



Libraries in Lean Times

Increasing Efficiency, Improving Services,
and Cutting Red Tape

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Why You Should Care

What is Lean?



Lean is...

An approach developed to refine manufacturing processes by

- Reducing waste (in terms of time, energy, and resources)
- Streamlining operations
- Increasing efficiency
- Maximizing value for customers

Five Principles of Lean

1. Specify value as defined by the customer whose needs are served by this work process, analyze all activities from the customer's point of view, and identify any wasted effort that does not serve the customer's needs.
2. Identify a value stream by using flow charts or other tools to examine every step, to categorize each step as either value-added or non-value-added, and to eliminate blatantly wasteful steps.
3. Generate flow in the process to prevent bottlenecks and batching.
4. Utilize pull processing (Just-In-Time processing) practices.
5. Pursue perfection through continual review and improvement of the process

(Womack and Jones 16-26)

Lean in Libraries...

Can be used to build employee confidence and increase their capacity for change

(Tornquist and Steinlicht 2)

Types of Waste

People Waste

“refers to the category of wastes that occurs when universities fail to capitalize fully on the knowledge, skills, and abilities of employees and workgroups” (Huber 184)

Process Waste

“refers to the cluster of wastes that occurs due to shortcomings in the design or implementation of university processes” (Huber 186)

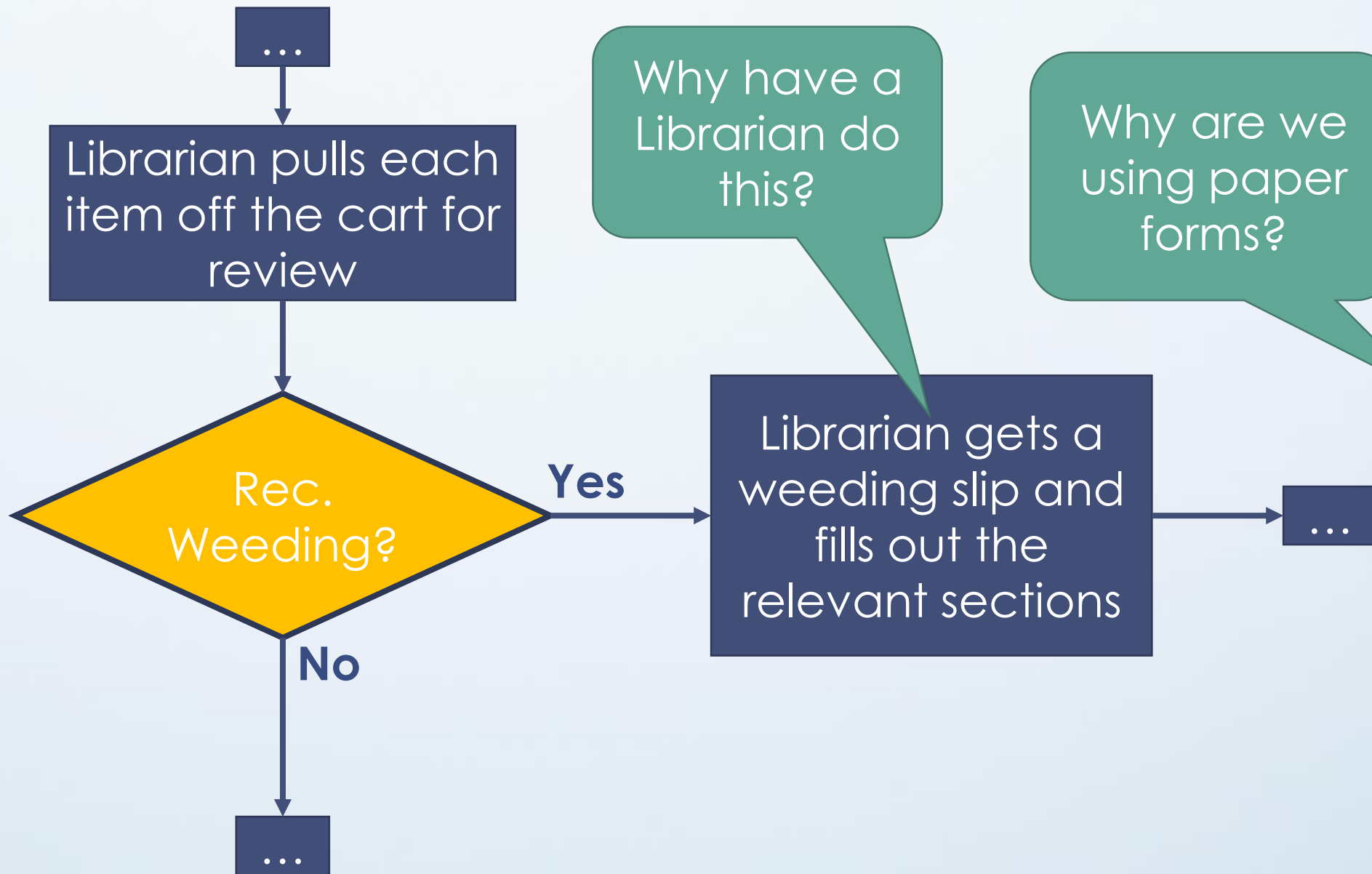
Types of Waste (cont.)

Information Waste

“refers to the category of wastes that occurs when available information is deficient for supporting university processes” (Huber 191)

Asset Waste

“refers to the cluster of wastes that occurs when the university does not use its resources (human, facilities, and materials) in the most effective manner” (Huber 194)



Why have a Librarian do this?

Why are we using paper forms?

Date _____

Reference Collection Withdrawal/Relocation

Please indicate whether you:
A=Agree D=Disagree

MK: A D
EF: A D
LK: A D
MC: A D
NM: A D
SS: A D

If you disagree, please explain

Reviewer's initials _____

of volumes on shelf _____

of copies on shelf _____

Relocate to:

____ Circulation Stacks
____ SD Collection
____ Other _____

Reason:

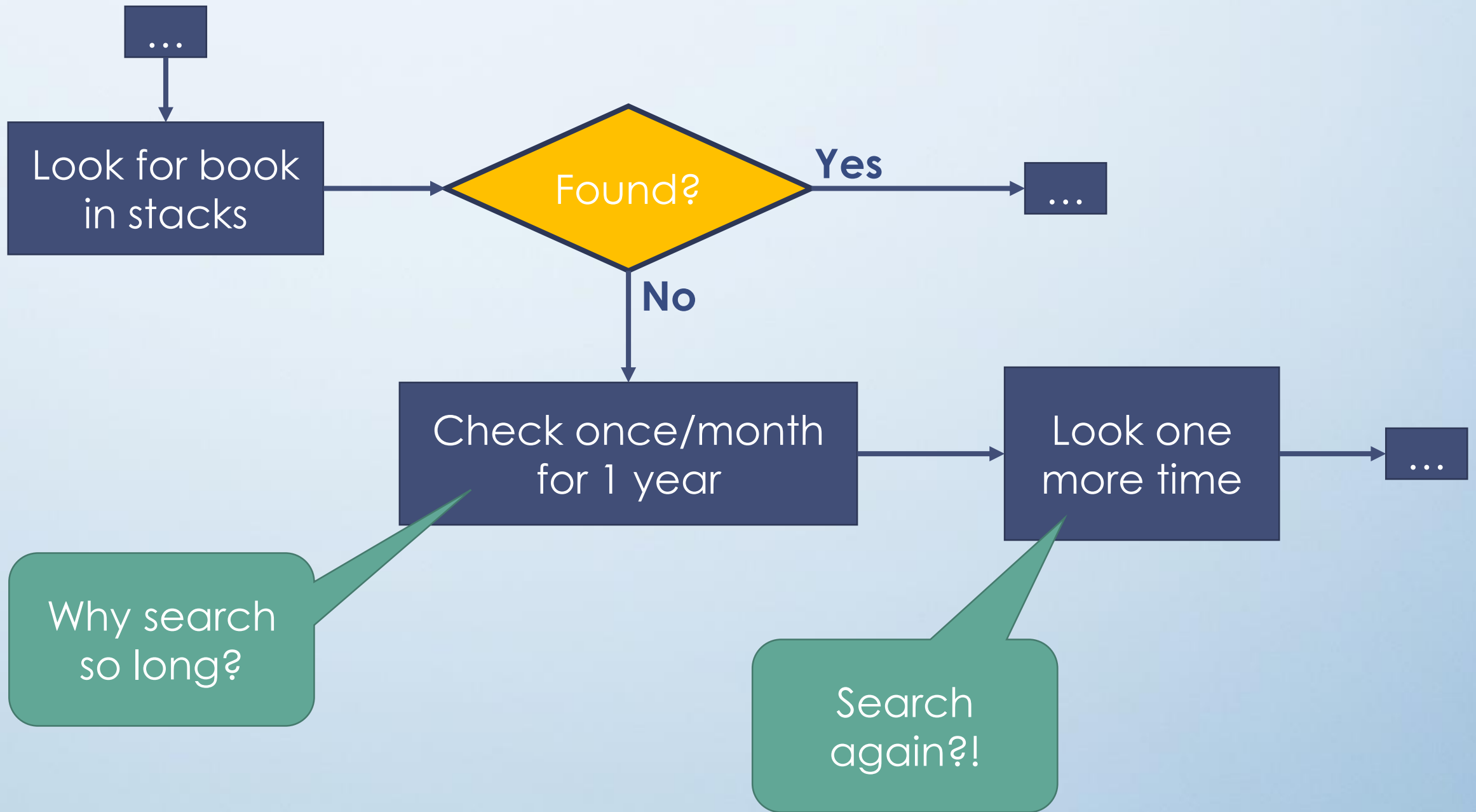
____ Newer edition/sources in Reference
____ Should be available for circulation
____ Not a working Reference title
____ Too specialized/narrow focus
____ Other _____

Withdraw _____

****Please initial if you are the bibliographer. (Initials _____)**

____ Newer edition/sources in Reference
____ Outdated information
____ Duplicate title
____ Accuracy of contents
____ Physical condition of volume
____ Other _____

____ Needs bindery repair



Searching for Simplicity

Lean and Lost Book Handling

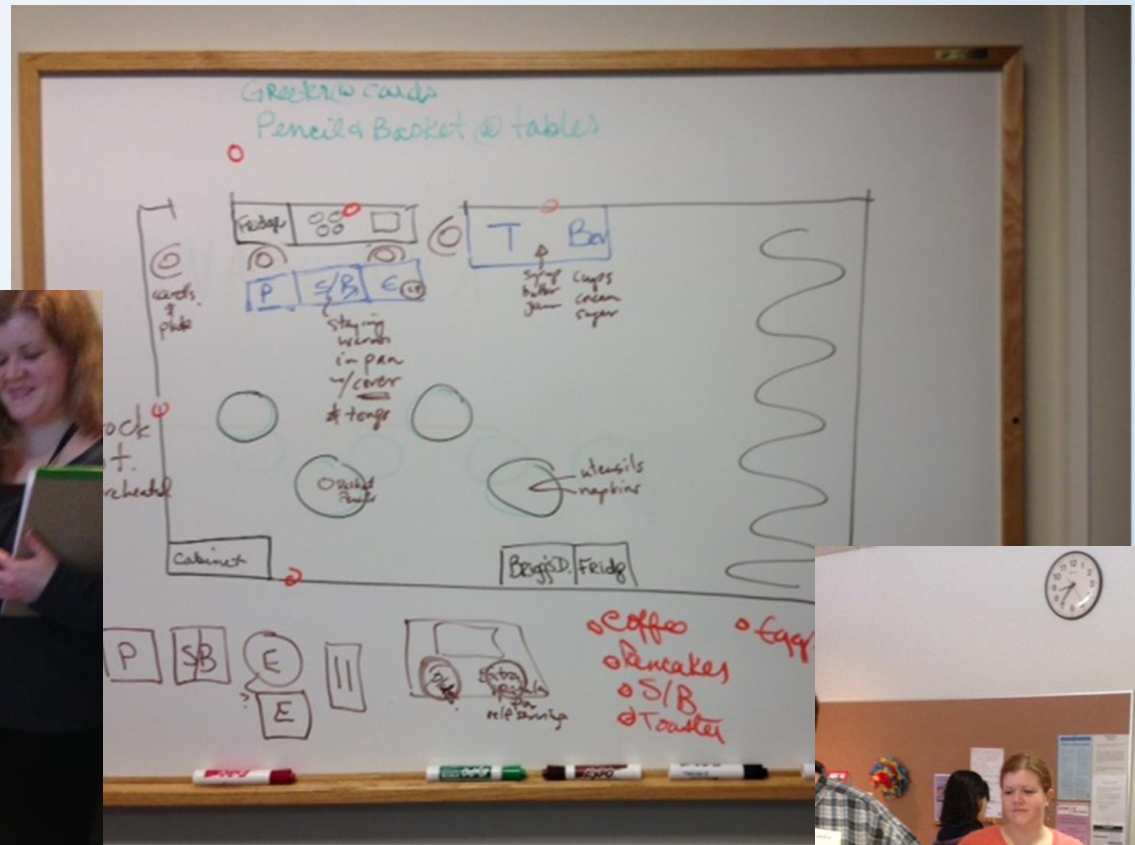
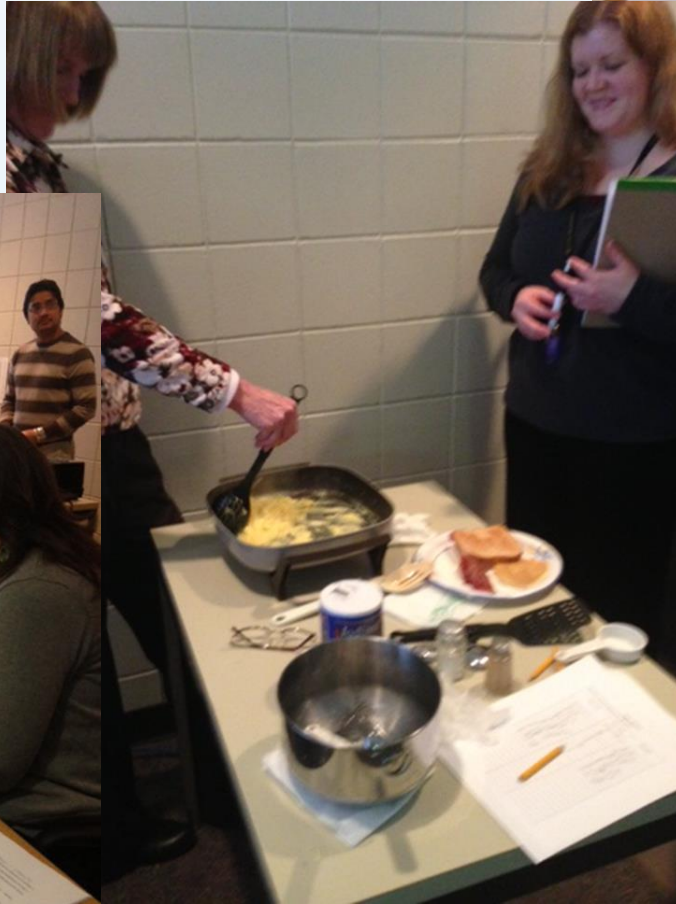


Why Lost Book Handling?

- Affected all library units
- Lacked written procedures
- Had a backlog of lost & missing items
- Affected accuracy of the catalog and patron accessibility to materials

First step...a hardy breakfast!



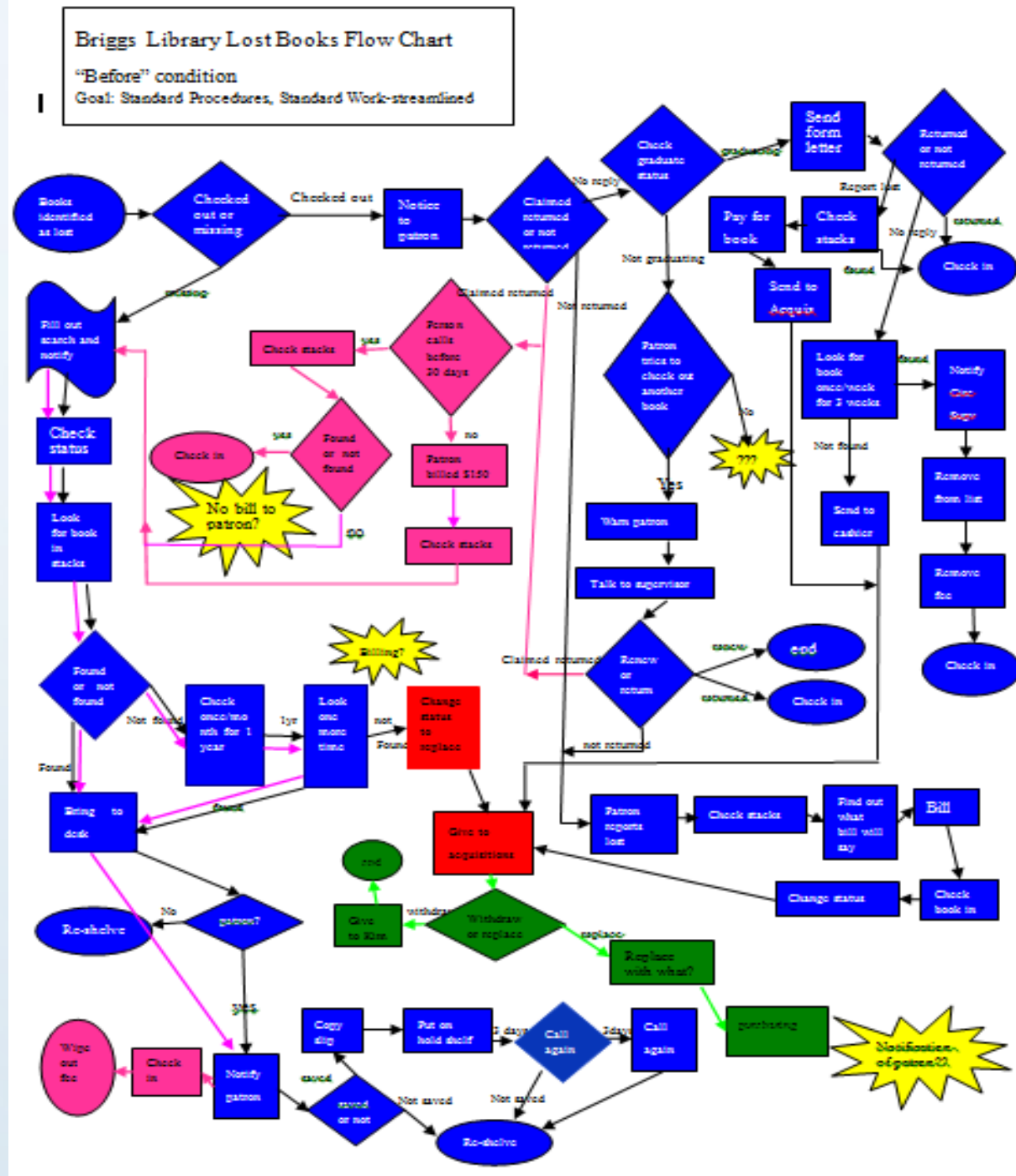


Training to get "lean." Briggs Library volunteers meet for breakfast.

Next steps...

- 11 staff members; 4 half-days; Jan.-May 2013
- Detailed all possible outcomes for a Book identified as lost or missing
- Whiteboard lists and Post-it notes
- Flow charts

Bursts represent dead ends or uncertainties

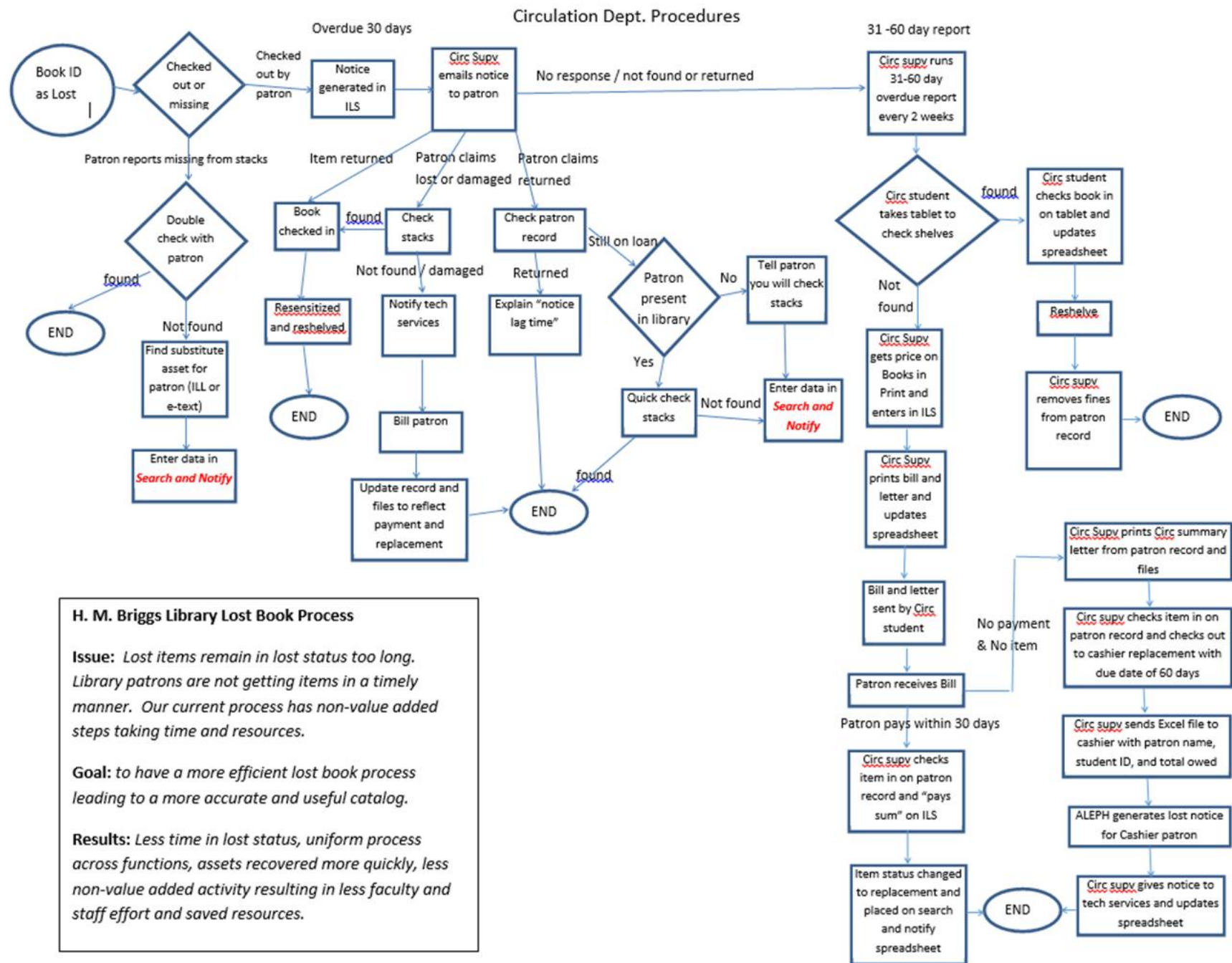


4 Similar Processes Analyzed

- Missing books – not on loan, not on shelf
- Lost books – reported as lost, or missing for a year
- Long overdue books - not yet billed, replaced or removed from the catalog
- “Claimed Returned” books

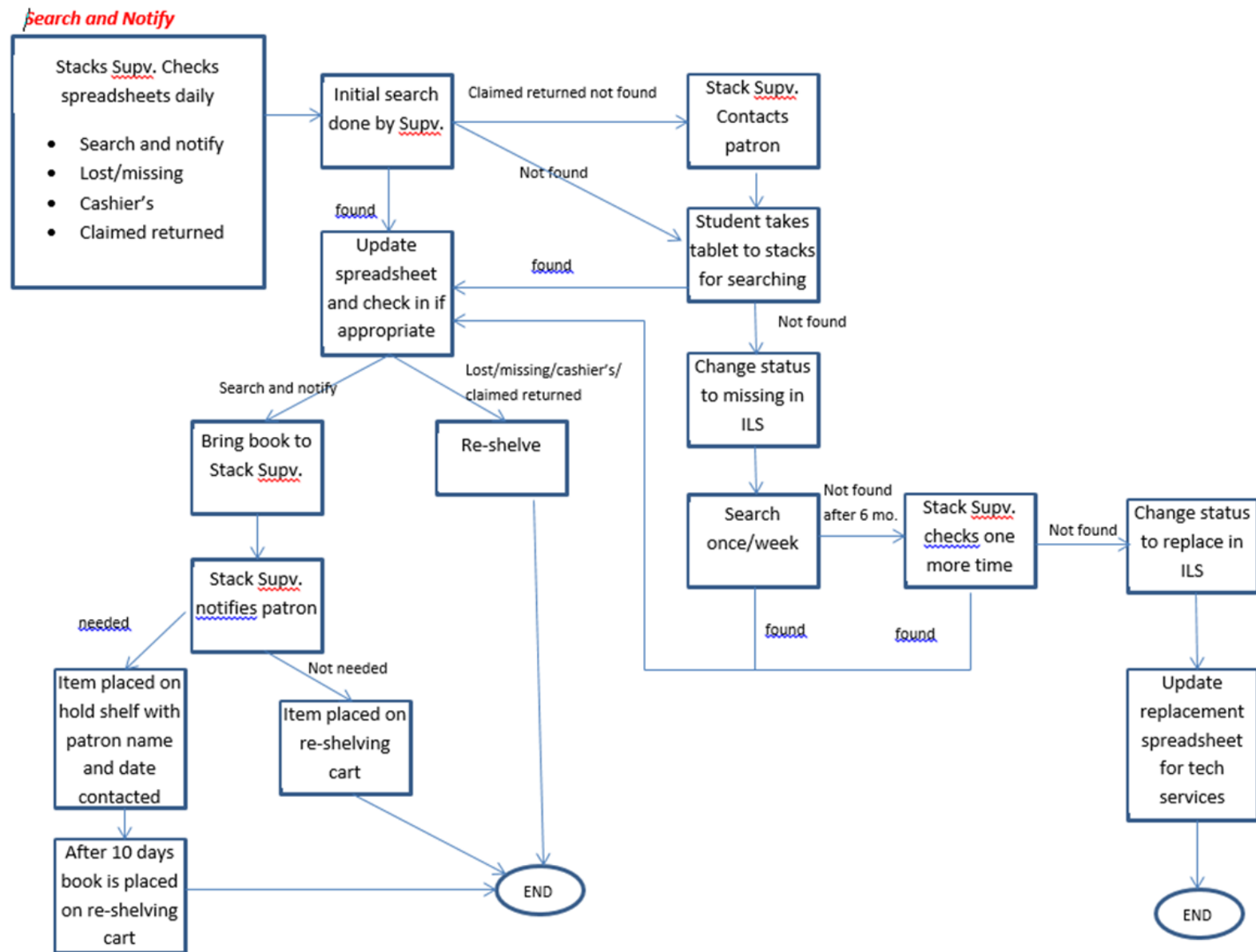
3 subcommittees tackled them in painstaking detail.

After



After

Lost Book Process: Stack Staff Procedures



Significant Discoveries

- Many steps missing from written procedures
- Long waits for materials found in catalog
- Lost items, lost far too long
- Search & Notify process
 - slow, duplicate efforts, unnecessary steps

Significant Changes

- Complete set of written procedures
- Immediate ILL for lost or missing items
- Faster turnaround for lost or missing items: search for 6 months, then replace or remove from the catalog
- Disappearing backlog of lost and long overdue items
- Paperless Search & Notify

Shaping Up and Slimming Down

Lean and Weeding



Why Apply Lean to Weeding?

The collections desperately needed weeding, however

- Existing procedures were incomplete
- Process was complicated and lengthy
- No inducement to carry it through to completion
- Weeding became low priority

Identifying Value

- Remove outdated materials
- Remove materials that no longer support the University's programs
- Make it easier for patrons to locate suitable resources
- Ensure the collections are aligned with the teaching and research priorities of the University



Processes Analyzed

- Circulating collections
 - Main circulating collection
 - Oversize collection
 - Audio/visual collection
- Reference materials that are new editions on standing order
- Reference materials that are new editions not on standing order
- Reference materials that are not new editions

Identifying the Wastes

- Critical differences existed for each of the different collections' weeding procedures
- Items remained on weeding review until reviewed by the required librarian, sometimes as long as a year
- Filling out handwritten weeding and relocation slips was tedious and prone to error
- Expectations for assigned subject areas were not established

**Weeding Review Slip
Circ Collection**

Call # _____

Title: _____

Date Pulled: _____

.....
Copy of
Date, this edition
Date, most recent ed.
[Add] dates with # of loans on back]
Number of Loans
Date of last Loan _____
.....

Reviewer comments

In published/core list?

Other:

} Keep
} Keep current year/edition
plus years/editions
} Weed

Reviewed by (initials): _____

Copies in OCLC

SD _____ MII _____

Weeding Review Slip Circ Collection

Reference Collection Withdrawal/Relocation

Date _____

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Reference Collection Withdrawal/Relocation

Relocate to:

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____ SD Collection
____ Other _____

Withdraw:

Date _____

Bibliographer approves
withdrawal - Initials _____

Applying Lean Principles

- Aligned procedures for different collections to minimize the differences between them
- Limited the amount of time for review to 3 weeks
- Replaced handwritten slips with a spreadsheet populated by information from the ILS
- Shifted repetitive and simple tasks to student assistants

- Required only the subject librarian to approve relocation of items
- Required only two librarians to approve weeding of items
- Assigned each LC subclass to a pair of librarians to ensure equal responsibility and attention
- Assigned oversight to the Head of Public Services

Implementation and Results

- Piloting currently in process
- Full implementation set to roll out in the coming weeks



Our Insights and Recommendations for
Trimming Down

Employing Lean in Your Library



Collaboration is Essential

- Most library processes affect multiple departments and require teamwork
 - Ex. Reshelving of returned materials by Stacks personnel requires they first be checked in by Circulation staff
- All departments' needs and concerns need to be addressed in a Lean review
- Also including 'outsiders' in the review can be very beneficial
 - May be better equipped to spot waste and question long-held practices

Collaborative Nature of the Process: The Opportunities

- Work with different people
- Build working relationships
- Learn about different library processes and workflows
- Develop greater appreciation for coworkers and the work they do
- Foster enthusiasm for the change and help overcome any resistance
- Distributed sessions give time for reflection

Collaborative Nature of the Process: The Risks

- Dependent on the goodwill and engagement of many people
 - Fear of losing status or becoming unnecessary can complicate
 - Ideally will not 'downsize,' but shift time and assets to where they are most beneficial
- Potential for personality conflicts
- Defensive reactions to wastes identified in someone's workflow
- Project mission drift
- Scheduling issues

Makes Perfect
Practice!



Lean and Mathematics

- Addition
- <http://youtu.be/KxJ4nbqx8CY>
- Dominos
- <http://youtu.be/PIWJV6M3it8>
- Carepackages
- <http://youtu.be/eLemMLzYjUM>

Questions?



Works Cited

- Alexander, Gwen, and John H. Williams. "The Impact of an Accelerated Improvement Workshop on Ordering and Receiving." *Library Collections, Acquisitions, & Technical Services* 29.3 (2005): 283-94. EBSCO MegaFILE. Web. 5 June 2014.
- Armstrong-Viner, Robin. "Lean Kaizen: Empowering the Team in Interesting Times." *Catalogue & Index* 161 (2010): 16-20. Web. 4 June 2014.
- Cother, C. "From Big Change to No Change: Discovering Lean through Action." *IATUL Proceedings, New Series* (2009): n. pag. *Purdue e-Pubs*. Web. 4 June 2014.
- Glusker, Ann. "Implementing the Transition from Full- to Self-Service Table of Contents Alerts: A Case Study." *Journal of Hospital Librarianship* 13.1 (2013): 1-10. Web. 4 June 2014.

Grice, Daisy, and Jane Martel. "CALCON 2012 - Lean Material Processing: Work Smarter, Not Harder." *Colorado Libraries* 36.4 (2013): n. pag. Web. 4 June 2014.

Hilton M. Briggs Library. *Strategic Plan: July, 2013*. Briggs Library, 2013. Web. 25 June 2014. PDF file.

Huber, John J. *Lean Library Management: Eleven Strategies for Reducing Costs and Improving Customer Services*. New York: Neal-Schuman, 2011. Print.

Kress, Nancy J. "Lean Thinking in Libraries: A Case Study on Improving Shelving Turnaround." *Journal of Access Services* 5.1-2 (2007): 159-72. Web. 4 June 2014.

Murphy, Sarah Anne. "Leveraging _{Lean} Six Sigma to Culture, Nurture, and Sustain Assessment and Change in the Academic Library Environment." *College & Research Libraries* 70.3 (2009): 215-25. Web. 4 June 2014.

South Dakota State University. *Facts 2013-2014*. SDSU, 2013. Web. 18 June 2014. PDF file.

---. (2013). "Goal 4: High-Performing University." sdstate.edu. SDSU, 2013. Web. 25 June 2014.

Spagnolo, Lisa. "Give a Little Bit: Using Lean Tools to Create Efficiencies in Acquisitions and Beyond." *Proceedings of the Charleston Library Conference* (2011): 483-87. *Purdue e-Pubs*. Web. 23 June 2014.

Tornquist, Kristi and Carrie Steinlicht. *Lean Serendipity*. Mountain Plains Library Association, 2013. Web. 19 June 2014. PDF file.

Tuai, Cameron K. "Implementing Process Improvement Into Electronic Reserves: A Case Study." *Journal of Interlibrary Loan, Document Delivery & Electronic Reserves* 16.4 (2006): 113-24. *Academic Search Premier*. Web. 4 June 2014.

Womack, James P., and Daniel T. Jones. *Lean Thinking: Banish Waste and Create Wealth in Your Corporation*. New York: Free Press, 2003. Print.