Dynamic Learning
Using Alignment Theory to Boost Problem-solving and Memory Retention

Dr. Alyson G. Eggleston
Department of English, Fine Arts, and Communication
Some Modest Goals

INCREASED STUDENT ENGAGEMENT

Experiential learning, embodied cognition
[Cooper, et al., 2016; Grafton, 2009; Kolb & Kolb, 2005]

COLLABORATIVE PROBLEM SOLVING

Alignment Theory
[Pickering & Garrod, 2004; Reitter & Moore, 2014]

MEMORY RETENTION

Bloom’s Affective Domain Taxonomy
Alignment Theory

- Communication styles change with different target interlocutors
- Lexical entrainment correlated with success: word-choice and structure
  - Result: Local dialogue routines simplify language processing
- Successful ‘aligners’ anticipate other perspectives
- Perspective-taking skill linked with increased problem-solving, effective negotiations, task completion
Bloom’s Affective Taxonomy

Productive Responses to Environmental Conditions

K-12 focus until more recently

Positive affective processes clearly linked with learning and memory retention

(Tyng, et al., 2017)
Challenge: 3-Feature Tasks

Experiential, Applied

Language-mediated

Positive Affect
Communication Task
What happened?

Where did you experience difficulty, if any?  How did your strategy change over time?  What do you remember?
Applied: COMM 260
Layer Diagrams: iPhone 5
<table>
<thead>
<tr>
<th>Photos:</th>
<th>Photos:</th>
<th>Photos:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motor Replacement</strong></td>
<td><strong>Battery Replacement</strong></td>
<td><strong>LED or Spring Replacement</strong></td>
</tr>
<tr>
<td>Layer 1.</td>
<td>Layer 1.</td>
<td>Layer 1.</td>
</tr>
<tr>
<td>1. Entire, assembled object</td>
<td>1. Entire, assembled object</td>
<td>1. Entire, assembled object</td>
</tr>
<tr>
<td>2. Prying black ring</td>
<td>2. Prying black ring</td>
<td>2. Prying black ring</td>
</tr>
<tr>
<td>5. Spring assembly and object apart, on table</td>
<td>5. Spring assembly and object apart, on table</td>
<td>5. Spring assembly and object apart, on table</td>
</tr>
<tr>
<td>Layer 2.</td>
<td>Layer 2.</td>
<td>Layer 2.</td>
</tr>
<tr>
<td>7. Object, 4 screws, and plastic tube</td>
<td>7. Object, 4 screws, and plastic tube</td>
<td>7. Object, 4 screws, and plastic tube</td>
</tr>
<tr>
<td>10. Sliding off metal casing</td>
<td>10. Sliding off metal casing</td>
<td>10. Sliding off metal casing</td>
</tr>
<tr>
<td>11. Unscrewing plastic body</td>
<td>11. Unscrewing plastic body</td>
<td>11. Unscrewing plastic body</td>
</tr>
</tbody>
</table>
Layer Diagram:
MODAL WORCSS6 wine opener
Student Outcomes

- Students adjust to feedback from multiple stakeholders (instructor, tech writers, engineers)
- Collaborative problem-solving
- Increased communicative confidence across modes
- Increased adaptability with perspective-taking
- Good projects are published projects!
  - Some guides have been used by 1-2,000 users

ZTE Blade Z Max Battery Replacement

Written By: Ronald Weimar (and 2 other contributors)

Comments: 5  Favorites: 0  Completions: 5

Introduction

An old battery can lead to increasingly shorter times between charges and reduced phone performance. Be sure to discharge your battery as much as possible before you attempt this repair. LiPo batteries can catch fire and explode if damaged.


