

# Good Afternoon and Welcome to *Practical Strategies for Structuring Engaging, Student-Centered Lessons!*





Independent School Management

## **Advancing school leadership—enriching the student experience.**

ISM is dedicated to the advancement of school management. We provide creative strategies by combining extensive research, proven management techniques, and personalized service.

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- Joined ISM in 2011
- 12 years in independent schools as Upper School Language teacher, lead advisor, and Academic Dean Pre-K-12
- Consults and facilitates in curriculum and pedagogy, academic leadership, faculty growth and evaluation, strategic academic planning, and leadership team dynamics
- Coordinates ISM's internal professional growth programs and JEDI initiatives
- M.A. in Applied Linguistics; M.Ed. in School Leadership, Policy, and Supervision; Ed.M. Private School Leadership
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# Agenda - An Experience of Class Structure

- ❑ A brief and practical overview of the **science of learning**
- ❑ Explore strategies for **structuring** class periods to **engage** students and **optimize learning**
- ❑ Apply science of learning to our own **lesson plans**
- ❑ **Collaborate and share** ideas with other talented educators

# Effective Teaching:

What does that even mean?!

# Reflect: What Is Effective Teaching?

Think about your **most effective** teachers when you were in school.

What was it that made them effective (from your viewpoint at that age as a student)?

Jot down the first ten words or phrases that come to mind.



# Reflect: What is ineffective teaching?

Think about your *least effective* teachers when you were in school.

What was it that made them ineffective (from your viewpoint at that age as a student)?

Jot down the first ten words or phrases that come to mind.



# What do you observe about your two lists? What are the themes?



# Chances are, your lists looked something like this...

## Effective

- Saw me / knew me
- Caring / empathetic
- Organized
- Knew their stuff
- Funny
- Believed in me
- Clear expectations
- Passionate

## Ineffective

- Mean, harsh, angry
- Boring
- Disorganized
- Moody/ inconsistent
- Played favorites / unfair
- “Just doing a job”
- Made us feel bad
- Uncaring

# There Is No One “Best” Teaching Style



The keys are **predictability** and **support**.

# Predictability and Support

**Predictability:** An emotionally stable environment where rule/reward systems are clear and fair at all levels; and responses from teachers can be anticipated and consistent.

**Support:** Teachers are there to serve, desires success for everyone, and the community sees them as being "on my side."

*Did you see predictability and support in the two lists you created?*



**Apply the Science of  
Learning to Our Lessons  
with Intentionality**

# Key Components of Class Structure

- ❑ **OPENER**
- ❑ **Revisitors**/activation of prior knowledge
- ❑ **Energizers**/movement (strategically placed)
- ❑ **One-on-one checks for understanding** (every student answers every question)
- ❑ **Interaction** / connection with **emotion** every 8-10 minutes during “lecture”
- ❑ Multiple Beginnings and Endings – (**Primacy-Recency**)
- ❑ **CLOSER** (ties it all together, allows for reflection, celebrates learning)

# Opener: Priming the Brain for Learning and Inspiring Curiosity

❑ Communicate **purpose**

❑ **Novelty**

❑ Engage all the **senses**

❑ Present a **problem** or **question** the mind can't resist



# Closers: Don't Just “Let the Bell Ring”

**A**ction Plan

**C**elebrate

**T**ie It All Together



# Objective-Based vs. Activity-Based Planning

Students will **visit** the Gettysburg museum.

Students will **identify** symbols on the periodic table.

Students will **explore** Frida Kahlo on the internet.

Students will **imagine** what would happen if glaciers melted.

Students will **know** how to use context clues.

Students will **memorize** the 13 original colonies.

Students will **understand** the significance of the poem.

Students will **differentiate** common punctuation marks.

# Lesson-Planning Activity

## Objective:

*Inspired by the prompts, consider at least one new idea you'd like to try and be prepared to share what impact you think it could have.*

TEACHER	STUDENT

TEACHER	STUDENT
Go over homework	Sitting, looking at HW, waiting to be called on, asking questions
Present new material	Sitting, taking notes
Show video to further illustrate point	Sitting, watching, answering questions on handout
Group activity to apply new material	Moving to different areas of the room working in small groups, interacting
Return to large group to share out ideas	Sitting, raising hands, waiting to be called on
Go over that night's homework/answer questions	Some listening; some packing up

# What's the Objective?

What will the students be able to **do** at the end of the lesson that they couldn't do before? Why would they want to be able to do this?

Write this at the top of the page.



## Consider where in your lesson plan...

You will communicate the lesson's "why," or prompt the students to consider what the objectives might be from the topic. Consider posting the objective as a visual reference.

### Note:

*This doesn't always have to happen at the beginning - it could serve as a wrap-up as well!*

# If you're not excited by how the class is starting, consider an AIM Opener:

- ❑ **ATTENTION**: Break preoccupations and activate knowledge
- ❑ **INVOLVEMENT**: Get students mentally and physically involved
- ❑ **MEANING**: What's in it for me? What's the relevance?

- ❑ When you would stop to call on students to check understanding, are there opportunities for **all students to respond to your questions?**
  
- ❑ If you will be explaining a concept or how to do something, add time for the **students to help formulate and wrestle with the question** before you explain it.

- ❑ During direct instruction (lecture), consider whether there is **interaction/ connection with emotion** every 8-10 minutes. If appropriate, make a note of where this should occur and ideas for doing it.
  
- ❑ Look at all the activities in your lesson plan and look for places where you could give students **choices**.

- ❑ Add specific activities for reflection (either alone or in groups/pairs) after each message or topic.
- ❑ Add quick energizers at strategic places in the lesson.
- ❑ Consider which topics you want to revisit from earlier in the day's lesson or in the unit (or last year).

- ❑ Consider ways in which the topics throughout your lesson could **connect to other disciplines**, or add space to ask the students to make connections.
- ❑ Add a deliberate **CLOSER** that requires the students to engage in internal or external dialogue about their take-aways.

## Finally...

Consider all the things that you would have to do to prepare for the lesson (create worksheet, make a presentation, choose a video, select quotes, formulate a problem, invent a game, etc.)

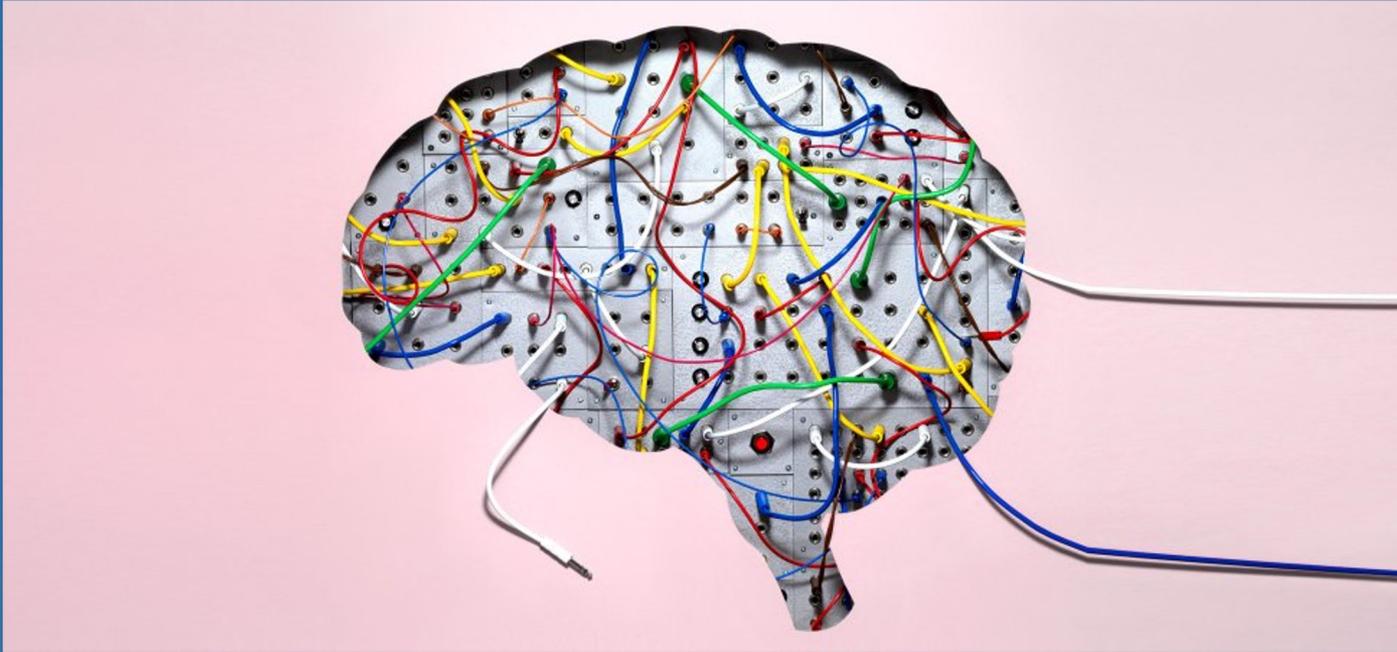


Is there anything *you're* doing that you could have the *students* do instead?

# Insights? What Might You Add or Change?



# *Practical* Science of Learning



**What do we know** from our own **experience** and **education** about what helps students stay engaged, learn, and retain information?

Example:

- Movement

# Science of Learning Topics

1. Learning and Retention
2. Emotions, Stress, and Sleep
3. Reflection
4. Curriculum



# Learning and Retention

# Time for Educational Transfer

**Extraneous processing** — Filtering out the quiz I just took and the argument I had with a friend

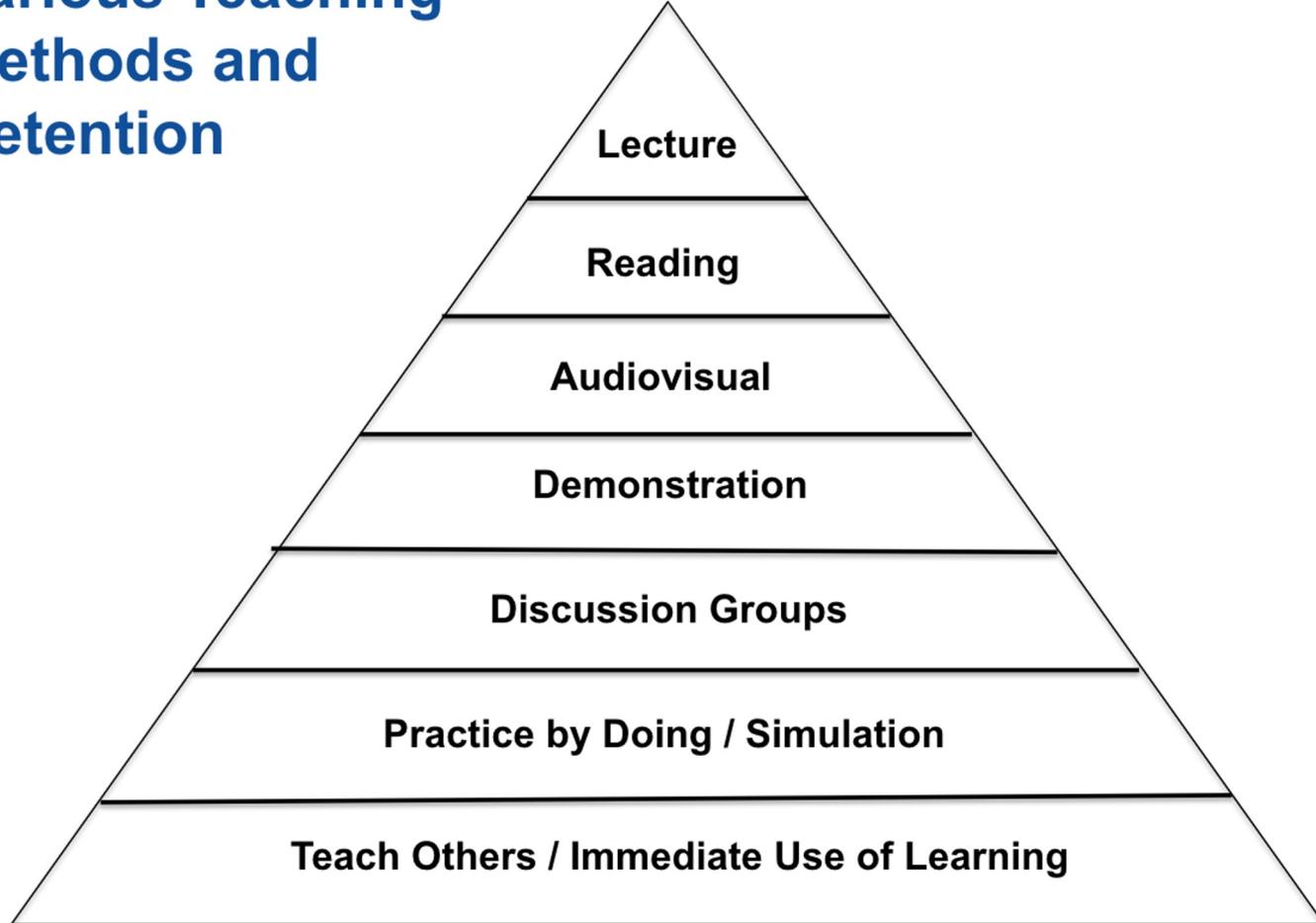
**Essential processing** — Being taught and understanding a concept and applying the information as I was shown

**Generative processing** — Making sense of something by myself and coming up with a solution.

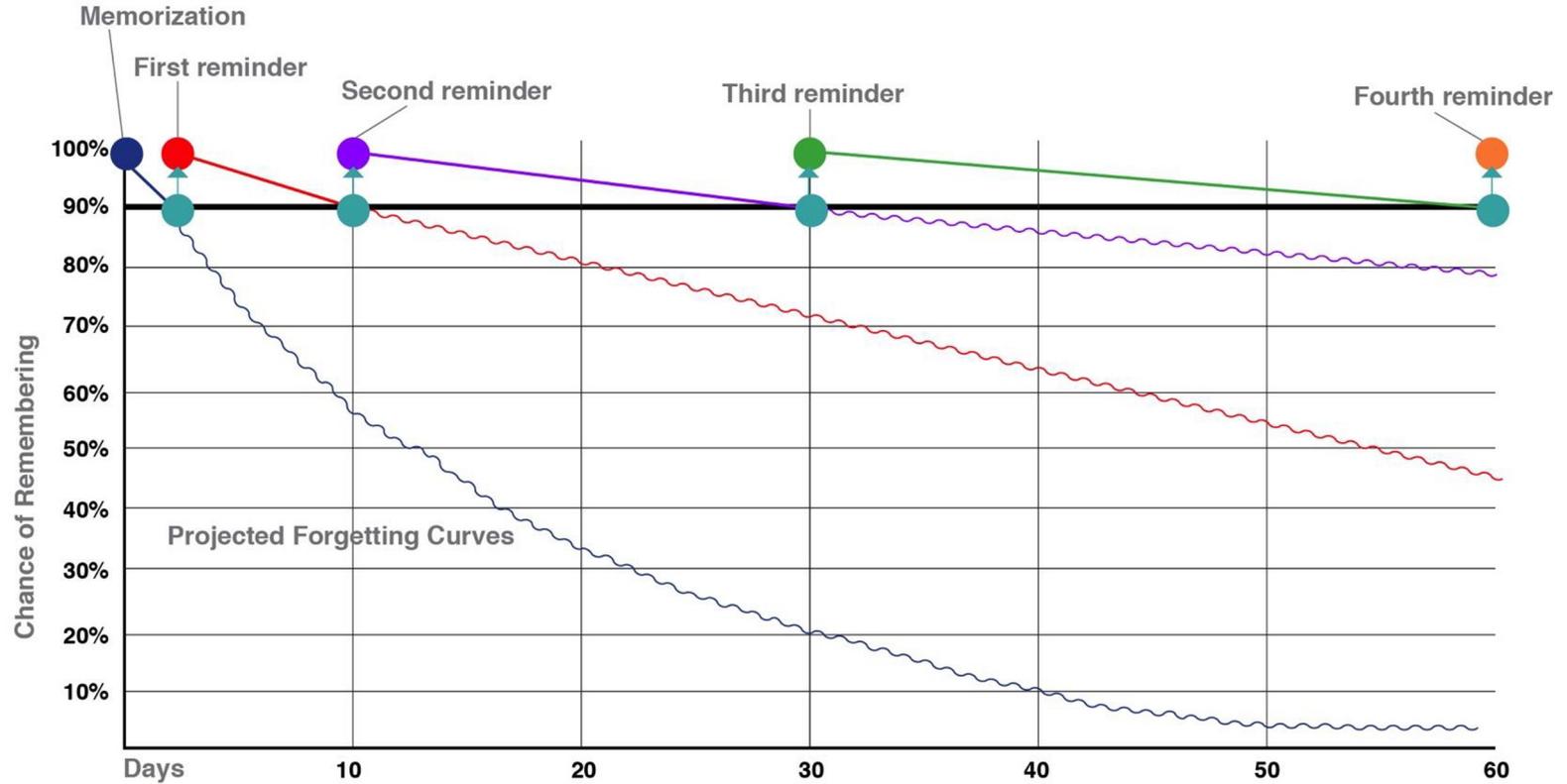
(This is how students commit concepts to long-term memory where they can be retrieved for future situations.)

- *Education for Life and Work* (National Academies Press)

# Various Teaching Methods and Retention



# Ebbinghaus Curve



# Patterning Strategies to Strengthen Brain Networks and Increase Retention!

- ❑ Peer teaching
- ❑ Recall; self-testing; analogies; non-examples
- ❑ Brainstorming
- ❑ Organize and categorize
- ❑ Activate prior knowledge
- ❑ Predictions
- ❑ Cross-curricular connections
- ❑ Multiple locations
- ❑ Games, songs, physical association

# Working Memory

Students can carry around information in their working memory for weeks before discarding it as **irrelevant**.

(i.e. right after the test!)



# Reflect!



*What are two concepts you remember from this segment about learning and retention?*

# Emotions, Stress, and Sleep

# Positive Emotions: The Educational Benefits



Positive experiences release **dopamine** (neurotransmitter) – increases recall and attention

- ❑ **Prediction** opportunities
- ❑ Ongoing, accurate **feedback** (think video games!)  
(**Strategy:** Every student answers every question)
- ❑ **Positive culture** (setting expectations, building community, student feedback, teacher mood and well-being)
- ❑ **Storytelling** – engaging emotions and empathy
- ❑ Relevance / **authenticity**

# Stress: Finding the Balance



- ❑ The goal isn't zero stress. What we want is **optimal stress**, enough to motivate and energize
- ❑ **Too much stress is debilitating**; it impairs the cognitive functions of the prefrontal cortex and activates the emotional and instinctive responses of the amygdala (freeze, fight, or flight).

**We can't learn in that state!**

# Opportunities for Student Choice

- ❑ **Content:** Different books, stories, examples around a common theme, access points
- ❑ **Assessment Type:** Project, paper, written test, spoken test
- ❑ **Assessment Level:** Tiered assessments, adjusted questions, choice of questions
- ❑ **Process:** Typed vs. hand-written, drawn vs. Google Image, audio or video vs. reading
- ❑ **Activities:** Stations, pyramid, menu, adaptive technology
- ❑ **Goal-setting:** Individual goal-setting within overarching objectives

# Movement and Brain Breaks



- Sends **blood** to the brain
- Increases brain mass and cell production

*How do we incorporate movement in class?*

*Energizer ideas...?*

# Sleep is not a luxury. It's a necessity!



1) We **filter, organize,** and **discard** information while we sleep.

2) Sleep is essential for **cognitive processing** and **memory consolidation.**



3) Sleep makes us better, **happier** teachers.

# Reflect!



*What are two concepts you remember from this segment about emotions, stress, and sleep?*

# Reflection



# Primacy-Recency Theory

Incorporate multiple **beginnings** and **endings**

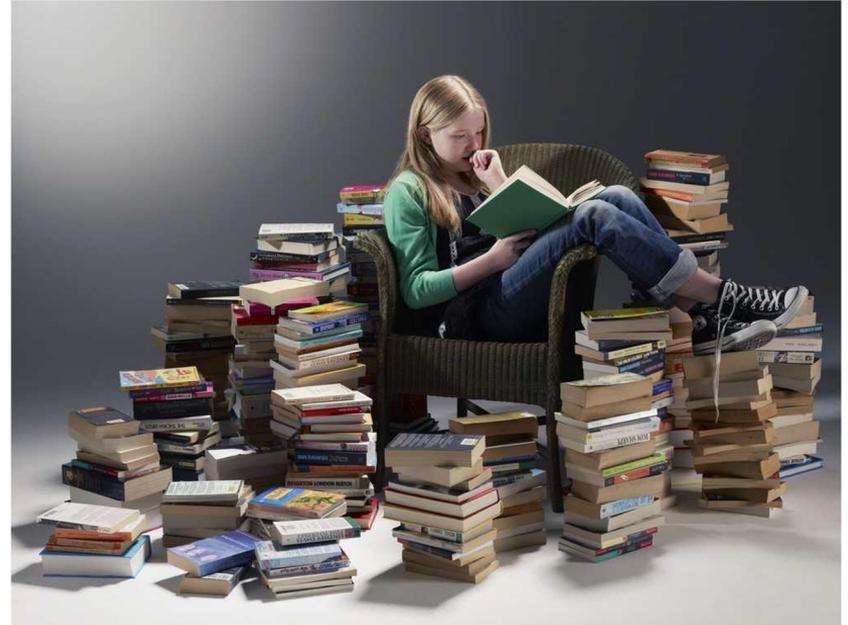
- ❑ **Prime the brain** for learning
- ❑ **Reflect**
- ❑ **Re-prime** the brain for the next concept
- ❑ **Reflect**
- ❑ Ongoing checks for **understanding**



# Curriculum

# In thinking about curriculum...

- ❑ **Need** to know
- ❑ **Nice** to know
- ❑ **Where** to go (resources)



# KWTDWYDKWTD

Know **W**hat **T**o **D**o **W**hen **Y**ou **D**on't **K**now **W**hat **T**o **D**o



# The “Soft Skills” are really the skills that matter!

Patience

Self-Awareness

Kindness

Communication

Integrity and honesty

Creativity

Confidence

Problem-solving

Leadership

Self-discipline

Balance / Wellness

Self-reliance and  
advocacy

Adaptability

Citizenship

Trust

Collaboration and  
cooperation

Curiosity and  
exploration

Respect for others

Resilience

Joy

Service

# Non-US Countries Represented by Students at a Competitive University



# Key Ideas

- ❑ Start with the *why*
- ❑ Whatever students can do, they should do. (**Be less helpful**)
- ❑ Begin with students' questions/ **prior knowledge**
- ❑ Stop, drop, and **ask a student**
- ❑ Provide students with **choice**
- ❑ Give ongoing, useful **feedback**
- ❑ Make **objectives** clear and visible
- ❑ Create **prediction** opportunities
- ❑ **Every student** answers **every question**, as much as possible
- ❑ Provide an **authentic audience**
- ❑ **Always** leave time for **reflection**
- ❑ ...?

# Reflect and Apply



What **ideas** have you heard today that you could incorporate in your classes?

Q

A

