Teaching for Understanding

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John Dewey:
“To grasp the meaning of a thing, an event, or a situation is to see it in its relations to other things.”
*(How We Think, 1933, p. 137)*

Howard Gardner:
“Understanding is a complex process that is itself not well understood.”
*(The Unschooled Mind, 1991, p. 179)*

David Perkins:
“Understanding is the ability to think and act flexibly with what one knows.”
*(Teaching for Understanding, 1998, p. 40)*
What is teaching for understanding?

What is understanding?
(the essential question)

What is worth understanding?
(the value question)

How do we teach for understanding?
(the practical question)
The essential question: What is understanding?

To understand something (a phenomenon or a concept) is to relate it to other things (phenomena or concepts).

Relationships are the content of understanding.
The essential question: What is understanding?

But not just any sort of relating is adequate...

The relating should be correct. *Correct* relationships are the content of understanding.

The relating should be systematic. *Systematic* relationships are the content of understanding.
Correct relationships respond to the criteria of producing and verifying knowledge in the relevant field.

Systematic relationships stem from a guiding principle.
The essential question: **What is understanding?**

The guiding principle is embodied in our question; the question reflects our aim of understanding.

**Our question is:**
What is teaching for understanding?

A teaching that helps students to understand: to relate phenomena or concepts correctly and systematically.
The essential question: What is understanding?

To understand is to relate; to relate is to create.

New understandings (and misunderstandings) are based upon previous understandings (and misunderstandings).

The conceptual net of understanding assimilates new contents or accommodates itself to them.

To understand is to create a conceptual net or to locate a concept within it (an insight).
The essential question: What is understanding?

Kinds of relationships: causal (physics); conceptual (philosophy); formal (art); numeric (math); tonal (music) . . .

The most important relationships are causal.

Two qualities of understandings: understanding causal relationships between objects (external and universal) and subjects (internal and particular).
Big ideas are worth understanding

Big (and great) ideas are rich in . . .

**Meaning** – explain a lot;

**Values** – shape moral sensitivity;

**Motivation** – drive learning (resonating and undermining);

**Culture** – stem from cultural tradition and develop it;

**Presence** – relevant to our life;

**Doing** – impact our behavior.
### Big ideas – not on the playing field of the disciplines or school subjects:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>The organization of knowledge</th>
<th>School subject</th>
<th>Discipline</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim</td>
<td>Transmitting knowledge</td>
<td>Creating knowledge</td>
<td></td>
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<tr>
<td>The preferred academic performance</td>
<td>Final examinations</td>
<td>Research work</td>
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<tr>
<td>The structure of questions</td>
<td>Closed questions</td>
<td>Open questions</td>
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<td>The sources of knowledge</td>
<td>Secondary sources</td>
<td>Primary sources</td>
<td></td>
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<tr>
<td>The rules of knowledge choice</td>
<td>Choose the basic agreed-upon knowledge</td>
<td>Choose the areas of uncertainty and disputes</td>
<td></td>
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<tr>
<td>The deployment of knowledge</td>
<td>More topics in more school subjects</td>
<td>Fewer topics in fewer disciplines</td>
<td></td>
</tr>
<tr>
<td>The quality of knowledge</td>
<td>Pre-disciplinary; fragile knowledge</td>
<td>Disciplinary knowledge</td>
<td></td>
</tr>
<tr>
<td>The picture of knowledge</td>
<td>Reflection of reality</td>
<td>Improving the reflection of reality</td>
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</tbody>
</table>
# The value question: What is worth understanding?

## Realm of meaning

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>The organization of knowledge</th>
<th>Realm of meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim</td>
<td>Understanding big ideas; motivation for deepening understanding</td>
<td></td>
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<tr>
<td>The preferred academic performance</td>
<td>Project understanding rich</td>
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<tr>
<td>The structure of questions</td>
<td>Big questions derived from big ideas</td>
<td></td>
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<tr>
<td>The sources of knowledge</td>
<td>Primary and secondary</td>
<td></td>
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<tr>
<td>The rules of knowledge choice</td>
<td>Criteria of big ideas</td>
<td></td>
</tr>
<tr>
<td>The deployment of knowledge</td>
<td>Limited ideas in limited realms of meaning</td>
<td></td>
</tr>
<tr>
<td>The quality of knowledge</td>
<td>Understood, flexible, meaningful</td>
<td></td>
</tr>
<tr>
<td>The picture of knowledge</td>
<td>Relative but reasoned; a story that works</td>
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</tbody>
</table>
The practical question: **How do we teach for understanding?**

Understanding as conceptual net reduced to understanding performances

<table>
<thead>
<tr>
<th>Present knowledge</th>
<th>Think on and with knowledge</th>
<th>Criticize and create knowledge</th>
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</thead>
<tbody>
<tr>
<td>To express knowledge in your own words</td>
<td>To analyze and synthesize knowledge</td>
<td>To give reasons and justify knowledge</td>
</tr>
<tr>
<td>To explain knowledge</td>
<td>To apply knowledge</td>
<td>To expose contradictions and tensions in knowledge</td>
</tr>
<tr>
<td>To suggest interpretations of knowledge</td>
<td>To suggest example, metaphor, analogy, comparison</td>
<td>To question knowledge</td>
</tr>
<tr>
<td>To extract the essence of knowledge</td>
<td>To generalize from detailed knowledge</td>
<td>To reveal basic assumptions of knowledge</td>
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<tr>
<td>To represent knowledge in various ways</td>
<td>To contextualize knowledge</td>
<td>To formulate counter knowledge</td>
</tr>
<tr>
<td>To present perspectives on knowledge</td>
<td>To predict on the basis of knowledge</td>
<td>To create knowledge on the basis of knowledge</td>
</tr>
</tbody>
</table>
The practical question: How do we teach for understanding?

In preparation for a lesson, through the lesson, after the lesson

1. Formulate a very big idea and divide it into big ideas.

2. Derive from the very big idea a very big question and divide it to big questions.

3. Build your lesson on big idea/s and big question/s – resonate and undermine.

4. Presume before the lesson and capture during the lesson typical misunderstandings and treat them systematically.

5. Guide the student to demonstrate understanding performances.

6. Produce a climate of seeking understandings in the classroom.
TEACHING FOR UNDERSTANDING

mis-understandings

systematic relationships

insight

accommodation

relationships

correct relationships

previous understandings

conceptual map

creation

big idea

understanding performances

reflecting

big question

undermining

realm of meaning

supportive climate

principles for TfU

understood knowledge
Thank You!

Questions, comments, protests?

Yoram Harpaz
Understanding and feeling of understanding
מה"מי יorcaר"

" TableName, והпись מרדן. אתה לוקחת שעון него vh בנקهة לבריתך
ולאמצאת דימוייך, דהיה במפעליותך והופך את זה לשרון."
Understanding and context
Teaching and Learning in a Community of Thinking
The Third Model
Yoram Harpaz
Springer