

The Centre for Teaching and Learning  
Presents:

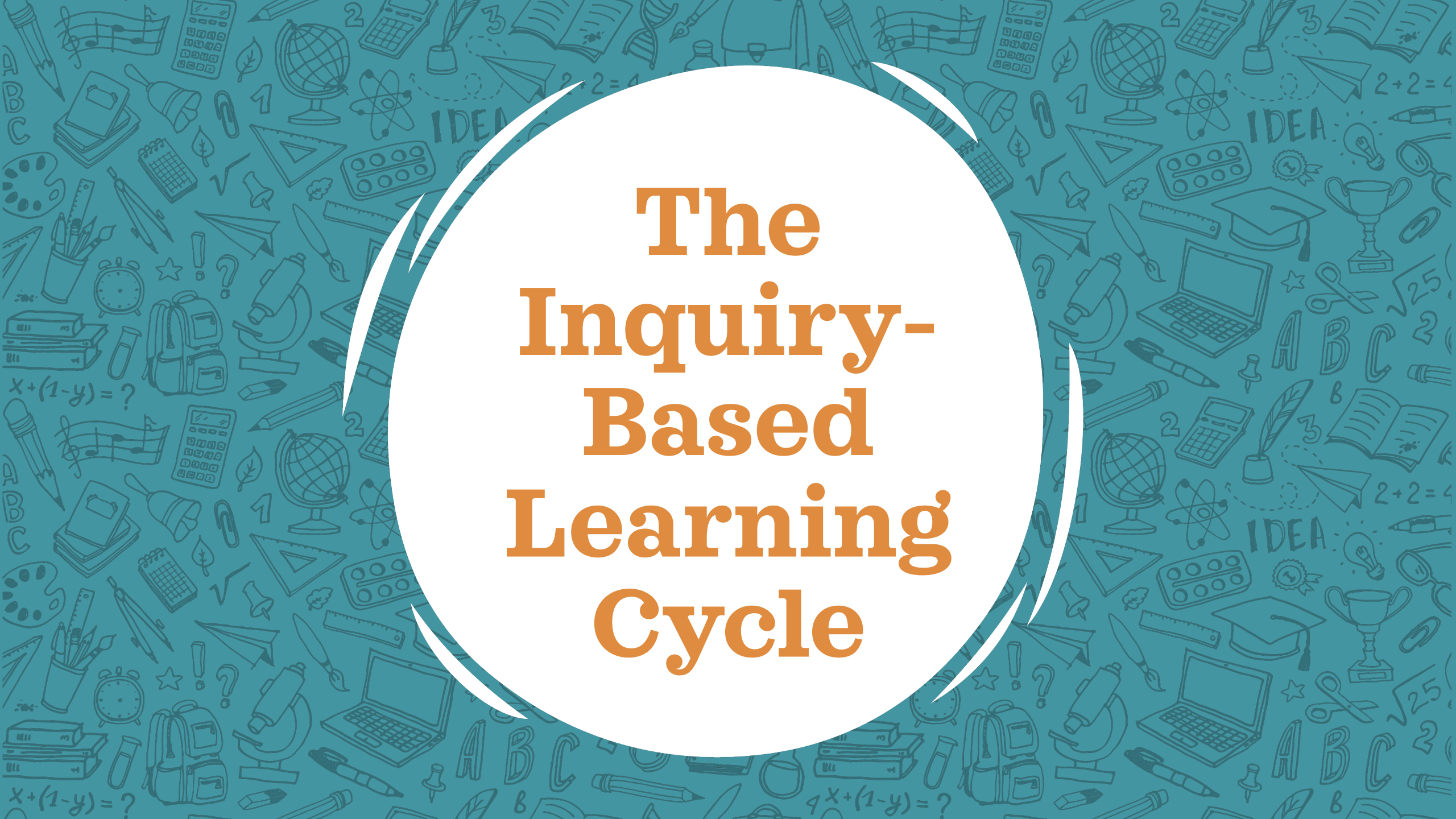
# Constructing Curiosity

An Introduction to Inquiry-Based Learning

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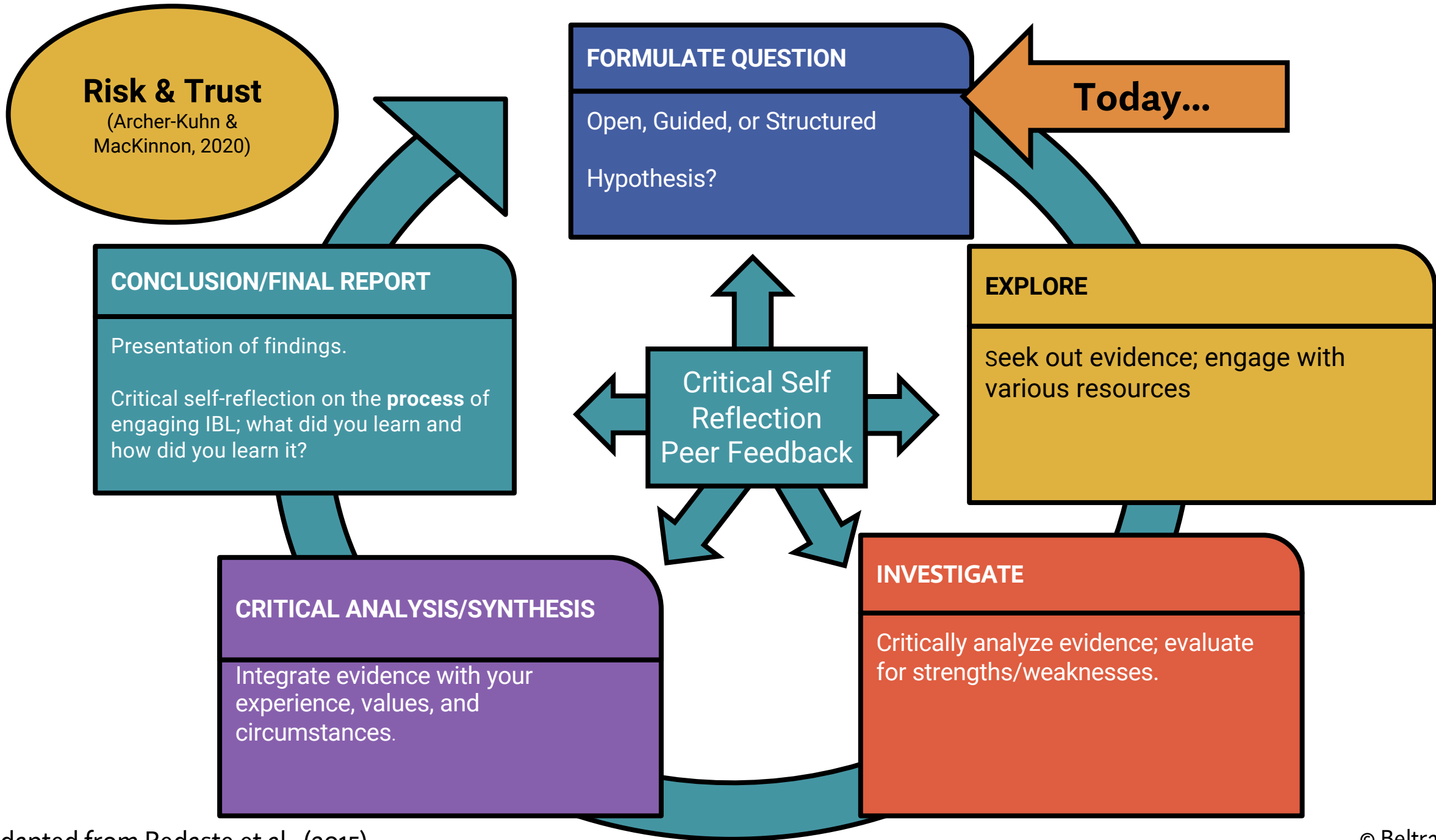
# The (brief) History of IBL

- McMaster University 1980's
- Inquiry defined as “self-directed, question-driven research” (p. 7)
- Goal for discipline-specific *and* lifelong learning
- Introduced as 2, full-year courses (20%) and optional 3<sup>rd</sup> year course
- Teacher as guide and collaborator



# The Inquiry-Based Learning Cycle







# Developing Inquiry Questions

[Instant Inquiry: Level 1, 2, and 3 Questions – YouTube](#)



# Let's review our questions:

Level 1	Level 2	Level 3
What is...? When did...? How many...?	What happened...? How do they compare...?	What evidence...? What can we infer? If...,then...?
Name Identify Define List	Explain Analyze Reason Sequence	Evaluate Predict Judge



(adapted from Kelsey Barker, 2017)

# “Good” or Level 3 inquiry questions...

- Facilitate more questions
- Not closed-ended
- Make you think critically
- Require more than 1 resource to answer



(adapted from Kelsey Barker, 2017)



# Why inquire? Why not?

- Opportunities to adapt and respond to a changing society (Summerlee & Murray, 2008)
- Supports development of theory into practice (Linn & Jacobs, 2015)
- Promotes critical thinking skills (Summerlee, 2018)
  - Reasoning skills
  - Engagement of knowledge and use of resources
  - Communication and group work skills
  - Assessment and evaluation skills



# Types of IBL:

- Different levels depending where *you and students* are at with understanding inquiry
- Teacher as Leader/Facilitator vs. Teacher as Guide
- Typically developed around selection of topics/choices to inquire about vs. inquiring about curriculum level
- High level of support vs. Enabling students to take more risks
- Often the goal is to shift from structured to open inquiry as students develop key skills



Structured

Guided

Open

# Let's Begin: Structured Inquiry

What do you want to know about Inquiry-Based Learning relative to your discipline or area of interest?

**Step 1: Independently:** Take a quick scan of the literature (e.g., Google Scholar; **5-minutes**)

**Step 2:** Based on what you found, develop a Level 1, Level 2, and Level 3 question (**1-minute each = 3 minutes**)

**Step 3: Small Group Discussion:** (5 minutes for each person = 20 minutes):

- In your group, **share** your Level 1, 2, 3 questions and **discuss** whether your Level 3 question should be refined to make it more complex **OR** can you refine your Level 1 or Level 2 questions to make it into a Level 3 question?
- **Select your BEST question** based upon the input from the group.
- **Each person should provide feedback to the presenter**





# Reminder: Level 1, 2, 3 Questions



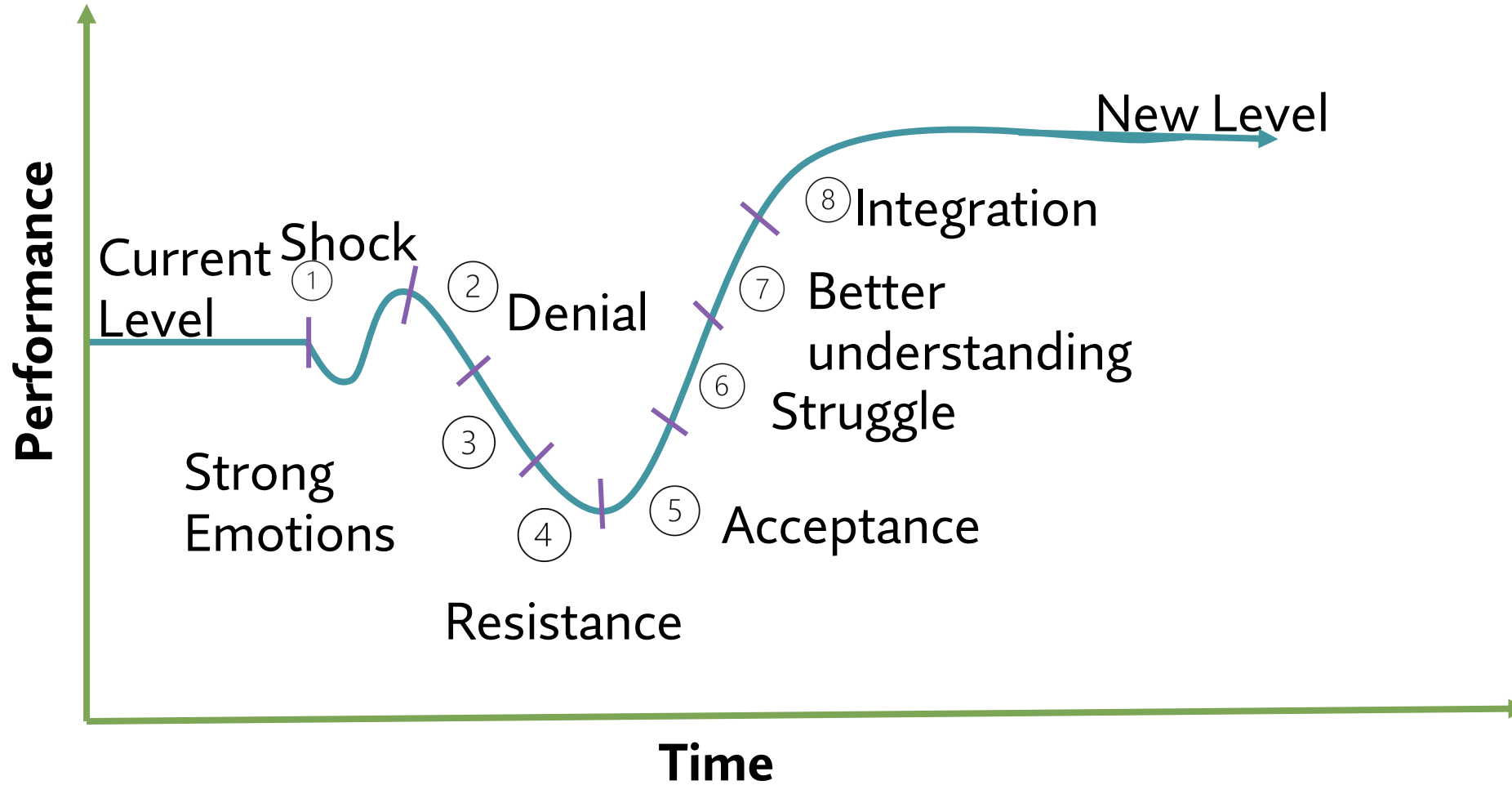
Level 1	Level 2	Level 3
What is...? When did...? How many...?	What happened...? How do they compare...?	What evidence...? What can we infer? If...,then...?
Name Identify Define List	Explain Analyze Reason Sequence	Evaluate Predict Judge

# Refining Questions: What do you want to know about Inquiry-Based Learning relative to your discipline or area of interest?

*(Optional)*

- **One** person stay and everyone else shift tables to be with a new group
- **In your NEW group:** (3 minutes each person X 4 = 12 minutes)
- Share your Level 3 question and describe **WHY** it is your **BEST** question
  - Focus on critical self-reflection (how do you know what you know; why do you think this way?)
  - Feedback from group should be **questions** about the critical self-reflection

# The Grieving Process (Curve)

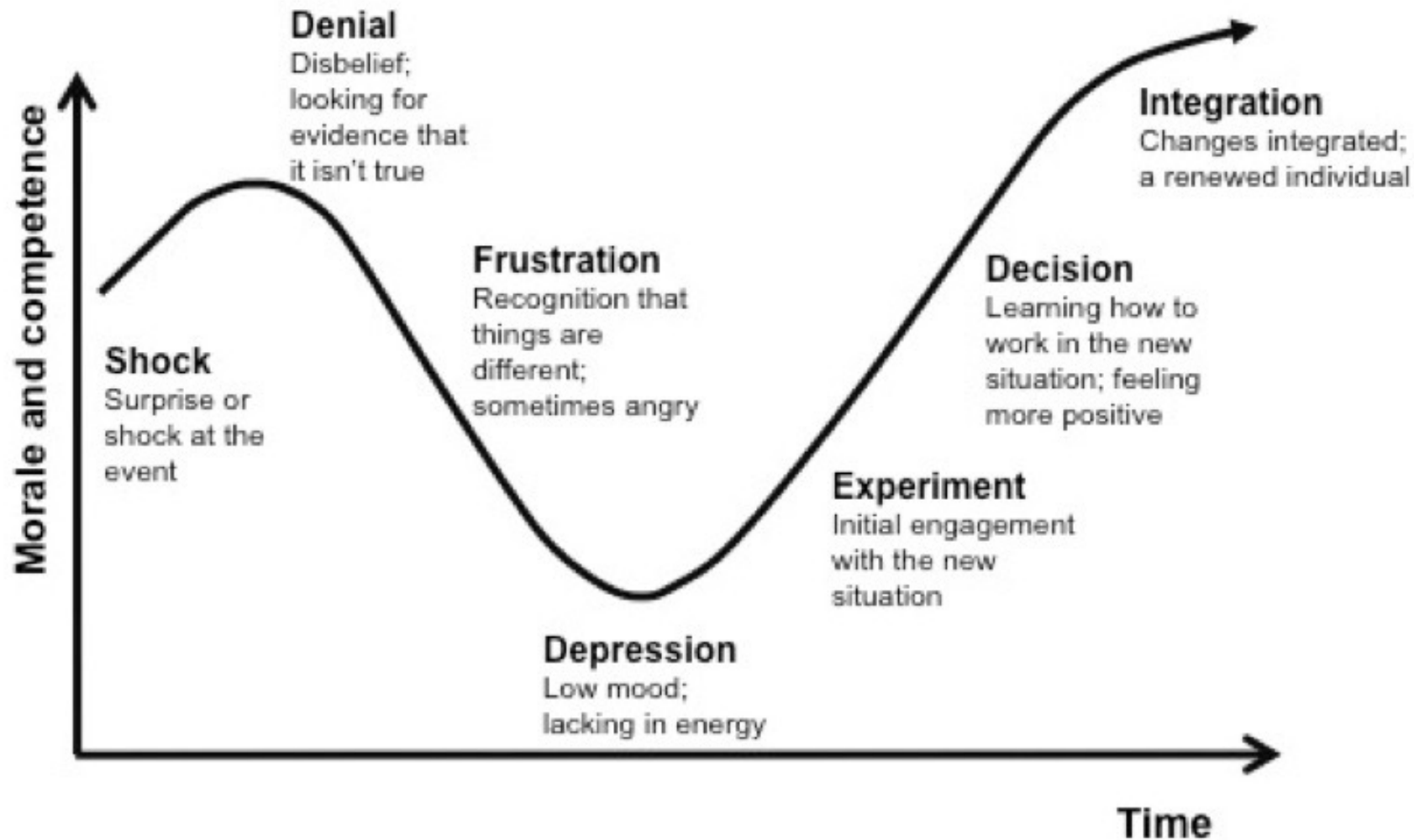


When engaging with a new pedagogical approach, students will often go through the grieving process.

Be mindful of student well-being.



# The Kübler-Ross change curve



Offer transparency

Ensure students have the support and resources they need.

# Let's Begin (again): Open Inquiry

Spend  
**4-minutes**  
identifying your  
context (good ol'  
Google).



Now you can ask about  
anything

=Open IBL

**Context:** You are a student in your respective discipline, and it is a course about social justice as it relates to your discipline.

# Harvard: Right Question Institute

**Step 1: Ask** as many questions as you can about your selected topic (5 minutes)

- **Do not stop, do not discuss, do not judge or try to answer; if you make a statement, turn it into a question**



# Harvard : Right Question Institute

## Step 2: Improve your questions (5 minutes)

- Identify Closed or Open-Ended questions by labelling them with a “C” or an “O”
- Change your questions from Open to Closed AND from Closed to Open

# Harvard : Right Question Institute

**Step 3: Prioritize/Pick** your top 3 questions (2 minutes)

**Step 4: Share** your top 3 questions with the group and identify the following: (5 minutes X 4 = 20 minutes)

- **What your topic of interest was**
- **Why did you select these as your top 3 questions**
- **Obtain peer feedback on your questions**

# Harvard: Right Question Institute

- Step 5: **Refine** your question based on feedback and reflect on where you started to how your question changed (3 minutes).

# Bringing it all together...

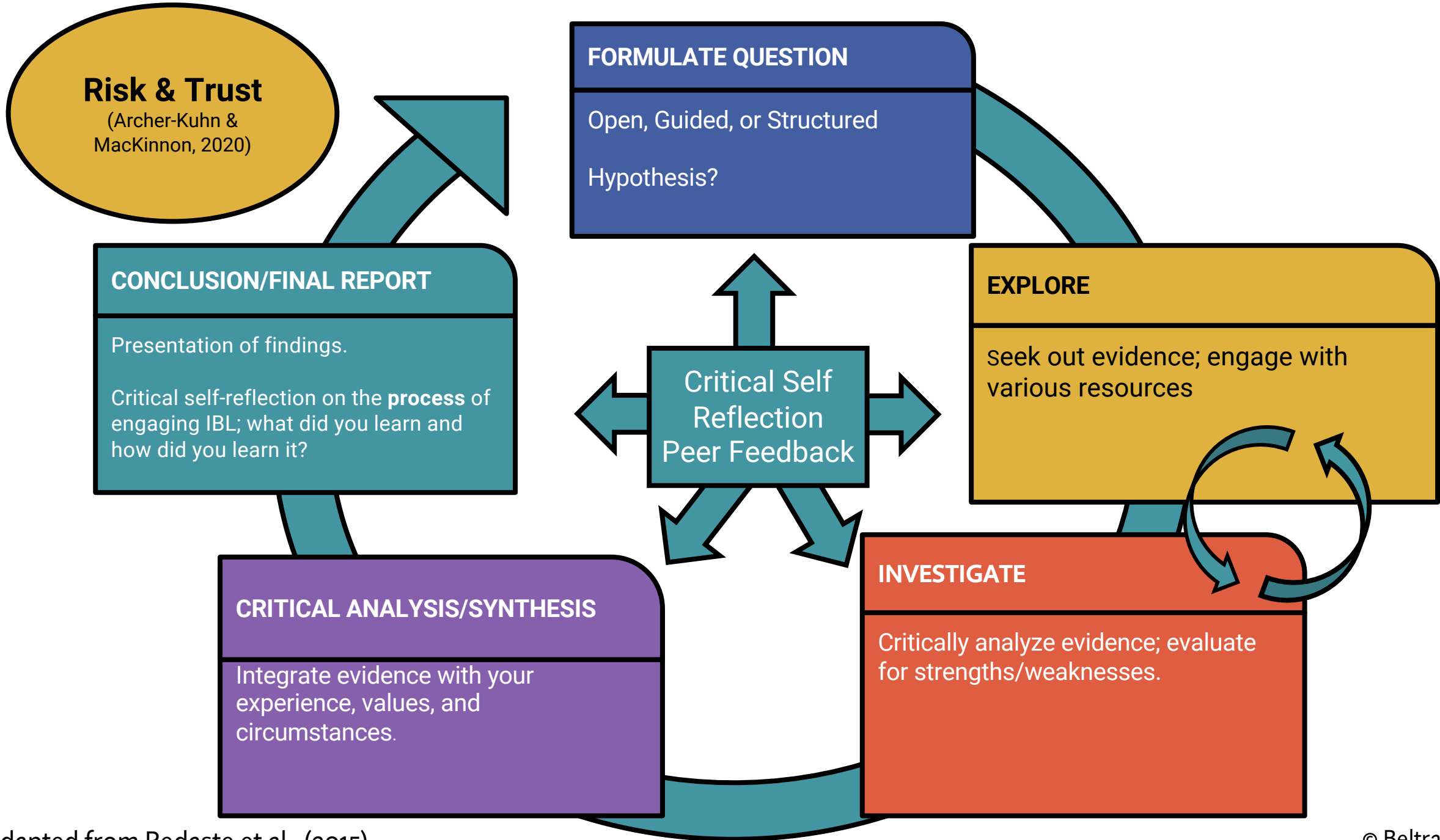
## **IBL as Critical Pedagogy:**

“Belief in the inter-relation between education and society, and a commitment to change in education and society to ensure greater social justice,”

(McArthur, 2010, p. 495)

- Allows for flexibility
- Student-driven
- Scaffolded
- Promotes critical self- and peer-feedback
- Helps students embrace the challenges of new learning
- Collaborative: students learn from each other, and teachers learn from students

(MacKinnon & Archer-Kuhn, 2022)





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