Step 2: Explore

- Process Mapping (Current State)
- Measure process activities
- Assess value from customer’s perspective
The Explore step

- This step is about understanding and documenting the “current state”
  - Create a map of the process that accurately reflects how work gets done
  - Include measures of how long steps in the process take
  - Consider the customer’s point of view and what constitutes value
PROCESS MAPPING
What is a process?

• A process describes a sequence of events required to get results
• It is a collection of activities that takes one or more inputs and creates an output that is of value to the customer
• It is often not confined to one organizational unit
What is process mapping?

• A graphical representation of a process that shows tasks in sequence and that makes work visible

• A mechanism to clarify roles and responsibilities
  • What activities are completed by whom, and in what sequence
  • Crosses functions

• A way to uncover duplication, excessive controls, and rework points

• A tool to focus on tasks not people, steps not opinions
Why process mapping?

• Helps orient people by creating a common understanding
• Creates a baseline from which to discuss potential improvements to the process, e.g.
  • Identify areas for improvement
  • Streamline activities and eliminate waste
  • Automate processes
  • Identify metrics to improve (time, resource allocation, cost)
Why do process issues exist?

• Process was not designed well initially
• Customer needs changed but process did not
• Technology changed but process did not
• Processes and policies change over time
  • Added or removed steps, approvals, checks
• Process is dependent on a few individuals but is not documented
• Process owners rarely have the time to review
• Those working on a process do not have a mechanism to fix the process
Typical steps for process mapping

1. Identify customer and supplier
   - Process output(s) and customer(s)
   - Customer quantity, quality, and delivery requirements
   - Process input(s) and supplier(s)
   - Supplier quantity, quality, and delivery mechanism(s)

2. Identify process name & owner

3. Identify start and stop points (scope of the process)

4. Reflect the key process activities
   Tip: Most processes have exceptions; map what happens 80% of the time!
Typical steps for mapping, continued

5. Map the major process steps in sequence
6. Note information flow and technology used in the process steps and between steps

Tips:
• Simply document the current process, do not try to fix it
• Do take note of problems, frustrations, hassles, areas of concern, and good ideas in a ‘parking lot’ as you go
There are several ways to gather input to develop the process map

- Observe the process as it is happening
- Assemble people who work with the process to create the map
- One person knowledgeable of the process independently creates the map, then presents it to others familiar with the process, gets input, and revises as necessary
- Interview process participants
Cross-functional (‘swim lane’) map

• Shows relationships and handoffs between functions
• Clarifies roles in relation to the flow of events
• Helpful when analyzing process issues
  • See duplicate work across functional roles
  • Identify sources of delays
  • Understand cross-departmental issues
Example of a swim lane process map
Basic process mapping symbols

- **Process activity step**: Name of activity, task, or operation
- **Direction of flow**: Direction and order of activities
- **System**: Database or system/application
- **Delay/queue**: Process waits with no action taking place
- **Decision point**: Process branching due to results of a decision
Many processes cross unit boundaries

- Evaluate processes from an organization-wide perspective
- Move from a unit/silo perspective to a process-oriented viewpoint

<table>
<thead>
<tr>
<th>UNIT VIEW</th>
<th>PROCESS VIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>F A S</td>
<td>HIRE EMPLOYEES</td>
</tr>
<tr>
<td>E V C P</td>
<td>ACQUIRE GOODS</td>
</tr>
<tr>
<td>S C H O O L</td>
<td>MANAGE FINANCES</td>
</tr>
</tbody>
</table>
Common pitfalls of process mapping

• Too detailed
• Not detailed enough
• Focuses on systems rather than processes
• Used as a tool for problem solving rather than problem discovery
• Focuses on single tasks not overall process
MEASURE PROCESS ACTIVITIES
Measure process activities

- **Measure** n. A standard: a basis for comparison; a reference point against which other things can be evaluated. v. To bring into comparison against a standard.
  - **Measures drive improvement.** Teams who review their performance measures are able to make adjustments, share successes, and probe for causes when progress comes up short.
  - **Measures inform customers.** As a growing number of measures are reported, customers are better able to assess quality for themselves, and then use the results to make choices and ask questions.
  - **Measures influence rewards.** Increasingly, organizations use measures as the basis for recognizing achievement.
Choosing measures

- The measure is easily accessible
- There is an identified responsible entity and a process to maintain and update the measure periodically
- The measure is tested for reliability and validity
- Considerations when selecting a measure:
  - Importance
  - Scientific acceptability
  - Feasibility
  - Usability
  - Related and competing measures
Types of measures

• Time Metrics
  • **Cycle Time (CT)**: how long it takes to complete a specific task from start to finish
  • **Wait Time (WT)**: time an item is not touched or is delayed
  • **Lead Time (LT)**: Start time to finish time of the overall process 
    \( LT = CT + WT \)

• Other Metrics
  • Volume of throughput; number of transactions per period (year, week, day, etc.)
  • Number of errors
  • Customer assessment of value (e.g. performance)
# Types of measurements

<table>
<thead>
<tr>
<th>Type</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome measures</strong></td>
<td>Voice of the customer How is the system performing? What is the result?</td>
</tr>
<tr>
<td><strong>Process measures</strong></td>
<td>Voice of the system Are the parts of the system performing as planned?</td>
</tr>
<tr>
<td><strong>Balancing/Structure measures</strong></td>
<td>Looking at a system from various directions /dimensions Are changes designed to improve one part of the system causing new problems in other parts of the system?</td>
</tr>
<tr>
<td><strong>Business measures</strong></td>
<td>Voice of the business Are there regulatory requirements? Are there financial / business accounting requirements?</td>
</tr>
</tbody>
</table>
## Project measures - sample

<table>
<thead>
<tr>
<th>Metric</th>
<th>Current State</th>
<th>Future State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Time</td>
<td>19 days</td>
<td></td>
</tr>
<tr>
<td>Percent Correct</td>
<td>37%</td>
<td></td>
</tr>
<tr>
<td>Cycle Time for Step 2</td>
<td>44 minutes</td>
<td></td>
</tr>
</tbody>
</table>
Measuring the process

- Interview people who do the process
- For a set time, track exact time it takes to complete specific steps
- Add time for all steps and sum
  - Example: making toast

<table>
<thead>
<tr>
<th>Step</th>
<th>Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select bread and put in toaster</td>
<td>1</td>
</tr>
<tr>
<td>Toast</td>
<td>2</td>
</tr>
<tr>
<td>Delay: make coffee</td>
<td>5</td>
</tr>
<tr>
<td>Spread butter and cut</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total lead time</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

- Track mistakes
  - Items sent back, corrections
  - Error interactions with system (exception report)
- Get stats on the number of transactions
## Types of Data Collection

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling</td>
<td>Select representative portion of larger population for analysis</td>
<td>Staff attitudes using 85% classified employees and 15% management</td>
</tr>
<tr>
<td>Check Sheets</td>
<td>Worksheet formatted for ease of tabulation</td>
<td>Staff mark on sheet every time file is not where it should be.</td>
</tr>
<tr>
<td>Focus Group</td>
<td>Small representative group to provide feedback</td>
<td>Group session with structured interview by leader</td>
</tr>
<tr>
<td>Time Series</td>
<td>Record how much time is taken in any step</td>
<td>A document is stamped when received and the time is recorded when the next step is made</td>
</tr>
</tbody>
</table>
ASSESS VALUE FROM CUSTOMER PERSPECTIVE
Assess value from the customer’s perspective

Why is it important?

• The customer is why you exist
• Confirms what is working and what is not
• Allows focus on those problems that are of value to the customer – current and future
• Provides a variety of perspectives
• Provides quantitative data for measuring improvement
Collecting data about customer needs

- Value is determined, in part, by customer expectations and perceptions
- Multiple methods exist to gather both qualitative and quantitative data:
  - Interviews
  - Focus groups
  - Surveys
  - Existing systems
- When collecting data:
  - Create questions that are specific and easy to collect and record
  - Compile results so that management can take action based on the results
Collecting data about customer needs, continued

What keeps us from asking the customer questions?

• Old paradigms - “They are a captive audience”
• Fear of discovering what the customer really feels
• Fear that the customer does not understand the constraints under which we work
• Fear that we will act defensively
• Fear that we must incorporate all suggestions
Collecting data about customer needs, continued

• Two methods are introduced in the appendix:
  • Importance-Performance Surveys
  • Focus Groups
• Customers define the attributes to be measured
• Customize the method to the organization
• Use combination of informal interviews, focus groups, and written surveys

Note: This will likely require specialized assistance from outside the project team

CUSTOMER PERSPECTIVE: APPENDIX MATERIALS
Importance-Performance Survey Steps

1. Formulate goals, objectives, and strategies
2. Design the written survey
   • Create with end result in mind
   • Base on customer needs, concerns
   • Formulate questions by subgroup if helpful (e.g. Staff vs Managers; Internal vs External)
   • Formulate questions based on knowledge of customer needs
   • Determine if anonymous and/or confidential and follow appropriate protocols
3. Test and Revise
   • Are questions clear and unambiguous?
   • Have key issues been included?
Importance-Performance Survey Steps

4. Distribute and Collect
   • Provide sufficient time
   • Follow-up phone calls
   • Make survey easy to return

5. Tabulate and Analyze Results
   • Importance-Performance Grid
     • Easy to interpret graphical display
     • Results are relative; not absolute
     • In case of absence of low ratings, axes may be moved
   • Gap Analysis
     • Identify attributes which have the greatest disparity between importance and performance
     • May be key indicators of customer dissatisfaction
   • Importance Ranking
## Importance-Performance Survey

<table>
<thead>
<tr>
<th>Quadrant</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONCENTRATE HERE</strong></td>
<td>This quadrant requires immediate attention. Customers place high value on their items, yet are dissatisfied. Get Moving!</td>
</tr>
<tr>
<td><strong>LOW PRIORITY</strong></td>
<td>The items in this quadrant may need improvement but may not merit immediate attention due to low relative importance</td>
</tr>
<tr>
<td><strong>KEEP UP THE GOOD WORK</strong></td>
<td>This quadrant indicates superior performance in the “right” areas. How can you better leverage this superior performance?</td>
</tr>
<tr>
<td><strong>POSSIBLE OVERKILL</strong></td>
<td>This quadrant may indicate areas where resources are being ineffectively spent due to low importance to the customer</td>
</tr>
</tbody>
</table>
Focus Groups

• An interview method where:
  • Small, facilitated groups are used to collect qualitative data / feedback
  • No decisions, actions steps, or agreements need to be made by the group or the facilitator
  • Groups members have similar needs and interests related to the topic

• Focus Groups are useful to collect information such as:
  • Impressions or evaluation of programs, services, ideas, etc.
  • What’s Working and What’s Not
  • In-depth information on a specific topic
  • Elements of a process, or details of a problem
  • Information helpful in designing surveys and questionnaires
  • What people think and feel about sensitive, difficult, or confusing issues
Focus Groups Steps

1. **Define Outcomes**
   - What information do you want to collect?
   - What does the end result look like?
   - How would you make decisions based on this information?
   - What could go wrong, and how can we respond so that outcomes are achieved?

2. **Select Target Audience**
   - Formulate the questions by subgroup if helpful (e.g. Staff vs Managers; Internal vs External)

3. **Recruit Participants**
   - What lists of potential participants exist?
   - Ask people to suggest other participants
   - List-Services, Mail-groups, news-groups, etc.
Focus Groups Steps

4. Create Agenda
   • What questions should we ask? In what order?
     • Whenever possible, defer difficult or complex issues for the middle of the focus group.
   • What processes or methods will be utilized for each agenda item?
   • How much time should be allocated for each topic?

5. Develop Questions
   • An Introduction
   • The core questions which are the informational questions that drive the research.
   • A closing segment which summarizes and highlights key points, and brings closure to the meeting.

TIPS:
• Move from general to specific questions
• Use open ended questions
• Set context for question
• In general, do not use “yes”, “no”, or “why” questions
Focus Groups Steps

6. Develop the Method
   • All Talk
   • Interactive
   • Voting

7. Plan the Logistics
   • Setting up is half the work
   • Minimize distractions in the room where the interviews will be held
   • Have name tents or name tags available
   • Facilitator and Recorder should arrange themselves so they have easy eye contact with one another
   • Participants should be able to see the flip chart, each other, and the facilitator
   • The more effective the preparation, the more productive the focus group
Customer Data Collection: Planning

• Who are the customers of the process?
• What are the desired end results?
  • Anecdotal or measurable feedback?
  • Performance vs. Improvements
    • Process and system *requirements* vs. *performance*?
• Select the appropriate method:
  • Measurable → I/P Survey
  • Perceptions → Focus Groups
  • Performance → I/P Survey
  • Needs/Suggestions → Focus Groups