Collaborating with Student Peer Leaders: Fostering Self-Directed Learning

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Questions…

How have you used undergraduate teaching assistants in your classroom?

How could you use undergraduate TAs?
Workshop goals?

1. My use of undergraduate TAs (aka peer tutors) in second-year economics

2. Fishbowl experience of peer tutor training for problem-based learning; debrief

3. Transfer of knowledge about peer tutor experience in a course taught with PBL
Culture of T&L in Economics

- Didactic lecturing, traditional testing
- Content-driven, teacher-centric
  (Watts & Becker 2008; Bloemhof 2012)
- Threshold concepts  (Meyer & Land 2004)
- Significant complexity
“The learning paradigm ends the lecture’s privileged position, honoring in its place whatever approaches serve best to prompt learning of particular knowledge by particular students.”

Barr and Tagg (1995:14)
“Why use PBL?”

The traditional sequencing of learning does not reflect real life interaction with the material (Neufeld & Barrows 1974, 1043)

“PBL… is really about knowledge, learned in the context in which it will later be used so that hopefully transfer can be facilitated.” (Norman 1997, 264)
Small-group, self directed PBL

- 2nd yr “survey” of international economics
- Prerequisite: 2 “chalk & talk” theory courses
- McMaster model (Neufeld & Barrows 1974)
  - 4 x 2 week problem cycles, 2 mtgs/week (13 wks)
  - Problem-based individual assessments
  - “just in time” homeworks
  - Final exam randomized on homework problems
How PBL works

First meeting, Week 1:
PBL group meeting

Second meeting, Week 2:
Whole group activity

Second meeting, Week 1:
Whole group activity

First meeting, Week 2:
PBL group meeting
Objectives: Peer tutor training

• Engaged empathy for the groups
  – Understanding of aims of PBL process
  – “heads up” about predictable processes
1. Shock

2. Denial

3. Strong Emotion:
   - Depressed:
   - Physical symptoms:
     - panic, regret/guilt,
     - anger/resentment

4. Resistance:
   - to return to the routine,
   - withdraw

5. Acceptance:
   - resignation
   - hope, "leap of faith"

6. Struggle:
   - to affirm new reality,
   - frustration

7. Better Understanding:
   - Impatient with Performance
   - Sense of direction

8. Integration

New Level of Performance

Change

Performance
Current Level

Time

Woods 1994 Figure 1-1
Objectives: Peer tutor training

- Engaged empathy for the groups
  - Understanding of aims of PBL process
  - “heads up” about predictable processes

- Practice with supportive questioning
Unproductive Questioning

“That’s from Chapter 5 – it’s the principle of comparative advantage, where two countries can always find something to trade if....”
Unproductive Questioning

“That’s from Chapter 5 – it’s the principle of comparative advantage, where two countries can always find something to trade if….”

• Annihilates structured ambiguity
• Fosters passivity / receptivity
• “one right answer”
Productive Questioning

“That’s a really good observation, Bill: what resources are others working with….”

“That seems like a particularly useful direction: it seems different from the other comments we’ve been brainstorming…. Anyone like to respond?”

“How could we find out if that were true?”
Objectives: Peer tutor training

• Engaged empathy for the groups
  – Understanding of aims of PBL process
  – “heads up” about predictable processes

• Practice with supportive questioning

• Ability to maintain silence, sit with the group
  – Delinking the transfer model
As you chat with your chair, she casually drops a bomb:

“We are all being asked to do more with less now, and so part of today’s meeting is to just let you know that I’ve had to raise the enrolment cap on your course to 120. I guess this means your self-directed learning will have far wider impact.”
(Woods, Cornell Univ. keynote Jan 2012)
Figure 2. A multiple-level categorisation model of conceptions of teaching.
Figure 3. The relationship between conceptions of teaching, teaching approaches and learning outcomes.

Kember (1997)
Peer tutors respond:

• SurveyMonkey
• Mixture of closed/open ended questions
• 30 students – 12 responses (40%)
  – Group leaders (10)
  – On-line tutors (3)
  – On-line problem checkers (2)
  – Invigilators (3)
Time Commitment

• Not unduly onerous
• Halo effect
Supports

- Diversity
- Special skills (4)
  - Curiosity
  - Listening responsively
  - Openminded
  - Calm patience
Transferrable skills
Plus 3 others:
“Being active… while not interfering with them (letting students work out the problems on their own, asking the right questions, at the right times)”
“Active listening”
“Networking…”

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
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<tbody>
<tr>
<td>time management</td>
<td>58.33%</td>
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<tr>
<td>teamwork</td>
<td>50%</td>
</tr>
<tr>
<td>speaking truth to power</td>
<td>8.33%</td>
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<tr>
<td>public speaking</td>
<td>41.67%</td>
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<td>professional communication</td>
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<td>problem-solving</td>
<td>75%</td>
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<tr>
<td>making supported or convincing arguments</td>
<td>58.33%</td>
</tr>
<tr>
<td>leading meetings</td>
<td>50%</td>
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<tr>
<td>integrity</td>
<td>33.33%</td>
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<tr>
<td>experience of commitment and/or follow-through</td>
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<tr>
<td>empathy with others</td>
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<tr>
<td>attention to detail</td>
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<td>ability to work with people</td>
<td>66.67%</td>
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<tr>
<td>a deeper understanding of international economics</td>
<td>41.67%</td>
</tr>
<tr>
<td>“big picture” thinking</td>
<td>33.33%</td>
</tr>
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Final thoughts

• Valuable to peer tutors
  – Reasonable commitment
  – Rewarding – “gave less than I got”
• Supported: training & ongoing monitoring
• Instructor’s role changes
  – Delegation model (business)
Reflection

How could you use this in your classroom?
References: Barb Bloemhof


Barrows, H. S. 1996. Problem-based learning in medicine and beyond: a brief overview,” New Directions for Teaching and Learning, 68 (Winter), 3-12;


