



PROCESS IMPROVEMENT WITH DATA ANALYTICS

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Learning Objectives



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- Big Picture
- Process Improvement Goals
- Process Improvement Steps
- Data Points
- Data Analysis
 - Flowchart
 - Trend Analysis
 - Check Sheet



"Information is the oil of the 21st century, and analytics is the combustion engine."

- Peter Sondergaard

Former Executive Vice President,
Gartner Research & Advisory, Gartner

Big Picture



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Present

- Organization
- Technology
- Processes
- Data & Digital



Ideal

- No Limits
- No Rules
- Only Value Add



Future

- Value Add
- Eliminate Non-Value Add
- Required Non-Value Add

Process Improvement Goals



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- Mapping existing processes (Conference Registration)
 - Process Changes
 - Improve Quality (First Pass Yield)
 - Reduce Rework
 - Reduce Errors
 - Reduce Costs
 - Accelerate Schedules (Customer Service)
 - Questions to Ask: “Who?” and “Why?”
-

Process Improvement



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Analysis

- Process Modelling
- Quantitative Analysis
- Data Gathering



Improvement

- Quality
- Cycle Time
- Customer Service
- Bottlenecks



Change

- Modify Process
- Future State
- End State



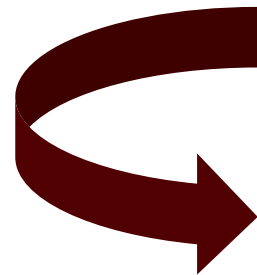
Training

- Train Staff
- Develop Documentation
- Change Management

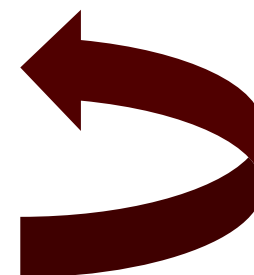


Tuning

- Revise Changes
- Evolution



REPEAT



- Need for Accurate Data
 - What is Accuracy?
 - What Causes Inaccuracy?
 - Why do Organizations Struggle?
 - Time Taken to Complete Activities (Cycle Time)
 - Resources Required (Labor, Materials, Equipment, etc.)
 - Number of Defects (Rework, Invalid, Incorrect Routing)
-

Data Analysis



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1

- **Specify Requirements**
 - Problem or Question
 - Understand End Goal

2

- **Prepare/Collect Data**
 - Where is the data found?
 - Best Approach to Report

3

- **Clean and Process**
 - No Redundancies
 - Relevant to the Problem

4

- **Analyze**
 - Trends
 - Statistical Analysis

5

- **Share**
 - Visualization
 - Pertinent to Requirements

6

- **Act/Report**
 - Presentation
 - Go/No Go Decision

Flowchart

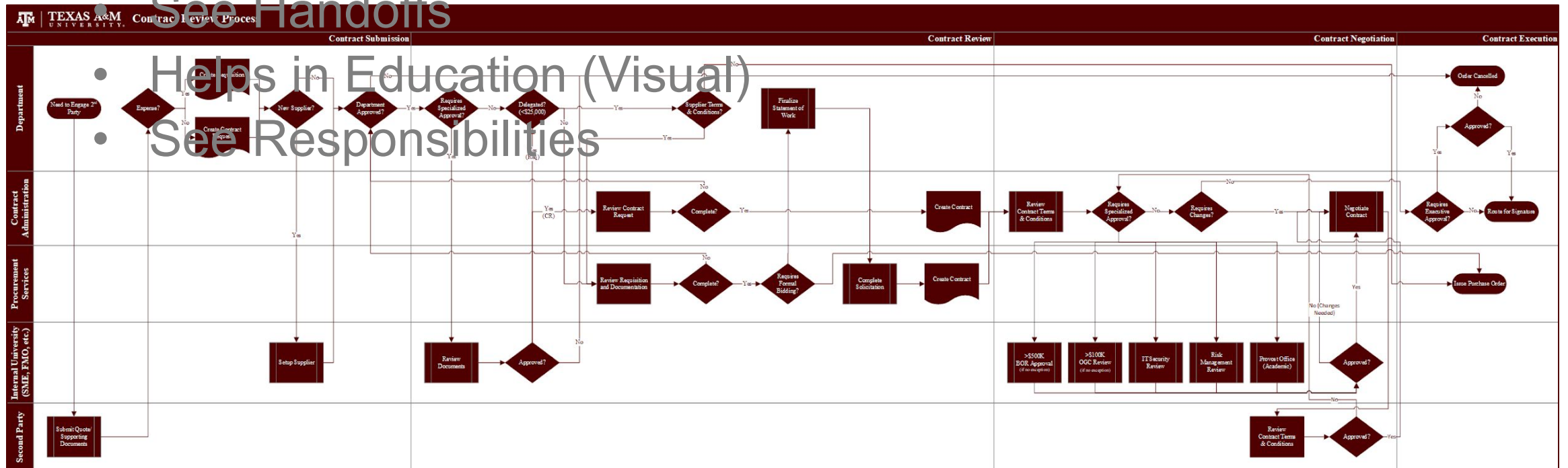


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- Pictorial Representation
- Standard US Icons
- See Handoffs & Decisions

See Handoffs

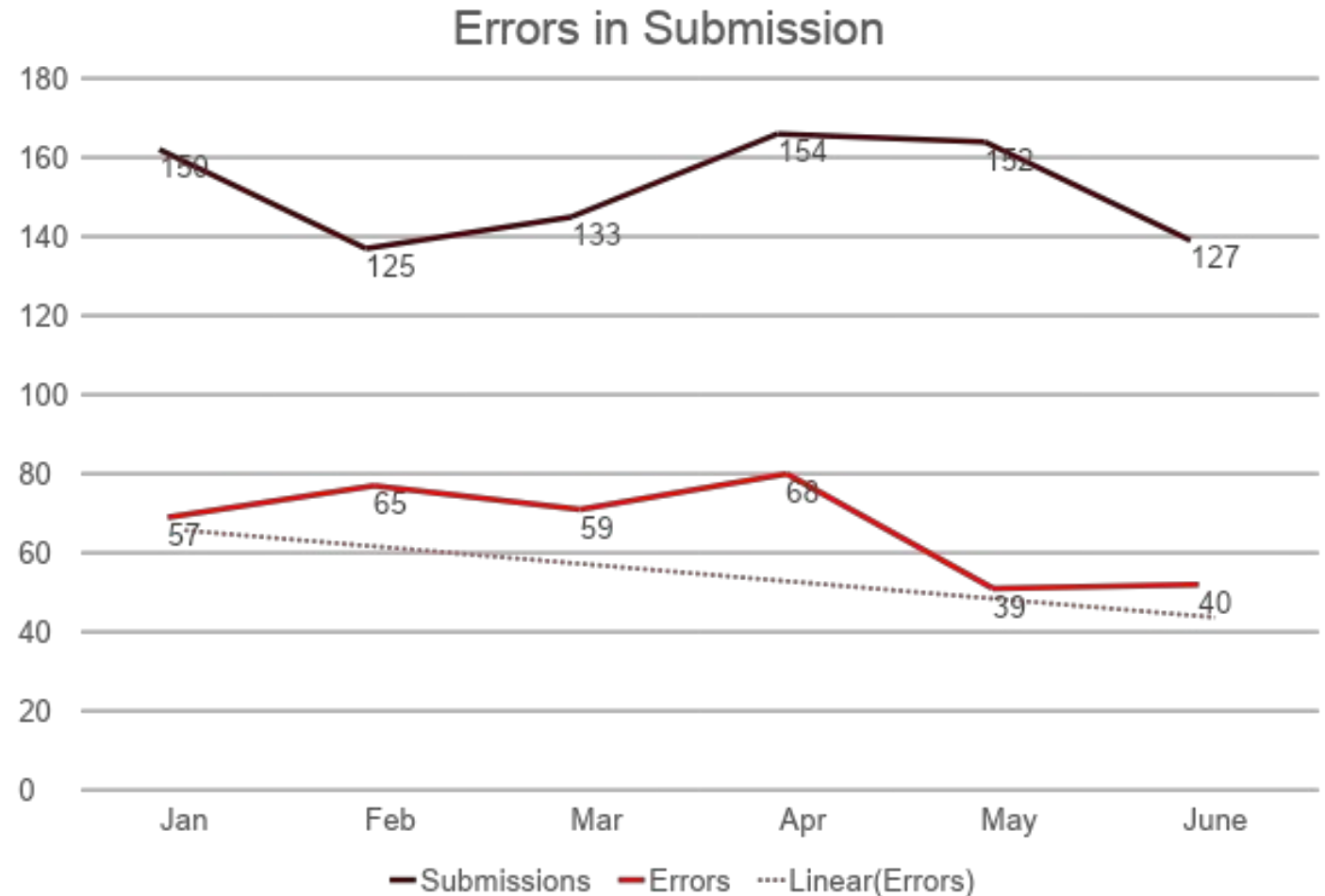
- Helps in Education (Visual)
- See Responsibilities



Trend Analysis



- How many documents were submitted? With errors?
- % of submitted
- What happened in April/May?
 - Training
 - Turnover
 - Errors weren't caught



Check Sheet



1. What will be observed?
2. How long will it be observed?
3. Design the form to be simple
4. Label all spaces
5. Test for trial period
6. Record data

Telephone Interruptions

	Wrong Number	Information Request	Boss	Total
Monday	###			11
Tuesday				6
Wednesday			###	9
Thursday	###			8
Friday	###			13
TOTAL	20	10	17	47



Questions?



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