Problem Lah! Learning to tell the story of continuous assessment and improvement

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Singapore Management University
• **1997** Singapore government conceives SMU
• **2000** SMU opens to 300 students in Bukit Timah Campus
• **2005** Library opens its doors (2500 students)
• **2006** Official opening as Li Ka Shing Library
• **2013** SMU – 8,000 students (ug and pg)
• 6 Schools – Business, Economics, Accounting, Information Systems, Law, Social Sciences
• Broad based education, small classes, interactive tutorial style learning
• International experience, community service, internship
• 6 buildings at the heart of Singapore
Singapore Art Museum

Singapore National Museum
Li Ka Shing Library

- 8,000 sqm, 1,500 seats, 34 project rooms
- 39 staff – 16 professional librarians
- 137,000 books (Over 86,000 e-books)
- Access to about 80,000 e-journals
- Nearly 1 million visitors in FY2012
- Renovations underway
Vision

To be a leading research library providing ubiquitous access to information using innovative strategies to drive intellectual exchange and the creation of knowledge.
2012 State of the University Address
New Initiative

Enhance Operational Strength
– Business Process Improvement Programme (BPI)
– Responsibility Centre Accounting (RCA)
– Management Development Programme

Culture of Assessment
2013 Library Initiative

… an organizational strategy requiring decision-making based on "facts, research, and analysis, and where services are planned and delivered in ways that maximize positive outcomes and impacts for customers and stakeholders (Lakos & Phipps, 2004)."
Desired Outcomes

- Develop management competencies
- Learn to identify and demonstrate value
- Practice user focused behaviors
- Prepare for RCA

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• Use Lean Six Sigma green belt training (BPI)
  To facilitate implementation of
• A Culture of Assessment
• Highlight professional development trends
  – Assessment
  – Identifying, understanding and communicating Value
  – User focus
Rationale

Culture of Assessment

• Policies customer focused
• All levels practice assessment
• Data driven decision making
• No unexamined processes
• Continuous learning & application
• Ongoing staff development in measurement, evaluation & assessment

(From Lakos & Phipps, 2004)

Lean (BPI)

• Value is defined by customer
• Processes/services are customer focused
  – Per value adding activities
• Processes/services are continuously assessed & improved
• Analysis & problem solving tools—easy to learn & apply
Frameworks

**Six Sigma**
- Define
- Measure
- Analyze
- Improve
- Control

**Lean**
- Identify value
- Identify waste
- Map value stream
- Design process/service around value
- Continuously improve & assess

**A3**
- Background
- Current state
- Goal/Target state
- Analysis
- Countermeasures
- Plan
- Assessment
Challenges

Process improvement methods & assessment (experience & perceptions)

- Streamline workflows
- Increase levels of:
  - efficiency,
  - transparency,
  - accountability
- Ensure compliance
  - procedures
  - policies
- Form of micromanagement
- Confusion about the role of management
- Increased workload
- Focus on output
Challenges

Not quite a countermeasure
Countermeasures

Lean Principles

- Continuous improvement
- Small steps, win-win
- Respect for people
- Develop competencies and leadership

Lean Management

- Customer defined value
- Outcomes focused
Challenges

What’s the problem lah!

• Indicator of poor performance
  • The vendor did it
  • I’m not telling
  • Fire-fighting and Band-Aid ‘solutions’
Countermeasures

• Everything is a ‘problem’
  – Gap between the current and target state

• Reporting
  – Prevention & maintenance activities
  – Continuous improvement
  – Solutions & countermeasures

• Problem solving (lean tools) training
Challenges

• Communication?
Countermeasures

- A3 problem solving and story telling
- Lean visual management tool
- Tell a ‘short story’
- Know the elevator ‘value speech’

“Whoever tells the best story shapes the culture.”
— Erwin Raphael McManus
Projects/Cases

• Specify time spent on project (speed chess)
  • Identify and understand the problem/gap
  • Implement countermeasures/solutions
  • Continuously improve
• Achievable goals and outcomes (win-win)
• Specify learning outcomes
Countermeasures

Scan Scanned Chapters — Introduction to the Problem

Each term, faculty submit reading lists to CSS. Once received, staff add selected print resources, primarily textbooks, to the reserve collections for short term loan; create persistent links to electronic content in StudentNet system; assemble and distribute printed course packs; and, scan and upload single chapters to eRes.

When faculty reading lists arrive last minute, causing workflow bottlenecks as staff struggle to accommodate student needs and schedules.

Proposed Solution

[Initial Reaction]

- Reduce service levels for late submissions
- Increase reliance on the print course reserve collection

Process Objective/Goal:
use BPI tools to determine if a problem exists, nature & extent of the problem

Staff Learning Objectives: As important as the process outcome is the learning outcomes of the team members: using data to make decisions, one of loan and rent cause analysis techniques to diagnose a problem, and use of assessment methods to document success and lay the foundation for continuous improvement.

Background: Libraries’ mission: provide seamless and ubiquitous access to resources. Support the teaching and learning objectives of SMU.

CSS established in 2006 to provide one-stop shop for undergraduate course materials (primarily print) & to manage copyright. In 2009 eRes system implemented. Whenever possible, digital single-chapters of books and link to articles within eRes system. Prior to 2009 an SMU Student Association survey revealed that 68.8 prefer access to digital content, and, 68.6 would read the course materials if provided digitally.

Chart below illustrates growth of CSS services:

![Chart](image)

In addition to the above functional activity process map, data was collected.

Findings:

- Authorship occurs during the first 2-3 weeks per term
- Average number of chapters per term is 264
- 65% are re-used (already scanned, average no. pages: 26)
- Average time to scan & edit entire batch is 264-30 hours
- Student assistants provide the labor
- 75% of chapters scanned are from books within the collection

Current term findings:

- 45 courses using the eRes system (and include scanned chapters)
- 3,545 students enrolled in the 45 courses
- 5,124 accounted the scanned chapters in the eRes system
- Cost (student labor) to scan/edit the batch: $660.00

Voice of the Customer:

- 2012’s client feedback: for course reserve included frustration around print course reserves and request for more digital content
- 32 students, working on a “Computer as an Analysis Tool” chose to study the print CII system. When asked why they selected print CII, they each relayed a frustration regarding (1) read times, (2) loan periods, (3) availability of lab resources
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Analysis: The team utilized several analysis techniques: VOC, VSM, SIPOC. Thread of logic and determined that there was no real “problem” around the scanning of chapters, in fact it was a low effort and low cost process that provided a high benefit.

The problem identified that required a countermeasure was reducing the frustration of students and staff around the print course reserve collection, as noted in the Pareto chart below:

Customer Service Desk Queries, February 2013

![Pareto Chart](image)

Problem:

- Frustration with long periods of time to scan & edit chapters
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Countermeasure:

- Increased the number of student assistants
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Process Review Outcomes: Service is a low effort and low cost process that provides high value benefits.

Proposal and Follow UP: The team identified a number of areas of improvement that may enhance the service:

- Create a timeline for RLC to liaise with faculty about service and process.
- Develop and incorporate a communication standard between RLCs and CSS.
- Draft guidelines for RLCs to aid in their discussion with faculty about course resources.
- Plan for peak periods by working closely with other teams.

Learning Outcomes:

- Practice use of lean tools & techniques and problem solving
- Better understanding of team interrelationships, new ways to work together
- Ability to articulate the value of a service
Current State

• Lean Management Framework (in development – Library/BPI)
• Continued training, practicing, applying
• Using A3 to kick start larger BPI projects
• RCA begins for the Library in July 2014
Are we there yet?

Thank you!