Opportunities and New Directions 2012: Fostering Deep Approaches to learning

Team-based Learning

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Learning Objectives

1. Describe the steps used in team-based learning
2. Appreciate the educational theory basis and value of team-based learning in developing clinical reasoning skills
3. Appreciate the challenges of using the method

Healthcare Education Requires:

- Development of critical thinking skills
- Effective team-work skills

- **Case Analysis** courses are part of the optometry curriculum

Case-based Learning

- Problems
  - Social loafing
  - Groups stuck in the storming phase
  - Dividing up the case tasks and working on topics as individuals in parallel instead of collaboratively
  - Lack of facilitator training and consistency of quality of facilitation

  - MScCH(HPTE) University of Toronto

Educational Theory

Constructivism

- The teacher is a guide to facilitate learning
- Learning should be active using relevant problems and group interaction
- Teaching involves providing opportunities to expose inconsistencies between current understandings and new experiences therefore develop new schemes
- Time is needed for reflection on new experiences

Kaufman D. (2003) Applying educational theory in practice. BMJ 326: 213-6.

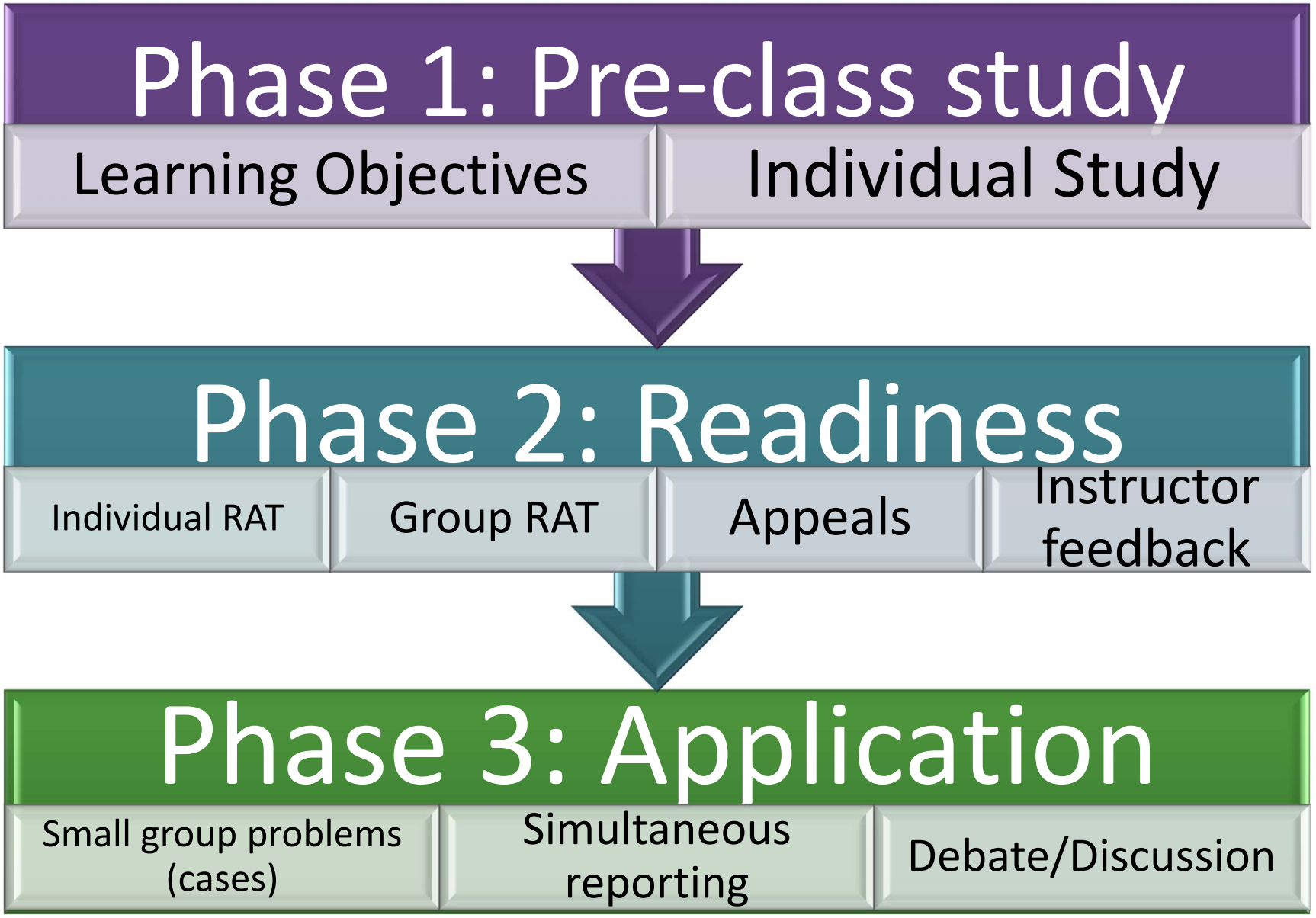

Theory
Practice

Team-based Learning

- Developed by Larry Michaelson in the 1970s for accounting students; adapted to medicine in the 1990s

- Characteristics:
  - Small groups (5-7) all present at the same time
  - One instructor (facilitator)
  - Accountability and preparedness assured
  - Feedback

Michaelsen L. Sweet M. The essential elements of team-based learning. In: New Directions for Teaching and Learning no. 116, 2008.


Phase 1: Pre-class study
Learning Objectives
Individual Study
Phase 2: Readiness
Individual RAT
Group RAT
Appeals
Instructor feedback
Phase 3: Application
Small group problems (cases)
Simultaneous reporting
Debate/Discussion

Team-based Learning

1. Students are assigned material
2. Administered individual readiness assurance test
3. Administered group readiness assurance test
4. Instructor gives a short lecture
5. Instructor gives groups a problem to solve
6. Groups simultaneously report their results
7. Groups discuss their answers
8. Groups do peer evaluations

Michaelson L., Parmelee D., McMahon K. Levine R. (2008) Team-based learning for health professions education: A guide to using small groups for improving learning. Sterling:Stylus .

Time lines

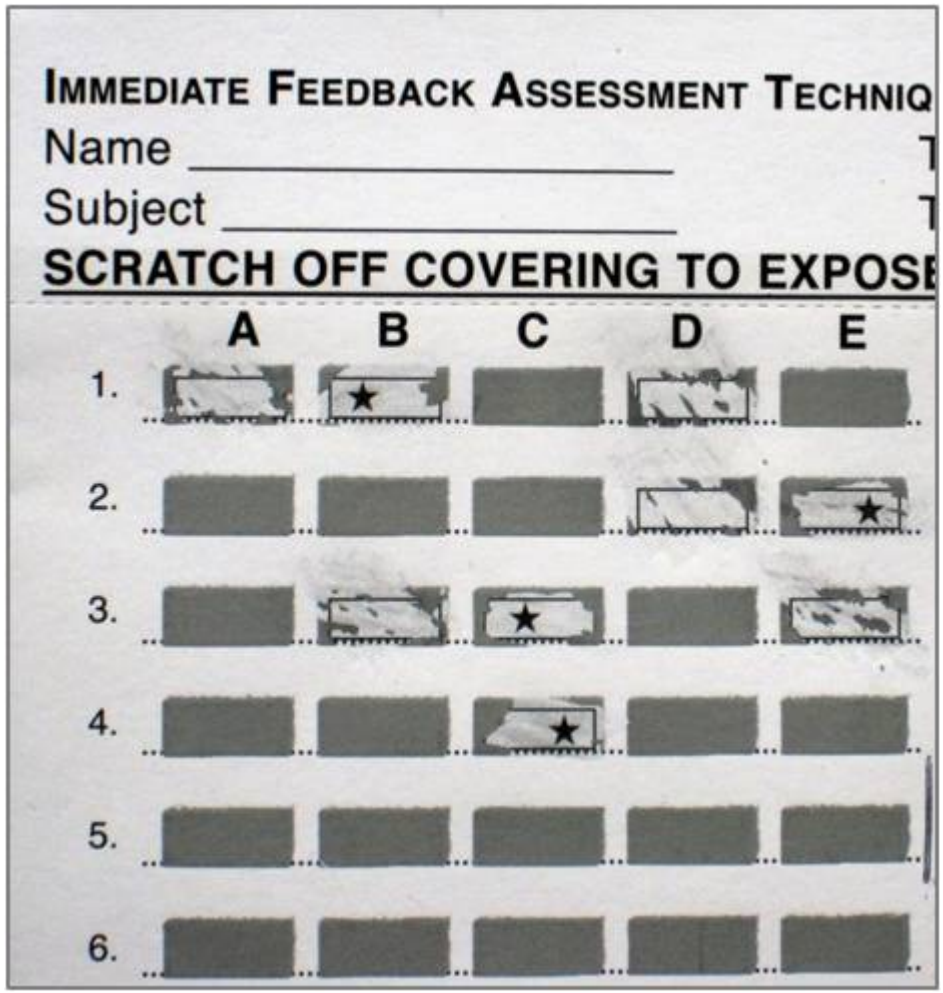
Readiness Assurance Process

1. Readings
2. Individual Test
3. Team Test
4. Appeals
5. Instructor Mini-Lecture

In-Class Application Exercises (4 S's)

- **Significant Problem**.
  Select a relevant, significant problem
- **Same Problem**.
  Teams work on the same problem or question
- **Specific Choice**.
  Teams are required to make a specific choice
- **Simultaneous Report**.
  Teams report their choice simultaneously

Immediate Feedback Cards



Epstein Educational Enterprises

500 cards with 4 choices for 25 questions for $110

Advantages

- High student satisfaction
- Good engagement and problem solving
- Teams do better than individuals

TBL	IRAT (%)	GRAT (%)
TBL 1 Fall	77	88
TBL 2 Fall	69	93
TBL 3 Fall	66	84
TBL 4 Fall	86	100
TBL 1 Winter	77	91
TBL 2 Winter	77	94
TBL 3 Winter	87	99
TBL 4 Winter	79	94

Challenges

- A lot of preparation time is needed
- Facility needs to be able to accommodate the teams (round tables would be the best)
- Helps to have a teaching assistant
- Integration with the demands of the remainder of the program
- Cooperation of any team teachers
- Students dislike peer assessment

Video

Contact Information

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