



Documenting the Requirements

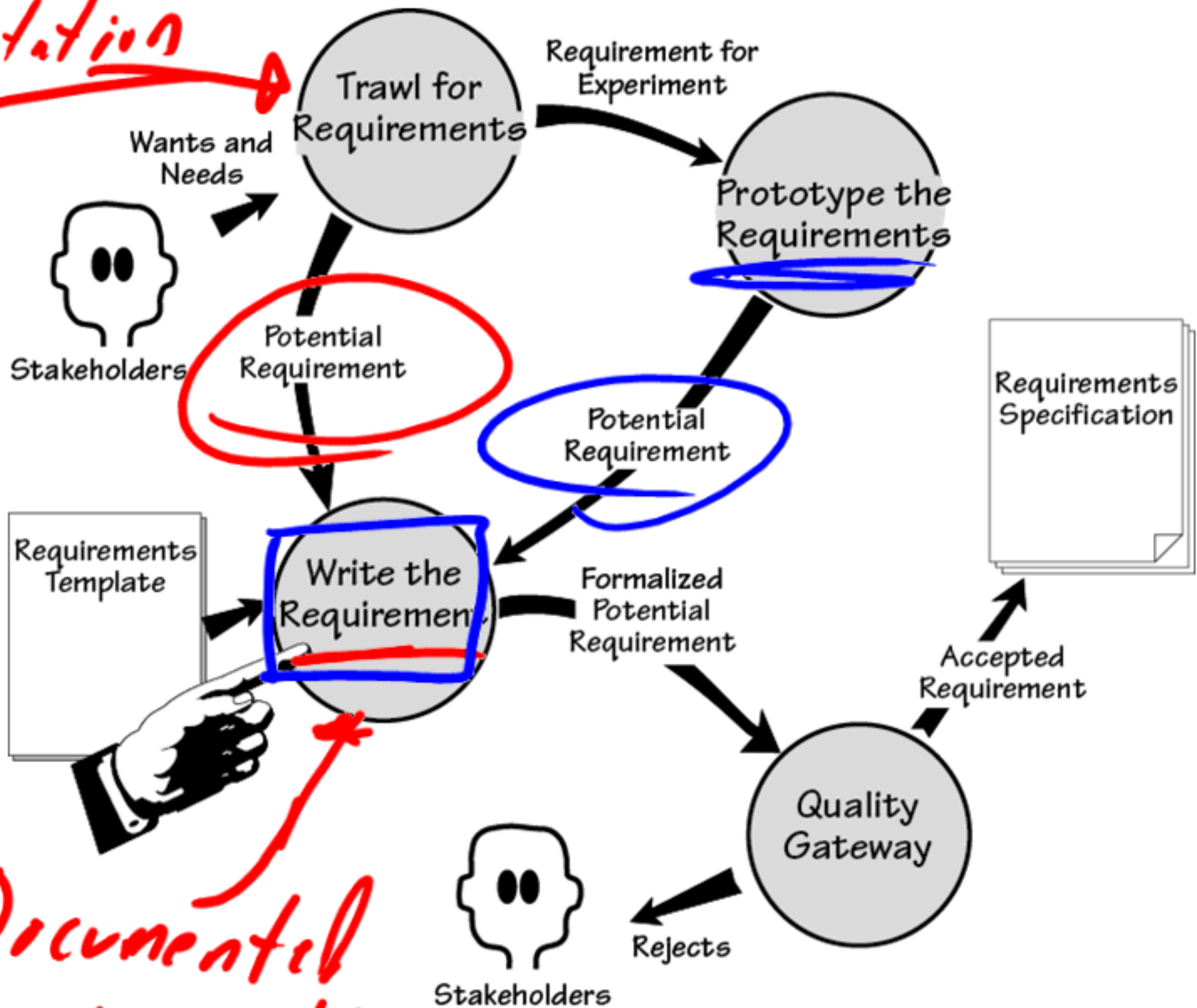
Lecture Objectives:

Communicating to others

- 1) Document software requirements using snow cards
- 2) Define Fit Criteria —
- 3) Define Rationale for a requirement —
- 4) Construct appropriate descriptions, rationale, and fit criteria for a software requirement. —
- 5) Explain the steps of requirements analysis immediately adjacent to writing the requirements ✓
- 6) Understand and explain the requirements knowledge model. ✓

Elicitation

Writing the requirements steps

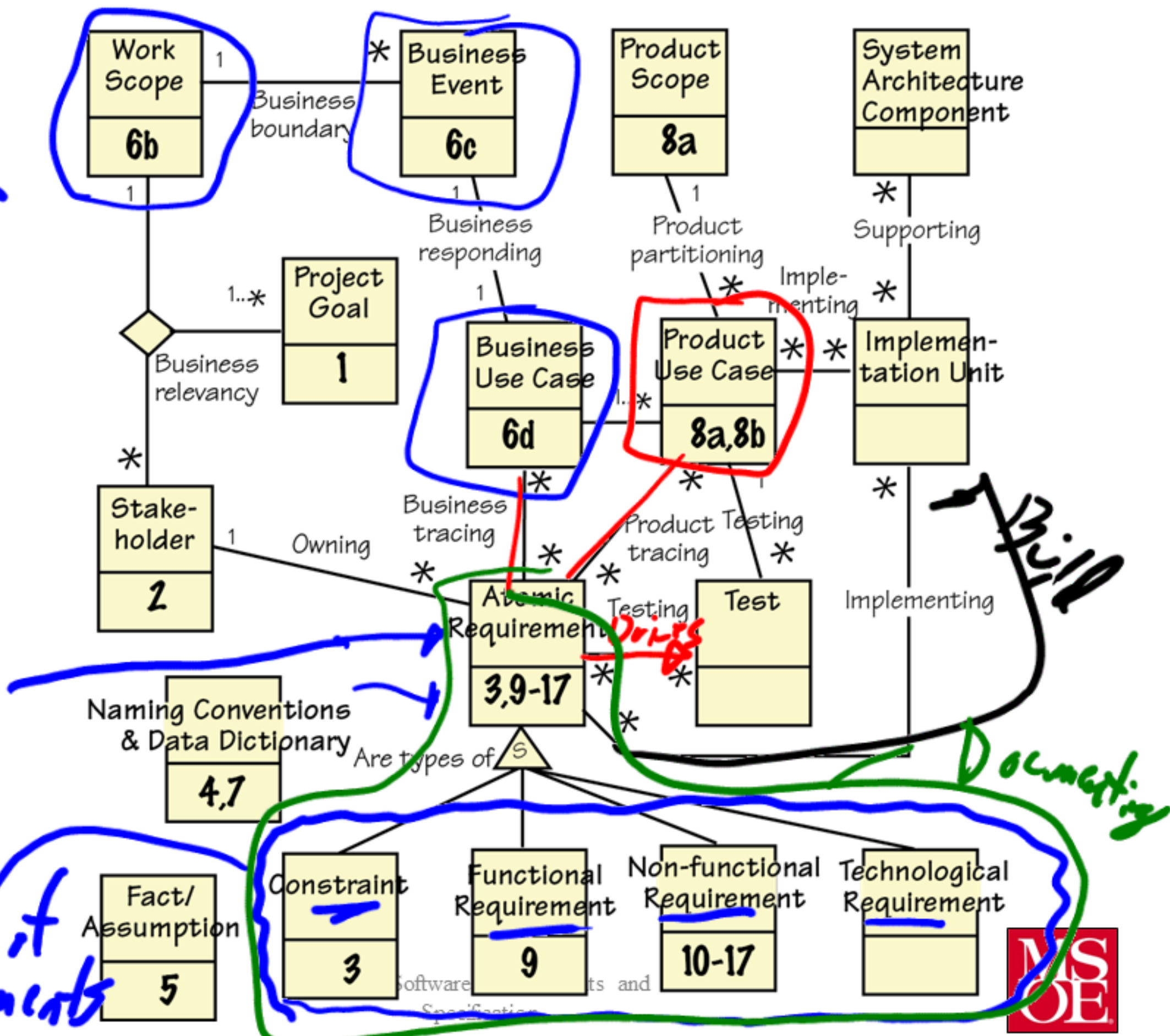


"Documented Requirements"

The requirements

on relationship requirements

Types of Requirements



Definitions

- Rationale → Why?
 - Rationale expresses the reason that a requirement is necessary.
 - It is the justification for the given requirement.
 - Provides guidance for selecting the fit criteria.
- Fit Criteria) — How good is our system vs. the requirement.
 - The quantitative measurement of a requirement
 - Provides a basis for the development of tests to verify compliance with the requirement

3x5 / 5x7 "flash"
card
Snow Card

Requirement #:	Requirement Type:	Event/BUC/PUC #: Use
Description:	⇒ Working on the requirement.	
Rationale:	↳ "Why" → "where/who"	
Originator:	→ How to measure success	
Fit Criterion:		
Customer Satisfaction:	Customer Dissatisfaction:	
Priority:	Conflicts:	
Supporting Materials:		
History:		

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Snow Card

- I am building a system for crop monitoring in Florida. It is intended to tell the user if there is a danger of oranges freezing.



Snow Card

Requirement #:

Requirement Type:

Event/BUC/PUC #:

Description:

The crop monitoring system shall warn farmers when freezing temps are predicted overnight.

Rationale:

Originator:

Fit Criterion:

Customer Satisfaction:

Customer Dissatisfaction:

Priority:

Supporting Materials:

History:

Crops must be protected from freezing and this take 4-5 hours to set up.

The system shall warn whenever the low is to be 32 degrees or lower.

Conflicts:

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Requirement #: 75

Requirement Type: 9

Event/BUC/PUC #: 6

Description: The product shall issue an alert if a weather station fails to transmit readings.

Failure of weather system

Rationale: Failure to transmit readings might indicate that the weather station is faulty and needs maintenance, and that the data used to predict freezing roads may be incomplete.

Source: V. Appia, Road Engineering

Fit Criterion: For each weather station the recorded number of each type of reading per hour shall be within the manufacturer's specified range of the expected number of readings per hour.

Testable criteria

Customer Satisfaction: 3

Customer Dissatisfaction: 5

Dependencies: None

Conflicts: None

Supporting Materials: Specification of Rosa Weather Station

History: Raised by V.A., 28 July 2013

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Requirements Types

- Functional Requirements (9) —
- Look and Feel Requirements (10) —
- Usability and Humanity Requirements (11) —
- Performance Requirements (12) —
- Operational and Environmental Requirements (13) — OS
- Maintainability and support requirements (14)
- Security Requirements (15) — How low
- Cultural Requirements (16) — keep system
- Legal Requirements (17) — safe.

Languages

Satisfaction / Dissatisfaction

Not impressed

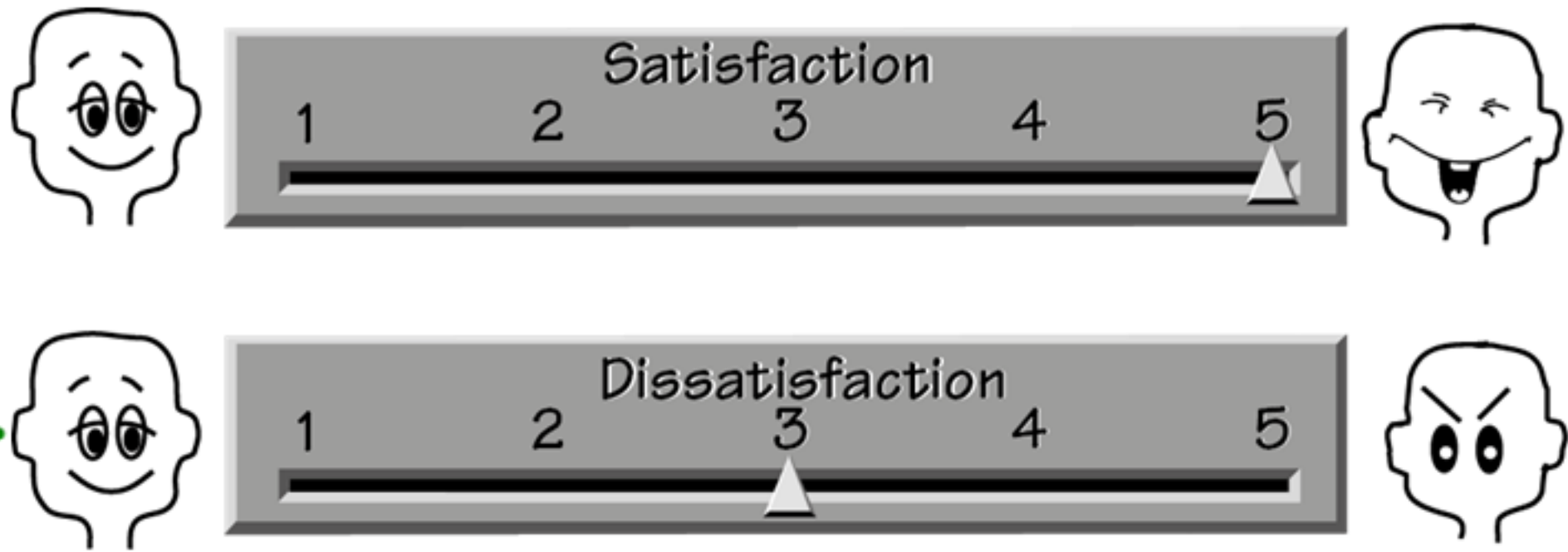


Customer really happy w/ product



How happy the client is if that feature is in the final product.

Satisfaction / Dissatisfaction



How unhappy is the customer if something doesn't work.
High — if customer is irate about something not working.

Problem

- MSOE desires to have a better course scheduling system. Students are often unhappy about their schedules and comment that they would like a better scheduling system. Faculty members also have difficulty with their schedules. Classes meet at inopportune times.
- Working with the partner next to you, you are tasked with developing two requirements, rationale, and fit criteria for this system.