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## Dynamic Discussions with Team-Based Learning



# Let's jump in

## Watch the following video

- As you watch, I want you to *individually* assign a score between 0 and 10:
  - 0=Not a discussion
  - 10=An ideal discussion (perfect!)
- Please write your score down.

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## Discussion

<https://www.youtube.com/watch?v=0AyuHjnjfR&feature=youtu.be&t=29s>

## As a group: compare scores and come to a group agreement

- Please write your group score on paper on the table.
  - 0=completely ineffective
  - 10=An ideal discussion (perfect!)
- Be prepared to support your answer.
- *WHEN I SAY*, hold up your score so everyone can see.

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## What do we want from a class discussion?

- What is the *goal* of a good discussion?

## Note the essential nature of the task I just gave you

Knowledge—from-experience+ first-hand observation  
+ analysis + judgment...

...funneled into a specific decision (choice, claim, conclusion) about something you've not seen before.

## An effective team task...

...involves a degree of "judgment" and cannot simply be looked up (so, open book is OK, even desirable).

The learning goal is the USE of knowledge —e.g., informing actions— not simply the knowledge itself.

## Note the management of the task

1. Team decision is reportable in a simple format (e.g., scoring, choosing, ranking)
2. Cards/sheets: Instrument to make team thinking instantly visible
3. Simultaneous report used to
  - Promote accountability
  - Induce reflection, self-assessment
  - Create suspense and drama

## Key Elements of TBL

- Teams
  - Permanent, carefully formed to distribute assets
- Readiness Assurance Process (student accountability)
  - Individual study
  - Individual Readiness Assurance Test
  - Team Readiness Assurance Test
  - Appeals
  - Instructor Feedback
- Application Exercises
- Feedback
  - From Instructor, *from peers*

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  - Instructor Feedback
- **Application Exercises!!!**
- Feedback
  - From instructor, from peers

## Course Design: TBL focuses on action

- Content serves the development of disciplinary skill.
- Backward design: what do you want students to know six months later? a year later?
- Course is divided up into 5-7 units
  - RAP process and feedback: 45-75 mins of unit
  - Application exercises: 4-8 hours of class time
    - Instructor feedback and mini-lectures

## Self Assessment (for teams)

Which of the following best describes you?

1. I rarely or never ask students to work together in class.
2. I occasionally assign group projects.
3. I occasionally ask students to discuss something in small groups during class
4. I regularly or frequently ask students to form ad hoc groups in class to carry out tasks.
5. I put students into permanent teams that work together frequently, and are held collectively accountable for their work as a team.

## Team formation

- Line up according to how you scored yourself

## Why so much care in creating teams?

- Distribute assets (experience, perspectives, values)
- Weaken pre-existing alliances
- Make process transparent
- Establish significance via ceremony

## Let's look at another case

The handout titled "The Case of Robert Burdell" contains a partial transcript of an actual classroom discussion. Some details have been altered to protect the identity of the persons and institution involved.

Please read the scenario and be prepared to answer some questions about it.

Working with a group, use your interpretation of this situation to decide which diagnosis of the situation is **MOST LIKELY** and which is **LEAST LIKELY**. Be prepared to share and explain your group's answer.

- A. The students are incapable of responding better because they did not prepare well.
- B. The students distrust Professor Burdell and are refusing to play along with him.
- C. The students are waiting for one of the smartest students to save them.
- D. The students are afraid they will be wrong if they say anything.
- E. The students do not understand what Professor Burdell is asking them to say.

On my signal, use your colored cards to indicate the diagnosis that your group believed to be **MOST LIKELY**.

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## Content example

- Introductory Philosophy of Mind
- Naïve task: give ½ sheet handout with different positions on the mind/body problem.
- Application task: students have read and been doing application exercises on the positions.

## Philosophy of Mind Case

Phineas Gage was a railroad worker in Vermont when he suffered a traumatic brain injury. After recovering from his injury, reports show that his personality significantly changed.

OLD: foreman (trustworthy), "temperate habits," "He had had 'a well balanced mind and was looked upon by those who knew him as a shrewd, smart businessman, very energetic and persistent in executing his all his plans of action."

NEW: "fitful, irreverent...impatient of restraint or advice when it conflict[ed] with his desires,...obstinate, yet capricious and vacillating" unable to follow through with plans, but constantly making plans. Was never again able to hold a job for very long.

(Damasio, Descartes' Error)

On your own: Which of the following views can **BEST** account for this, and which can **LEAST**?

- A. Substance Dualism
- B. Property Dualism
- C. Behaviorism
- D. Reductive Materialism
- E. Nonreductive Materialism

In your team: Which of the following views can **BEST** account for this, and which can **LEAST**?

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## What did we do?

- Used the same question to get feedback from both individuals and groups.
- Lets you know both where individuals are and what positions they find more persuasive via discussion.
- FEEDBACK!
  - ABCD cards are "low tech clickers"
  - Colored cards let groups tell by sight if they are in agreement with others.

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## Debrief: What did we just do?

- Discussion based around *decision-making* and *judgment*
  - I asked you questions I don't know the answer to: "what do you think?"
- Discussions based on content
  - Here: video (1<sup>st</sup> task), short reading (2<sup>nd</sup> task)
  - In class: might be reading

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## Why do limited-option decisions foster critical thinking?

*Instructional Focus:* Focused decision-making ensures that students' analysis and discussion will focus on the issues *that you have determined to be key.*

### Compare:

*Discuss why Dr. Burdell's students aren't answering his questions.*  
to

*Rank the following diagnoses of the situation in Dr. Burdell's classroom.*

## Another example of a strategy to promote critical thinking

Using raw data to make predictions

## Predict the Data

The study: In your envelopes are data from The US Department of Education Early Longitudinal Study (ECLS), a study that sought to measure students' academic performance and gathered survey information about each child, seeking to determine which demographic factors would correlate with academic achievement.

Your task: In your groups, sort these data into two categories: (A) factors that were found to be strongly correlated with high test scores and (B) factors that were NOT strongly correlated with high test scores. Be prepared to share and explain your predictions.

## Let's hear some of your predictions

When prompted, hold up the card (A or B) that corresponds with the category into which you placed the following items. Be prepared to explain your group's answers.

- The child's mother was thirty or older at the time of her first child's birth.
- The child's parents read to him nearly every day.
- The child has many books in the home.
- The child frequently watches television.
- The child's parents speak English in the home.
- The child attended Head Start.

### About this task

- Shape: Make a decision (which items belong in which category?) based on what you already know.
- Timing: At the beginning of a sequence ("teach forward")
  - Compare alternate use: Later in the sequence, so students use their new knowledge of course material (from the readings) to make more sophisticated decisions.

### Factors strongly correlated with high test scores

- The child has educated parents.
- The child's parents have high socioeconomic status.
- The child's mother was thirty or older at the time of her first child's birth.
- The child had low birth weight.
- The child's parents speak English in the home.
- The child is adopted.
- The child's parents are involved in the PTA.
- The child has many books in the home.

### Factors NOT strongly correlated with high test scores

- The child's family is intact.
- The child's parents recently moved into a better neighborhood.
- The child's mother didn't work between birth and kindergarten.
- The child attended Head Start.
- The child's parents regularly take him to museums.
- The child is regularly spanked.
- The child frequently watches television.
- The child's parents read to him nearly every day.

### Application Exercise Design

"4S design"

- Same Problem
- Significant Problem
- Specific Choice
- Simultaneous Report

### Task formats for 4 S Decisions

- Select from limited options (e.g. multiple choice)
- Ranking
- Sorting
- Best Answer
- T/F
- A single value (numerical estimate or other scoring)
- Sequencing/organizing stuff (chronological; procedural; logical; narrative)
- What does not belong?
- Single sentence (summary; definition; claim; etc.)
- Limited word task (analysis reported in 1-5 words)

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## Specific Choice

- **NOT** open-ended, **not** a list
- **KEY:** make a decision/judgment
- **Compare:**
  - Who can tell me what will happen as a result of action P?
- **With:**
  - Given facts X, Y, Z, which of the following is the most likely outcome of action P? A; B; C; D (e.g., multiple choice)

## Why is decision-making critical?

**Intellectual:** Requires more focused analysis than many open-format questions:

- Compare: What do you think might happen as a result of action P?
- With: Given facts X, Y, Z, which of the following is the most likely outcome of action P? A; B; C; D (e.g., multiple choice)

**Pedagogical:** Allows the instructor to provide immediate, direct, focused feedback. (Why did you choose A and not B?)

**Social:** Multiple minds converging on a single action

Forces students to practice communication, listening and negotiation—with immediate feedback

## Examples of Team Task Design

### Simple Application

Which of the following objects would be the best example of concept X (that you just read about)?

## Examples of Team Task Design

### Analysis

Which of the following theories (that you just read about) would be most useful in predicting the outcomes of this process?

## Examples of Team Task Design

### Analysis and Evaluation:

Rank the following strategies/recommendations / explanations in terms of which would be the most effective, in light of the three theories we just read about.

## Bloom's Taxonomy (Simplified)

### Synthesis/Evaluation

Make predictions  
Make choices/decisions  
Compare/discriminate between ideas

### Application/Analysis

Solve problems  
Find patterns

### Knowledge/Comprehension

Recall of information (conceptual)  
Grasp meaning

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