service a process can deliver over an extended period of time.

Care bundles
A selected set of elements of care gathered from evidence-based practice guidelines that, when implemented as a group, have an effect on outcomes beyond implementing the individual elements alone.

Cascading
The process of aligning the entire organization (i.e., from department to divisions to work units to individuals) to the outcome measures and process measures set in the business plan as represented on the fundamentals management map® and annual operating plan.

Catch ball
A series of discussions between managers and their employees during which data, ideas, and analysis are thrown like a ball. This opens productive dialogue throughout the entire company.

Categorical data

Categorical data fits into a small number of discrete categories (as opposed to continuous). Categorical data is either non-ordered (nominal) such as gender or city, or ordered (ordinal) such as high, medium, or low temperatures.

Cause and Effect diagrams (Ishikawa/Fishbone)
A technique to organize and display various theories about what may be the root cause of a problem designed to encourage innovative thinking (but not solutions, only possible causes). Often used with 5 whys.

Chaid
An algorithm for fitting categorical trees. It relies on the chi-squared statistic to split the data into small connected data sets.

Change agent
A person with the personality, knowledge and energy to help lead an organization's transformation or cultural change.

Change management
A structured approach to advance individuals, teams and organizations from a current state to a desired state.

Changeovers
Switching from one process to another or from one step to another within a process.

Change verbs.
Action words that tend to describe how things become different. Change verbs (see examples) are useful in writing mission statements, goals, and strategic objectives.

Charter
A statement of the scope, goals, metrics, timing and participants in a project. Used to help guide the change team's work and it identifies the purpose of an improved project.

Checklists
Designed to improve the safety of care, for example surgical checklists, by ensuring adherence to proven standards of care; improves compliance with standards and decreases complications.

Chi-squared
A statistic that assesses how well a model fits the data. In data mining, it is most commonly used to find homogeneous subsets for fitting categorical trees as in chaid.

CI sheets
Paper forms used to communicate and convert process improvement suggestions into real change within employee work units.

Classification
Refers to the data mining problem of attempting to predict the category of categorical data by building a model based on some predictor variables.

Classification tree
A decision tree that places categorical variables into classes.

Cleaning (cleansing)
Refers to a step in preparing data for a data mining activity. Obvious data errors are detected and corrected (e.g., improbable dates) and missing data is replaced.

Clustering

Clustering algorithms find groups of items that are similar. For example, clustering could be used by an insurance company to group customers according to income, age, types of policies purchased and prior claims experience. It divides a data set so that records with similar content are in the same group, and groups are as different as possible from each other. Since the categories are unspecified, this is sometimes referred to as unsupervised learning.

Coaching

A method of helping an individual to develop knowledge or skills. Coaching involves setting goals, practicing appropriate behaviors and providing feedback.

Competencies

A set of descriptors outlining the skills, knowledge and behaviors (attitudes) needed by those concerned with quality improvement.

Confidence

Confidence of rule "b given a" is a measure of how much more likely it is that b occurs when a has occurred. It is expressed as a percentage, with 100% meaning b always occurs if a has occurred. Statisticians refer to this as the conditional probability of b given a. When used with association rules, the term confidence is observational rather than predictive (statisticians also use this term in an unrelated way. There are ways to estimate an interval and the probability that the interval contains the true value of a parameter is called the interval confidence. So a 95% confidence interval for the mean has a probability of .95 of covering the true value of the mean.)

Confusion matrix

A confusion matrix shows the counts of the actual versus predicted class values. It shows not only how well the model predicts, but also presents the details needed to see exactly where things may have gone wrong.

Consent

The provision of approval or assent particularly and especially after thoughtful consideration.

Consequent

When an association between two variables is defined, the second item (or right-hand side) is called the consequent. For example, in the relationship "when a prospector buys a pick, he buys a shovel 14% of the time," "buys a shovel" is the consequent.

Constraint

Something that limits the output of the entire process.

Continuous

Continuous data can have any value in an interval of real numbers. That is, the value does not have to be an integer. Continuous is the opposite of discrete or categorical.

Continual Professional Development (CPD)

A process of ongoing learning for all individuals and teams which enables professionals to expand and fulfill their potential and which also meets the needs of patients and delivers the health and health care priorities of the national health system.

Continuous flow

Producing and moving one item at a time through a series of processing steps as continuously as possible, with each step making just what is requested by the next step; the opposite of batching (also "one piece flow" and "single piece flow")

Continuous improvement

Relentlessly and incrementally perfecting products and services by doing things better, faster and cheaper (also, continuous change for the better or kaizen)

Control Charts
Control charts, also known as Shewhart charts or process-behavior charts, in statistical process control are tools used to determine whether or not a process is in a state of statistical control.

Core process
A routine set of activities that are core to the businesses outcomes.

Cost of risk avoidance (CORA)
A component of non-value-added activities known as value enablers; the labor, material and other costs associated with reducing the risks and magnitude of negative process outcomes to an acceptable level. Example: requiring multiple sign-offs is a CORA intended to prevent fraud.

Cost of regulation and compliance (CORC)
A component of non-value-added activities known as value-enablers, these are labor, material and other costs associated with operating processes consistent with statutes, administrative rules and policies. Example: process wait times due to public-notice periods required by statute are CORC.

Cost of poor quality (COPQ)
A component of the class of non-value-added activities known as value-enablers, these are the labor, material and other costs associated with identifying and eliminating defects in products and services. Example: document reviews intended to capture and rework errors are COPQ.

Cost of quality
Costs associated with supplying a product or service fit for its intended use. Example: costs associated with preventing defects, inspection and warranty repairs.

Countermeasure
A change made in a process to prevent a problem from reoccurring.

Critical path
The shortest or fastest path (also "yellow brick road") a transaction can take through a process flow chart (also, the path taken when everything works as intended.)

Crosstab
A type of report that cross references or compares two variables (such as product usage and demographics) to determine how they are inter-related. A crosstab gets its name from the layout of the variable definitions in rows and columns.

Cross validation
A method of estimating the accuracy of a classification or regression model. The data set is divided into several parts, with each part in turn used to test a model fitted to the remaining parts.

Current state
The process, operation or system before improvements are made.

Current-state map
A flowchart showing the process as it now operates (also known as "as is" map).

Customer

The person or group of people who use the product, service or information (i.e. The outputs) produced as a result of work processes. They may or may not pay for it. In lean terms, internal customers are people or groups who are downstream in the process but who use the product, service or information produced. External customers are outside the process or value stream but use the output of the process or value stream.

Customer Relationship Management (CRM)
CRM describes both a business process and an associated software application family.

Cycle time
One cycle of an operation.

Dashboard or performance dashboard
Visually-based summary of operational information that shows real-time understanding of the performance of an organization through metrics.

Defects
Any product or service that varies from specifications and therefore fails to meet customer requirements.

Data
Qualitative or quantitative attributes of a variable or set of variables, often expressed in numbers.

Database
A collection of data arranged for ease and speed of search and retrieval. A database is organized in such a way that a computer program can quickly select desired pieces of data. You can think of a database as an electronic filing system.

Dashboard
The visual similarities to a car dashboard. A user interface that organizes and presents information in an easy-to-read format and help organizations align people's actions with strategy by tracking and analyzing key business metrics and goals. Dashboards and scoreboards enable proactive management via "what-if" analysis, customer segmentation, forecasting, and analyzing business processes. It provides graphical depictions of current key performance indicators in order to enable faster response to changes in areas such as sales, customer relations, performance assessments etc. on single screen.

Data Cleansing
The process of ensuring that a program operates on clean, correct and useful data. It includes manipulation of data – using a variety of techniques: parsing, standardizing, correcting, and consolidating- extracted from operational systems so as to make it usable by the data warehouse.

Data collection
Quantitative or qualitative observations of a process that can be used in an evaluation of that process.

Data Cube
A multidimensional structure that forms the basis for analysis applications. Cubes have three dimensions and allow for a variety of calculations and aggregations. The dimensions can usually be pivoted in reports.

Data for Improvement
Statistical tools and techniques to measure the impact of improvements.

Data format
Data items can exist in many formats such as text, integer and floating-point decimal. Data format refers to the form of the data in the database.

Data Mapping
The process of identifying a source data element for each data element in the target data warehouse environment. For example, gender ('M'/ 'F') is decoded and mapped to a gender description field as 'Male' or 'Female'.

Data Mart
A data mart is a logical subset of related information, usually built around one or a few business processes, or a specific subject area.

Data mining
An information extraction activity whose goal is to discover hidden facts contained in databases. Using a combination of machine learning, statistical analysis, modeling techniques and database technology, data mining finds patterns and subtle relationships in data and infers rules that allow the prediction of future results. Typical applications include market segmentation, customer profiling, fraud detection, evaluation of retail promotions, and credit risk analysis.

Data mining method
Procedures and algorithms designed to analyze the data in databases.

Data Quality
Data quality pertains to aspects such as availability, completeness, accuracy, consistency, relevance and timeliness of data. High data quality is essential to business intelligence's role as a means of decisional support. Poor data quality examples: missing fields, old or inaccurate information, data conflicts, inaccessible data in legacy systems.

Data Source
In basic terms, a data source is a facility for storing data. It can be as sophisticated as a complex database for a large corporation or as simple as a file with rows and columns. A data source can reside on a remote server, or it can be on a local desktop machine. Applications access a data source using a connection, and a Data Source object can be thought of as a factory for connections to the particular data source that the Data Source instance represents.

Data Staging
This denotes a system area where all the data extraction, transformation and loading operations are performed. This is the work area where data warehouse developers clean, summarize, filter, decode and prepare data. Program codes are split into different columns: degree and major. Misspelled majors are fixed.

Data Visualization
This means data represented by visually recognized patterns and trends. It maintains live data connectivity, provides visuals and interactivity.

Data Warehouse
A database that is geared toward the business intelligence requirements of an entire organization. The data warehouse integrates data from the various operational systems and is typically loaded from these systems at regular intervals. Data warehouses contain historical information that enables analysis of business performance over time. A repository of corporate or institutional data that is organized in a way that is meaningful for Business Analysis and Reporting. It may also store historical information. A data warehouse is a collection of data marts.

Database management systems (DBMS)
Software that controls the organization, storage, retrieval, security and integrity of data in a database. It accepts requests from the application and instructs the operating system to transfer the appropriate data.

Decision Support System (DSS)
The purpose of a decision support system is to provide decision makers in organizations with information. The information advances the decision makers' knowledge in some way so as to assist them in making decisions about

the organization's policies and strategy. Key characteristics of DSS are ease of use, flexibility and adaptability. DSS applications focus on the types of problems encountered by senior managers.

Decision tree
A tree-like way of representing a collection of hierarchical rules that lead to a class or value.

Deduction
Deduction infers information that is a logical consequence of the data.

Degree of fit
A measure of how closely the model fits the training data. A common measure is r-square.

Define, measure, analyze, improve and control (DMAIC)
Steps in a six sigma project; a structured, disciplined, rigorous approach to process improvement that consists of five phases, where each phase is linked logically to the previous phase as well as to the next phase.

Demand, Capacity, Activity, Queue (DCAQ)
The process of determining the maximum amount of work that an organization or part of an organization is capable of completing in a given time period to meet changing demands for its products or services.

Dependent variable
The dependent variables (outputs or responses) of a model are the variables predicted by the equation or rules of the model using the independent variables (inputs or predictors).

Deployment
After the model is trained and validated, it is used to analyze new data and make predictions. This use of the model is called deployment.

Dimension
Each attribute of a case or occurrence in the data being
Mined. Stored as a field in a flat file record or a column of relational database table.

Dimensional Hierarchy
A dimensional hierarchy refers to the different levels of data within a dimension table. Data can be rolled up or drilled down to for analysis. This can be represented in a data model by multiple columns within a dimension table in standard star schemas called hierarchy columns.

Discrete
A data item that has a finite set of values. Discrete is the opposite of continuous.

Discriminant analysis
A statistical method based on maximum likelihood for determining boundaries that separate the data into categories.

Downstream
Processes or activities that follow next from the previous task or activity.

Drag and Drop Interface
A graphical user interface (GUI) capability that lets you perform operations by moving the icon of an object with the mouse into another window or onto another icon. For example, files can be copied or moved by dragging them from one folder to another. Programs can be executed by dragging and dropping. Drag and drop is essential for graphics applications where you need to position text and images on the page or on top of each other.

Drag and drop OLAP
Online Analytic Processing can be done on the fly based on the criteria, the business users provides to the X- & Y-axis. Drag and Drop OLAP functionality allows users to rapidly select the most appropriate view from a multitude of perspectives to understand the drivers behind the business.

Drill Down
A component of OLAP analysis. The term drill down, in the context of data analysis, refers to the process of navigating from less detailed aggregated information to viewing more granular data.

Drill Through
Drill through is an action in which you move horizontally between two items via a related link. An example to drill through is in the case of two reports that are in a master /detail relation with each other, and by clicking a master item on the master report you reach the details of the clicked item on the details report.

Drill Up (Roll up)
It is a specific analytical technique whereby the user navigates among levels of data ranging from the most detailed (down) to the most summarized (up) along a concept hierarchy. For example, when viewing the data for the city of Toronto, a roll-up operation in the Location dimension would display Ontario. A further roll-up on Ontario would display data for Canada.

Drillable Charts
Users can drill-down to underlying, granular data from the graphic analysis. In drillable pie charts, you can drill directly down into each segment or in a bar graph by double clicking on the bar.

Effectiveness
A general term used to describe an activity or process's ability to meet the needs of the customer. An effective process successfully achieves planned outcomes in a planned manner (e.g., on time, built to specifications, value-added, etc.)

Efficiency
A general term used to describe how resources are used to produce a given output. An efficient process is one that uses relatively few resources (e.g., funds, time, energy, etc.) To achieve planned (value added) outputs

Empowerment
The process of supporting workers to discover and claim their power to improve their work processes.

End Outcomes
Specify changes that have occurred in the lives of members and/or beneficiaries that are significant.

Enterprise
In entrepreneurial management terms, an interrelated, intuitive organizational grouping of utility and marketplace services into a single service line that is operated as a business. This natural grouping of services is run as a single business enterprise with one chief operating officer and unified financial statements and performance outcomes. Example: an information technology enterprise would consist of utility and marketplace services with a variety of it functions such as application hosting, network management, data storage, disaster recovery, e-government, and others.

Enterprise Data Warehouse (EDW)
An environment designed for, and dedicated to, providing a single, comprehensive view of the enterprise. It is a reliable source of consistent, contextual, and controlled information for tactical and strategic decision-making.

Enterprise Information System (EIS)

A category of applications and technologies for presenting and analyzing corporate and external data for management purposes.

Enterprise Information Management (EIM)
Products and services that deliver physical and virtual data integration, data quality, and metadata management capabilities that ensure BI information is timely, accurate, and trustworthy. Enterprise information management is sometimes used in place of the more common term, Information management. Refer Information Management for more information.

Enterprise Performance Management (EPM)
Applications and services that help users align with strategy by streamlining the planning process, setting targets, and tracking key business metrics via management dashboards, scorecards, analytics, and alerting.

Enterprise Reporting
Enterprise reporting refers to large-scale report generation, usually achieved through the use of so-called business-intelligence software, and intended to deliver Information by means of the Internet or an Intranet.

Enterprise Resource Planning (ERP)
It is a software-driven technique that is intended to optimize the use and application of resources (project management) and manage mission-critical processes (such as workflows, time and expense reporting, collaboration, and Knowledge capture). An enterprise system enables a company to integrate data used throughout the organization in functions such as finance, operations and logistics, human resources, and sales and marketing.

Enterprise Systems
Enterprise systems aim to overcome problems with incompatible Information storage and retrieval systems by introducing a common format for databases within companies. Proprietary processes need to be tailored to meet the needs of the enterprise systems, necessitating management and structural change.

Entitlement performance
The fastest throughput time for a single transaction that has been achieved for a given process.

Entropy
A way to measure variability other than the variance statistic. Some decision trees split the data into groups based on minimum entropy.

Error proofing
A process and set of techniques for anticipating, detecting and preventing errors that adversely affect product quality, process efficiency and customer satisfaction; focuses on preventing defects at the source through adherence to work practices that ensure precision in all work processes (also, poke yoke)

Error
Failure to carry out a planned action as intended or application of an incorrect plan.

Errors
In statistics, an error is not a "mistake" but rather a difference between a computed, estimated, or measured value and the true, specified, or theoretically correct value. It is the difference between the desired and actual performance and behavior of a system or process.

Evaluation
In-depth assessment of program effectiveness by means of rigorous scientific methods. This can include use of control groups and other techniques to determine what would have happened in the absence of the program.

Executive Information systems (EIS)
A precursor to business intelligence systems. Before the democratization of information, customized views of business data was accessible only by a limited elite of senior executives via EIS systems. EIS systems were typically expensive to build and difficult to modify, hence slow to adapt to the rapidly changing needs of modern corporations.

Exploratory analysis
Looking at data to discover relationships not previously detected. Exploratory analysis tools typically assist the user in creating tables and graphical displays.

Export
The ability to transform and format data in such a way that it can be used by another application. For optimal interoperability with your other business applications, the formats to which reports can be exported include PDF, Excel, Word, CSV, and HTML.

External data
Data not collected by the organization, such as data available from a reference book, a government source or a proprietary database.

Extract, Transform and Load (ETL)
Term used to describe the process of extracting data out of a production system, then transforming and cleansing it before loading it into a database dedicated to business intelligence. The term is also used to describe a software industry segment and set of software products designed to manage the data extraction, transformation, and loading process.

Failure Mode Event Analysis (FMEA)
An analytical method which highlights probable failures and the severity of their consequences allowing effort to be directed where it will produce the greatest value.

Feedback
The situation when output from (or information about the result of) an event in the past will influence an occurrence of the same event in the present or future. When an event is part of a chain of cause-and-effect that forms a circuit of loop the event is said to "feed back" into itself.

Feed-forward
A neural net in which the signals only flow in one direction, from the inputs to the outputs.

Filter
A saved subset of information pulled from your database in a query that is based on certain criteria. For example, only the records associated to a certain time period or region.

First pass yield (FPY)
The number products or services done right the first time; the percentage of finished goods that meet all customer specification and related quality criteria at the end of the work process.

Fit for use
Products or services that meet customer expectations.

Five Golden Rules of Workplace Management
A set of the most practical reminders in implementing continuous improvement (kaizen) in the workplace (gemba) 1) Go to the work site when problems arise. 2) Check materials, tools, work pieces and equipment. 3) Take temporary measures on the spot. 4) Find and eliminate the root cause. 5) Standardize to prevent recurrence.

Five S (5S)
A system of waste elimination through workplace organization
Sort, set in order, shine, standardize, sustain
Derived from the japanese seiri, seiton, seiso, seiketsu, and shitsuke.

Five Whys
A question-asking method used to explore the cause/effect relationships underlying a particular problem.
Ultimately the goal of applying the 5 Whys method is to determine a root cause of a defect or problem.

Flow
The progressive completion of tasks in the value chain to deliver products and services that meet customer requirements; optimal flow occurs when material moves through the entire process without interruption, waste or variation.

Flow charts
A type of diagram that represents an algorithm or process showing the steps as boxes of various kinds and their order by connecting these with arrows - can give a step-by-step solution to a given problem.

Forecasting
One of the activities possible by business intelligence. It is the formulation of trends, predictive models, and scenarios for the purpose of better decision-making.

For work
Learning outside the workplace intended as preparatory or complementary to the work role. Typically conducted at the beginning of a career, it also spans learning activities throughout the working life, e.g. through contact with professional bodies, interest groups and external boards and committees of all kinds.

Formal learning
Generally has a set learning framework within a period of time, and is conducted in the presence or under the direction of a designated trainer or teacher. Formal learning involves the external specification of outcomes and may lead to the award of a qualification or credit.

Full-time equivalent (FTE)
A method for converting hours worked by employees into the number of full-time-equivalent budgeted positions. For example, one FTE is equivalent to one full-time worker.

Fundamentals
The collective routine work of the business that consumes the vast majority of an organization's resources; its core processes make up an organization's fundamentals.

Fundamentals management map
A picture of the routine work (core processes or value streams) that must be managed for the business to achieve its goals. It defines the outcome measures and process measures used to know how well the fundamentals are being managed. It includes an organization's mission, vision and values.

Future-state map
A flowchart showing planned process changes.

Fuzzy logic
Fuzzy logic is applied to fuzzy sets where membership in a fuzzy set is a probability, not necessarily 0 or 1. Non-fuzzy logic manipulates outcomes that are either true or false. Fuzzy logic needs to be able to manipulate degrees of "maybe" in addition to true and false.

Gauges
Gauge gives visual impact like a speedometer for easy-to-understand, at-a-glance display of critical information. It is used in dashboard for business users.

Genchi genbutsu
Japanese for a business practice of seeing a problem firsthand to understand it; values practical experience over theoretical knowledge; similar to tom peters' "management by walking around," it literally means "go see the problem."

Genetic algorithms
A computer-based method of generating and testing combinations of possible input parameters to find the optimal output. It uses processes based on natural evolution concepts such as genetic combination, mutation and natural selection.

Goal.
A written statement describing the direction that indicates success or improvement in organizational performance. See also Values.

Golden nugget
An unexpected opportunity for significant improvement.

Granularity
Granularity refers to the level of detail or summarization of data in the data warehouse. More detail means higher the level of granularity. The less detail there is, the lower the level of granularity.

Graphical user interface (GUI).
A human-computer interface (i.e., a way for humans to interact with computers) that uses windows, icons and menus and which can be manipulated by a mouse (and often to a limited extent by a keyboard as well). GUIs stand in sharp contrast to command line interfaces (CLIs), which use only text and are accessed solely by a keyboard.

Handoff
The transfer of material or information to the next step in a process. Too many or poorly executed handoffs can be a major source of waste.

Handover
This is the time between the last customer-focused activity by a departing team and the first customer-focused activity by an arriving team.

Hazard
A circumstance, agent or action that can lead to or increase risk.

Heijunka
A prerequisite for just-in-time, an inventory strategy that reduces in-process inventory, this is the overall leveling of production in terms of transaction volume and task variety over a given period of time in order to smooth out workflow and increase output predictability.

Hidden nodes
The nodes in the hidden layers in a neural net. Unlike input and output nodes, the number of hidden nodes is not predetermined. The accuracy of the resulting model is affected by the number of hidden nodes. Since the number of hidden nodes directly affects the number of parameters in the model, a neural net needs a sufficient number of hidden nodes to enable it to properly model the underlying behavior. On the other hand, a net with too many hidden nodes will overfit the data. Some neural net products include algorithms that search over a number of

alternative neural nets by varying the number of hidden nodes, in the end choosing the model that gets the best results without overfitting.

High Reliability Organization
An organization that has succeeded in avoiding catastrophes in an environment where normal accidents can be expected due to risk factors and complexity.

Histograms
A graphical representation showing a visual impression of the distribution of data; an estimate of the probability distribution of a continuous variable. Commonly known as a bar chart.

Horizon; also planning horizon.
The farthest date that the strategic plan addresses; the target date by which the organization expects to accomplish its intended outcomes.

Hoshin kanri
A strategic decision-making tool for a firm's executive team that focuses resources on the critical initiatives necessary to accomplish the business objectives of the enterprise.

Huddle
A facilitated, loosely scripted, daily stand-up meeting of no more than 10 minutes held by members of an intact work group to address priorities. Usually involves a visual display board.

Human Factors
The scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance.

Ideal Production leveling (heijunka)
This is the overall leveling of production in terms of transaction volume and task variety over a given period of time in order to smooth out workflow and increase output predictability.

Incidental work
Work that does not in itself provide value to the customer but is necessary to do value-creating work. Example: a worker needs to switch from one software program to another to achieve something for the customer.

Independent variable
The independent variables (inputs or predictors) of a model are the variables used in the equation or rules of the model to predict the output (dependent) variable.

Indicator
 A specific, measurable item of information that specifies progress toward achieving a result.

Induction
A technique that infers generalizations from the information in the data.

Inefficiency
A general term used to describe the creation of waste in the production of a given output. In continuous improvement terms, inefficiency may come in the form of inconsistency, overburden and waste.

Informal Learning
Is continuous, incidental, lifelong, personal and based on experience, and is not bounded by formal parameters.

Information Discovery and Delivery (IDD)
IDD help simplify the way that business decisions makers use information, allowing users to access, format, analyze, navigate, and share information across the organization. IDD comprises (enterprise) reporting, query and analysis, dashboards and scorecards, and the BI platform (including search capabilities).

Information Management
Information management is the means by which an organization maximizes the efficiency with which it plans, collects, organizes, uses, controls, stores, disseminates, and disposes of its Information, and through which it ensures that the value of that information is identified and exploited to the maximum extent possible. The aim has often been described as getting the right information to the right person, in the right format and medium, at the right time.

Information System
Information system refers to the applications and software that perform business functions or support key processes.

Information Technology
The application of science to the processing of data according to programmed instructions in order to derive meaning. Includes all information and all technology.

Innovation
The process by which an idea or invention is implemented in practice, resulting in a change or improvement.

Input
Any material, service or information that contributes to or affects the activities and results of a process. Also means resources a program uses to produce outputs and achieve outcomes.

Institutional Performance Management (IPM)
The process of basing an organization's actions and decisions on actual measured results of performance. This process integrates performance measures, benchmarks, and goals in order to achieve optimal results. The balanced scorecard is one approach used in performance management.

Instrument
Specific tool to collect information, e.g., behavior checklist, tally sheet, attitude questionnaire, or interview protocol.

Intelligence Analysis
Denotes systematic examination of any combination of relevant data, Information, and existing Knowledge for applicability or significance, and the transformation of the results into actionable Intelligence that will improve planning and decision-making or enable the development of strategies that offer a sustainable competitive advantage. The most profitable or beneficial analysis calls for creativity and insight; an ability to look beyond the obvious. Sometimes referred to as Strategic analysis.

Interaction
Two independent variables interact when changes in the value of one change the effect on the dependent variable of the other.

Intermediate Outcomes
 Specify changes that have occurred in the lives of members and/or beneficiaries, but are short of a significant benefit for them.

Internal data
Data collected by an organization such as operating and customer data.

Internal customer
Any purchaser or user of goods or services produced within the organization. Usually refers to the next (downstream) operation in the supply chain.

Inventory
Waste that includes any items not immediately needed by a customer or process; any items that must be stored, including raw materials; work-in-progress; and finished goods. Completed products not yet sold are the most expensive kind of inventory. Unprocessed components are the least expensive kind of inventory.

Inventory turns
The number of times inventory can be used and replaced in a given period of time.

Jidoka
A quality-control process that applies the following principles: detect the abnormality, stop, correct the immediate condition, investigate the root cause and install a countermeasure. It refers to the ability of any worker or machine to halt production to prevent defects and facilitate identifying and correcting process problems.

Just-in-time (JIT)
A system for producing and delivering the right items at the right time in the right amounts. The key elements of just in time are flow, pull, standard work and takt time; (also lean production and kanban).

Just-in-time Knowledge
This is a concept for delivering information to an individual at the time it is needed to perform a specific task. It may be initiated by means of a program that identifies the contents of the documents currently being produced, or contributed to, by the individual concerned.

Kaizen
A Japanese word meaning "good change" alluding to small, incremental improvement of an activity to create more value with less waste. A kaizen event typically involves a team of five to 15 who spend three to five days improving a specific process.

Kaizen newspaper
A tool used during a kaizen event in which the team leader or facilitator lists tasks that need to be completed and assigns people to the tasks; often a section in an a3 report.

Kanban
An inventory control system that indicates when material or stock is needed by a process and tells an upstream supplier to send material downstream. Kanban is a "pull" system that pulls materials and stock into the process rather than relying on a schedule that "pushes" them through the process. Production begins only when there is a signal to produce (also, a visual device used by process operators to signal process states.

Key performance indicators (KPIS)
Measures put in place and visible to an organization to indicate the level of progress and status of change efforts in an organization.

K-nearest neighbor
A classification method that classifies a point by calculating the distances between the point and points in the training data set. Then it assigns the point to the class that is most common among its k-nearest neighbors (where k is an integer).

Knowledge Base/Kbase (KB)

It is a collection of information, facts, rules, and procedures of a specific field of interest with an implied organization and links to provide navigation among items within the organization.

Kohonen feature map
A type of neural network that uses unsupervised learning to find patterns in data. In data mining it is employed for cluster analysis.

Layer
Nodes in a neural net are usually grouped into layers, with each layer described as input, output or hidden. There are as many input nodes as there are input (independent) variables and as many output nodes as there are output (dependent) variables. Typically, there are one or two hidden layers.

Lead time
The total time a customer must wait to receive a product or service after placing an order; measured from when the customer requests the service until the customer receives the service, (also, throughput time.)

Leadership
The process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task.

Leaf
A node not further split — the terminal grouping — in a classification or decision tree.

Lean
A management philosophy centered on preserving value with less work, by reducing waste to improve overall customer satisfaction.

Lean enterprise
An organization engaged in the endless pursuit of waste elimination in all of its activities.

Lean principles
1. Specify value
2. Identify the value stream
3. Make the process and value flow
4. Develop pull systems
5. Pursue perfection

Learning
Training models (estimating their parameters) based on existing data.

Learning context
interplay of all the values, beliefs, relationships, frameworks and external structures that operate within a given learning environment.

Learning organization
Organization which places a high priority on enabling individual learning, in matters which will directly benefit the organization. Learning and sharing of new knowledge is typically encouraged among all employees, on the assumption that active participation will result in the development of a more responsive workforce.

Learning styles
Various approaches or ways of learning, allowing the individual to learn best, by identifying and following an identifiable method of interacting with, taking in, and processing stimuli or information.

Least squares

The most common method of training (estimating) the weights (parameters) of a model by choosing the weights that minimize the sum of the squared deviation of the predicted values of the model from the observed values of the data.

Left-hand side
When an association between two variables is defined, the first item is called the left-hand side (or antecedent). For example, in the relationship "when a prospector buys a pick, he buys a shovel 14% of the time", "buys a pick" is the left-hand side.

Lightweight Directory Access Protocol (LDAP)
An open application protocol for querying and modifying directory services running over TCP/IP. Although not yet widely implemented, LDAP should eventually make it possible for almost any application running on virtually any computer platform to obtain directory information, such as email addresses and public keys. Because LDAP is an open protocol, applications need not worry about the type of server hosting the directory.

Line balancing
Equalizing cycle times for relatively small units in the manufacturing process.

Listening post
The point or points in a process where metrics are captured.

Logic Model
 A diagram or chart that traces the flow from inputs to activities, outputs, and outcomes to demonstrate an aligned activity. A logic model employs an "if A, then B" way of thinking.

Logistic regression (logistic discriminant analysis)
A generalization of linear regression. It is used for predicting a binary variable (with values such as yes/no or 0/1). An example of its use is modeling the odds that a borrower will default on a loan based on the borrower's income, debt and age.

Managed Reports
Reports templates that are created/defined for end-user use, best known as "point 'n click" reporting. The templates determine what fields are included in the report, the types of prompts users receive, and the look and feel of the report.

Management Information Systems (MIS)
The term is commonly used to refer to the group of information management methods tied to the automation or support of human decision making. It denotes an enterprise reporting system, which gives managers an overview of business operations.

Management system
The system an organization uses to manage the enterprise; effective management systems link individual performance to the organization's outcomes and processes through measurement; routine reviews are used to understand how well fundamentals and breakthroughs (initiatives) are being managed.

Manufacturing execution system (MES)
A networked computing system that automates production control and process automation to bridge gaps that might appear between these functions.

Mars
Multivariate adaptive regression splines. Mars is a generalization of a decision tree.

Mass customization

A production system that stresses the production of relatively small lots of customized or unique goods.

Mass production
Large-scale, generally very standardized manufacturing practice with high-volume production and output.

Massively parallel processing (MPP)
A computer configuration that is able to use hundreds or thousands of CPU's simultaneously. Software must be written specifically to take advantage of this architecture.

Maximum likelihood
Another training or estimation method. The maximum likelihood estimate of a parameter is the value of a parameter that maximizes the probability that the data came from the population defined by the parameter.

Mean
The arithmetic average value of a collection of numeric data.

Measures
A measure is a quantifiable, specific piece of information. Without a trend to follow or an expected value to compare against, not much information can be derived from a measure. It especially does not provide enough information to make meaningful decisions. To be useful, measures must be used as part of a metric.

Median
The value in the middle of a collection of ordered data. In other words, the value with the same number of items above and below it.

Metadata
The sum of all documentation about the data warehousing process in its entirety. Metadata describes the contents of the data warehouse, its structure, and the processes involved in its setup. Metadata should be updated as the system evolves. Essentially, metadata is all the information in the data warehouse environment that is not the actual data itself.

Metrics
Measurements of process, quality, cost and delivery; usually involves a scale and an instrument. Examples: to describe size of a small object, you may use inches as the scale and a ruler as the instrument; to describe process throughput for issuing a permit, you may use days as your scale and a calendar as your instrument.

Missing data
Data values can be missing because they were not measured, not answered, were unknown or were lost. Data mining methods vary in the way they treat missing values. Typically, they ignore the missing values, or omit any records containing missing values, or replace missing values with the mode or mean, or infer missing values from existing values.

Mission statement.
The broadest possible statement of the organization's purposes, goals, values and functions. It describes the underlying design, aim or thrust of an organization. It contains the basic purpose or philosophy of the organization.

Mistake-proofing (Pokayoke)
A mechanism that helps avoid mistakes by preventing correcting or drawing attention to human errors as they occur, i.e. behavior-shaping constraints designed to prevent errors.

Mitigating Factor
An action or circumstance that prevents or moderates the progression of an incident

Mode
The most common value in a data set. If more than one value occurs the same number of times, the data is multi-modal.

Model
An important function of data mining is the production of a model. A model can be descriptive or predictive. A descriptive model helps in understanding underlying processes or behavior. For example, an association model describes consumer behavior. A predictive model is an equation or set of rules that makes it possible to predict an unseen or unmeasured value (the dependent variable or output) from other, known values (independent variables or input). The form of the equation or rules is suggested by mining data collected from the process under study. Some training or estimation technique is used to estimate the parameters of the equation or rules.

Model for Improvement
An approach to process improvement which helps teams accelerate the adoption of proven and effective changes. A framework for improvement that involves asking three key questions - What are we trying to accomplish? How will we know that a change is an improvement? What changes can we make that will result in an improvement?

Monitoring
To be aware of the state of a system; to observe a situation for any changes which may occur over time, using a measuring device of some sort.

Motion
The movement of people around the workspace. Examples of unnecessary motion include excessive bending, stretching and reaching for tools or materials, which indicates a poorly designed workspace.

Muda
Japanese for "waste;" refers to any activity that consumes resources but creates no value to the customer.

Multidimensional Analysis
The analysis of business indicators by examining them from different points of view. One can examine revenue by product, or revenue by geography, or revenue by time period. It is also known as dimensional analysis.

Multi-process handling
When an employee does tasks for multiple processes sequentially that contribute to the flow of material.

Needs assessment.
A process for scanning the environment, examining opportunities and threats to the organization. In the private sector, Needs Assessment includes Market Research analyses.

Neural network
A complex nonlinear modeling technique based on a model of a human neuron. A neural net is used to predict outputs (dependent variables) from a set of inputs (independent variables) by taking linear combinations of the inputs and then making nonlinear transformations of the linear combinations using an activation function. It can be shown theoretically that such combinations and transformations can approximate virtually any type of response function. Thus, neural nets use large numbers of parameters to approximate any model. Neural nets are often applied to predict future outcome based on prior experience

Node
A decision point in a classification (i.e., decision) tree. Also, a point in a neural net that combines input from other nodes and produces an output through application of an activation function.

Noise

The difference between a model and its predictions. Sometimes data is referred to as noisy when it contains errors such as many missing or incorrect values or when there are extraneous columns.

Non-applicable data
Missing values that would be logically impossible (e.g., pregnant males) or are obviously not relevant.

Non-value-added (NVA)
Activities that the customer is not willing to pay for.

Normalize
A collection of numeric data is normalized by subtracting the minimum value from all values and dividing by the range of the data. This yields data with a similarly shaped histogram but with all values between 0 and 1. It is useful to do this for all inputs into neural nets and also for inputs into other regression models (also see standardize.)

Objective.
A written statement describing an intended outcome, output or process, depending on type: strategic objectives describe intended outcomes or results; tactical objectives describe intended outputs or products; operational objectives describe intended processes or procedures.

Occupational Knowledge
Practical knowledge and understanding mostly gained through experience within a job or occupation.

ODBC
Open Database Connectivity is a protocol used to allow reporting tools to connect to a database.

OLAP
On-line analytical processing tools give the user the capability to perform multi-dimensional analysis of the data.

OLAP Cube
OLAP compiles a set of source data and restructures it into an OLAP cube, which is optimized for analysis. A cube represents pre-calculated dimensions of data available to a user, which, in turn, enables the faster processing. Queries are then run against the cubes. Refer OLAP for more information.

Online Transactional Processing (OLTP)
Online Transactional Processing is a type of system that immediately handles operational data and transactions. This operational system allows the smooth functioning of an organization's daily business. Usually OLTP offers no analytical capabilities.

One-piece flow
Ideal state for any process is to move away from traditional batching of work, whether material or information, and flow work continuously, one element at a time. This reduces many types of waste, particularly inventory (also, continuous flow.)

Operations
A broad term suggesting administrative responsibilities and duties related to office functions, manufacturing, procurement, distribution, various management issues, and global accountability.

Operating process
Core value stream of the organization.

Opportunities and Threats.

Factors which contribute to the success or failure of achieving the organization's mission, and which are outside of the organization's direct control.

Optimization
It is a scientific approach to solving problems, the purpose of which is to improve on the subjective aspects of decision-making; thus improving operational efficiency. It calls for the mathematical formulation of the problem and an explicit statement of the desired objectives. The method consists of creating a mathematical model and using computational means to help choose the best schedule of actions among alternatives.

Optimization criterion
A positive function of the difference between predictions and data estimates that are chosen so as to optimize the function or criterion. Least squares and maximum likelihood are examples.

Organizational Performance
An organization's performance involves identifying outcomes that it wants to achieve, creating plans to achieve those outcomes, carrying out those plans, and determining whether the outcomes were achieved. Success is achieving the planned outcomes.

Organizational Performance Measure
A performance measure is a defined method for observing an attribute of organizational performance. The defined method specifies what, when, and how data will be collected about a specific attribute of performance selected for the purpose of evaluating performance. Interpreting performance data involves comparing the observed performance at one point in time with a performance criterion such as a performance goal, a performance target, a performance standard, or a prior performance period.

Organizational Performance Metric, Organizational Performance Indicator
These terms are synonyms for "organizational performance measure."

Original Equipment Manufacturer (OEM)
An Original Equipment Manufacturer (OEM) is a company developing and manufacturing standardized products or modules, which are then incorporated into end products using the reseller's brand name. OEM, when used to describe software, is used to differentiate that version of the software which is bundled with other hardware or software from that same software package sold on its own as a retail package. When a customer purchases an OEM product often only a limited number of changes like branding or labeling are done.

Outcome goals
An organization's overarching goals (what it wants to achieve), usually highly stable over time.

Outcome measures
Overall measurable indicators of an organization's performance relative to key goals. Outcome measures answer the question "how will we know we are progressing toward our key goals."

Outliers
Technically, outliers are data items that did not (or are thought not to have) come from the assumed population of data — for example, a non-numeric when you are expecting only numeric values. A more casual usage refers to data items that fall outside the boundaries that enclose most other data items in the data set.

Output
Any product, service or piece of information produced by the activities in a process.

Output measure
 Counts of the amount of service provided without information on benefits to or other changes.

Overall equipment effectiveness (OEE)
A measurement of the availability, performance efficiency, and quality rate of an organization's equipment.

Overfitting
A tendency of some modeling techniques to assign importance to random variations in the data by declaring them important patterns.

Overlay
Data not collected by the organization, such as data from a proprietary database, that is combined with the organization's own data.

Overproduction
Waste created when more items are produced than are needed by the next step in a process or by the customer; costs are incurred if items are stored until the next step in the process is ready to handle them.

Pacemaker
A device or technique use to set the pace of production and maintain takt time.

Parallel processing
Several computers or CPU's linked together so that each can be computing simultaneously.

Parameterized Report
A report that uses input values for processing. For example, allowing users to select from a pick list to show data by a particular product category or region. Parameters are typically used in a query that selects the data for the report.

Pareto chart
A combination bar chart and line graph whose bars show declining frequency of occurrence and whose line graphs the cumulative total; based on Pareto's law, which states that 80 percent of effects result from 20 percent of causes.

Pareto Principles
The concept that, in many situations, some 80% of the outputs will be generated by only 20% of the inputs. For example, 20% of users will make 80% of the calls to a service desk. In problem management, Pareto charts identify the areas of an organization or process that will deliver maximum benefit when improved or when failures or weaknesses are addressed.

Pattern
Analysts and statisticians spend much of their time looking for patterns in data. A pattern can be a relationship between two variables. Data mining techniques include automatic pattern discovery that makes it possible to detect complicated non-linear relationships in data. Patterns are not the same as causality.

Performance
To perform is to carry through to completion. A performance period has three phases:
  - It begins with intention—the desire to achieve a result
  - It engages in action—the means to achieve the desired result
  - It concludes with an outcome—which may or may not be the desired result

Performance Attribute
A performance attribute is a single aspect, characteristic, or dimension of performance that has been selected to indicate performance for the purpose of evaluating performance. A single performance measure is used to observe and monitor a single performance attribute. Some commonly used categories of performance attributes include effectiveness, efficiency, productivity, timeliness, quality, and financial.

Performance Baseline
A baseline is the level of performance measured at the beginning of a period of performance or in a prior period. A baseline is used to evaluate subsequent performance to determine whether organizational performance changed over time.

Performance Benchmark
A performance benchmark is a measured level of performance in one organization (sometimes an organization that is "best in class") that is used by another organization for the purpose of comparison. Benchmarking is a way for two organizations to analyze and improve performance by sharing data on comparable organizational performance with each other.

Performance Criterion
A performance criterion is a specific level of performance that is used to evaluate how well the organization is performing on a specific performance attribute.

Performance Expectation
A performance expectation is a manager's stated performance criterion that specifies a desired level of performance to be achieved by the organization. A manager's expectation can be in the form of a goal to improve performance, a performance target to be achieved, or a performance standard to be maintained. A performance expectation is a criterion for evaluating performance.

Performance feed forward (feedback).
A systematic procedure for comparing actual performance to planned performance, and using that information in subsequent planning cycles.

Performance gap
The difference between how a process is performing and its target performance level.

Performance Measure
 A statement containing a result output, intermediate outcome, or end outcome, an indicator, and the target that is expected to be achieved toward this result over a given period of time (one year, two years, or three years).

Performance Measurement
 The process of regularly measuring the outputs and outcomes produced by your program. Performance measurement allows you to track both the amount of work done by your program and the impact of this work on your program beneficiaries.

Performance Standard
A performance standard is a defined level of performance that represents performance excellence. Performance standards are often developed and promoted by membership groups in industries and professions as a means of encouraging a high level of performance throughout the industry or profession. However, a single organization can establish its own performance standards as a means of ensuring consistently high performance.

Performance Target
A performance target is a performance criterion stated in quantitative terms. To set a realistic performance target, three things are necessary:
  - a defined performance measure,
  - a performance baseline,
  - an assessment of the capability of the organization to achieve the performance target.

Personalization
Delivering appropriate content that is tailor-made for your end users' needs.

Pilot
A form of testing that can then be observed and adjusted before full-scale implementation.

Pivot Table
To 'pivot' is to 'slice-and-dice' your data to get different views of the same data. A pivot table usually refers to a tool that lets you look at your data in different ways to obtain a desired report. Specifically it allows you to reorganize and summarize selected columns and rows of data in your database tables without changing the data that is actually contained in the tables. Refer Slice and Dice for more information.

Plan-Do-Study-Act (PDSA) Cycle
 Another name for a cycle designed to test a change. The PDSA cycle includes four phases
Plan, Do, Study and Act. PDSA Cycles are small scale, reflective tests used to try out ideas for improvement.

Poke-yoke
Highly reliable methods that prevent defects; any mechanism in a lean manufacturing process that helps an equipment operator avoid mistakes.

Portal
A web site that typically provides personalized capabilities to its visitors. A portal brings content from different sources together and can enable collaboration, information consumption, and other applications or functionality for end users.

Positive deviants
The most desirable points in any data set; outliers that exhibit behaviors you wish to emulate.

Power User
An information analyst who generally has responsibility for analyzing data and deriving meaningful information from that data. Power Users have an excellent understanding of their data and the underlying definitions, and know how to query it to produce the results they need.

Precision
The precision of an estimate of a parameter in a model is a measure of how variable the estimate would be over other similar data sets. A very precise estimate would be one that did not vary much over different data sets. Precision does not measure accuracy. Accuracy is a measure of how close the estimate is to the real value of the parameter. Accuracy is measured by the average distance over different data sets of the estimate from the real value. Estimates can be accurate but not precise, or precise but not accurate. A precise but inaccurate estimate is usually biased, with the bias equal to the average distance from the real value of the parameter.

Predictability
Some data mining vendors use predictability of associations or sequences to mean the same as confidence.

Predictive Analysis
It is a powerful analytic engine, which encompasses various statistical and data mining techniques to make predictions/forecast about future business conditions. It helps people make proactive decisions more easily by providing insights via easy-to-use dashboards across the organization.

Preliminary meetings (nemawashi)
Discussions involving other sections and departments to seek input, information and support for proposals or changes that would affect them.

Primary visual display

Information centers in the workplace where hot topics and key indicators of a work group's process performance are posted and updated, usually daily; focal point for huddles.

Prioritization matrix
A tool used to compare choices relative to impact and achievability, such as cost, service, quality and other factors (also, criteria matrix.)

Process
A routine set of activities that lead to a given output; a set of steps or operations that must be performed in a specific sequence to produce a product, a service, or information for a customer.

Process map
A diagram showing all steps required to complete a single process within a value stream identifying specific sources of waste within an individual process. Used as a tool in problem solving, this technique helps make opportunities for improvement more apparent.

Process Mapping
Activities involved in defining exactly what an organization or part of an organization does, who is responsible, to what standard a process should be completed and how success can be determined.

Process measures
The measures that indicate how effectively a given business process is functioning.

Product quantity (PQ) analysis
A tool that helps employees understand the types of products their organization produces and the volume demanded by customers.

Productivity measure.
A performance measure that quantifies how much "product" is produced at what cost, and that measures economy. See tactical performance measure.

Pruning
Eliminating lower level splits or entire sub-trees in a decision tree. This term is also used to describe algorithms that adjust the topology of a neural net by removing (i.e., pruning) hidden nodes.

Pull system
Operating a process such that steps are triggered only when demanded by downstream steps.

Push system
Operating a process such that steps are triggered when outputs are received from upstream steps.

Push
Processing large batches of work product, then moving it downstream or into storage, regardless of the pace or quantity needed by the next process; a system that does not create a smooth flow of work from one Process to the next, which is the hallmark of lean.

Qualitative metrics
Measurements of quality or character, instead of size, quantity or other data.

Quality
Refers to the inherent or distinctive characteristics of properties of an object, process or other thing which may set apart a person or thing from other persons or things, or may denote some degree of achievement or excellence. In terms of quality improvement in healthcare, quality is about learning what you are doing and doing it better.

Quality assurance
Applying constant, rigorous checks and controls throughout the value stream to continually meet product or service specifications.

Quality control
Internal monitoring and control of project deliverables to ensure that they meet quality targets.

Quality function deployment
A methodology in which a cross-functional team reaches consensus about final product specifications that meet or exceed customer requirements.

Quarterly target review (QTR)
A session held every three months to review all measures and breakthroughs so problems are resolved and progress is recognized.

Query and Analysis
This term refers to the tools that let its end users to interact with business information – without having to understand complex database languages and structures. It helps them to know answer of ad hoc questions without advanced knowledge of the underlying data sources. These tools support query generation and basic report authoring, as well as integrated analysis.

Responsible, accountable, consult, inform (RACI)
A planning chart that identifies and clarifies roles, responsibilities and individual levels of participation across all activities, tasks and decisions to ensure effective operations.

Range
The range of the data is the difference between the maximum value and the minimum value. Alternatively, range can include the minimum and maximum

Ranking
Ranking is the process of positioning items such as individuals, groups or businesses on an ordinal scale in relation to others. A list arranged in this way is said to be in rank order. A ranking can be obtained by evaluating each item in the collection in such a way that any two items can then be compared to see which should come higher in the ranking. It is not necessarily a total order of objects because two different objects can have the same ranking.

Rapid Improvement Events (Kaizen)
These are a structured way of bringing together people who are involved in all parts of the process of delivering a service to allow detailed sharing of all actions undertaken (the current state) process and opportunities to define a future state and the improvement action plan needed to get there.

Rapid process improvement (RPI)
Planned problem-solving events designed to identify, define and implement improvements within specific operations or work area; usually conducted in small, cross-functional work teams that have some familiarity with the problem at hand. Also known as a kaizen blitz.

RDBMS
A Relational database management system is a system used to store, process and manage data arranged in relational tables. Such a database is organized and accessed according to the relationships between data values. Refer SQL for more information.

Redeployment

Reassignment of employees to other departments or functions; in lean, moving staff whose time has been freed up by process improvements to priority strategic work.

Reflection
Thinking about past experiences in a structured way such that future actions are informed, enabled and improved.

Regression tree
A decision tree that predicts values of continuous variables.

Relational Database
A collection of data items that is organized as a set of related tables from which data can be accessed or reassembled in many different ways without the need to reorganize the database tables.

Reliability
In general, reliability is the ability of a person or system to perform and maintain its functions in routine circumstances, as well as hostile or unexpected circumstances. Reliability theory describes the probability of a system completing its expected function during an interval of time.

Repeatability
A key indicator of stability within a process. Represents the probability that a process will achieve the same measured result each time it is conducted under the same conditions.

Report Archive
An archive is a collection of reports – created during a long course of period. It is used for storing and organizing a company's data in numerous reports. The term 'archive' usually refers to the location in which these files are kept as well.

Reporting
Reporting is the process of accessing data, formatting it, and delivering it inside and outside the organization. It is the foundation of a business intelligence (BI) strategy, as it provides users the most-requested pieces of information reliably and securely, via the web or embedded in enterprise applications.

Reporting Application
Reporting application gathers information on sets of predefined analysis that have been generated by the scheduler. It distributes and prints information for users located across departments, multiple offices, regions and countries.

Resource requirements.
A quantitative description (usually in money) of the capital, equipment, information, labor and land that achievement of a tactical objective will require.

Resubstitution error
The estimate of error based on the differences between the predicted values of a trained model and the observed values in the training set.

Result
 The outputs and outcomes you intend to track for a particular activity.

Return on investment (ROI) / Return on Time (ROT)
ROI is also known as rate of profit. It is the ratio of money gained or lost on an investment relative to the amount of money invested. The government equivalent is return on time (ROT)

Rework

Sending the work outputs back up the value stream to a previous process or process step to fix problems in work quality.

Right-hand side
When an association between two variables is defined, the second item is called the right-hand side (or consequent). For example, in the relationship "when a prospector buys a pick, he buys a shovel 14% of the time," "buys a shovel" is the right-hand side.

Risk
Any event likely to adversely affect a project's ability to achieve the defined objectives.

Risk assessment
An assessment of the probability that an incident will occur and the consequences.

Role-based Security
This security feature in reporting system lets you control who has access to something, for example, a report, a column of data, etc. You can designate a role category for each user in the system and then you can allow or restrict that role's access.

Root cause
The most basic underlying reason for an event or condition; the cause; the single verified reason why a problem or defect has occurred.

Root Cause Analysis
A class of problem solving methods aimed at identifying the root causes of a problem or events predicated on the belief that problems are best solved by attempting to address, correct or eliminate root causes, as opposed to merely addressing the immediately obvious symptoms. By identifying measures at root cause, it is more probable that problem will not occur again.

R-squared
A number between 0 and 1 that measures how well a model fits its training data. One is a perfect fit; however, zero implies the model has no predictive ability. It is computed as the covariance between the predicted and observed values divided by the standard deviations of the predicted and observed values.

Run charts
A run chart, also known as a run-sequence plot, is a graph that displays observed data in a time sequence. Used to show changes in a process over time.

Sampling
Creating a subset of data from the whole. Random sampling attempts to represent the whole by choosing the sample through a random mechanism.

SBAR
Situation - Background - Assessment - Recommendations - an easy to remember mechanism to frame conversations especially critical ones; enables clarification of information to be communicated between team members.

Scheduling
It is an ability to start an automated process at a particular or recurring time in the future.

Scope
The defined beginning and defined end of a process.

Scorecard
A way to present visually how an organization is meeting its targets. The display for each measure uses red, yellow, and green to indicate the level of performance compared to the established standards.

Seven wastes
Seven most common wastes in processes; overproduction (ahead of demand), waiting, unnecessary transport of materials, over-processing, maintaining more than minimum inventories, unproductive movement by employees during the course of their work, and defective products or services.

Sensitivity analysis
Varying the parameters of a model to assess the change in its output.

Sequence discovery
The same as association, except that the time sequence of events is also considered. For example, "twenty percent of the people who buy a VCR buy a camcorder within four months."

Service level agreement (SLA)
Agreement between two parties regarding expectations and deliverables.

Shared vision
A comprehensive and vivid vision, usually long-term in nature, of an organization's future state.

Shine
The third "s" of 5s. The shine aspect of the methodology involves cleaning the work area, removing trash and defining the standards of cleanliness to adhere to. It also includes repairing any broken machinery.

Significance
A probability measure of how strongly the data support a certain result (usually of a statistical test). If the significance of a result is said to be .05, it means that there is only a .05 probability that the result could have happened by chance alone. Very low significance (less than .05) is usually taken as evidence that the data mining model should be accepted since events with very low probability seldom occur. So if the estimate of a parameter in a model showed a significance of .01 that would be evidence that the parameter must be in the model.

Silver bullet
A not-yet-implemented countermeasure that promises to solve all problems.

Simulation
The imitation of some real thing, state of affairs, or process; the act of simulating something generally entails representing certain key characteristics or behaviors of a selected physical or abstract system. Used in many contexts, including the modeling of natural systems, such as weather systems, in order to gain insight into their function.

SIPOC
Suppliers, inputs, process, output and customers; a six sigma mapping tool to think through all elements of a process, starting with customers and working upstream to suppliers.

Six Sigma
Seeks to improve the quality of process outputs by identifying and removing the causes of defects (errors) and minimizing variability using statistical methods and following a defined sequence of steps (DMAIC Define, Measure, Analyze, Improve, Control) and has quantifiable targets.

Six S (5S)

A workplace organization methodology drawn from Japanese roots - sort, set, shine, standardize and sustain. (Sometimes safety, security, and satisfaction are included and it is termed as 6S).

Skills Mix
The learned capacity to carry out pre-determined results often with the minimum outlay of time, energy or both. Can be divided into general skills (e.g. time management, teamwork etc.) and domain-specific (e.g. those useful only to a certain job). Across any team, we need to have balanced capability of general and specific skills.

Slice and Dice
A term used to describe a function at the core of informational analysis. Multidimensional tools allow users to view data from any angle. The ability to select various angles to view data from is called slice and dice capability. Rotating the presentation between rows, columns and pages is a feature built into crosstabs and pivot tables. After generating a report on enrolment by faculty, a user swaps dimensions to see enrolment by academic level. It is also possible to see enrolment statistics for a single faculty across multiple terms, or view a breakdown according to student degrees. Refer Crosstab and Pivot tables for more information.

Smart
Simple, measurable, achievable, results oriented, and timely; a set of criteria for developing goals.

Smoothing
Keeping the rate of output volume as constant as possible.

SMP
Symmetric multi-processing is a computer configuration where many CPU's share a common operating system, main memory and disks. They can work on different parts of a problem at the same time.

Sort
The first "s" in 5s; involves separating needed from unneeded items, eliminating the unnecessary ones and clearing out the clutter.

Sorting
Sorting is any process of arranging items in some sequence and/or in different sets, and accordingly, it has two common, yet distinct meanings:
  1) Ordering: arranging items of the same kind, class, nature, etc. in some ordered sequence.
  2) Categorizing: It is grouping and labeling items with similar properties together (by sorts).

Spaghetti chart
A map of the physical path taken by a specific product or service as it travels down the value stream. Its name came about due to the typical chart's resemblance to a plate of spaghetti.

Spaghetti diagram
A means of tracking movement in a specific area for the purpose of identifying wasted activity and movement.

Spread
The intentional and methodical expansion of the number and type of people, units, or organizations using the improvements.

SQL Server
It is generically, any database management system (DBMS) that can respond to queries from client machines formatted in structured query language (SQL) language. When capitalized, the term generally refers to either of two database management products from Sybase and Microsoft.

Stakeholders.
Those people, institutions and interests which have an interest in, or contribute to, the organization's success or failure in achieving its mission.

Standard work
A precise description of each work activity specifying the cycle time, takt time, and work sequence of specific tasks and the minimum inventory on hand needed to conduct the activity. Standardize
The fourth "s" of the 5s methodology that involves maintaining the cleaned and organized environment by setting a regular cleaning and maintenance schedule; the step at which the previous three s's are standardized.

Statistical Process Control (SPC)
The application of statistical methods to the monitoring and control of a process to ensure that it operates at its full potential.

Standardize
A collection of numeric data is standardized by subtracting a measure of central location (such as the mean or median) and by dividing by some measure of spread (such as the standard deviation, interquartile range or range). This yields data with a similarly shaped histogram with values centered around 0. It is sometimes useful to do this with inputs into neural nets and also inputs into other regression models (also see normalize.)

Strategic objective.
A written statement describing an intended outcome; a results-oriented objective.

Strategic performance measure.
A yardstick or standard used to measure progress toward achieving a strategic objective. A measure of how well we are doing; an outcome measure.

Strategic planning.
A continuous process where people make decisions about intended future outcomes, how outcomes are to be accomplished, and how success is measured and evaluated.

Strategic priorities.
A ranking of an organization's strategic objectives by importance; a description of what an organization's decision-makers believe is more important or less important; a basis (criterion) for evaluating the tactical planning and budget-setting process.

Strategy
The path chosen to move toward a desired end state.

Strategy deployment (hoshin kanri)
A strategic decision-making tool for a firm's executive team that focuses resources on the critical initiatives necessary to accomplish the business objectives of the enterprise.

Strengths and weaknesses.
Aspects which are under the organization's direct control. Tactical planning makes full use of the organization's internal strengths, avoids the weaknesses, and addresses ways to overcome the weaknesses.

Structured Query Language (SQL)
Short for Structured Query Language. The programming language used to get information from and update a relational database system. Refer RDBMS for more information.

Succession development

The process of retaining, identifying, finding, assessing, and preparing suitable employees for key positions to ensure the least possible disruption to an organization's effectiveness. This is important because it often takes years of training to develop effective senior managers.

Suggestion system (teian)
A proposal, proposition, or suggestion. A teian system can be likened to a system which allows and encourages workers to actively propose process and product improvements.

Supervised learning
The collection of techniques where analysis uses a well-defined (known) dependent variable. All regression and classification techniques are supervised.

Supply Chain management
The management of a network of interconnected organizations involved in the ultimate provision of product or service packages required by end-users - from point of origin to point of use.

Sustain
The fifth "s" of the 5s methodology. The sustain aspect of the methodology involves maintaining the 5s approach to work, ensuring that the method develops deep roots in the organization and establishing it as the normal way of doing business.

Sustainability
The capacity to endure - the potential for long-term maintenance of well-being which has environmental, economic and social dimensions.

System
A set of relationships which are differentiated from relationships of the set to other elements. Systems have structure, behavior and interconnectivity.

Tactical objective.
A written statement describing an intended output; a product-oriented or productivity-oriented objective. A tactical objective describes how a strategic objective will be accomplished. A tactical objective describes products that will contribute to achieving a strategic objective.

Tactical performance measure.
A yardstick or standard used to measure progress toward achieving a tactical objective; a measure of how well we are doing; an output measure or a productivity measure.

Tactical planning.
A continuous process where people make decisions about how outcomes are to be accomplished, what products will be produced, how success is measured and evaluated, and how budgetary resources are allocated.

Tactical priorities.
A ranking of an organization's tactical objectives by importance; descriptions of which of an organization's products its decision-makers believe are more important or less important in achieving the organization's mission; a basis for determining the organization's operating budget.

Takt time
Aims to match the pace of production with the customer's demand and thus sets the rate at which each step in the process should be completed.

Target
The level of success a program expects to attain for efforts made over a given time period.

Target performance
The desired level of process performance, as defined by the customer.

Teamwork
Work performed by a team towards a common goal; advocated by agreed activities and behaviors as a means of assuring quality and safety in the delivery of services.

Teamworking
A dynamic process involving two or more colleagues with complementary backgrounds and skills sharing common goals and exercising concerted physical and mental effort in assessing, planning or evaluating service delivery.

Test
A small-scale trial of a new approach or a new process. A test is designed to learn if the change results in improvement, and to fine-tune the change to fit the organization and patients. Tests are carried out using one or more PDSA Cycles.

Test data
A data set independent of the training data set, used to fine-tune the estimates of the model parameters (i.e., weights).

Test error
The estimate of error based on the difference between the predictions of a model on a test data set and the observed values in the test data set when the test data set was not used to train the model.

Theory of Constraints (TOC)
Contends that any manageable system is limited in achieving more of its goals by a small number of constraints; the TOC process seeks to identify these barriers and restructure rest of the organization around them.

Throughput time
The total process time as experienced by the customer.

Time Out
Refers to a stoppage in a procedure for a short amount of time. This allows for team members to communicate to determine action or inspire morale. Teams usually call timeouts at strategically important points in a process to avoid members being misled or work against conflicting assumptions.

Time series
A series of measurements taken at consecutive points in time. Data mining products which handle time series incorporate time-related operators such as moving average (also see windowing.)

Time series model
A model that forecasts future values of a time series based on past values. The model form and training of the model usually take into consideration the correlation between values as a function of their separation in time.

Topology
For a neural net, topology refers to the number of layers and the number of nodes in each layer.

Total cost of ownership (TCO)
A financial estimate designed to help consumers and enterprise managers assess direct and indirect costs commonly related to software or hardware. It is a form of full cost accounting.

Total Productive Maintenance (TPM)

A maintenance process developed for improving productivity by making processes more reliable and less wasteful.

Total quality management (TQM)
A quality control system focused on the correction of quality issues.

Touch time
The time spent actually working, hands-on, on a particular step in a process, as compared to wait time that occurs between steps. Touch time plus wait time equals cycle time.

Training
Another term for estimating a model's parameters based on the data set at hand.

Training data
A data set used to estimate or train a model.

Transactional process
Processes in non-manufacturing environments. Examples include order entry, engineering, purchasing, financial closings, request for quotes, etc.

Transformation
A re-expression of the data such as aggregating it, normalizing it, changing its unit of measure, or taking the logarithm of each data item.

Transportation
Transport waste includes the unnecessary movement of goods, materials and information and inefficient workspace planning.

Trigger Tools
A means of conducting rapid structured case note review to measure the rate of harm in healthcare. Because they are metric they can be used to track improvements in safety over time.

Twenty Keys
The 20 Keys establish a set of world-class benchmarks, performance expectations, and a roadmap for improvement within a work group or team.

Two-bin system
An example of both visual management and the pull system, whereby two bins or containers are used trigger reorder of parts or materials.

Unsupervised learning
This term refers to the collection of techniques where groupings of the data are defined without the use of a dependent variable. Cluster analysis is an example.

Validation
The process of testing the models with a data set different from the training data set.

Value
A written statement describing the direction that indicates success or improvement in internal organizational characteristics, or in the expression of beliefs the organization holds. Values may be similar to goals, but they usually relate to internal characteristics of the organization, rather than to external organizational performance. Also a capability delivered at the right time and price as defined by the customer.

Value and Waste

A process adds value by producing goods or providing a service that a customer will receive. A process consumes resources and waste occurs when more resources are used than are necessary to produce the goods/services that the customer actually wants.

Value-added (VA)
A step in a process that contributes to what customers want out of a product or service; something customers would pay for.

Value-creating and non-value-creating
Required to complete a product or service from beginning to end, e.g., from conception to launch or from service request to delivery.

Value-enabling
A non-value-added step that is required for some reason.

Value stream
The sequence of activities, materials and information required to bring a product or service to a customer; all the steps

Value Stream Mapping
Used to analyze the flow of materials and information currently required to bring a service to a customer/patient.

Value stream owner
The point person who serves as an advocate for the processes identified in a particular value stream.

Variance
The most commonly used statistical measure of dispersion. The first step is to square the deviations of a data item from its average value. Then the average of the squared deviations is calculated to obtain an overall measure of variability.

Variation
A departure from a former or normal condition or action or amount or from a standard or type and the amount by which this occurs.

Visual controls
Visual signals in the workplace designed to manage or control operations; visual controls ensure that the status of the system can be understood at a glance by everyone involved. A graphic indicator (e.g., sign, chart, real product sample) used to visually communicate important information in the workplace (also, andon)

Visual Management (Kanban)
A process defining what to produce, when and how much. Five core properties: visualize the workflow; limit the work in progress; manage flow; make process policies explicit; improve collaboratively.

Visualization
Visualization tools graphically display data to facilitate better understanding of its meaning. Graphical capabilities range from simple scatter plots to complex multi-dimensional representations.

Voice of business (VOB)
Internal feedback on operations; typically efficiency, productivity and internal quality.

Voice of the customer (VOC)

A systematic, institutionalized approach to eliciting and analyzing customers' requirements, expectations, level of satisfaction and areas of concern, both stated and unstated; VOC can be captured through discussion, interviews, surveys, focus groups, customer specifications, observation, warranty data, field reports, complaint logs, etc.

Waiting
Delays including holdups due to delivery problems and downtime and process and design changes. Usually caused by unrealistic or poor scheduling and process delays.

Waste
The identification of which steps in a process add value and which do not. Seven categories of resource are commonly wasted - overproduction; unnecessary transportation; inventory; motion; defects; over-processing; and waiting.

Web-based Reporting
It is the ability to build, deploy, and consume reports over the web taking advantage of the web's accessibility, availability, and performance. Refer Reporting Application for more information.

Windowing
Used when training a model with time series data. A window is the period of time used for each training case. For example, if we have weekly stock price data that covers fifty weeks, and we set the window to five weeks, then the first training case uses weeks one through five and compares its prediction to week six. The second case uses weeks two through six to predict week seven, and so on.

Work breakdown
The complete set of phases, activities and tasks required to undertake the project and meet the full requirements of the customer.

Work cell
A logical and productive grouping of people, equipment and information designed to function within a suite of similar processes; a work team with responsibility for a particular process or product (also, work unit)

Work flow analysis
A technique for gathering information about the possible set of values calculated at various points in a work flow process. A process's flow graph is used to determine those parts of a process to which a particular value assigned to a variable might propagate. The information gathered is often used by managers when optimizing a process.

Working sequence
The sequence of operations in a single process which leads a floor worker to produce quality goods efficiently and in a manner which reduces overburden and minimizes the threat of injury or illness

Workplace
Place where the process tasks physically occur and value is added (also gemba). When an abnormality occurs or a manager needs to know the current state of operations.

Workplace learning
Workplace learning happens as an integral component of working. This is the kind of learning that occurs as we think about what we are doing, and how we might do it better. It has been called "reflection-in-action" and it is also classified as "informal" learning - see above.

XML (Extensible Mark-up Language)
The Extensible Mark-up Language (XML) describes a class of data objects called XML documents which are stored on computers, and partially describes the behavior of programs that process these objects. XML is a subset or restricted form of SGML, the Standard Generalized Mark-up Language . The goal of XML is to enable generic SGML

to be served, received, and processed on the Web in the way that is now possible with HTML. XML has been designed for ease of implementation and for interoperability with both SGML and HTML.

Yellow brick road
The shortest or fastest path a transaction can take through a process flow chart. It can also be thought of as the path taken when everything works as intended (also, "critical path.")

Zero Foot Print Browser Interface
This is an end-user application that is entirely resident on a server and is downloaded only at the time of use. This type of application does not require any client software to be installed or configured on a user's system. In other words, zero-footprint application assures that no trace is left of the session on the PC, either as temporary files or memory registries' values.