

Reflection and Metacognition

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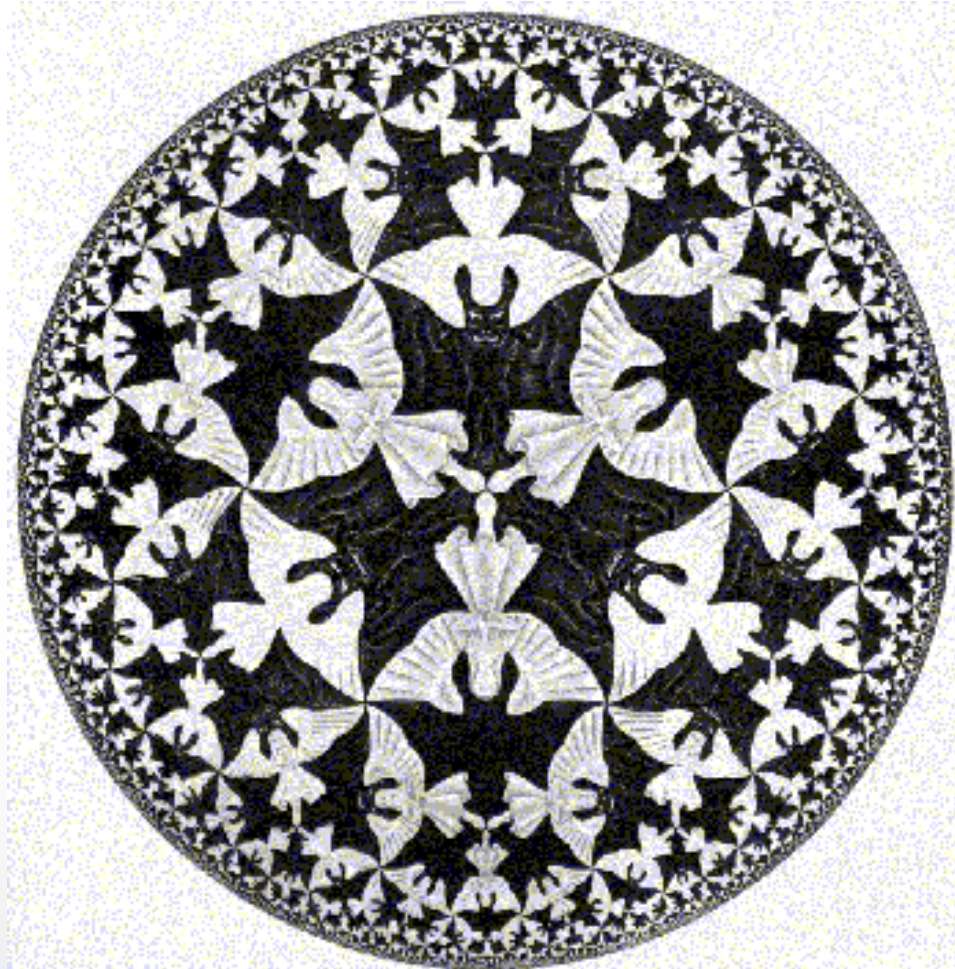
TH!NK Student Learning Outcomes

- Outcome D: Students will reflect on their own thinking.
- “We don’t learn from experience. We learn from reflecting on experience.” Dewey

Our goals for today

- Exploring the logic and importance of reflection
- Practice formative and summative reflection

“What do we see?”



Describe the woman in this picture



Describe the man's face here



Now describe what the man and woman are doing.

What did you see?

What did you learn?

How did you feel?

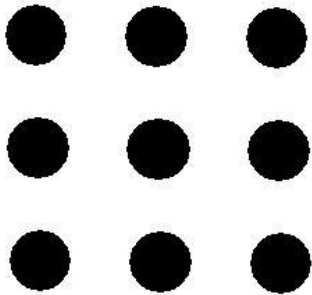
What approach?

What influenced?

Under what conditions have you asked your students...

- What did you see?
- What did you learn?
- How did you feel?
- What approach did you use?
- What influenced the way you addressed the task?

Draw three straight lines connecting all nine dots, without retracing any line, or lifting your pen from the page



Reflection and Metacognition

- Reflection

Jot down as many synonyms as you can think of in the next 30 seconds.

Metacognition

- Metacognition is a type of reflection, in short, thinking about one's thinking.

Generic Reflection Questions

- . Share one thing you learned.
- . Share a question for future investigation.
- . Respond with a word.
- . What worked? What didn't work?
- . What is one part of your work that you are proud of?
- . How would you do this differently next time?

Reflection: Examples

Set goals:

What is to be accomplished/learned?

Monitor Progress: How are we doing? What remains to be done? What are we doing well?

What is holding us up? How did we do?

Examples of reflective/metacognitive activities?

- Most common....muddiest point
- Others?

Formative Reflection/Metacognition

- Examples

Formative Examples

- Free writes
- Think-Pair-Shares
- Provide rubric, evaluate others' work
- Self-assessment

Summative Examples

- You can use reflection/metacognitive assignments to evaluate students.

Summative Examples

- Exam Wrapper
- Journal
- Learning Portfolio

How do you help your students plan and organize their work?

- Set goals
- Preview/skim assignments/readings
- Create timelines

How do you help students monitor their work?

- Check progress against a timeline.
- Ask if they are doing their best work.

How do you help students self-reflect?

- Ask yourself “how did the task go?”
- How effective were your strategies?
- What changes would you make for the next time?

I think; therefore I am.

- Reflect: Stumbling blocks?
- Help needed? What kind of help do you need to move forward?

References, examples

- Ambrose et al. 2010. *How Learning Works*. Chapter 7. How do students become self-directed learners
- Pintrich. 2002. *Theory Into Practice*. The role of metacognitive knowledge in learning, teaching, and assessing.
- Ritchhart, Church, and Morrison. *Making Thinking Visible*. 2011. Jossey-Bass.