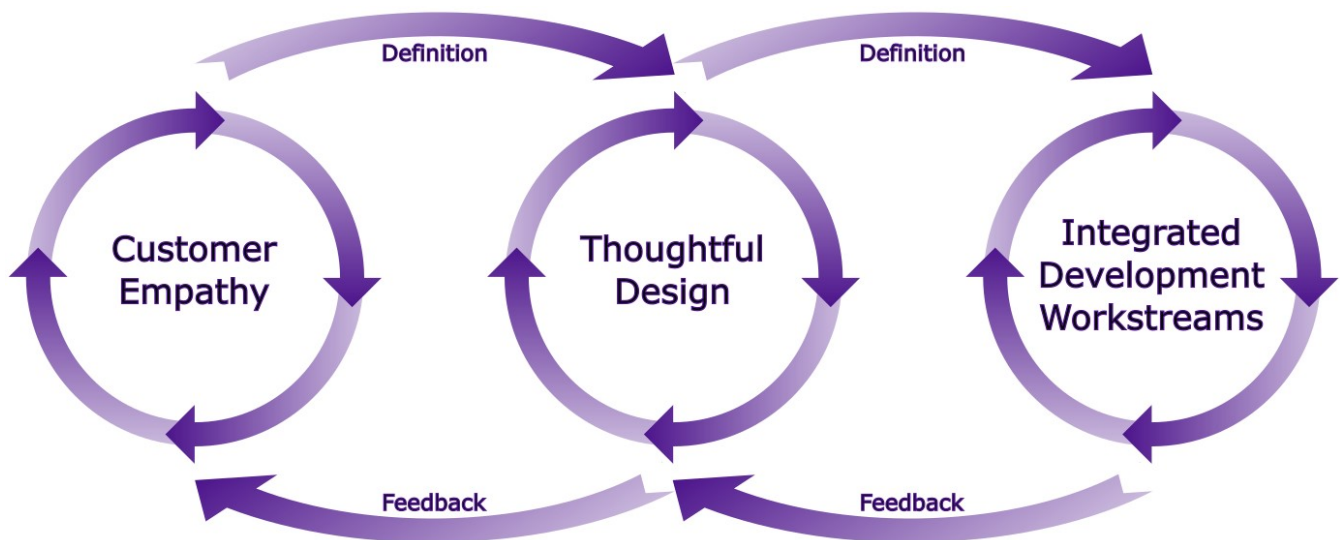


Business Analytics Development Framework

Business Intelligence and Decision Support

Promoting and enabling analytics as an integral part of making sound business decisions

The Business Analytics Development Framework is a disciplined approach to creating solution sets supporting business analytics. The framework is laser focused on the Voice of the Customer and relies on frequent iterations and feedback loops to maintain alignment and momentum through the life of a project.



This framework serves as a guide through the development process for both the customer and the development team. Development artifacts from each phase of the framework represent living documents that inform the next phase. They are then used to evaluate downstream deliverables.

Iterations are expected and *encouraged* within and between the phases of the development framework. They foster collaboration and offer the ability to course correct, when necessary.

At a Glance

Customer Empathy

Assessing and understanding customer needs through collaboratively developed Purpose Statements

Thoughtful Design

Building the blueprint for a successful solution set using low-commitment Wireframe Designs

Integrated Development Workstreams

Delivering incremental value to the customer through Data, Visualization, and Process Workstreams

Customer Empathy

Assessing and understanding customer needs

Customer Empathy is not about documenting user requirements; but rather about *understanding* the customer's business needs.

Purpose Statements developed in consultation with the customer will inform the design of the solution set by defining the scope of each user group and by identifying the specific information required to meet the stated business objectives.

There are three primary components of a Purpose Statement:

User Group (Who Needs?)

Effective analytics applications are designed to provide value to a targeted set of users. It is therefore important to properly define that user group before exploring the needs that will be satisfied through the solution set.

Individuals representing the Voice of the Customer will play a significant role through the development process.

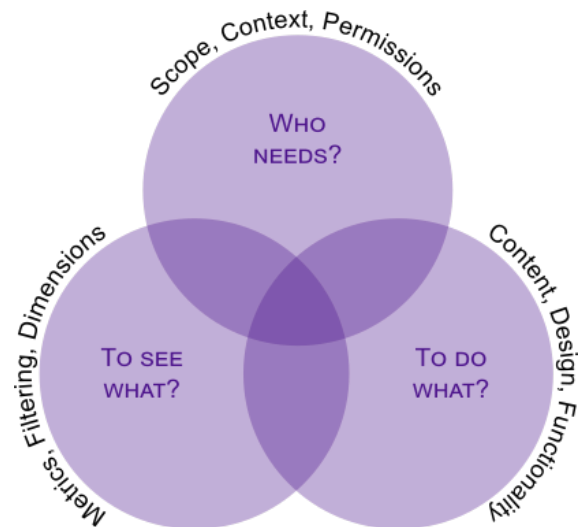
Information Needs (To See What?)

Data must be framed and presented in an appropriate context for it to be meaningful and actionable. Considerations should include prescribed calculations, units of measure, filtering, and dimensionality.

Objectives and Business Questions (To Do What?)

Ultimately, analytics applications should be designed and developed to support specific business objectives. To that end, it is critical that those objectives be fully defined.

For all but the most basic of objectives, there are multiple factors that have the ability to impact performance related to an objective. Accordingly, the Purpose Statement should include all business questions that are associated with those contributing factors.



Tactical Tidbits

Scope of User Groups

Initially, each user group should be narrow in scope.

User groups with common needs and objectives can be combined at the conclusion of the assessment process.

Discovery Sessions

Challenge preconceived ideas of what a solution should include.

It can be helpful to have customers describe their needs in plain language.

Actionable Information

Avoid the temptation to simply list a set of metrics or data points needed.

Seek to understand the types of decisions that will be made (or actions that will be taken) based on the analysis.

Thoughtful Design

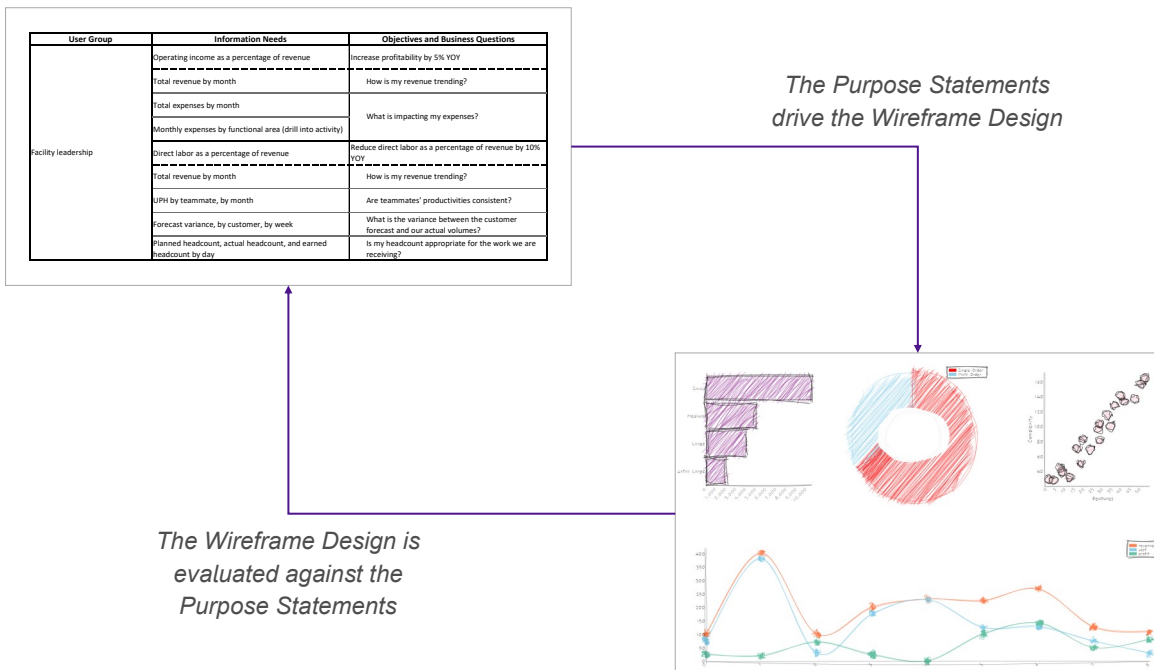
Building the blueprint for a successful solution set

As noted earlier, the Purpose Statements will be used to shape the content, design, and functionality of the analytics application.

Before leaping into development of the tool, it is helpful to mock up simple Wireframe Designs of what the application will look like. These representations can be hand drawn or created using basic graphics tools. In any case, they offer a low-cost, low-commitment opportunity to review the intended design with the customer.

Each review session offers an opportunity to revisit the Purpose Statements and to confirm that they remain valid. If so, they are used to walk the customer through the Wireframe Design. If the review session identifies opportunities to improve the Purpose Statements, those revisions should be made before continuing through the development process.

This design and review cycle continues until the Wireframe Design is approved by the customer.



Tactical Tidbits

Layout and Flow

Important information should be positioned at in the top left corner.

Use consistent flows of data (either horizontally or vertically) between sets of metrics.

Chart Types

The appropriate chart type should be used to represent information as intended.

Distinguish between comparisons, relationships, distributions, and compositions.

Visual Perception

Leverage the proper use of preattentive attributes to encode or highlight information.

Limit the number of distinct data elements based on the constraints of human short-term memory (5-7 elements).

Integrated Development Workstreams

Delivering incremental value to the customer

Development efforts occur in three primary workstreams: data, visualizations, and processes. These workstreams are interrelated and decisions in one area have the ability to impact the other two.



Data Workstreams

For new projects, it is often wise to begin with basic data sources like spreadsheets and flat text files. These data sources can be quickly and easily modified as necessary to respond to visualization changes.

As the functionality of the solution matures, more permanent data solutions can be developed and automated.

Visualization Workstreams

The Wireframe Design sets an initial course for the application but additional development is required to make the tool come to life. Considerations include expression calculations, mechanisms to permit filtering, drill-down, and other exploration, and overall user experience.

Process Workstreams

Effective analytics applications are not developed or implemented in a vacuum. Processes may need to be developed or updated as part of the complete solution set or to encourage the expected use of the final application.

Tactical Tidbits

Short Term Wins

There is often a path to deliver short term value to the customer through applications sourced by manual data extracts. Opportunities to improve the data sourcing can then be addressed.

Precise Data Requirements

Starting “with the end in mind” and launching capabilities based on manual data allows the formal subsequent data request to be more targeted than otherwise possible.

Intentional Iteration

Through all facets of development, it is a best practice to routinely check in with the customer. Stay aligned or revisit previous steps in the Development Framework.