Exploring Creativity Through Integrative Thinking

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Kate Taylor
Agenda

• Integrative Thinking
  – Video & Reflection
• Assertive Inquiry
  – Activity & Reflection
  – Action Research
• Instructional Strategies
• Q & A
Introduction

• 21st century skills
  – Diverse, globalized, complex world
• Routine-oriented Creativity
• How can we teach creativity?
  – Teachable, practical thinking tools
• Business world: Integrative Thinking
Roger Martin

• Rotman School of Management
• Interviewed successful leaders to see how they thought about challenges they faced in their careers
• The way in which leaders’ cognitive processes produce their actions
Opposing Ideas

• One consistent similarity:

  “The test of a first-rate intelligence is the ability to hold two opposing ideas in mind at the same time and still retain the ability to function.”
Creatively Resolving Tension

- Creatively resolve tension between two ideas by generating a new one that contains elements of the others, but is superior to both
  - Process of:
    - Moving from the ‘right answer’ (limiting)
    - To shaping new answers (innovative)
1. Determining Salience

• What features are relevant to the decision *(few)*

• Integrative thinker seeks out less obvious but potentially relevant factors *(many)*
2. Analyzing Causality

- Analyze how the numerous salient factors relate to one another
  - Straight-line relationships 😞
- Shy away from complexity
  - Multi-directional and nonlinear relationships 😊
3. Decision Architecture

- **Sequence** in which issues will be considered and **decisions** made
  - Many individuals
- Examine how the parts fit together while keeping the **whole** in mind
  - One individual
4. Resolution

• **Creatively resolve the tensions** that launched the decision-making process
• Don’t accept trade-offs and conventional options
  – Voting for model A vs. model B
Taddy Blecher

CIDA City Campus, South Africa

THE STERLING HALL SCHOOL
you’ve come to the right place.
Reflection

- What were Taddy’s either/or options?
  - Pre-existing models?
- What was his new, innovative solution?
Assertive Inquiry

• Mode of communication
• Explicit expression of one’s ideas
  – Sharing ideas
• Sincere exploration of another’s ideas
  – Asking questions
## Activity

<table>
<thead>
<tr>
<th>Ask Questions</th>
<th>Share Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you explain…</td>
<td>I think…</td>
</tr>
<tr>
<td>What do you think…</td>
<td>The reason I think…</td>
</tr>
<tr>
<td>Why…</td>
<td>My idea is…</td>
</tr>
</tbody>
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**THE STERLING HALL SCHOOL**

you’ve come to the right place.
What are you doing after the conference?

THE STERLING HALL SCHOOL

you’ve come to the right place.
Reflection

• How did you feel?
• Is this how you communicate in real life?
Action Research

- Either/or decision making
  - Rock/paper/scissors
- ‘Picking’ ideas
- Limiting group work
- Power of Integrative Thinking
  - Decide upon merits of each partner’s ideas
Method

• Two grade 2 classes
  – Experimental and control
• Pre-test survey
• Three Integrative Thinking lessons
  – Share ideas, ask questions
• Post-test survey
## Results

Top three strategies: **Working in groups**

<table>
<thead>
<tr>
<th>Experimental Group</th>
<th>Strategy 1</th>
<th>Strategy 2</th>
<th>Strategy 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE</td>
<td>Getting Along</td>
<td>Teamwork</td>
<td>Either/Or Decision Making</td>
</tr>
<tr>
<td>AFTER</td>
<td>Sharing Ideas</td>
<td>Asking Questions (tie)</td>
<td>Getting Along (tie)</td>
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## Results

Top three strategies: Working in groups

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<td></td>
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<tr>
<td>CONTROL</td>
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<td>Listening</td>
<td>Getting Along</td>
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<td>Sharing Ideas</td>
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## Results

Top three strategies: **Solving problems**

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<th>Strategy 3</th>
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<tbody>
<tr>
<td>CONTROL</td>
<td>Ask for Help</td>
<td>Share Ideas</td>
<td>Work Together</td>
</tr>
<tr>
<td>EXPERIMENTAL</td>
<td>Ask for Help</td>
<td>Think</td>
<td>Work Together</td>
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Future Research

• Students can articulate what they should be doing
• Observations show that boys are not employing these strategies during group work
• Next year: technology to support and guide implementation
Integrative Thinking in 6, 7, 8

- Teach good decision making
- Use meaningful exercises
- Make good decision makers for life
Business Elective

- Business is a **good platform** to demonstrate this model of decision making – the boys are engaged in this topic
- Boys need **relevant examples** to explore this model (e.g. How the group-work example doesn’t fit)
Business Elective Con’t

• About the course:
  – Create avatars
  – Learn the value of money and how it affects their lives, including stocks, mortgages, savings etc.
  – Study a relevant business, one that means something to all of them
  – With this knowledge base, they are ready to begin the steps of Integrative Thinking
Research in Motion

• The Canadian company that makes BlackBerry smartphones has recently been in a financial crisis
• All the boys had an interest in phones and the newest technology
• They had strong opinions and were interested in what was causing RIM’s downfall
• Due to this interest they valued the decision-making process
The Process Con’t

• Decide on the either/or decision RIM is facing

• **Salience:**
  – Research RIM and gain knowledge NOT assumptions
  – List all the pros and cons of the either/or decisions RIM has

• **Causality:**
  – Decide which pros are a must to keep and why
The Process Con’t

• Architecture:
  – Begin to decide how these pros would work together to make a new option
  – Who and what would be involved in this

• Resolution:
  – What does this new, 3rd option look like and why is it better than either of the initial two options
Integrative Solutions from the Boys

- **Link up** with universities so that when a student arrives they are given a BlackBerry
- **Link up** with a gaming company such as Play Station or touch screen company such as Tactus Technology
- **Sell off** tablet patents and focus on creating better technology
Next Steps

• The **goal** of this class was to teach the boys how the Integrative Thinking model of decision making can really help them to **make informed decisions**
• RIM was supposed to be **step one**
• **Step two** is to have them go back to their avatars to give them similar situations in their “real” lives
• I hope to reach this level of the course next year
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