




Quality & Simulation: Developing a Performance Improvement Plan for Your Simulation Program

Gail Johnson



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Learning Objectives

1. Describe two benefits of developing a performance/quality improvement plan.
2. Analyze components of an effective performance or quality improvement plan.
3. Apply strategies to create a performance improvement activity for your simulation program.

Overview of Main Topics

- Introduction
- Overview PI/QI Improvement
- Components of a PI/QI plan
- PI/QI plan review
- Improvement projects
- PI Tools
- PI activity

Why Evaluate?

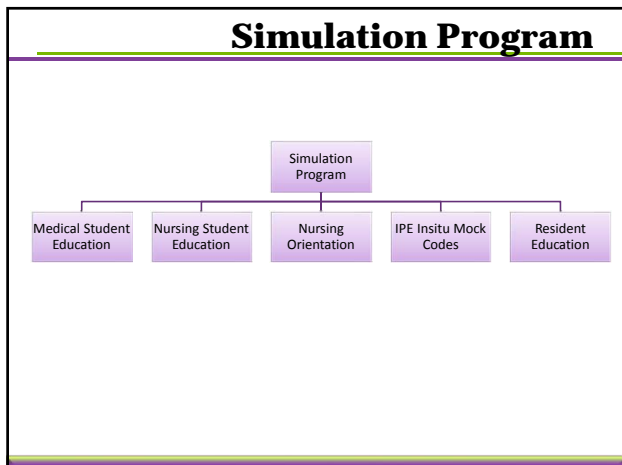
- Show value
- Provide quantifiable metrics
- 1 way to identify opportunities for improvement
- It is a simulation accreditation standard

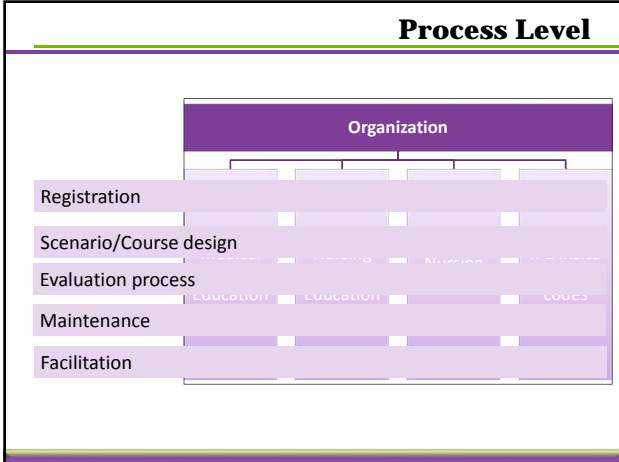
How do you identify what to evaluate

- Organizational initiatives
- National initiatives
- Previous PI initiatives/projects
- Things important to your program
 - Process
 - Course/learners



Xanadu Simulation Center Quality Indicators				
Indicator Type		Definition	Desired Direction	Target
Stewardship	1.	Revenue: % of revenue stream from external participants/groups	↑	35%
Experience	2.	Participant satisfaction: % of participants that rate value of course/activity at least 9/10.	↑	90%
Experience	3.	Facilitator Effectiveness: % returned DASH tools scoring ≥ 6	↑	80%
Experience	4.	Evaluations returned: % of online evaluations completed	↑	80%
Health	5.	Time to first shock: % shocks in less than 2 minutes from insitu mock codes	↑	90%



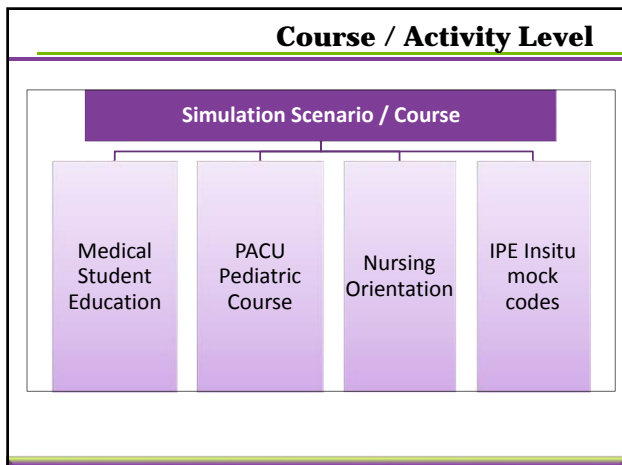


Process Level

- Goals
 - Identify the processes that are most critical to the strategy and establish goals that describe the performance required of those processes

Process Indicators & Metrics

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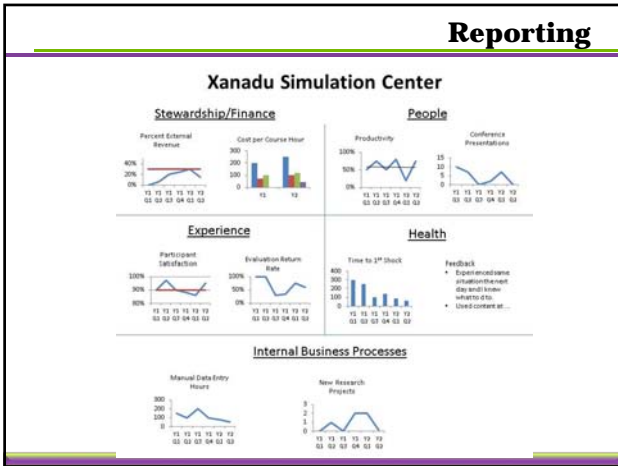


Job/Course Indicator

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Xanadu Simulation Center Data Collection Plan				
Indicator Type	Quality Indicator	Data Source	Collection Method	Collector
Stewardship	Revenue	Lawson report	Quarterly	Director
Experience	Participant satisfaction	Course / activity evaluations	Participants complete evals for at least 90% of activities (100% of CME/CNE activities)	Educator
Experience	Facilitator Effectiveness	DASH tool	Twice/year for all facilitators	Director
Experience	Evaluations returned	LMS	Monthly	Director
Health	Time to 1 st shock	ACCESS database	Quarterly	Educator



Quality Improvement

- A planned systematic approach to monitoring, analysis and improvement of performance to achieve optimal patient outcomes and patient experience.

PI/QI Strategies

- **Methods/Processes**
 - TQM
 - CQI
 - Six Sigma
 - Lean
- **Tools**
 - Fishbone/Ishikawa
 - Root Cause Analyses
 - Affinity Diagram
 - FMEA
 - PDCA

Accreditation Core Standards

2. Organization and Management
There are written policies and procedures...
f. ii. Policy for Quality Improvement Processes

4. Evaluation and Improvement
 b. *The program has a plan for systematic quality improvement (QI)/performance improvement (PI) that includes but is not limited to assessment of learner outcomes and achievement and course evaluation by course participants, at least annually.*
 i. *Document or describe quality improvement processes*
 ii. *Document or describe quality or performance improvement activities identified in the last two (2) years. A minimum of three (3) improvements is required.*

PI Activities PI Plan

A successful plan should...

- Be a systematic process with identified leadership, accountability, and dedicated resources
- Use data and measurable outcomes to determine progress
- Feed data back into QI process
- Be a continuous process that is adaptable to change

Components of a PI Plan

- Link to mission/vision and strategic plan
- Purpose
- Accountability
- Roles & Responsibilities
- Timeframe
 - Program cycle
 - Project cycle
- Goals & Projects
- Methods & Tools
- Measures with data collection plan
- Reporting

Link to Mission/Vision

- Include the simulation program’s mission & vision
- Link to strategic plan / program goals

Purpose

- What are you trying to accomplish?
- How does the simulation program's QI/PI plan fit with the larger organization?
- The purpose of...
 - ...Continually evolve a structure that efficiently and effectively promotes performance improvement throughout the organization
 - Plan and prioritize improvement efforts based on input from customers, stakeholders, best practice, and our own experience over time
- Some programs may include QI/PI principles & define quality

Goals & Projects

- Goals / objectives of the plan
- *The QI plan is designed to improve outcomes through refinement of the processes and systems. To accomplish this goal, the following objectives have been identified:*
 - To continuously monitor and evaluate using predetermined indicators
 - To identify potential or actual problems in care and to implement corrective action

Accountability

- Who is ultimately responsible?
- Who approves/sanctions PI/QI activities

The leadership of Xanadu Simulation Center is ultimately responsible to our clients for the delivery of quality education and service. The Board of Directors grants authority for the administrative director of the simulation program to provide leadership to identify, implement, and evaluate the plan.

- Roles and responsibilities

Timeframe

- Program cycle
- Project cycle

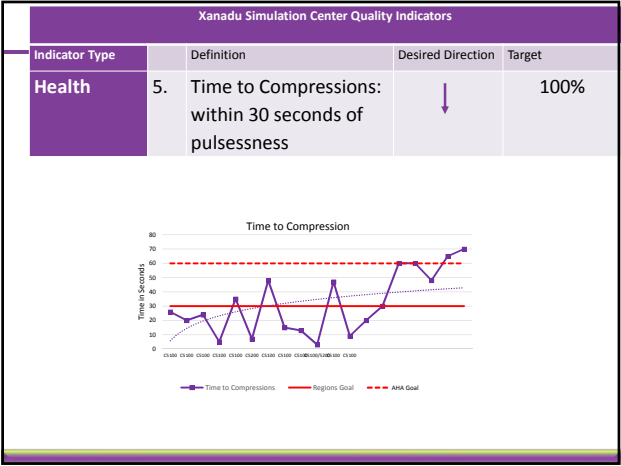
Methods & Tools

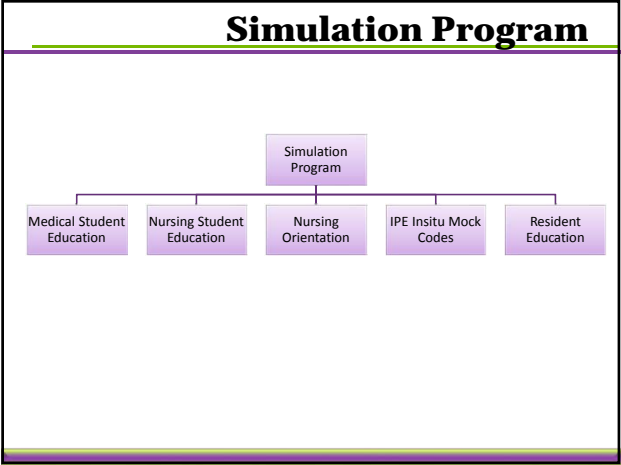
<ul style="list-style-type: none"> ▪ Methods/Processes <ul style="list-style-type: none"> – TQM – CQI – Six Sigma – Lean ▪ Tools <ul style="list-style-type: none"> – FMEA – PDCA – Quick fix – Fishbone/Ishikawa – Root Cause Analyses – Affinity Diagram 	<p>Xanadu Simulation Center:</p> <ul style="list-style-type: none"> ▪ Utilizes a systematic approach to QI/PI that prioritizes improvement initiatives. ▪ Uses PDCA cycle process
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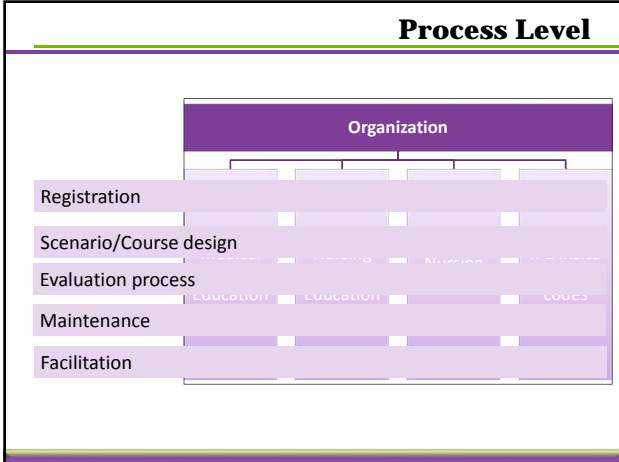
Comprehensive Analysis

- Organization Level
- Process Level
- Job/Performance Level







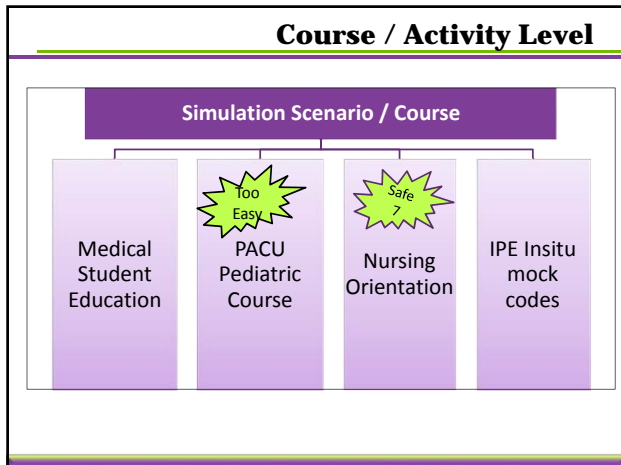


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- **Tools**
 - Quick fix
 - FMEA
 - Affinity Diagram
 - PDCA
 - Fishbone/Ishikawa
 - Root Cause Analyses

Affinity Diagram

The diagram consists of five yellow rectangular boxes arranged in a loose cluster. The boxes contain the following text: "# Participants", "Mannequin Use", "Course Evals", "Critical Actions", and an empty box.

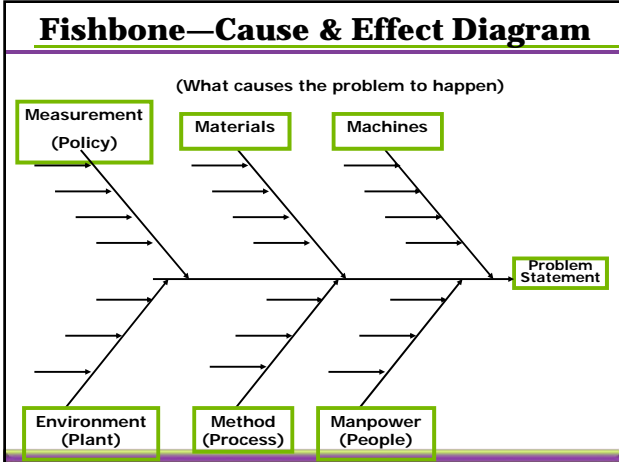
Prioritization Grid

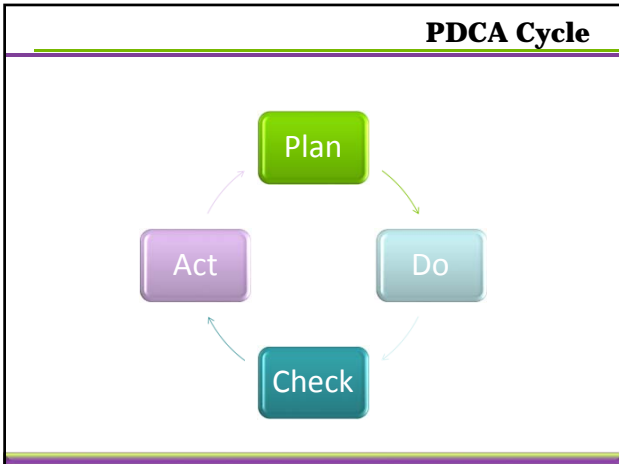
Performance Improvement Priority Grid

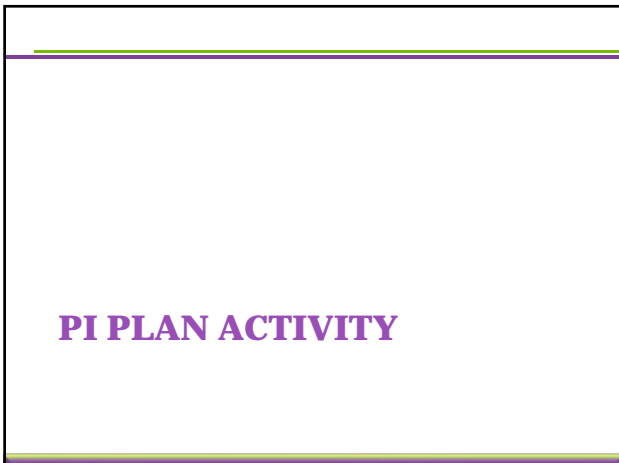
Issue to Evaluate _____

Date _____

Criterion	Points 3	Points 2	Points 1	Points 0	Score
Strategic Plan	Strong relationship	Moderate relationship	Minimal relationship	No relationship	
Regulatory compliance	Required	N/A	N/A	Not required	
Patient Outcome	Important improvement in patient care	Some improvement in patient care	Little improvement in patient care	No improvement in patient care	
Importance to mission/vision	Very important	Important	Slightly important	Not at all	
Problem prone	Process problems noted with increased risk to success of program or staff	Process problems noted with moderate risk to success of program or staff	Process problems noted with low risk to success of program or staff	Process problems noted with no risk to success of program or staff	
High volume	Affects 100% of programs or participants	Affects 50 - 75% of programs or participants	Affects 25 - 50% of programs or participants	Affects 0 - 25% of programs or participants	
Productivity	Reduction of >10% work time (increased efficiency by >10%)	Reduction of <10% work time (increased efficiency by <10%)	No impact	Increase in staff / work time	
Financial Cost	No cost to implement	One time <5% cost to implement	One time 5%-10% cost to implement	Ongoing cost to implement,	
Financial Savings	At least 10% financial savings by implementing	5%-9% savings by implementing	<5% savings by implementing	no financial savings by implementing	
Customer/learner Needs and Expectations	Problems in this area as indicated by evaluations & complaints	Possible highly positive effect on satisfaction	Possible moderate effect on satisfaction	Minimal or no effect on satisfaction	







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