



**PURDUE** **NURSING**  
BUILDING A LEGACY, SHAPING THE FUTURE

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# Quality Improvement in an Academic Organization: A Lean Approach

# Learning Objectives

- Describe steps in a Lean project that led to an improved teaching assistant orientation
- Identify Lean tools used to improve the teaching assistant orientation process within an academic organization

## Disclosure Statement:

The presenters have no personal financial relationships with commercial interests relevant to this presentation to disclose.

# Background of Lean

Manufacturing Systems



Health Care Settings



Academia



(Hakim, 2014; Houchens & Kim, 2014; Lean Enterprise Institute, 2009)

# What is Lean?

1. Specify value from the customer's perspective
2. Identify and eliminate waste
3. Create flow without interruptions
4. Pull value into the process
5. Pursue perfection



(Lean Enterprise Institute, 2009)

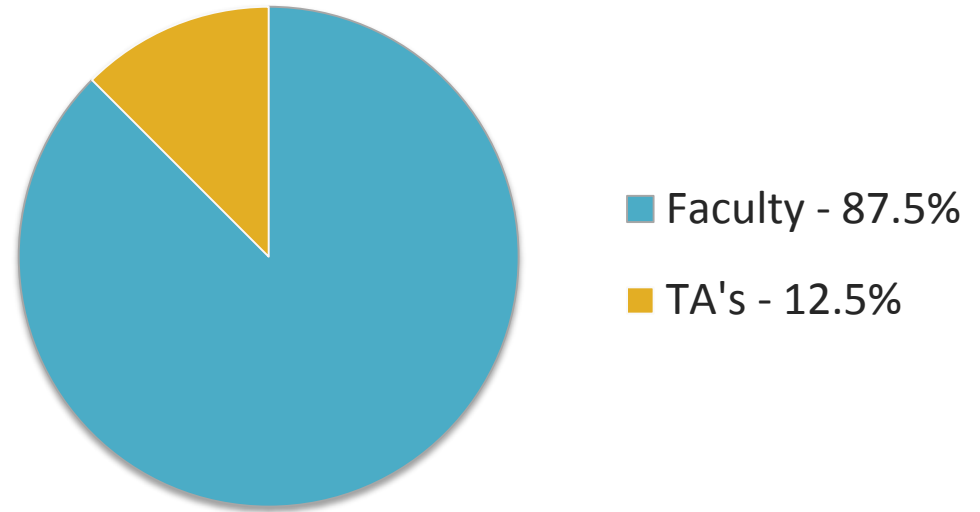
# Using a Lean Approach in Academia

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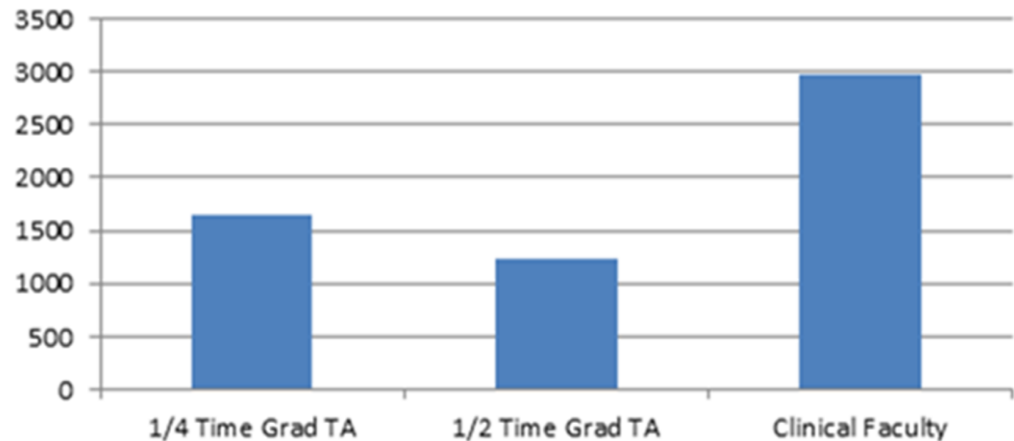
- ✓ Higher education has customers
- ✓ Education's mission is to add value to the end customer
- ✓ Customers have “wants” and expect certain outcomes
- ✓ Processes across the university could be analyzed from a value perspective

# Teaching Assistants

## Undergraduate Clinical Teaching Staff

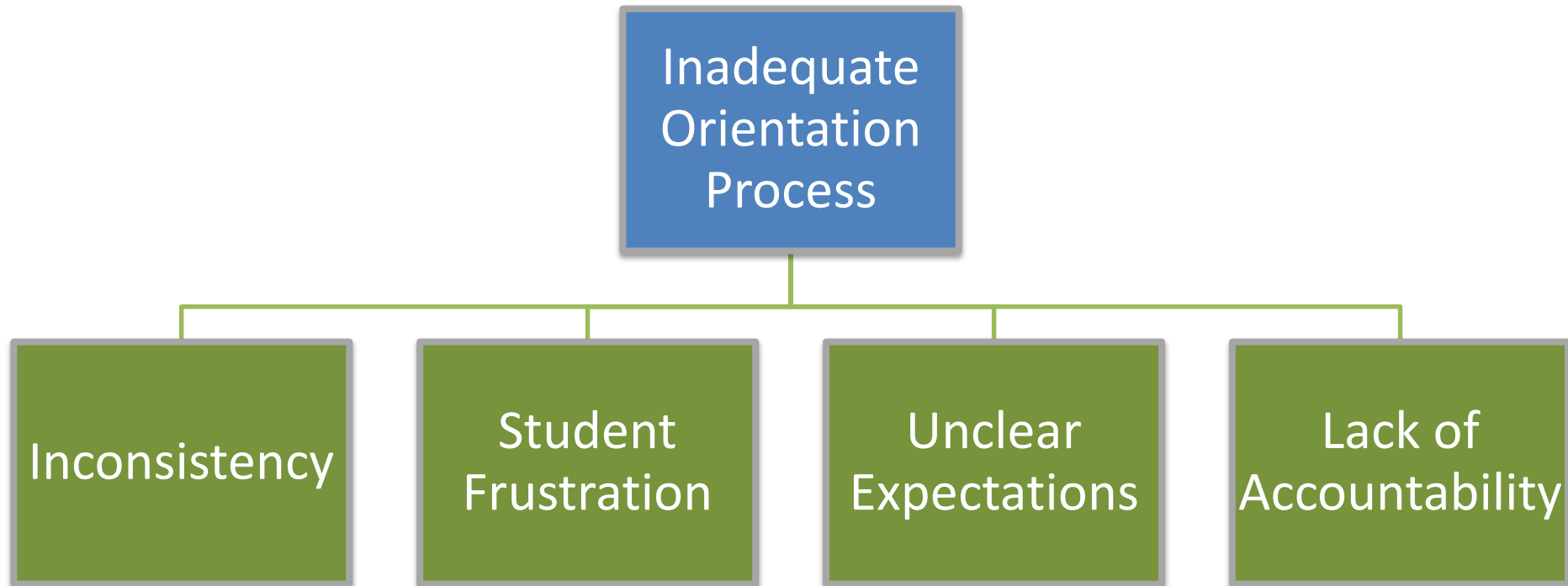


## Cost Comparison for 2 Credit Clinical Course



# Defining the Problem

The policy/process for Teaching Assistant (TA) Orientation was not clearly delineated.

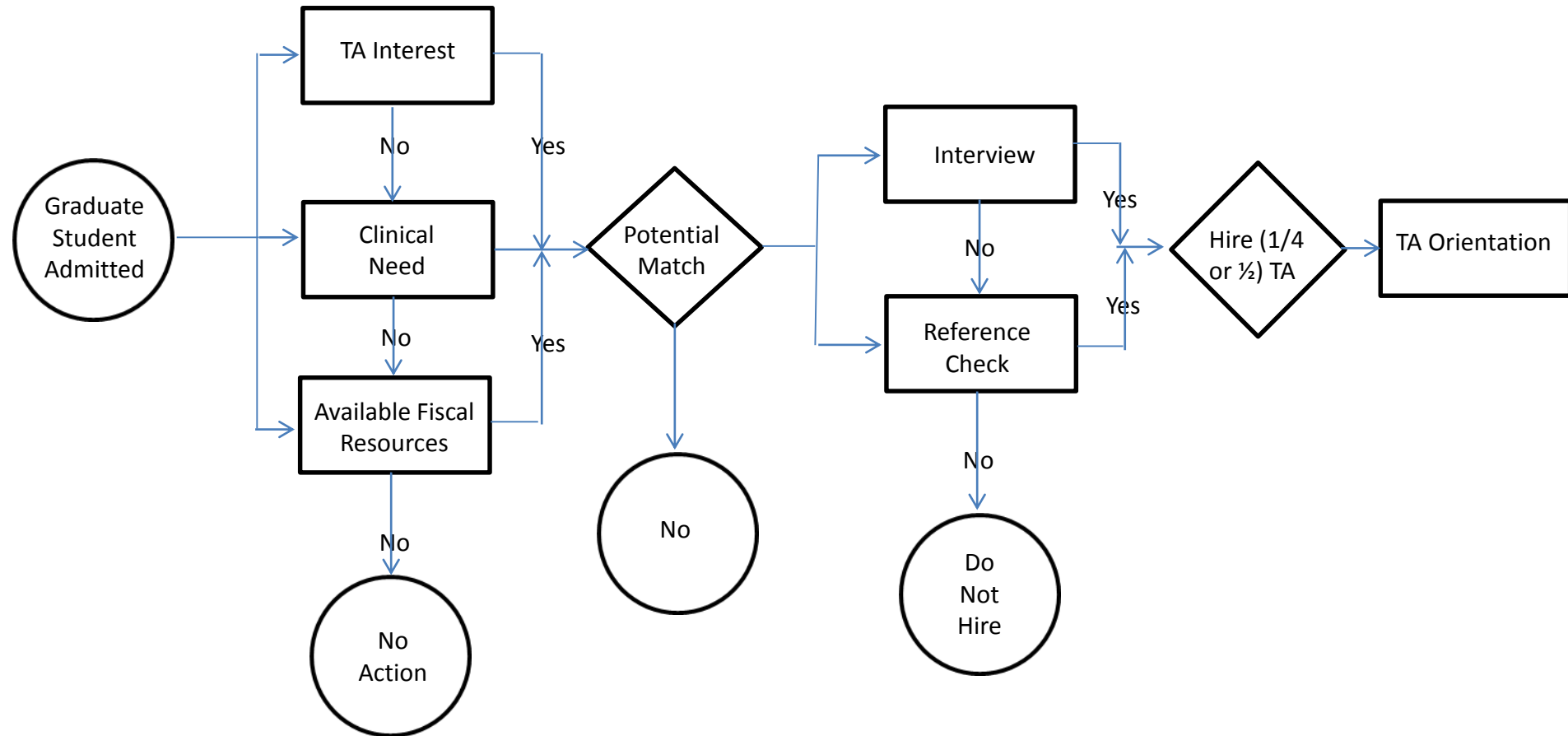


# Project Goals

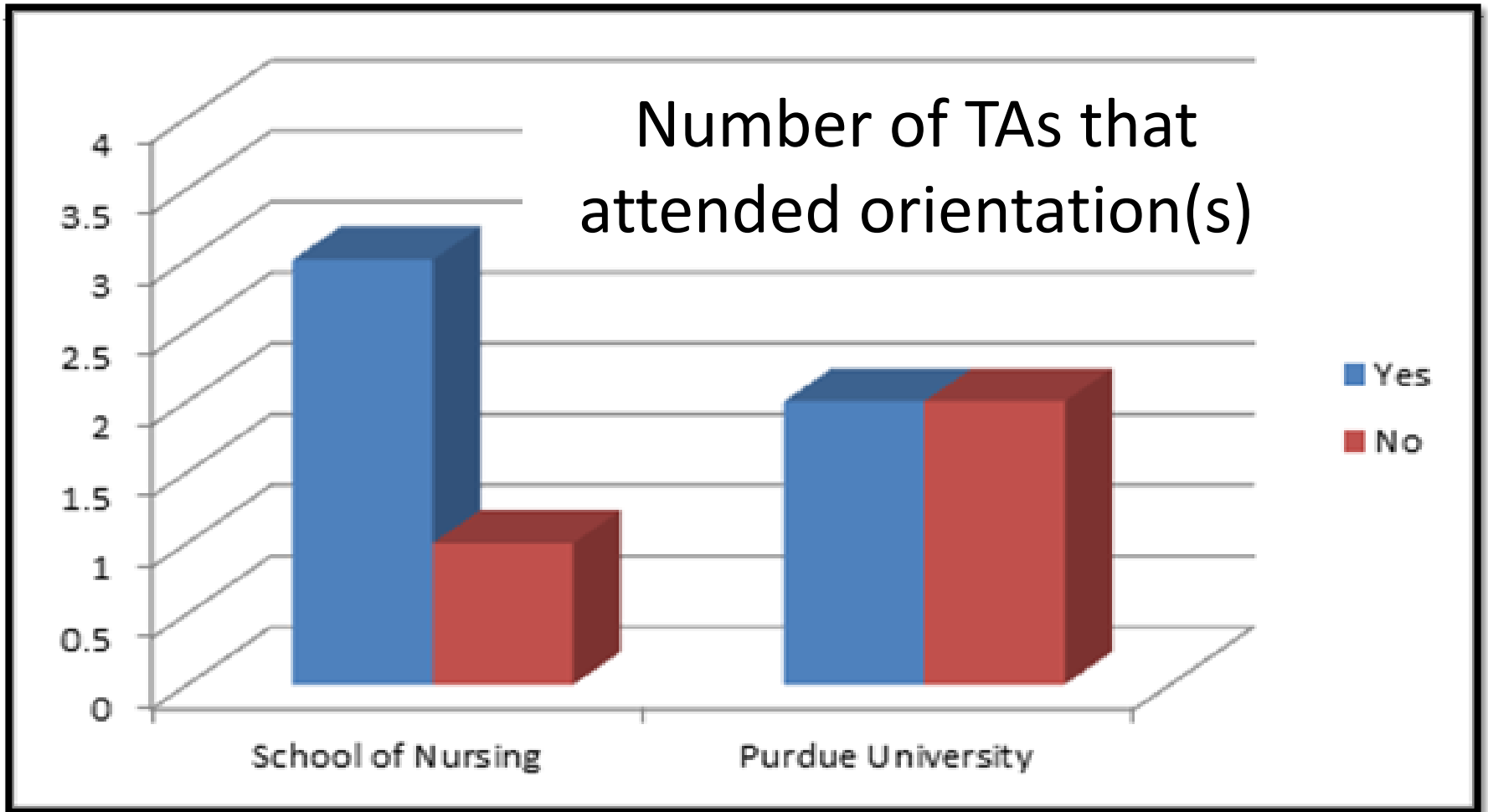
- The purpose of this project was to redesign the process of TA orientation in the school of nursing using Lean principles to improve *flow* and reduce *waste*.
- This project focused on the time period from when the TA had been accepted as a graduate student through being matched with and starting as a teaching assistant in a course.



# Measuring the Current State



# Voice of the Customer Survey

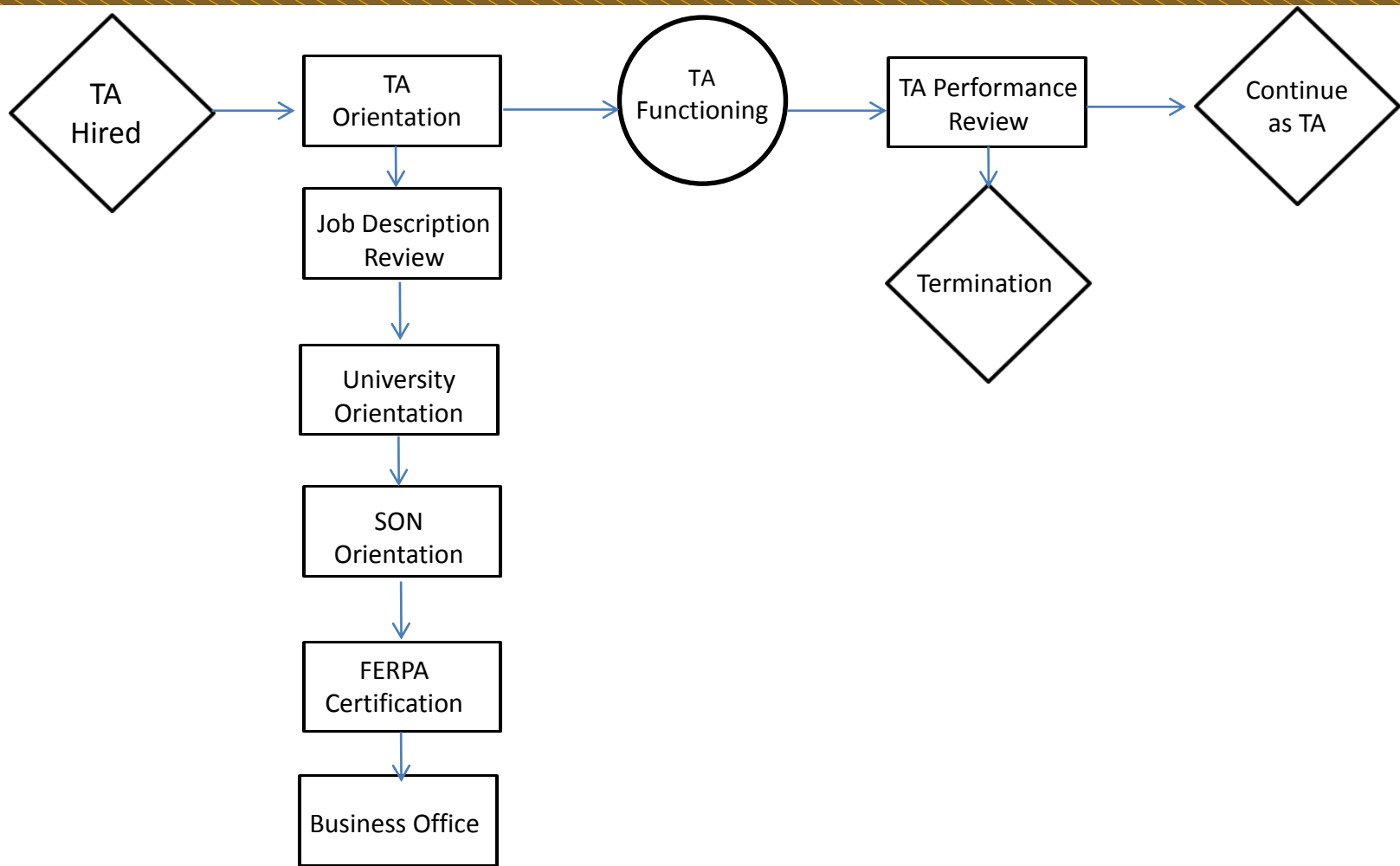


# Root Cause Analysis

## ***5 Why's: There is an inconsistent completion of orientation by the TAs entering the School of Nursing (SON).***

1. The TAs have competing priorities upon entrance to SON.
2. They are overextended between family, work, school, and TA responsibilities.
3. The TA position is then added to all of their current responsibilities.
4. Unrealistic expectations of self
5. SON expectations are unclear

# Improving the Process



# Solutions to Root Cause

- Attending mandatory orientation
- Completing FERPA training
- Meeting with designated key faculty
- Reading the TA handbook
- Reading the revised TA job description
- Signing a responsibility contract

*The orientation packet is stored in an electronic folder that can be easily accessed by TAs.*

# Timeline

Tasks	9/15/2013	9/22/2013	9/30/2013	10/7/2013	10/14/2013	10/21/2013	10/28/2013	11/4/2013	11/11/2013	11/18/2013	11/25/2013	12/2/2013	12/9/2013	12/16/2013	1/6/2014	1/20/2014				
Initial Meeting	Complete	Team																		
Develop Problem Statement	Complete	Team																		
Develop stakeholder survey		Complete	Karen																	
Determine current TA Orientation Process		Complete			Vicki															
Administer Survey		Complete	Complete	Complete	Complete	Vicki														
PFM				Complete	Complete	Pam														
Complete root cause analysis					Complete	Team														
Develop goal for project					Complete	Team														
Identify potential solutions					Complete	Complete	Complete	Team												
Obtain current TA orientation materials							Complete	Complete	Complete	Complete	Becky, Pam & Kristen									
Develop TA orientation process									Complete	Complete	Complete	Team								
Create a checklist/handbook for TA orientation										Complete	Complete	Becky/Pam								
Complete Improve section										Complete		Team								
Determine placement for Orientation Materials										Complete	Complete	Team								
Put all documents together for orientation										Complete	Complete	Complete	Complete	Becky & Pam						
Implement new process for orientation														In progress	In progress	In progress	Process Owner			
Measure post implementation															In progress	In progress	Process Owner			

KEY	
Complete	Complete
In progress	In progress
Late	Late

# Measurable Outcomes

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- 100% of tools for TA orientation were created and uploaded into the SON shared drive
- New TAs that were hired this fall were given orientation packets by the Director of Undergraduate Programs
- 100% of TAs attended mandatory orientation Fall 2014

# Sustaining & Monitoring Changes

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- Routine business practice of hiring and processing a TA in the SON
- Process owner identified as the Undergraduate Program director
- Project team will continue to meet quarterly for one year to ensure the policy change has been effective





# Lessons for the Field

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- Lean methods can be a leadership approach to quality improvement in the academic setting to improve processes and reduce waste
- Lean tools, such as current and target state maps, are useful in identifying how to achieve an organization's academic mission
- Lean can be incorporated into the curriculum to educate students as more faculty are trained in Lean

# Discussion

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Questions?

# References

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# Responsibility Contract

Directions: The TA should complete this form and provide a copy to the Undergraduate Program Director for placement in the student's file.

**Please provide a  $\checkmark$  in the box verifying completion of the following items:**

## Activities Completed

- Mandatory University Teaching Orientation (attended on campus or completed online)
- Mandatory TA Orientation for the SON
- Mandatory FERPA Certification
- Meeting with Course Coordinator
- Meeting with Faculty Mentor
- Meeting with Undergraduate Program Director

## Materials Reviewed

- Teaching Assistant Handbook
- Teaching Assistant Job Description
- Course Syllabus

My signature below indicates I have completed all of the required activities above. Additionally, my signature indicates I have read, completed, and understand all of the materials above, and hereby agree to comply with all components of these documents.

# TA Handbook

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## Includes:

- TA responsibilities
- Tips for success
- Chain of communication
- University and departmental resources
- TA job description
- TA evaluation tool
- Job aid on reserving classrooms