

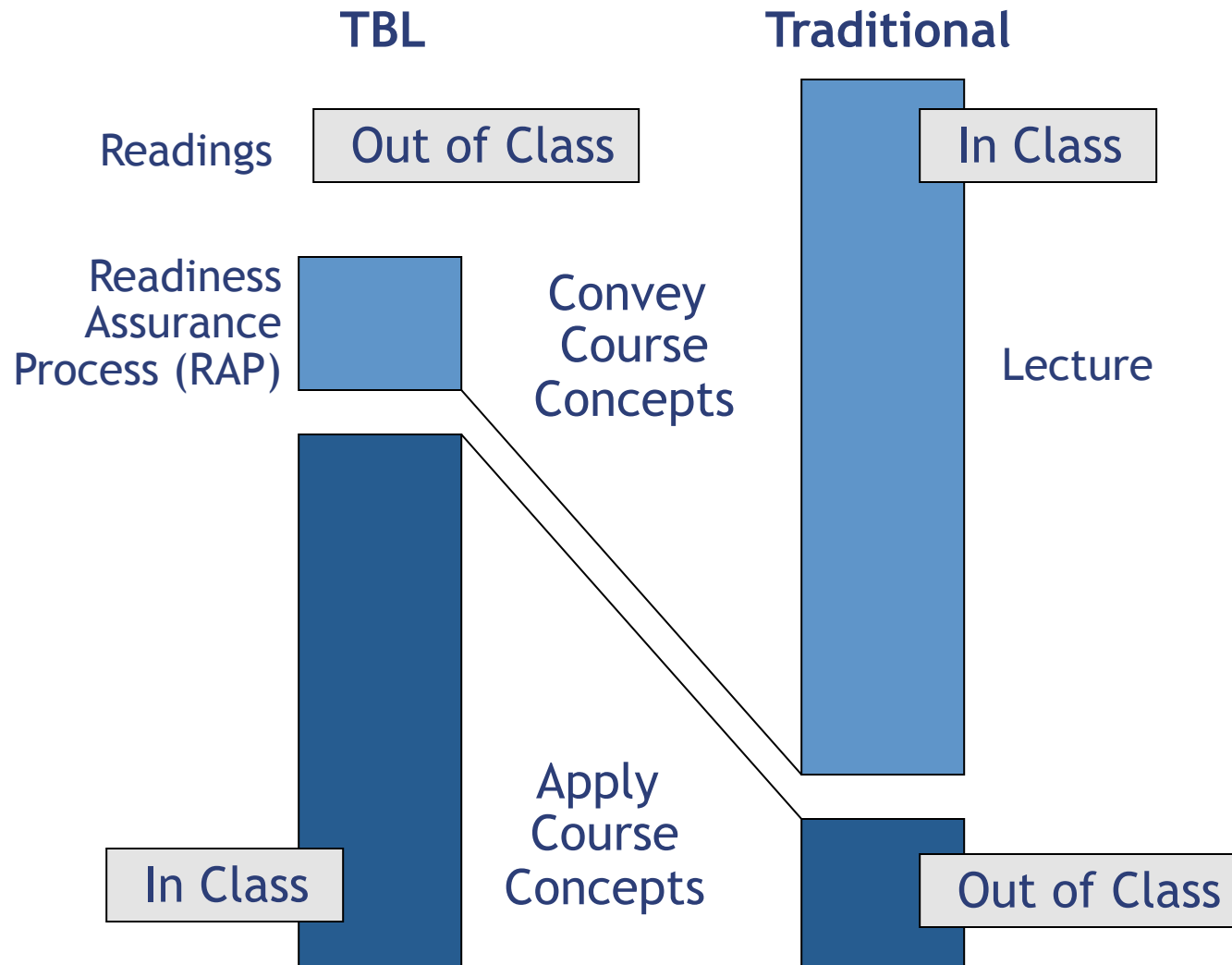
Introduction to Advanced Programming Techniques

Today's Plan

- Intro to Team-Based Learning (40 minutes)
 - Team Formation (15 minutes)
 - Team Naming (5 minutes)
- Sample TBL experience (40 minutes)
 - Review syllabus (5 minutes)
 - Individual quiz (5 minutes)
 - Team quiz (20 minutes)
 - Reporting and Discussion (10 minutes)
- Grade Weight Assignment (20 minutes)

About TBL

- What is TBL? How does it work?
- Team Formation
- The “Readiness Assurance Phase”
- Application Activities
- Peer Evaluation!



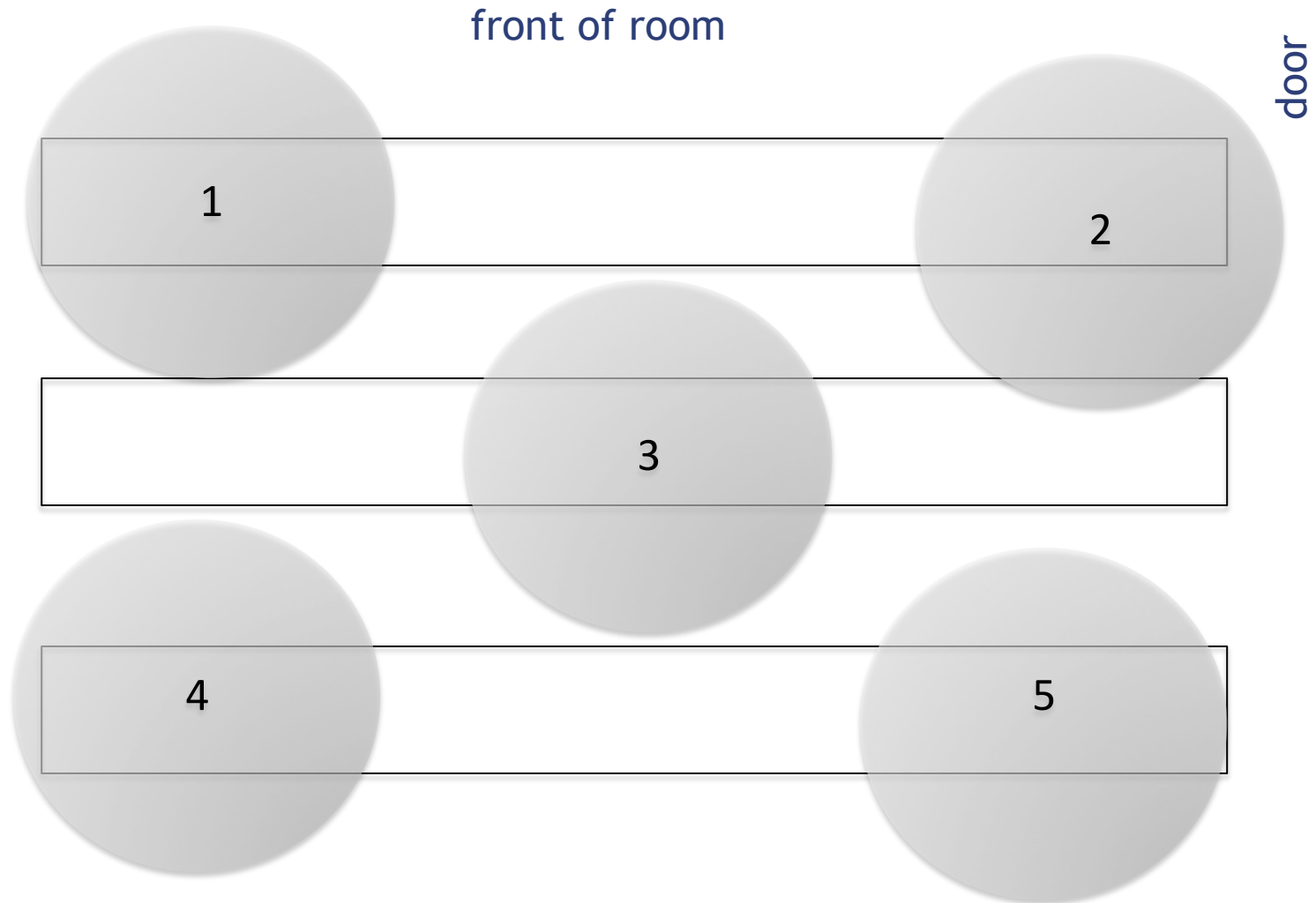
TBL Sequence During Each Unit

- Readings and Outside Work
 - Selected readings assigned in advance
 - Students really are responsible
- Readiness Assurance Process (RAP)
 - Individual Readiness Assurance Test (iRAT)
 - Team test Readiness Assurance Test (tRAT)
 - Appeals
 - Instructor feedback
- In-Class Team Application Exercises
 - Simple to Complex
 - In-class practice

Formation of Teams

(designed to distribute students' unique
“assets” equally across teams)

Sit with your Team



Choose a name for your team; write down all team members

Readiness Assessment Process (RAP)

1-2 hours per unit

- ☐ Complete reading assignment before each class
- ☐ Individually complete test
- ☐ Hand in individual test. I will score it while you
- ☐ Complete the same test with your team (IF-AT “scratch-off” sheets)
- ☐ Consider and submit any appeals (Appeal Form)
- ☐ Instructor will then clarify any questions or issues from the readings or test

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT)

Name Team #3 Test # 1

Subject _____ Total 23

SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	Score
1.			★		4
2.	★			★	2
3.				★	4
4.					1
5.		★			4
6.	★				0
7.	★		★		4
8.					
9.					
10.					

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT)

Name _____ Test # _____

Subject _____ Total _____

SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	E	Score
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

IF-AT Forms

Team 3

Performance & Attendance Record

No.	Performance Score					No. Absences	No. Tardies	Total Score
	1	2	3	4	5			
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Team 3

Team Folders



Application Activity Response Cards

iRAT: At the Beginning of Each Unit

Instructions: Each question is worth 4 points. You should assign a total of 4 points on each line. If you are uncertain about the correct answer, you may assign points to more than one box.

Q. #	A	B	C	D
1		4		
2	2		2	
3	1	1	1	1
4			4	

Demonstration iRAT

(closed book!)

When finished, turn over your answer sheet.

tRAT

Taken with team immediately after iRAT

If you choose the right answer, you will see the star.

4 points for choosing the right answer in 1 scratch; 2 points for 2 scratches; 1 point for 3 scratches and 0 points if you have to scratch 4 or more all squares.

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT)					
Name <u>TEAM #1</u>		Test # <u>1</u>			
Subject _____		Total <u>34</u>			
SCRATCH OFF COVERING TO EXPOSE ANSWER					
	A	B	C	D	Score
1.					<u>4</u>
2.					<u>1</u>
3.					<u>4</u>
4.					<u>2</u>
5.					<u>4</u>
6.					<u>4</u>
7.					<u> </u>

Demonstration tRAT

(closed book!)

****Be sure to scratch the correct question number!****

Appeals

(using the Appeals Form)

**APPEAL- RE-WRITE OF BAD QUESTION
(TEAMS ONLY) - TEAM # _____**

INDIVIDUAL QUESTION # ____

For appeals based on **AMBIGUITY, you should:**

1. Identify the source of ambiguity in the question
2. Offer an alternative wording that would have helped you to avoid the problem.

Appeals

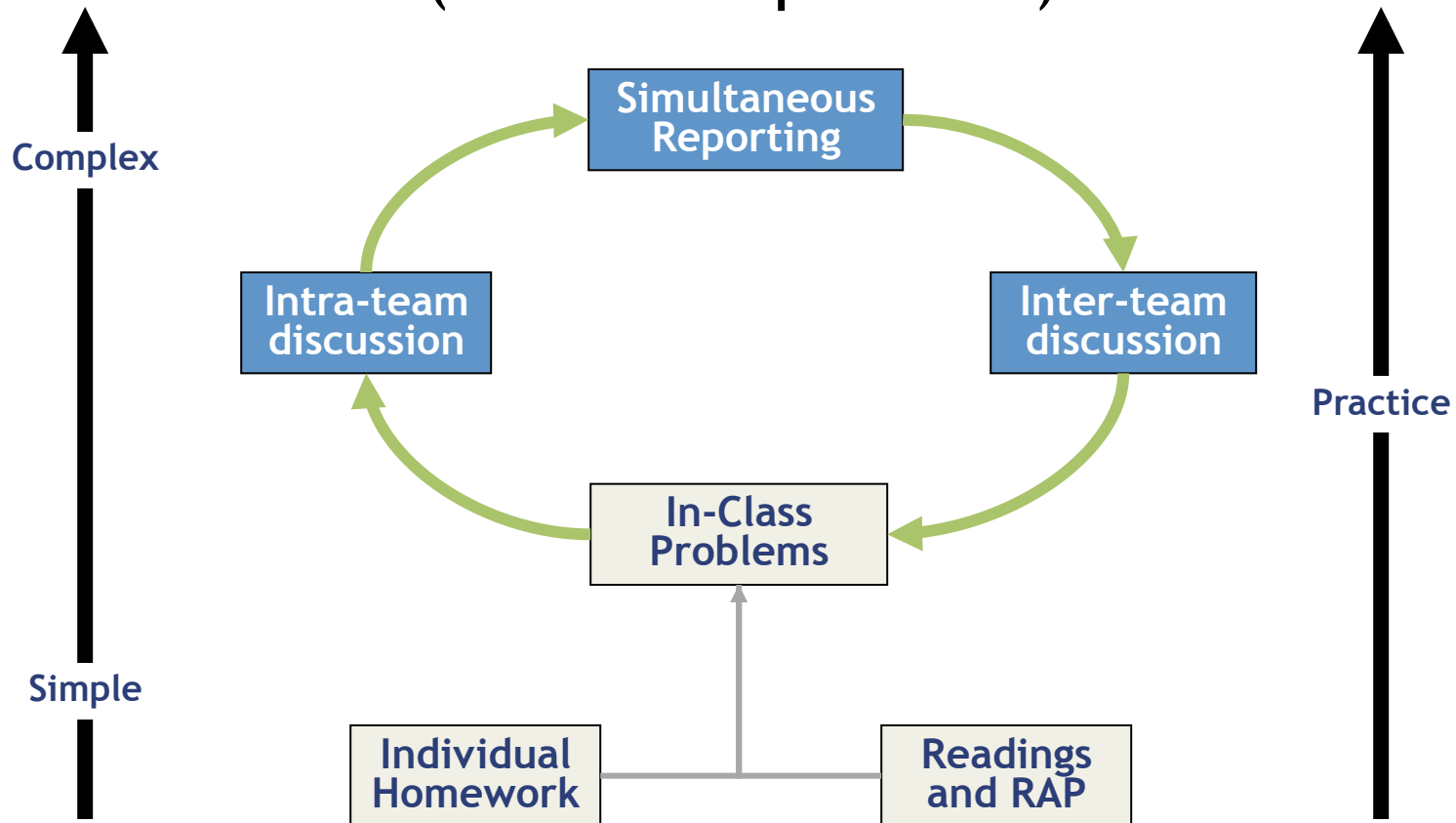
For appeals based on **CONTENT, you should:**

1. State the reason(s) for disagreeing with our answer and,
2. Provide specific references from the reading material to support your point of view.

Instructions:

“In the space below, explain, with references from the readings if possible, why you feel your selected response was the BEST one.”

Application Phase (2-8 hours per unit)



Making Application Activities Work

- Team activities (4 S' s)
 - Same Problem. Teams work on the same problem, case or question.
 - Significant Problem. Teams work on a problem, case, or question demonstrating a concept' s usefulness.
 - Specific Choice. Teams must use course concepts to make a specific choice.
 - Simultaneous Report. Teams report their choices simultaneously. Visibility of student thinking.

How Assignment Design Affects Individual Thinking, Intra- & Inter-Team Discussion

- “Make a list”—basic
 - Low cognitive skills
 - Low commitment to output
 - Low accountability
- “Make a specific choice”—better
 - Focuses on ‘why?’
 - Higher cognitive skills
 - Higher commitment to output
 - Higher accountability/cohesiveness

Peer Evaluations

(Promoting Individual & Team Accountability)

1. Each individual will evaluate the contributions of all of the other team members by assigning an average of 10 points to the other team members.
 - For a 6-member team, you must assign a total of 50 points to the other 5 members in their team
 - For a 7-member team it would be 60 points
2. The ratings must differentiate the team members
 - Must give at least one score of 11 or higher (with a maximum of 15) and at least one score of 9 or lower.

Peer Evaluation Rules

- You cannot evaluate yourself.
- You cannot give the same score to all teammates (there must be some differentiation)
- Keep in mind an average of 10 points to each of the other members of your team.
- This is not a time to be “nice” and give everyone the same grade. It is an *opportunity*
 - to provide *honest* and *anonymous* feedback to teammates who contributed less than others
 - to *reward* the people who contributed the most

Peer Evaluations, continued

Example: Alice evaluated her team members

1. Alice --
2. Bob 8
3. Clark 10
4. Denise 10
5. Edward 12

TOTAL: 40

Average: 10 each

Peer Evaluations, continued

- You will carry out this evaluation process twice, once around the sixth week of class, and once at the end of class.
- *Filling out* the evaluation will contribute to your individual performance grade
- Your scores on the *midterm* evaluation will not affect your course grade; it's an opportunity for you to get feedback
- Your scores on the *final* evaluation *will* contribute to your course grade.