



*Lean Academia:  
Applying Lean Principles to  
Higher Education*

## *BACKGROUND*

- **Summer 05 - Lean Academia Opportunity Surfaced**
- **JUL 05 - Board Of Regents Visit Vermeer**
- **NOV 05 - ISU & Vermeer Start Grant Application Process Map**
- **Process Improvement Occurs (Chitra Rajan)**
- **Events Planned**
- **Pre Event Data Gathering Work Occurs**
- **JUN 06 – Kaizen Events At ISU**
- **AUG 06 – 30 Day Follow-up**
- **60/90 Day Follow-up**
- **Future Events???**

## *PRE-AWARD TEAM*

- **Event Scope**

**Faculty & Industry Discussions Concerning Research Opportunities To An Agreement Delivered To Industry Team (OSPA)**

- **Event Objectives**

- 1. Decrease Time Required To Complete Agreements By 25%**
- 2. Reduce Number Of Steps By 30%**
- 3. Reduce Negotiation Turn-around Time By 20%**

## *PRE-AWARD TEAM MEMBERS*

Role	Name	University/Company	Group
Facilitator:	Jim Scott	Guidon/TBM	VP
Leader:	David Corbin	Vermeer	Manufacturing
Member:	Max Porter	ISU	CCEE Dept.
Member:	Gary Gillet	ISU	OSPA
Member:	Diane Meyer	ISU	OSPA
Member:	Ken Kirkland	ISU	Research Foundation
Member:	Lisa Lorenzen	ISU	Industrial Relations
Member:	Matthew Bailey	Pioneer	Contracts
Member:	Kevin Smith	Pratt & Whitney	Program Mgmt
Member:	Kathryn Berry	Rockwell Collins	CI
Member:	Steve Carignan	UNI	Admin & Finance
Member:	Ann Rickets	UI	OSPA

## *POST-AWARD TEAM*

### **Event Scope**

- **Agreement To Account Setup**

### **Event Objectives**

1. **Decrease the time required to complete the process by 25%**
2. **Reduce the number of steps involved by 30%**
3. **Establish key points for communicating progress and develop visual tracking mechanism**

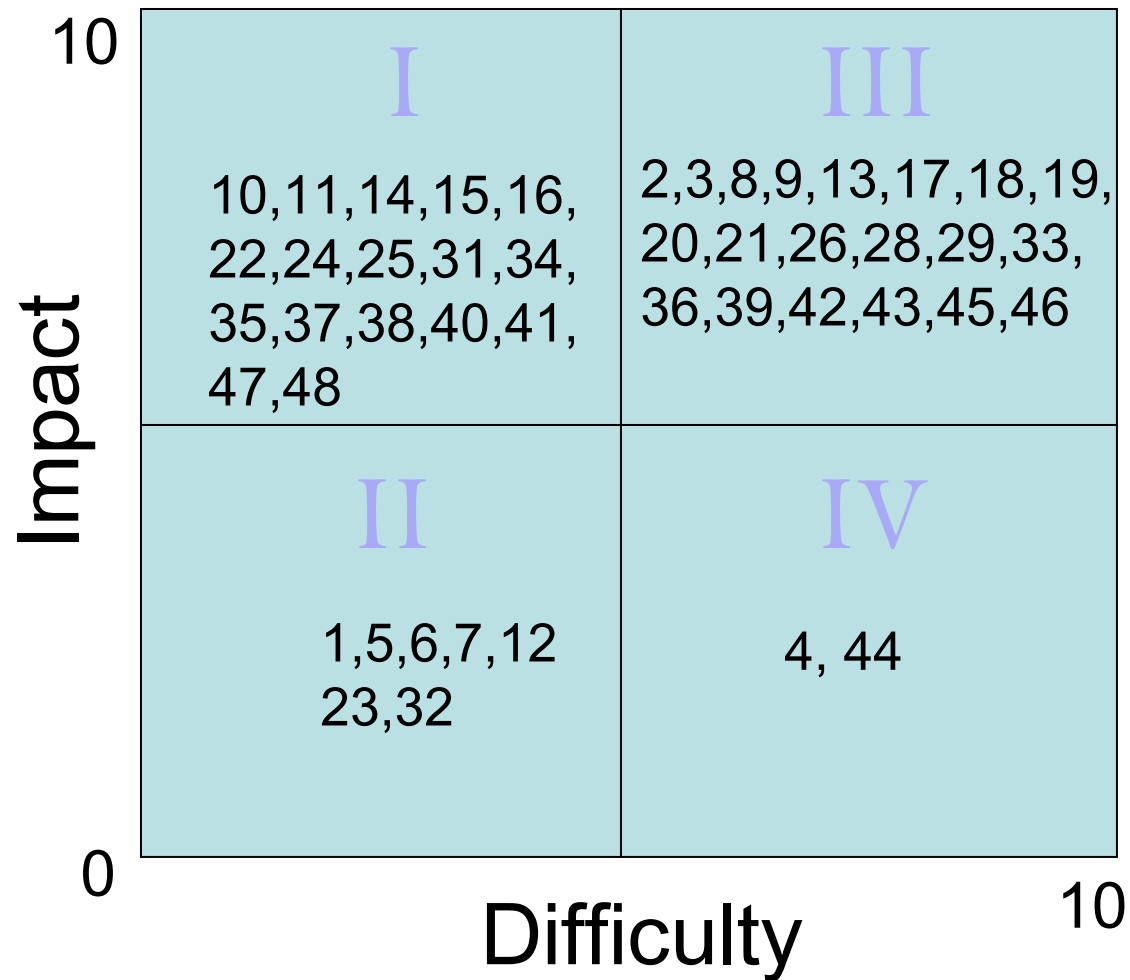
## *POST-AWARD TEAM MEMBERS*

<b>Role</b>	<b>Name</b>	<b>University/Company</b>	<b>Title</b>
<b>Facilitator</b>	Jim Scott	Guidon/TBM	Vice President
<b>Team Leader</b>	Louis Norton	Vermeer Mfg Co	CI Manager - BP
<b>Member</b>	Laura Reed	University of Iowa	Organizational Effectiveness and Worklife Services
<b>Member</b>	Dean Shoars	UNI	Director of Physical Plant Administration
<b>Member</b>	Becky Musselman	ISU	SPA Manager
<b>Member</b>	Tammy Polaski	ISU	OSPA Assoc Director
<b>Member</b>	Jeff Klein	ISU	SPA Accountant
<b>Member</b>	Jamy Rentschler	ISU	OSPA Budget Analyst
<b>Member</b>	Deb Matney	ISU	OSPA Assist. Director
<b>Member</b>	Carolyn Cutrona	ISU	Professor & Director Institute of Social and Behavior Research
<b>Member</b>	Kathy Dobbs	ISU	Associate Controller
<b>Member</b>	Sharon Prochnow	ISU	Program Coordinator: Center for Transportation Research and Education
<b>Member</b>	Venita Currie	ISU	Academic Fiscal Officer: College of Liberal Arts and Sciences
<b>Member</b>	Lynette McBirnie	ISU	Administrative Specialist GDCB Department
<b>Member</b>	Cheryl Sansgaard	ISU	Administrative Specialist IPRT
<b>Member</b>	Jody Sanders	ISU	OSPA Assistant Director

# PROCESS MAPPING



## *IMPACT DIFFICULTY MATRIX*



## *IMPROVEMENT EXAMPLES*

- **Project Investigators Better Prepared**
- **Agreement & Project Management Tools “Mistake-Proofed”**
- **Upfront Agreement & Project Management Documentation Enhanced**
- **Project Approval Process Streamlined (& Separated)**
- **Eliminate At Least One Budget Review Loop**
- **Clerical Work Re-assigned To Clerical Staff**
- **Negotiation Process Streamlined**

## *PRE-AWARD TEAM KAIZEN RESULTS*

<b>Improvement Measure</b>	<b>Before Kaizen</b>	<b>Kaizen Objective (% Improvement)</b>	<b>Actual Achievement</b>	<b>%</b>
Decrease Time (AVG Delay)	137 Days	25%	53	38% REDUCTION
Reduce Steps	43 Steps	30%	37 Steps	14% REDUCTION
Reduce Negotiating Turnaround Time (AVG)	60 Days	20%	25 Days	58% REDUCTION

## *PRE-AWARD KAIZEN FOLLOW-UP*

<b>Item</b>	<b>Item Description</b>	<b>Responsible</b>	<b>Time</b>		
1	<b>Develop Tickler List For Matrix</b>	<b>Lisa L.</b>	<b>3 Mos</b>		
2	<b>Develop Training Material For PI &amp; Industry</b>	<b>Lisa L.</b>	<b>4 Mos</b>		
3	<b>Develop Training For Departments On Budgets</b>	<b>Diane M.</b>	<b>2 Mos</b>		
4	<b>Gather &amp; Share Lessons Learned</b>	<b>Gary G.</b>	<b>6 Mos</b>		
5	<b>Create Waiver Forms</b>	<b>Lisa L.</b>	<b>1 Mo</b>		
6	<b>Developed Improved Gold Sheet</b>	<b>Chitra R.</b>	<b>12 Mos</b>		
7	<b>Create Standard Terms &amp; Conditions</b>	<b>Ken K.</b>	<b>9 Mos</b>		
8	<b>Develop Standard Work For Weekly Meetings</b>	<b>Gary G.</b>	<b>1 Wk</b>		
9	<b>Explain &amp; Provide Options For Revisions To Company</b>	<b>Gary G.</b>	<b>1 Wk</b>		
10	<b>Develop Conference Call Standard Work For Complex Contracts</b>	<b>Gary G.</b>	<b>1 Wk</b>		

## *POST AWARD TEAM KAIZEN RESULTS*

<b>Improvement Measure</b>	<b>Before Kaizen</b>	<b>Kaizen Objective (% Improvement)</b>	<b>Actual Achievement</b>	<b>%</b>
Decrease Process Time	16 Days	25%	10 Days	38% REDUCTION
Reduce Steps	86 Steps	30%	29 Steps	66% REDUCTION
Establish Visual Tracking	Limited	N/A	4	

## POST AWARD KAIZEN FOLLOW-UP

<b>SHORT TERM</b>		
<b>What are we going to do?</b>	<b>Who is going to do it?</b>	<b>When is it going to be done?</b>
Analyze the volume by College/ Admin Unit to identify a target group for the pilot-look at volume for proposals, awards, and post-award	Jeff Klein & Jamy Rentschler	0-30 days
Identify the members of the pilot resource cell	Becky Musselman & Chitra Rajan	0-30 days
Define resource cell member's responsibilities	Becky Musselman & Chitra Rajan	0-30 days
Identify the location for the pilot resource cell	Kathy Dobbs & Chitra Rajan	0-30 days
Identify systems within OSPA & SPA and establish needed access for members	Troy Nichols & Diane Meyer	0-30 days
Establish base line metrics and discuss desired areas of improvement	Resource Cell Group	0-30 days
Implement Pilot Resource Cell Group- relocate 3 core resource cell members to determined location	Kathy Dobbs & Chitra Rajan	30-60 days
Establish a Unit Coordinator with the appropriate duties & responsibilities	Target Group (College & Admin Units)	30-60 days
Look into in house web based work flow software that is already on campus (FAMOUS)	Kathy Dobbs & Chitra Rajan	30-60 days
Meet with key members in the Target Group to explain the new Resource Cell and discuss how it will impact them	Resource Cell, Becky Mussleman & Chitra Rajan	30-60 days
Hold a special Grant Coordinators meeting to explain the pilot process and goals	Jody Sanders & Sharree Rupert	30-60 days
Establish the most critical metrics and identify the desired goals	Jeff Klein & Jeanne VandeVoort	30-60 days
<b>LONG TERM</b>		
Establish a Grant Coordinator Certification Program	Troy Nichols & Diane Meyer	9 months
Establish a Web CT and a 24/7 training programs for campus community	Shona Roberts & Kshitja Kelkar	18 months
Combine the locations of OSPA & SPA	Senior Administration	18 months
Implement new web based system through Access Plus	ATS	18 months

# IOWA STATE UNIVERSITY

OF SCIENCE AND TECHNOLOGY

## *OBSERVATIONS*

