Appropriate Instructional Tools for Teaching IB

Considerations in selecting tools to accommodate the differences in an IB course designed to be taught in face-to-face, blended, or online.

Virtual IB Pedagogy Workshop
GSU-CIBER
April 29, 2020

Outline

- The Art of Inspiring Learning
- Why Technology in the Classroom?
- Designing a Class Experience
  - Theory and Research Based
  - Integrating Learning Activities
  - Adding Technology to the Mix

Three Examples

The Art of Inspiring Learning

- Practical experience from career in private sector
- Combine the lessons of research, theory and practice
- Directed study abroad programs to South Africa, India, the United Arab Emirates and China
- Certificates in teaching online and blended formats from the GSU-CETL and AACSB
- CIBER's coordinator for instructional technologies
- Specializes in the use of technology by teams collaborating across distance and borders to solve difficult business problems, manage people and lead organizations

POLL Question

Technology in the Classroom?
1. Best learning with as little technology as possible
2. Only a distraction. Mostly more hassle than worth it
3. Useful sometimes, but all different and changing all the time
4. Helpful and enhances the teaching and learning experience
5. I am fully committed. Transforming my teaching in powerful ways
Why Technology in the Classroom?

Westerman suggests that when digital transformation is done correctly, "it's like a caterpillar turning into a butterfly," but when done wrong, "all you have is a really fast caterpillar."

SAMR Model

- **Redefinition**: Tech allows for the creation of new tasks, previously inconceivable.
- **Modification**: Tech allows for significant task redesign.
- **Augmentation**: Tech acts as a direct tool substitute, with functional improvement.
- **Substitution**: Tech acts as a direct tool substitute, with no functional change.

Designing a Class Experience

- **Theory and Research Based**
Bloom's Domains of Learning
(higher order skills are on top)

<table>
<thead>
<tr>
<th>Psychomotor</th>
<th>Cognitive</th>
<th>Affective</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Origination</td>
<td>• Evaluation</td>
<td>• Characterizing</td>
</tr>
<tr>
<td>• Adaptation</td>
<td>• Synthesis</td>
<td>• Organizing</td>
</tr>
<tr>
<td>• Complex Overt Response</td>
<td>• Analysis</td>
<td>• Valuing</td>
</tr>
<tr>
<td>• Mechanism</td>
<td>• Application</td>
<td>• Responding</td>
</tr>
<tr>
<td>• Guided Response</td>
<td>• Comprehension</td>
<td>• Receiving</td>
</tr>
<tr>
<td>• Set</td>
<td>• Knowledge</td>
<td></td>
</tr>
<tr>
<td>• Perception</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Profound Learning Experiences

Designing a Class Experience

Learning Support
**ZPD and scaffolding**

- Knowledgeable others
- Technology and tools

What I can learn on my own

What I can learn with help (ZPD)

Beyond my reach

---

**Student’s Trajectory Through Time**

- Confused
- ZPD
- Bored

**STUDENT SKILL LEVEL**


---

**POLL Question**

How do you plan your course (select closest fit)?

1. TEXTBOOK DRIVEN: Find textbook, teaching manual and PPTs; Multiple choice exams from test bank; Paper Assignments; Repeat next semester
2. COORDINATED COURSE: Department selects a textbook; provides teaching manual and PPTs; Common multiple-choice exams; Repeat next semester
3. CASE METHOD: Cases from HBS; use Teaching Notes; Case discussion; Class debates
4. PUBLIC CONTENT, TECHNOLOGY RICH: Content from many sources (OER, TED); Emphasize current events; Teams collaborate on Google DOCS; video presentations
5. INTEGRATED COURSE DESIGN: Review program and course learning objectives; Develop rubrics; Custom class/online activities to demonstrate mastery; Content supports learning
Integrated Course Design

Learning Goals
Integration
Teaching and Learning Activities
Feedback and Assessment

Situational Factors

Designing a Class Experience
Adding Online Technology to the Mix

Example 1: Hybrid Course
Putting Excel to Work: Country Selection Model

Community of Inquiry

Social Presence
The ability of participants in a community of inquiry to project themselves socially and emotionally as 'real' people (i.e., their full personality), through the medium of communication being used.

Cognitive Presence
The extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry.

Teaching Presence
The design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes.

Putting Excel to Work: Country Selection Model

Rubric
- LOs
- Concrete Examples

Staged Instructions
- Prompts to frame questions
- Step-by-step

Student Activity
- Prepare work-product
- Submit ON TIME

Video or Class Workshop Tutorial
- Show how it is done
- Allow rework

REPEAT in 4 Stages

Example 2: Blended Team Based
Team Based Consulting Experience

TEAM-FOCUS Rules of Engagement

<table>
<thead>
<tr>
<th>TEAM</th>
<th>Talk</th>
<th>Evaluate</th>
<th>Assist</th>
<th>Motivate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Communicate constantly</td>
<td>• Discuss group dynamics</td>
<td>• Leverage Expertise</td>
<td>• Identify unique motivators</td>
</tr>
<tr>
<td></td>
<td>• Listen attentively</td>
<td>• Set expectations and monitor results</td>
<td>• Keep teammates accountable</td>
<td>• Positively reinforce teammates</td>
</tr>
<tr>
<td></td>
<td>• Separate issues from people</td>
<td>• Develop and reevaluate a personal plan</td>
<td>• Provide timely feedback</td>
<td>• Celebrate achievements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FRAME</th>
<th>Organize</th>
<th>Collect</th>
<th>Understand</th>
<th>Synthesize</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Identify the key question</td>
<td>• Develop a high-level process map</td>
<td>• Design “ghost charts” to exhibit necessary data</td>
<td>• Identify the “so what(s)”</td>
<td>• Obtain in-put and ensure buy-in from client</td>
</tr>
<tr>
<td>• Develop the issue tree</td>
<td>• Develop a content map to test hypotheses</td>
<td>• Think through the implications for all constituents</td>
<td>• Offer specific recommendations for improvement</td>
<td></td>
</tr>
<tr>
<td>• Formulate hypotheses</td>
<td>• Design the story line</td>
<td>• Document the key insights on all charts</td>
<td>• Tell a good story</td>
<td></td>
</tr>
</tbody>
</table>
Team Based Consulting Experience

- Real World, Real Time
- Each Project Unique
- Start-Midpoint-End

Client Engagement

TEAM
- Daily Commitment
- Online Collaboration

PROBLEM STATEMENT
- Hypotheses
- Research
- Interviews
- Analysis

Deliverables
- Ongoing, duration of project
- Midpoint Checkpoints
- Client Feedback

Example 2: Fully Online
Putting Excel to Work: Multi-Country, Multi-Currency Global Supply Chain Model

Putting Excel to Work: Projected Forecast Model

RePET in 8 Stages

Take-aways

Conceptualization and Development
- Multi-modal BUT Delivery Mode Specific
- Experimental, innovative
- Bloom’s Taxonomy of educational objectives (Bloom 1956, Anderson et al. 2001)
- Vygotsky’s Zone of Proximal Development (1978)
- Kolb’s Learning Experiences (1974)

Integration into the Curriculum
- Community of Enquiry framework (Garrison et al. 2000)
- Integrated Course Design (Fink 2003)
- Time and Resource Intensive
- Institutional support