LEAN THINKING
BEFORE, DURING, AND AFTER YOUR PLANNING PROCESS

Devayani Puranik, Rachel Ray, Tracy Owens
City of Dublin, Ohio

August 23, 2019
AGENDA

1. Introductions
2. Why Are We Here?
3. Process Analysis: Before, During, and After
4. Practical Application
5. Conclusion and Q&A
PIEworks
PROCESS IMPROVEMENT | INNOVATION | ENGAGEMENT

13 Black Belts
40+ Green and Yellow Belts
40+ Process Improvement Projects
Since 2014
1. **Planning Applications**
Planning Commission members don’t get enough information to make informed decisions in a timely manner. Applicants have to keep going back and providing more information, which results in costly project delays. Through this process, the public doesn’t feel like they’re able to track projects and collect enough information about what applicants are actually proposing. It’s a painful process for all parties involved.

2. **Neighborhood Plan**
Your firm has been hired to create a neighborhood plan for a small community. The budget is more limited than you’d typically prefer for a project of this scale, but you know the Planning Director and have family ties to the small town and know it’s much needed, the time is ripe, and it’s a great project. And you know you need to make sure the plan is well-received and will be adopted by the end of the year.

3. **New Highway Interchange**
The MPO is working with the state DOT to plan a new highway interchange that has the potential to bring important economic development benefits to a currently struggling part of the region. There is also a park and ecologically sensitive waterway nearby. There is an urgent window to obtain funding in the next budget cycle, so the project plan has to be very thorough, well-presented, and ready to implement.
POST-PROCESS EVALUATION: 
BEGIN WITH THE END IN MIND
**POST-PROCESS EVALUATION**

**METRICS**
Measure outputs and results
Also measure drivers

\[ Y = f(x_1, x_2, ..., x_N) \]

Don’t just measure Y, measure the Xs

**ERRORPROOFING**
Prevent errors from happening in the first place
Control for variation among inputs

**MY WORST NIGHTMARE**
What is the worst thing that can happen in this scenario?
How can we prevent it from happening?
Promoting Attendance at Public Meetings

You are trying to draw a large crowd to a public meeting.

What is the WORST thing that could happen?
MEASURES OF SUCCESS

Permit is Received

Conformance to Code

Zoning Regs Followed

Building Regs Followed

Completeness of Packet

All Docs Complete and On-Time

Y - the Result

Xs - the Drivers
ERRORPROOFING

1. **Elimination**: Prevent possibility of errors
   - *Eliminate steps, remove unnecessary work, Remove Fields on a Form*

2. **Replacement**: Substitute more robust process for error-prone actions
   - *Automation, Planning Software so everyone works on the current version*

3. **Facilitation**: Make it easy to avoid errors the first time
   - *Visual controls, drop-down menus, Color-Coded Folders*

4. **Detection**: Make it easy to identify errors that do occur
   - *Real-time spell checkers, frequent metrics, Sum Reconciliation*

5. **Mitigation**: Reduce the impact of any errors
   - *Fuses, redundant servers, No Hassle Returns Policy*
DURING THE OPERATION:
MONITOR THE WORK TO PREDICT SUCCESS
DURING THE OPERATION

PROCESS MAPPING
Sketch the Current Process so Everyone Sees it Through the Same Lens
Analyze it to Look for Value and Non-Value

1ST-TIME QUALITY
Defects are bad
Scrap is bad
Rework is just as bad

PARETO CHART
Track the frequency of occurrence for each problem
Identify targets for improvement
VALUE-ADDING ACTIVITIES

Every step in a process is either:

adding Value for the Customer

or

Not Adding Value

Value-Adding process steps are those that:

Produce the Value (what the customer needs)

or

Deliver the Value to the customer

Always Strive to Minimize Non-Value Adding Steps in Your Work
REWORK
When work is not done correctly the first time:
1) It must be fixed by somebody
2) We annoy the customer by having to make the correction
3) We cannot work on something else
List of the Problems You Face
Sorted in Order of Frequency*
Look for Targets in the Tallest Bars
Lower Bars Can Be Good Targets

Then Find Ways to:
- Resolve them More Quickly
- Prevent them in the First Place

*Can also be sorted by Severity
PRE-PROCESS PREPARATION:
SET UP YOUR TEAM AND YOUR CUSTOMERS FOR SUCCESS
**VOICE OF THE CUSTOMER (VOC)**
Active and Passive Collection of Opinions and Complaints
Don’t Overreact!

**SIPOC**
High-Level Process Diagram
Matches Inputs to Outputs
Unified View of Our Work

**PRE-PROCESS PREPARATION**

**RACI**
Identifies Possible Failures
Lists Critical Outputs
Defines Owners for Actions
MOMENTS OF TRUTH

Every customer interaction is a **Moment of Truth**

Some are obvious: a service call, a town hall, placing an order over the phone

Some are less obvious: trying to use the city’s website, receiving an incorrect statement or bill in the mail, reading a comment about the city on a website or in an article

*Every Moment of Truth is a chance to improve or damage your relationship with the customer*

POLL

VOC Collection
- Large-scale surveys
- Small-scale focus groups
- Individual interviews
- On-line questions & comments
- Public meetings
- Wait for complaints
# SIPOC – THE TOOL FOR A POSITIVE START

**Project Name:** Growing Tomatoes  
**Project Scope:** Process of growing tomatoes, from obtaining seeds to harvest.

<table>
<thead>
<tr>
<th>Sources</th>
<th>Inputs (Xs)</th>
<th>Process</th>
<th>Outputs (Ys)</th>
<th>Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalogue or garden store</td>
<td>Seeds (appropriate for growing location, taste preferences)</td>
<td>1) Get seeds</td>
<td>Ripe Tomatoes</td>
<td>• Me!</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Color</td>
<td>• Family</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Size</td>
<td>• Friends &amp; Neighbors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Taste</td>
<td>• Farmer’s Market</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Sufficient water</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Sufficient sunlight</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Protected growing area</td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>Location with sufficient sun, access to water, protection from traffic &amp; pests</td>
<td>2) Find the best spot to plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garden store</td>
<td>Dirt (suitable for tomatoes and growing location)</td>
<td>3) Get dirt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catalogue or garden store</td>
<td>Seeds, Shovel</td>
<td>4) Plant seeds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home, garden store</td>
<td>Water, Hose or Watering Can (frequency, quantity)</td>
<td>5) Water seeds</td>
<td>Rotten Tomatoes</td>
<td></td>
</tr>
<tr>
<td>Home, garden store</td>
<td>Frame or cage; Fencing and/or netting; Weeding (frequency, type)</td>
<td>6) Manage the growing process</td>
<td>• Size</td>
<td></td>
</tr>
<tr>
<td>Gardener</td>
<td>Timing/conditions (when tomatoes are ready to pick)</td>
<td>7) Harvest tomatoes</td>
<td>• Taste</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Pests</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Blight</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Forgetfulness</td>
<td></td>
</tr>
</tbody>
</table>
RACI – SO EVERYONE KNOWS WHAT EVERYONE OWNS

<table>
<thead>
<tr>
<th>Growing Tomatoes</th>
<th>Gardener</th>
<th>Spouse</th>
<th>Child</th>
<th>Farm Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get seeds</td>
<td>A</td>
<td>R</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Look for right spot</td>
<td>A</td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get dirt</td>
<td>A</td>
<td>I</td>
<td>R</td>
<td>C</td>
</tr>
<tr>
<td>Plant seeds</td>
<td>A</td>
<td>I</td>
<td>I</td>
<td>C</td>
</tr>
<tr>
<td>Water seeds</td>
<td>I</td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Manage the plant growing process</td>
<td>A</td>
<td>R</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>Harvest tomatoes</td>
<td>A</td>
<td>R</td>
<td></td>
<td>I</td>
</tr>
</tbody>
</table>
ANALYZE THE PROCESS FROM BACK TO FRONT

Before Work
- SIPOC
- VOC & RACI

During Work
- Process Maps
- First-Time Quality

After Work
- Measures of Success
- Error Proofing
PRACTICAL APPLICATION OF LEAN IN PLANNING
Devayani Puranik
Senior Planner
City of Dublin
614-410-4662
Dpuranik@dublin.oh.us

Rachel Ray
Economic Development Administrator
614-410-4630
Rray@dublin.oh.us

Tracy Owens
Process Improvement
3 Point Consulting Ltd
614-602-7511
3-point@att.net