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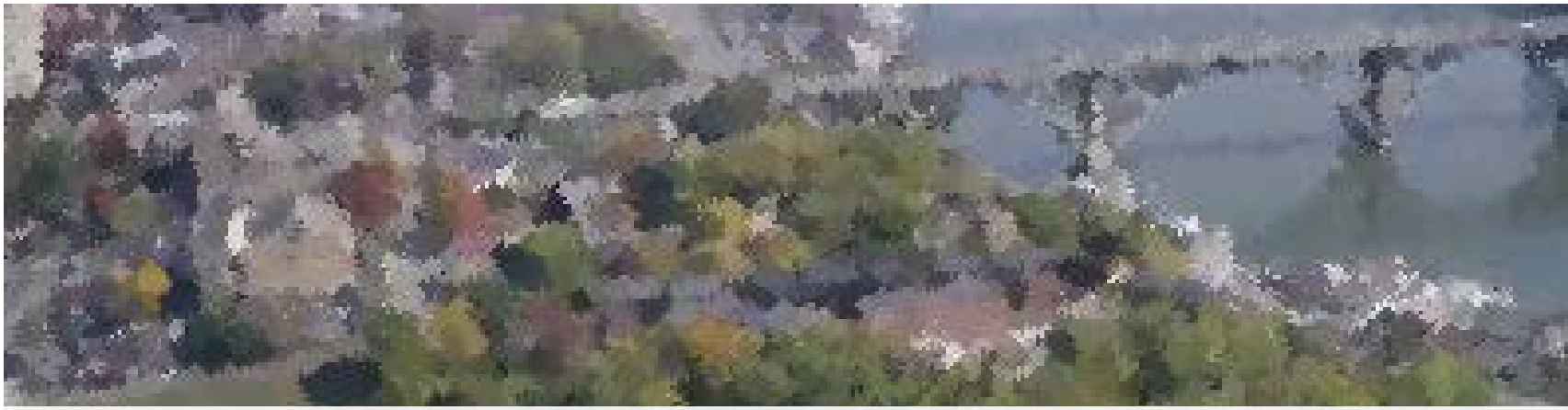
BIG ORANGE BIG IDEAS



Developing a Strategy for Effective Health Information Literacy Instruction

Using a Neurocognitive Model for Dual-Processing

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Main Points

1. Why Information Literacy Instruction?
2. Learning and Memory
3. Neurocognitive Approach in Context
4. Dual Processing Learning Model
5. So What?

Operationalizing Health ILI

Access & retrieval of high quality health information for decision-making

This impacts:

- Quality of patient care
- Avoidance of adverse effects
- Informed decision-making

(Marshall, et al, 2013)

Information Literacy Instruction

Why ILI?

- Digital revolution
- Growing demand for information
- Exponential growth of publishers
- Information overload (Data Smog)

(A Progress Report on Information Literacy, 2013)

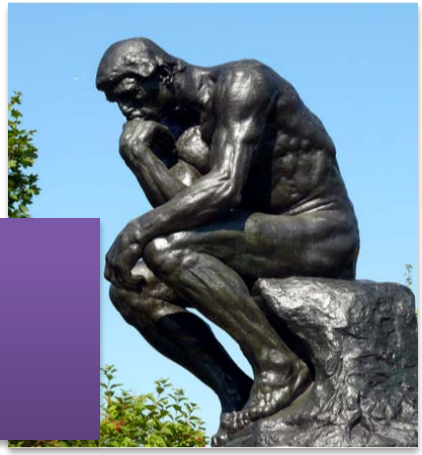
BIG ORANGE BIG IDEAS

Learning and Memory

Learning Contexts

Social

Interpersonal



Individual

Roles in Health ILI

INSTRUCTOR

- Medical librarian
- Health care professional
- Public health outreach worker
- Professional Development Trainer
- Parent
- Child

LEARNER

- Health care professional
- Patient
- Family member
- Health care administrator
- Public health outreach worker
- Community member
- Children
- Parent

Roots for a Strategy

The challenge: ILI is engulfed by

- Complex roles
- Complex interactions
- Complex contexts

(being human)


Life is simple.

Possible Approach

Adopt a Neurocognitive Strategy

Consider the following:

- human memory systems

  Are activated during input, rehearsal, and retrieval of information

Neurocognitive Basis for Learning

- Declarative memory
  - Conscious recall
  - Facts and events

- Procedural memory
  - Learning by doing
  - Riding a bicycle, using a spoon
  - *Does not require conscious learning

(Willingham et al., 2002; Glisky, 2007; Wulf, 2007)

Neurocognitive Basis for Learning

- Declarative memory
  - Input: aural, visual
  - Output: oral, text-based recall, facts recall

- Procedural memory
  - Input: mimic, follow a process, act in a sequence
  - Output: follow a process, act in a sequence

(Willingham et al., 2002; Glisky, 2007; Wulf, 2007)

Neurocognitive Basis for Learning

So what?

Take advantage of both memory processes &

Get more bang for your buck!

Aural input

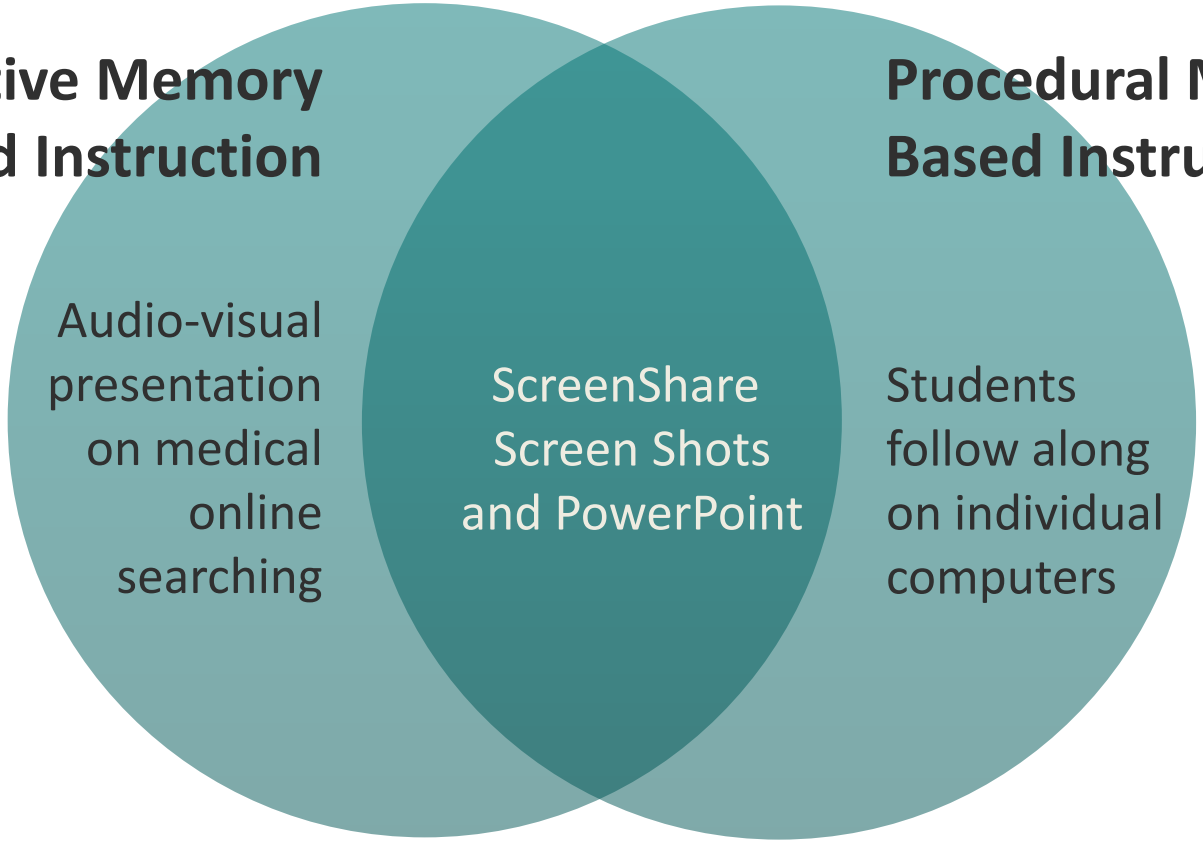
\+ Visual input

Procedural input

More effective learning

Instructional Strategies

Dual-Processing Based Instruction



Evaluation of Health ILI

Dual-Processing Based Evaluation

- Authentic assessment
  - Multimedia projects
  - Research papers

- PBL – Problem-based learning
  - Case Studies
  - Collaborative Problem-Solving

But wait, there's more!

It's not just for health information

The dual processing memory model can be applied to any learning context that involves

- A Process
- Self-regulation and metacognition
- A Human

Thank you for your attention.

Tell me and I'll forget.
Show me, and I may not remember. Involve me, and I'll understand.

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