

# Software Testing

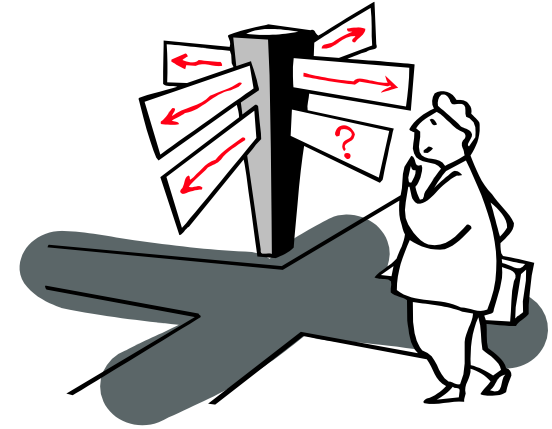
## 0. Practical Matters



Universiteit Antwerpen

# 0. Practical Matters

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# Contents

The student will acquire experience with thorough testing and verification of a software system to guarantee with a certain degree of confidence that a given software system meets its specification.

The course has a practical ring to it with

- a minimal theoretical content
  - taught as testing patterns,
- several lab sessions
  - trying out several test techniques and strategies on an existing representative software system
- a few guest speakers from industry
  - confirming that the testing techniques covered in the lectures indeed are used in practice

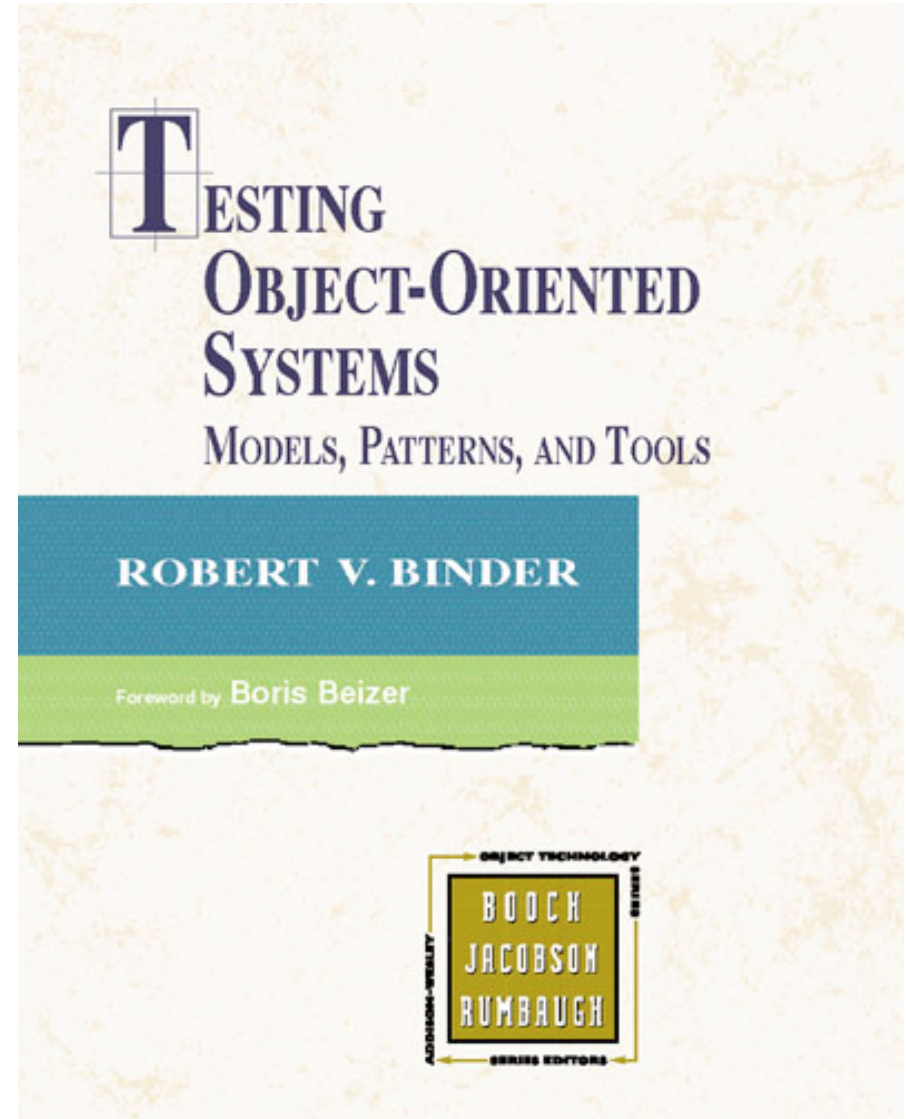
# Goal(s)

You will be able to ...

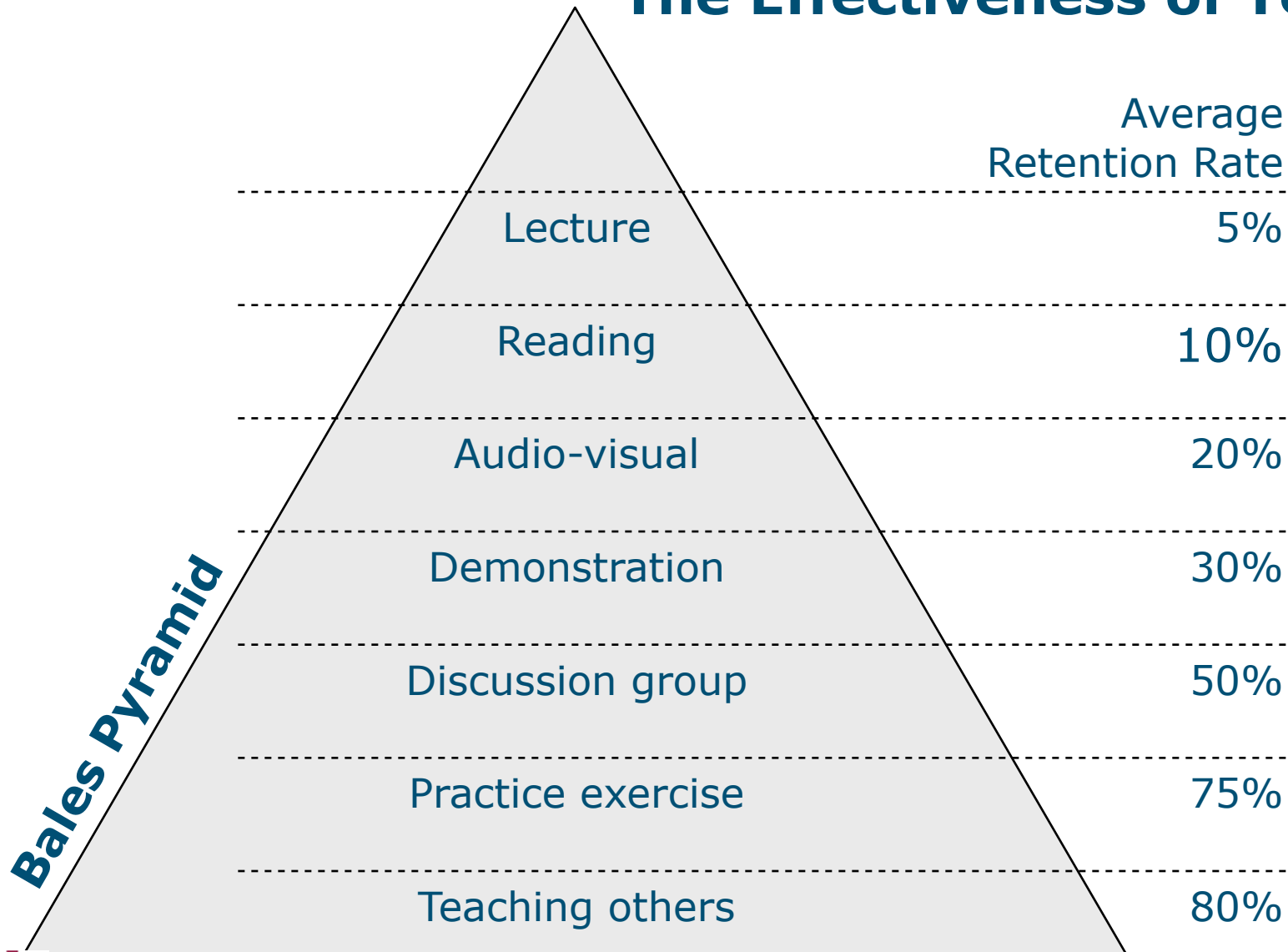
- apply white-box and black-box test techniques to build a test-suite;
- measure (and improve) the coverage of a test-suite;
- choose the most appropriate test strategy;
- review and verify a (test)model of a given system.

# Course Material

- Robert V. Binder. Testing Object-Oriented Systems. Addison-Wesley, 2000
  - Multiple copies available in the library
  - Material available on author's web-site  
<http://www.rbsc.com/>



# The Effectiveness of Teaching



# Teaching Approach

- One group of students (2-3) prepares one lecture
  - reads corresponding chapters in detail
  - prepares slides to present in the class room  
slides will be distributed by means of the web-site (PDF)
  - presents the material to her/his peers during lecture
- One group of students (2-3) serve as opponents
  - reads corresponding chapters in detail
  - prepares questions to be asked after lecture
- Peer assessment: all students rate the lecture
  - (a) knowledge about subject
  - (b) understandability of the lecture
  - (c) coherence of material presented

See separate checklist  
for details !!

# Schedule

1	-- spare slot	
2	Introduction (Ch. 3 en 4)	prof. Demeyer
3	Test Models (Ch. 5, 6 en 7)	prof. Demeyer
4	Ch.9 (Results) + Ch.10 (Classes)	prof. Demeyer
5	-- spare slot	
6	Ch.11 (Components) + Ch.12 (Subsystems)	student(s)
7	Ch.13 (Integration) + Ch.12 (Application)	student(s)
8	Ch.15 (Regression) + Ch. 17 (Assertions)	student(s)
	-- holidays	
9	-- spare slot	
10	-- spare slot	
11	External industrial speaker	guest speaker
12	External industrial speaker	guest speaker
13	-- holidays	



# Exam and Grade

Oral exam (+- 1/2 an hour) will cover

- Guest lecture (random assignment)
- Testing Patterns (random assignment; not one that you presented)
- Lab sessions (motivation for use of test techniques and strategies)

Separate component of final grade

- Student lecture
  - criteria:
    - (a) knowledge about subject;
    - (b) understandability of the lecture;
    - (c) coherence of material presented
  - peer assessment