



# Exploring Creativity Through Integrative Thinking

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# Agenda

- Integrative Thinking
  - Video & Reflection
- Assertive Inquiry
  - Activity & Reflection
  - Action Research
- Instructional Strategies
- Q & A



# Introduction

- 21<sup>st</sup> 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.”



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# 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



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# 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

Ask  
Questions



Share  
Ideas



Can you explain...  
What do you think...  
Why...

I think...  
The reason I think...  
My idea is...



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What are you doing after the  
conference?



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# 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**

Experimental Group	Strategy 1	Strategy 2	Strategy 3
BEFORE	Getting Along	Teamwork	Either/Or Decision Making
AFTER	Sharing Ideas	Asking Questions (tie)	Getting Along (tie)



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# Results

Top three strategies: **Working in groups**

After IT Lessons	Strategy 1	Strategy 2	Strategy 3
CONTROL	Teamwork	Listening	Getting Along
EXPERIMENTAL	Sharing Ideas	Asking Questions (tie)	Getting Along (tie)



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# Results

Top three strategies: Solving problems

After IT Lessons	Strategy 1	Strategy 2	Strategy 3
CONTROL	Ask for Help	Share Ideas	Work Together
EXPERIMENTAL	Ask for Help	Think	Work Together



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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

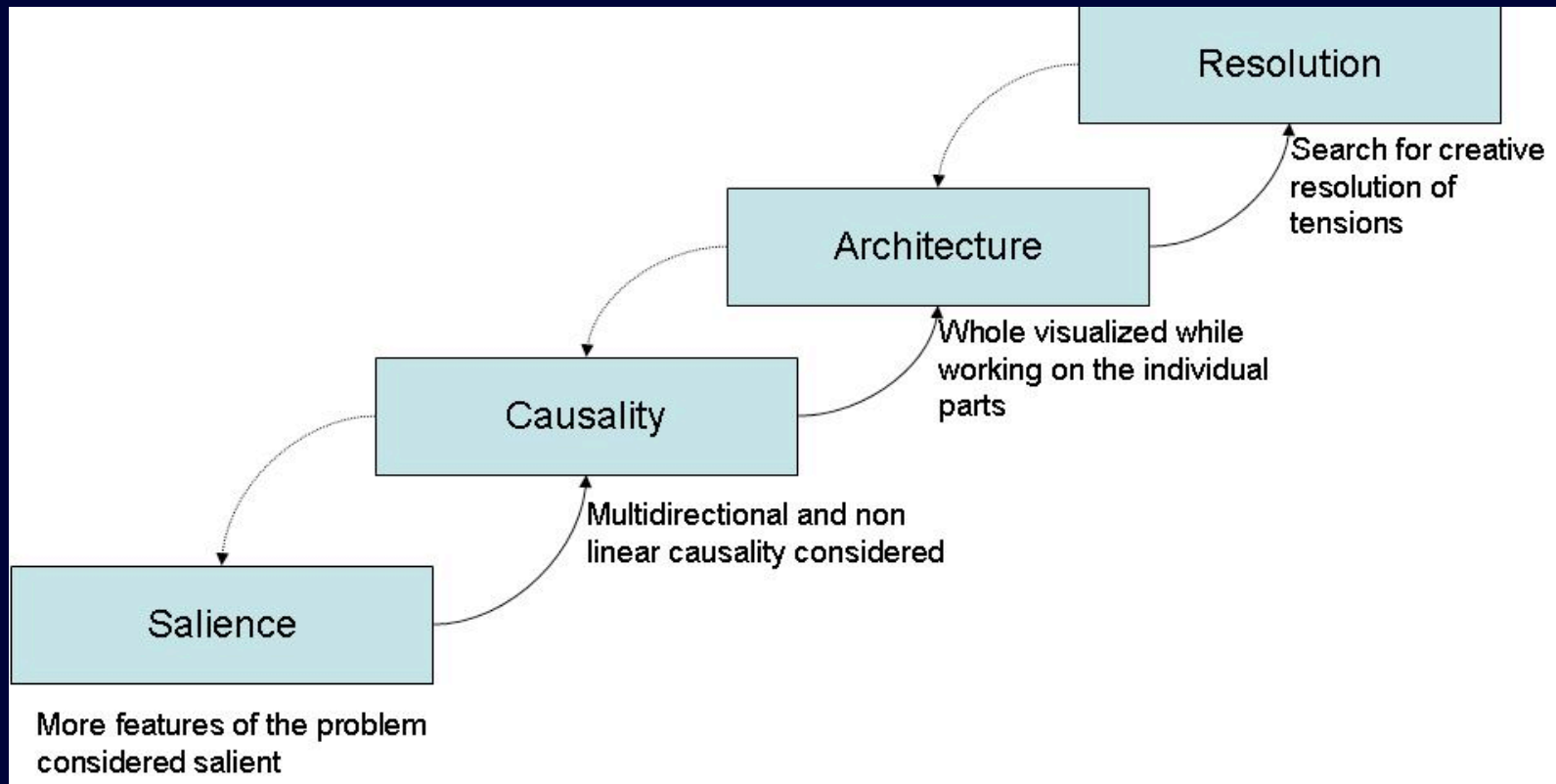
- About the course:
  - Create **avatars**
  - Learn the **value of money** and how it affects their lives, including stocks, mortgages, savings etc.
  - **Study a relevant business**, one that means something to all of them
  - With this knowledge base, they are ready to begin the steps of Integrative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



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# 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, 3<sup>rd</sup> 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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