






Quality Gateway

Lecture Objectives:

- 1) Understand the importance of quality 
- 2) Define Requirements Creep 
- 3) Define requirements leakage 
- 4) Define gold plating in terms of requirements
- 5) Identify requirements within a specification which may be gold plated.

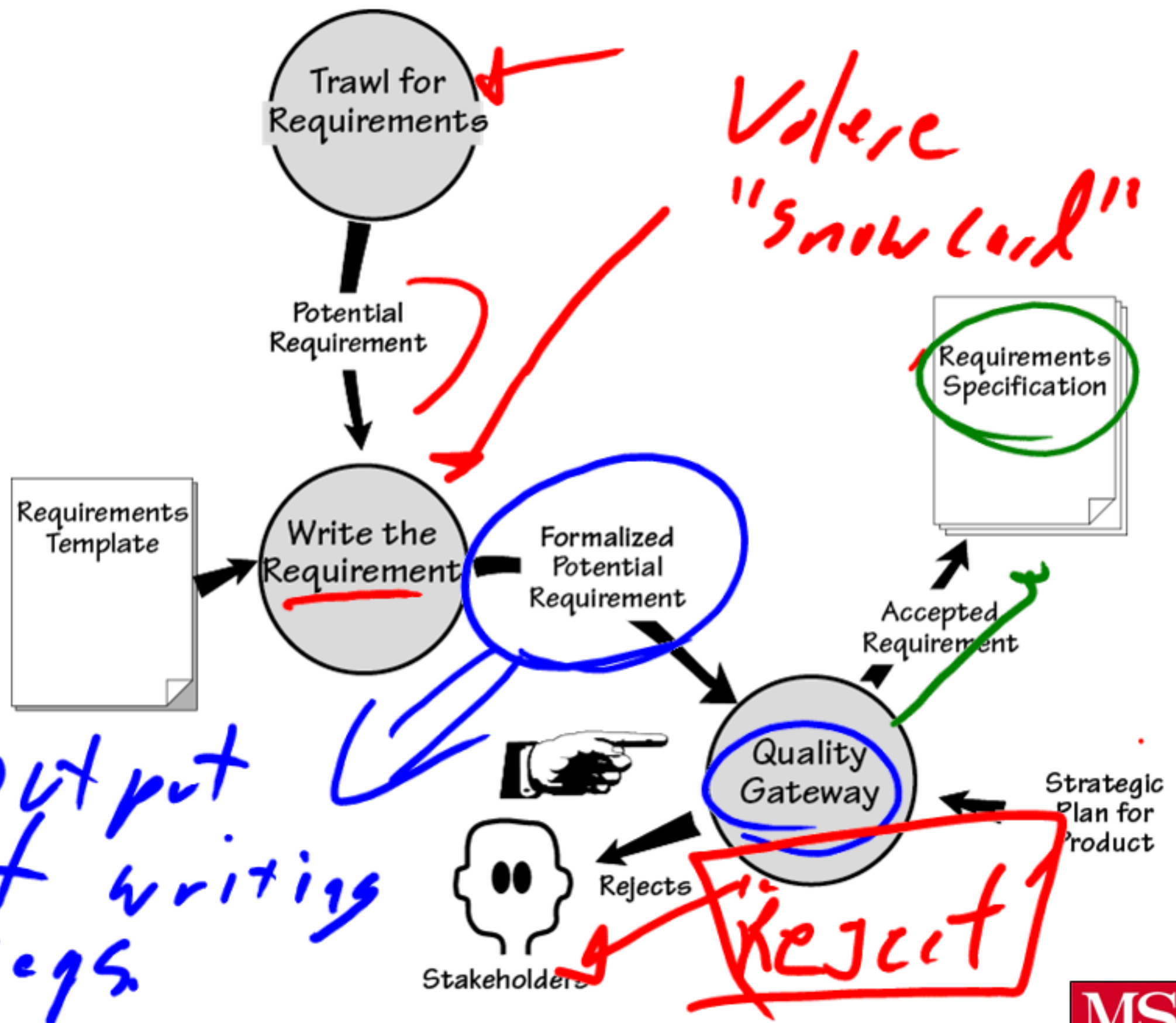
What is wrong with our SRS for the registration system?

- Active Learning
 - Take a few minutes to read through the requirements document handed out here and understand what it says.

The Volere Requirements

Process

Output of writing logs



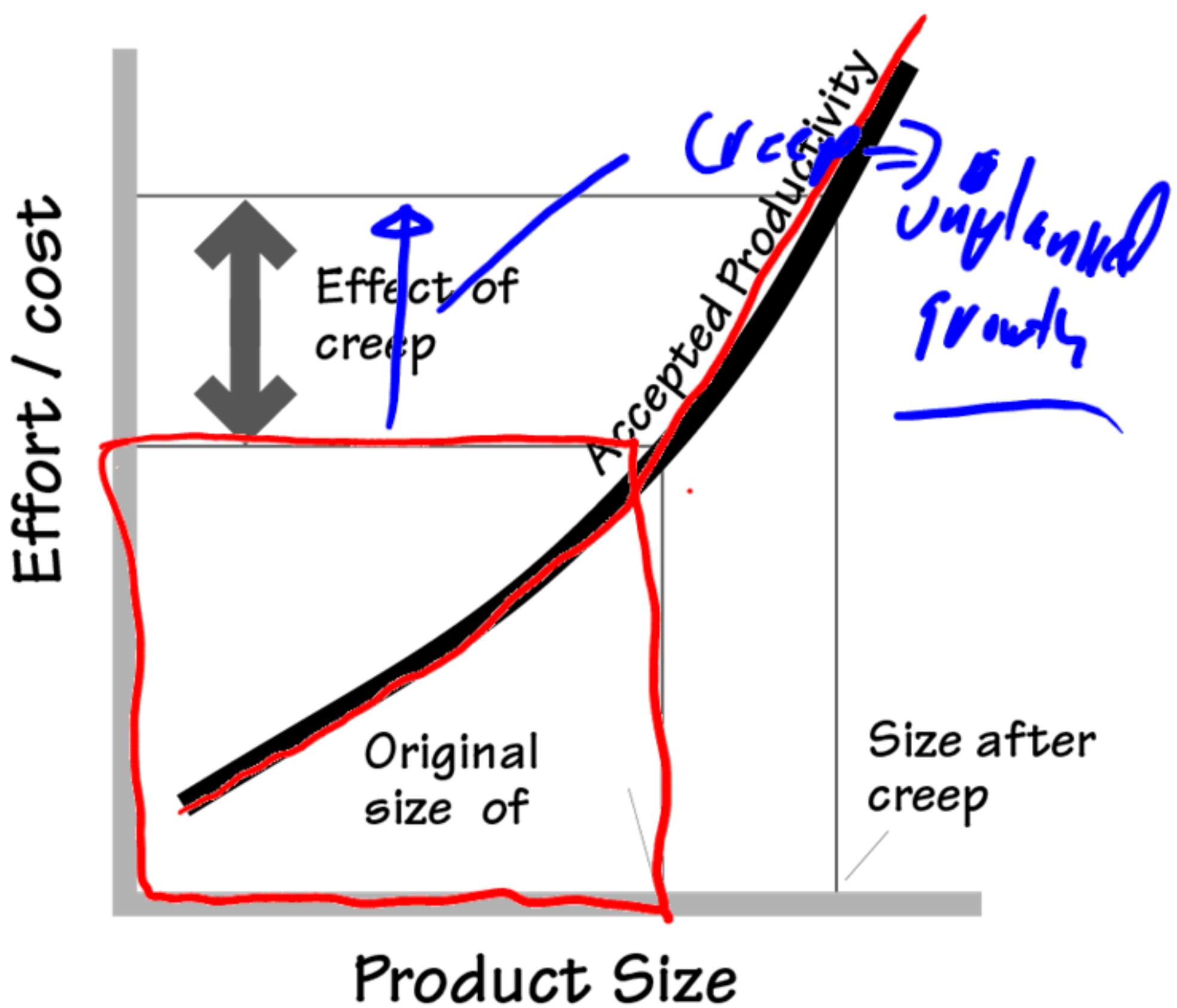
Requirements Creep

- When you first started the lab project, you
 - A. Felt that you had a good idea of what the customer wanted and had an adequate understanding of how the project would go
 - B. Felt that the project was undefined yet could easily be constrained and finished in a meaningful period of time.
 - C. Had no clue what the customer wanted, but felt you could understand the project
 - D. Did not think the project was feasible.

Project Now

- A. You have a complete understanding of the project and can finish it by next week.
- B. You have a good idea of the project, and that idea has changed little since you started the project.
- C. You have an idea of the project, but it is a lot more complex than when you first started out.
- D. Feel like you have taken one step forward and two steps backward in understanding the project.

Requirements Creep



- Requirements Creep
 - New requirements entering the specification after the requirements are considered “complete”
- Capers Jones
 - 35% of requirements appear after the requirements process is deemed complete



Your time: Why do we have requirements creep

- Talk with your neighbor: Why do requirements creep?

People don't know what they want. } Some

Didn't gather reqs } Some priority.

Market changes.

Some reqs only appear as project occurs. } Some

Why requirements creep

- 1. Requirements were never gathered properly in the first place. —
- 2. Original budget was set unreasonably low —
- 3. Requirements change —

Requirements Leakage

- Requirements that leak into a specification

– Unrecognized and uncontrolled requirements creep



Extra costs

Extra complexity

Gold Plating

- Unnecessary feature added to the project Requirements
 - Contribute more to the cost of the product rather than its functionality



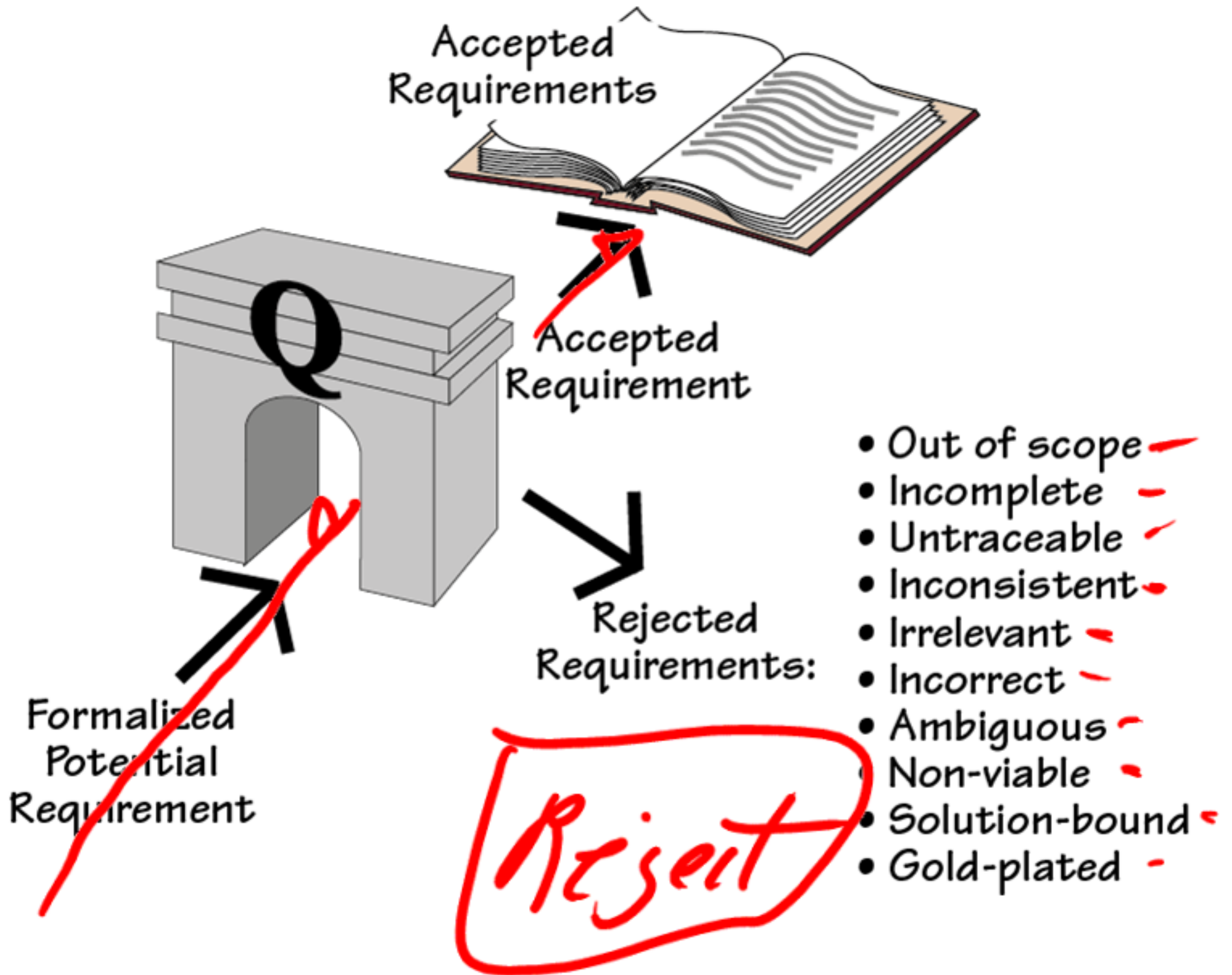
- Diagnosis

– Low dissatisfaction ratings

from the customer.

⇒ Not all of these are bad, but we should check.

The quality Gateway



Consistent Terminology



- Terminology across the requirements should be consistent
 - Meanings and terms should be defined for all to reference.
 - Is each term being used consistently

Active Exercise

- Can you find any inconsistent terms in the requirements document handout?

Some found

Relevant to Purpose

- Requirements which are irrelevant to the purpose of the project
- Example Requirement *A*
 - The MSOE registration shall keep track of the days when daylight savings changes and present them to the user on a calendar display.

Who cares?

Active Exercise

- Can you find any irrelevant requirements in the requirements specification?

Requirements or solution

- The more abstract the requirement is, the less likely it is to be a solution.

– Users shall use passwords to access the system

Solution

The product shall only allow authorized users to access confidential info.

Adequate Prioritization

- How many requirements rate a 5 on the customer satisfaction rating?
- How many rate a 5 on the customer dissatisfaction rating?

Maybe an indication of improper rating of the reqs.

Testing Completeness

- Can this requirement be misunderstood?
- Description
 - Students graduating from the MSOE software engineering program shall have an adequate understanding of ethics as they relate to the computing field.
- Rationale
 - ABET Requires students to have a foundation in ethics.
- Fit Criterion
 - Students graduating from MSOE shall take a general ethics course as well as a specific course related to computer ethics.
- Supporting Materials:
 - MSOE Academic Catalog

2 ethics courses

MSOE Academic Catalog



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→ which version?
2011-2012
2010-2011

