How teaching naked opened Pandora’s Box and led back to managing course content

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American Fisheries Society Annual Meeting, Nashville, Tennessee
Our Common Concerns
Managing Course Content

The garage approach ------→
Albert Mehrabian, PhD

Words

Tone

Body Language
Unexamined Assumptions
Unexamined Assumptions

1. Who knows best
2. Student evaluations
3. Reading
4. The Lecture
5. Rewards
6. Effort
7. Outcomes assessment
8. Critical thinking
What is Memory?

- **sensory** milliseconds
- **working** $7 \pm 2$ chunks for few minutes, and
- **long-term** $\frac{1}{2}$ hour up to lifetime
How does human memory work?
Reflection

The key feature in learning: application or problem solving
Web 2.0 Tools

- Google Docs
- ITunes U, podcasts
- Second Life
- Slideshare
- Digital Libraries
- Wikis
- Sloodle
- SimTeach
- Bubbl.us
Tree of Life Project

Tolweb.org
Learning Goals

From L. D. Fink, 2003 Creating Significant Learning Experiences.
Content Management

Foundational Knowledge

Topics
- A
- B, C,
- D, E...
Content Management

Learning-Centered Teaching Promotes Multiple Dimensions of Learning

- How to Learn
- Caring
- Human Dimensions
- Integration
- Application
- Foundational Knowledge

Topics A B, C, D, E…
Curriculum-based matrix

<table>
<thead>
<tr>
<th></th>
<th>Introductory</th>
<th>Intermediate</th>
<th>Advanced</th>
<th>Experiential</th>
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</thead>
<tbody>
<tr>
<td>Core Communication &amp; Quantitative Skills</td>
<td>2 3 4 5 6</td>
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<td>Critical Thinking</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>Integration &amp; Application of Knowledge</td>
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<td>1 2 3 4 5 6</td>
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<tr>
<td>Intellectual Depth, Breadth, &amp; Adaptiveness</td>
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<td>1 2 3 4 5 6</td>
<td>1 2 3 4 5 6</td>
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<td>Understanding Society &amp; Culture</td>
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<td>Values &amp; Ethics</td>
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</tr>
</tbody>
</table>

- Complete
- Pending
- Ready
- Locked
|课题 | 安解 | 正式论文 | 感兴趣的鱼 | 反思鱼的识别
|---|---|---|---|---|
| Ichthyology Assignment Matrix | Anatomy Lesson Plan | Formal Essay | Fascinating Fish | Reflections on Learning Fish Identification

**点击单元格查看/编辑**

| 标签 | 说明
|---|---|
| 绿色 | Ready
| 蓝色 | Completed
| 黄色 | Pending
| 粉色 | Locked
**Lythrurus ardens** “rosefin shiner”

**Identification**
- Terminal mouth
- Long, slender
- Dorsal fin dark at base
- Dark, usually triangular spot at dorsal fin origin

Excerpt from Kirk Dunn 2007
Your learning goals for this assignment are:
Develop a curiosity about fishes and an enthusiasm for life-long learning
Care about others who use fishes in various ways for various purposes
Develop confidence in your ability to learn novel fishes and teach others about fish

### Characteristics of the "A essay"

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<td><img src="image.png" alt="Image" /></td>
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</table>

Legend

- Green: Ready
- Blue: Completed
- Yellow: Pending
- Red: Locked
Obstacles to Change
What’s a Thoughtful Instructor to Do?

- Instructional Strategy
- Content & Goals
- Tool

Learning Experience
At the bottom of Pandora’s Box lies HOPE

'Stories of the Gods and Heroes' by Sally Benson, 1940, Dial Press
Best Practices

Educators
Professional Society
University