



CSSE 372 Software Project Management: More Agile Project Management & Lab Time

Shawn Bohner
Office: Moench Room F212
Phone: (812) 877-8685
Email: bohner@rose-hulman.edu



ROSE-HULMAN
INSTITUTE OF TECHNOLOGY



Learning Outcomes: Plan (verb)

Create a plan for an intermediate size software project & manage to the plan as project evolves.

- Introduce Lean Development
- Work on SPMP Final Project



Defining Lean Thinking (simple, but difficult)

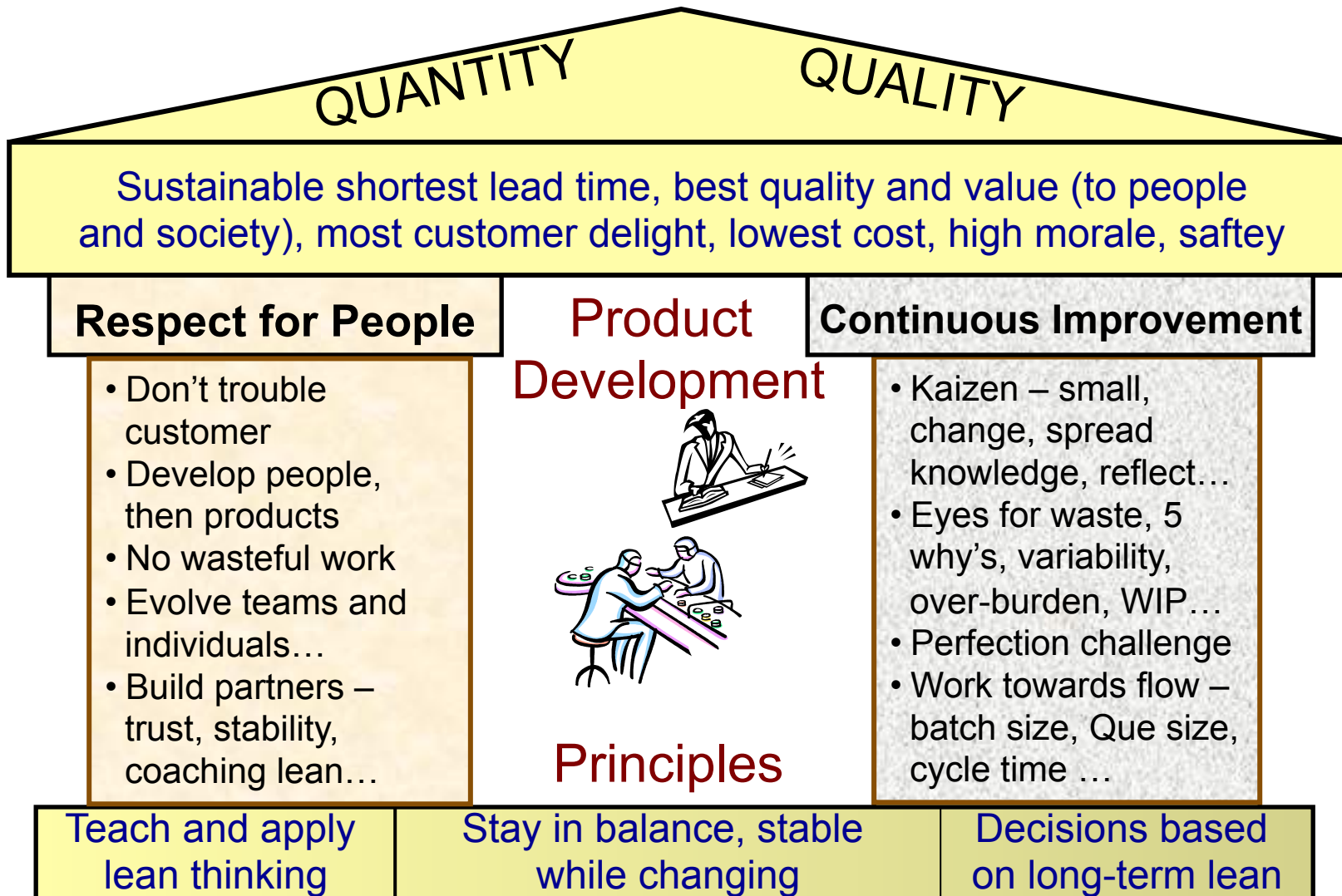
Lean → Kaizen + Respect for People

- **Kaizen** is relentless improvement via small, continuous changes
- **Respect for People** in their roles on teams working towards the goal





The Lean Thinking House





Principles of Lean Software Development

- 1. Satisfying the Customer is the Highest Priority**
- 2. Always Provide the Best Value for Money**
- 3. Success Depends on Active Customer Participation**
- 4. Lean Development is a Team Effort**
- 5. Everything is changeable**
- 6. Domain, not Point Solutions**



Principles of Lean Software Development

- 7. Complete don't Construct**
- 8. 80% Solution Today over 100% tomorrow**
- 9. Minimalism is Essential**
- 10. Needs determine Technology**
- 11. Product Growth is Feature Growth, not Size Growth**

Seven Wastes of Software Development

1. Partially Done Work
2. Extra Processes
3. Extra Features
4. Task Switching
5. Waiting
6. Motion
7. Defects



Quick Lean Exercise

- As a team, list your top 5 Junior Project activities
- Rate them from a customer perspective on a scale of 1 – 5 (low – hi)
- Think of low scoring items as potential waste
- Take the lowest scoring item and plan to cut the time in half



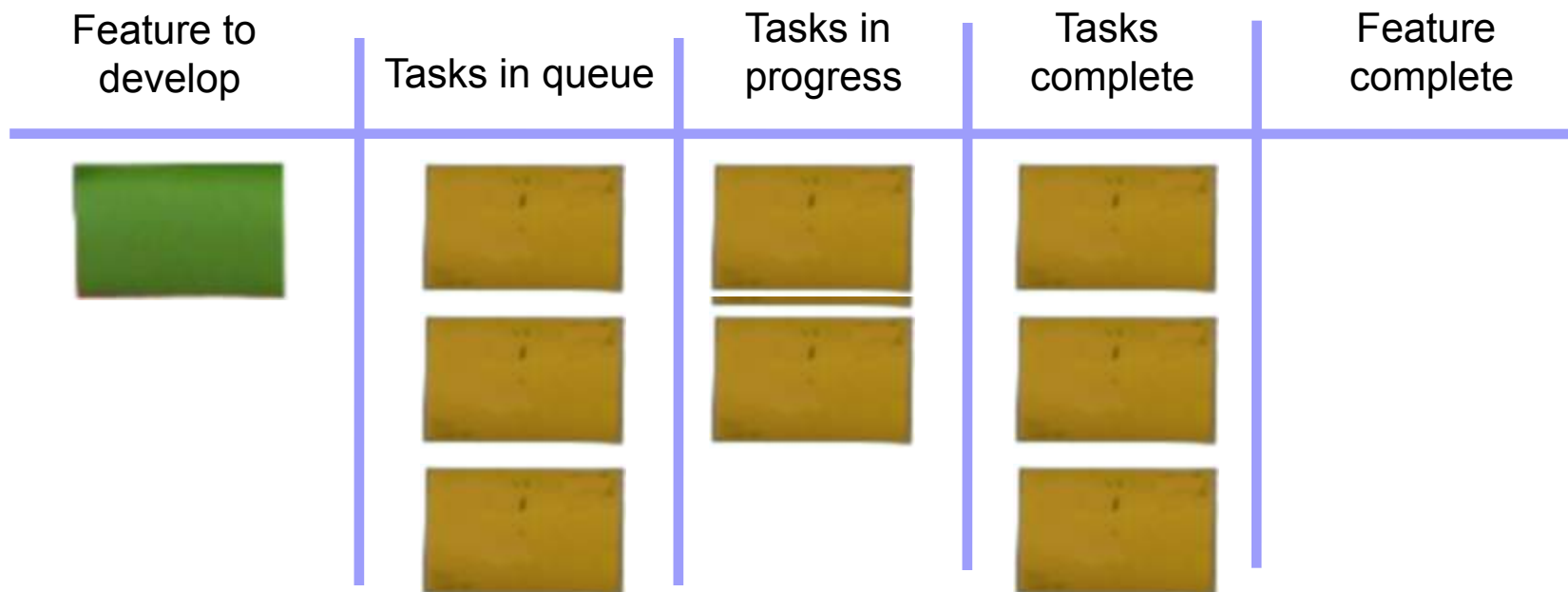


Kanban Governs Excess Work In Progress

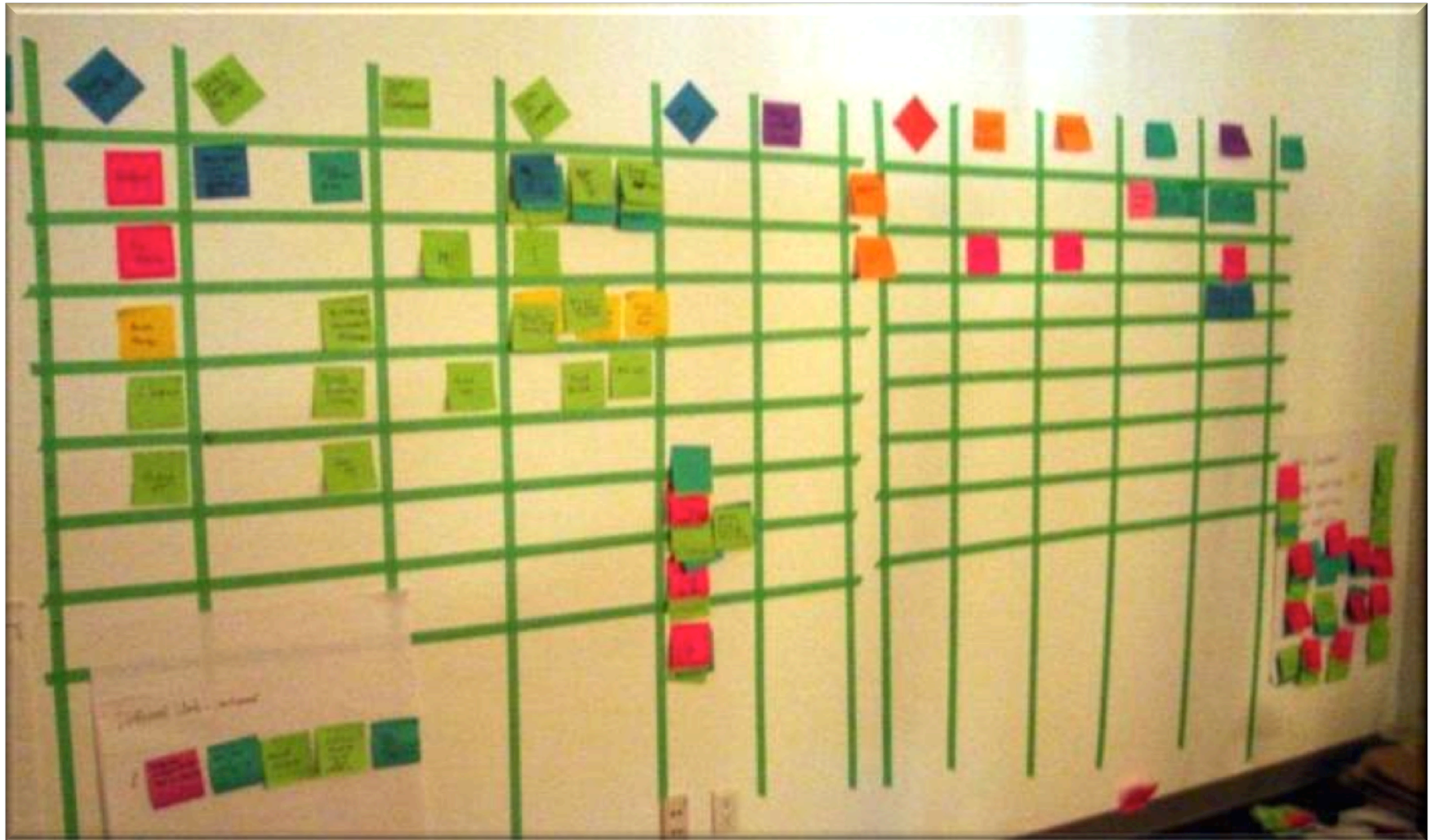
- **看板 – Kanban means “visual card” (like a signboard or billboard)**
- **Kanban cards used to govern amount of inventory tied up in Work In Progress (WIP)**
 - **On a manufacturing floor or WIP in development**
- **Kanban cards represent a “currency” showing how WIP is allowed in a system**
- **Not only is excess inventory waste, time spent producing it could be expended elsewhere**

Decompose Large Process Steps into Tasks for Improved Visibility

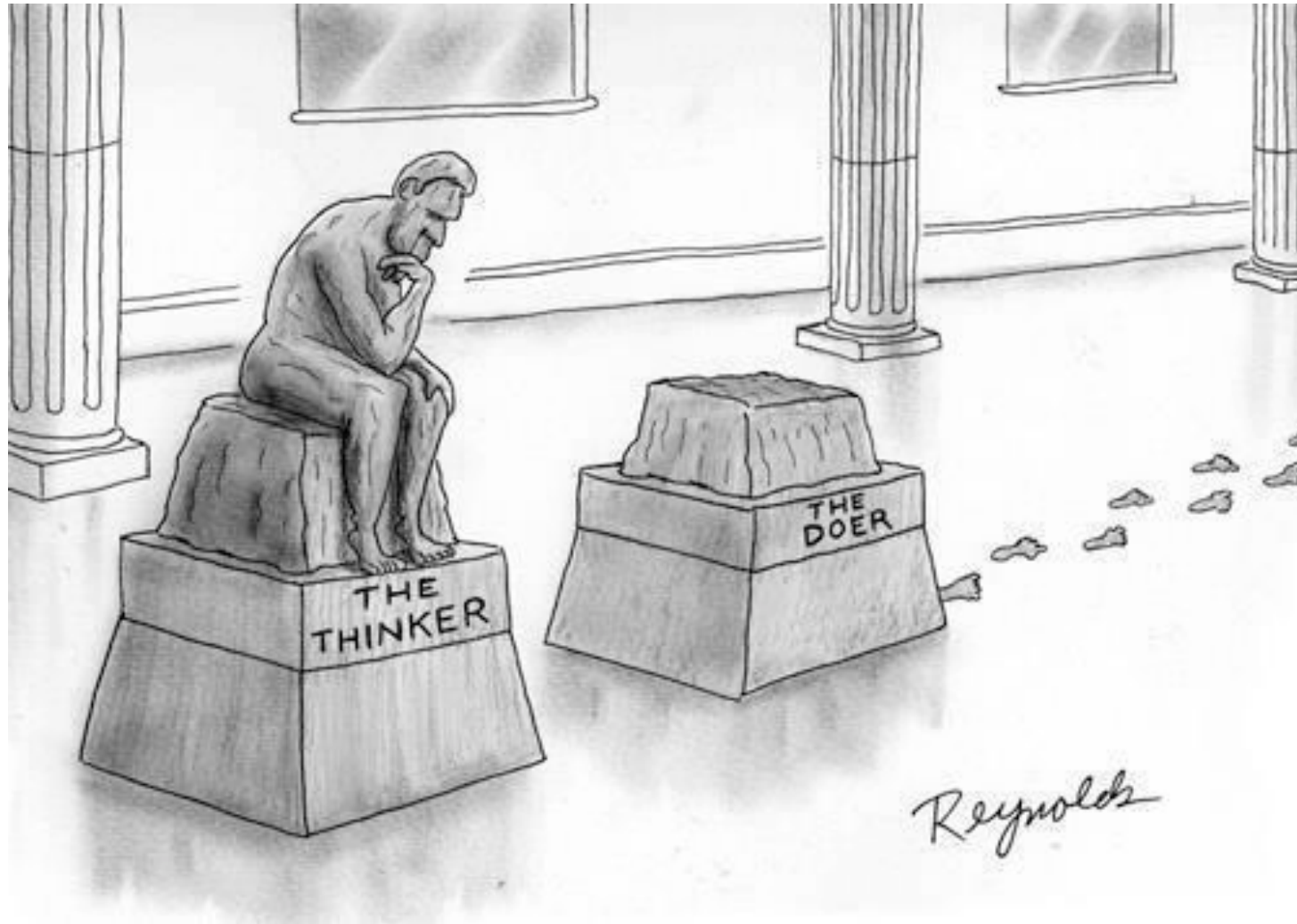
- When a feature, user story, or work item is large:
 - Takes longer than a couple days to complete
 - Requires that multiple people collaborate on its completion
- Decompose that step into cards to track independently



Kanban Board with Task Decomposition



Both have their place... Time for Do'er





Final Project Lab

- **What is the Assignment?**
 - **Develop a rational and relatively complete software project management plan for a Junior Project**
- **What resources do you have?**
 - **At least one person from the Jr. Project Team**
 - **Time of 3 people on team**
 - **Project Advisor and instructor**
 - **Time (lab, team meetings, ...)**
- **Two Estimates**
 - **COCOMO-II and Process-Oriented**
- **Remember to prepare presentation too**



Homework and Reading Reminders

- **Final Project – SW Proj. Mgt. Plan (SPMP)**
 - Completed by team...
 - Due by 11:55pm, Friday, November 2nd, 2012.
 - No late days –review swap with another team