MIND MAPS FOR THEORIES
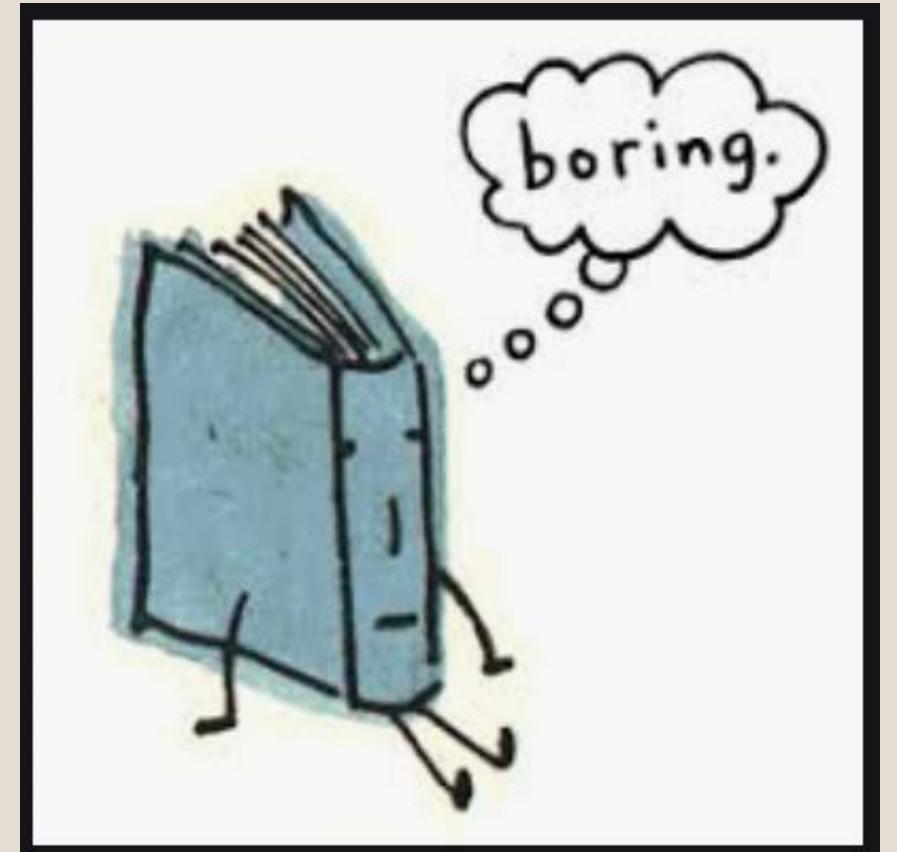
Dr. Yuan He
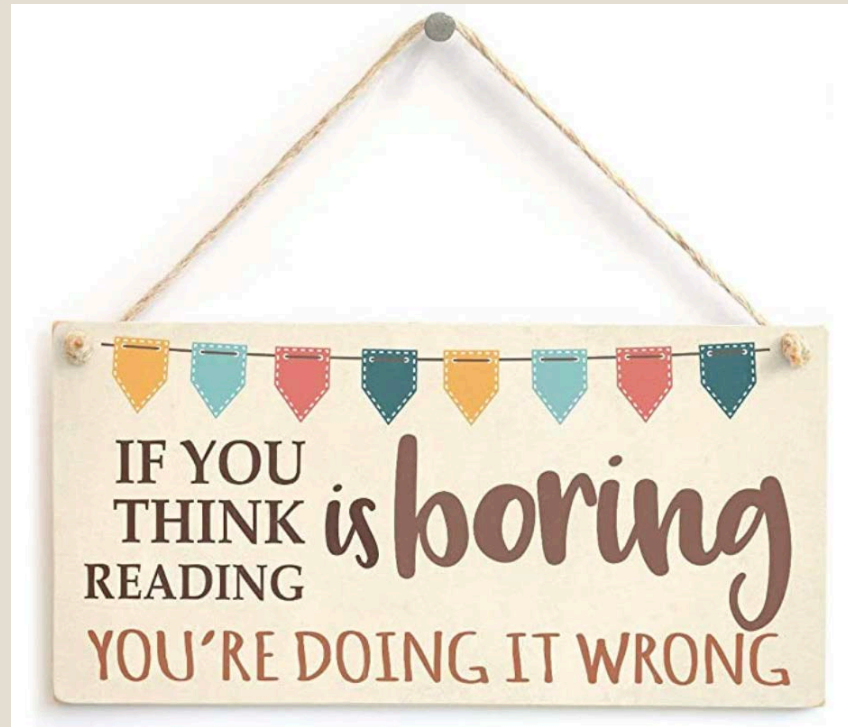
Department of education studies

Reading, Reading, Reading

BUT

Try to create a mind map while you are reading, and you will be amazed!

WHY?

◦ To help students make theories visually organized with a "bigger picture";

◦ To help students better understand the theory with the associations through using different colors and images;

◦ To help make theory readings more relevant to students' own interests.

WHAT'S ON A MIND MAP?

Reading 1: Gardner's Theory Defined
PDF document

Reading 2: Multiple Intelligences Theory: Widely Used, Yet Misunderstood
Link

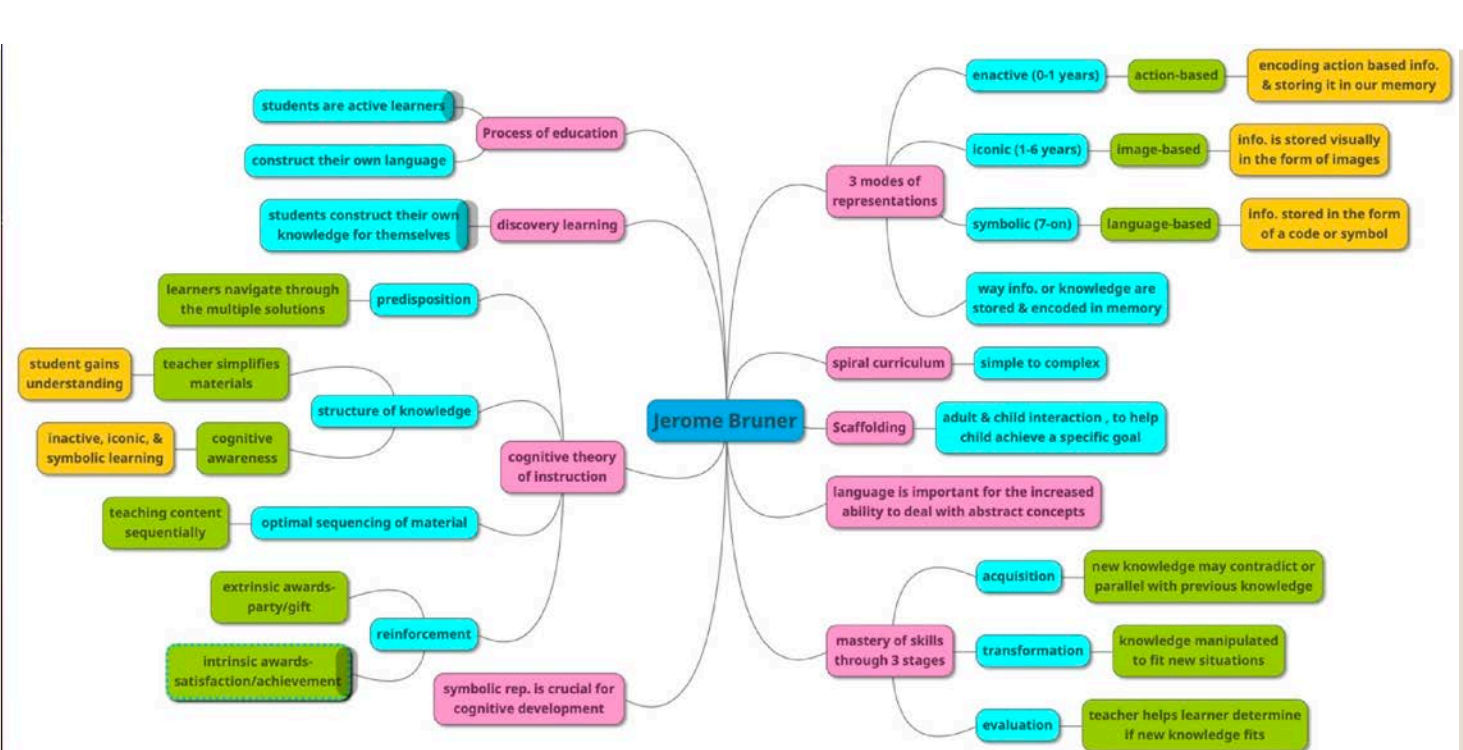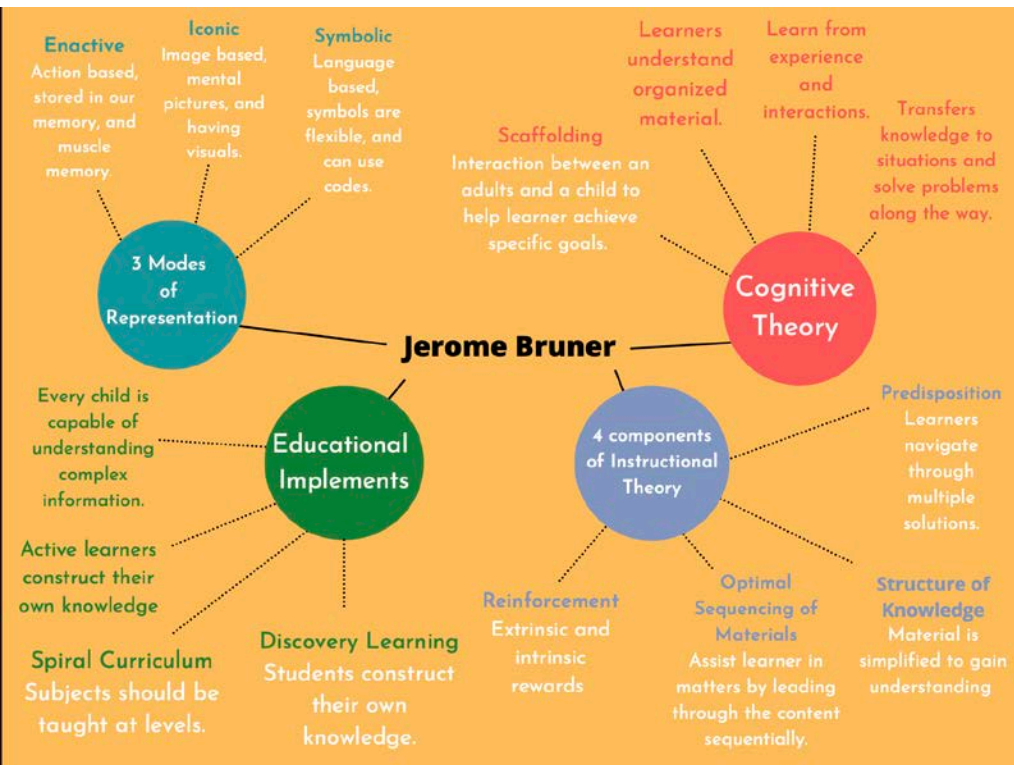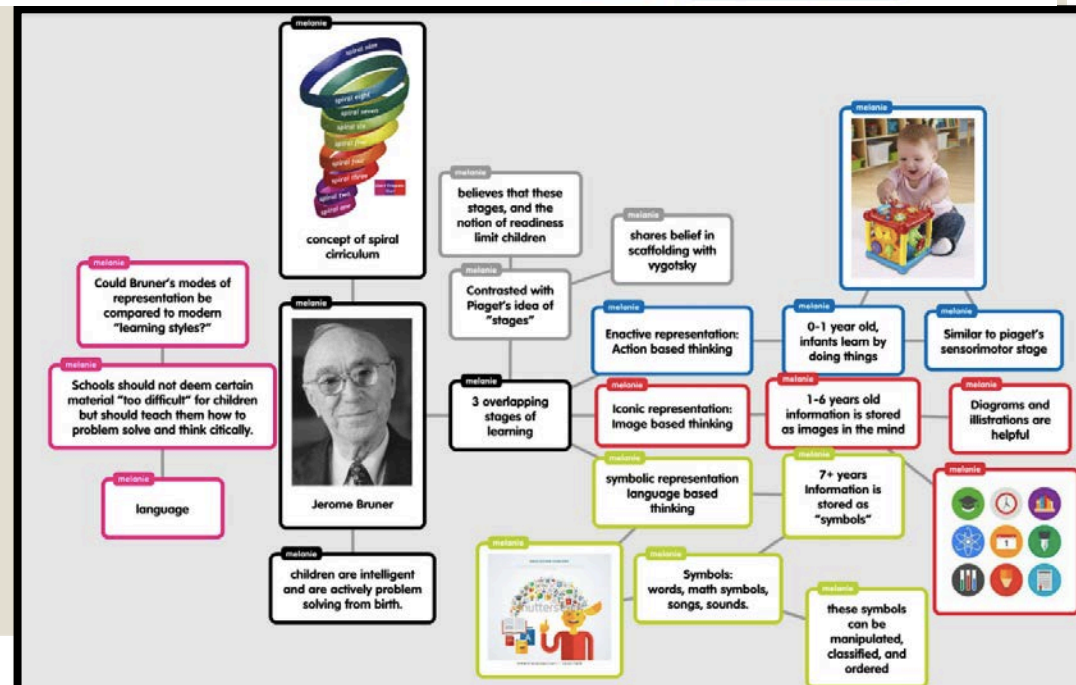**Reading option 1: Multiple Intelligences: What Does the Research Say?**
Link

Reading option 2: Big Thinkers: Howard Gardner on Multiple Intelligences
Link

HOW TO ORGANIZE A MIND MAP?

Mind Map 1 — Jerome Bruner

Jerome Bruner

3 Modes of Representation
- **Enactive** — Action based, stored in our memory, and muscle memory.
- **Iconic** — Image based, mental pictures, and having visuals.
- **Symbolic** — Language based, symbols are flexible, and can use codes.

Learners understand organized material.

Learn from experience and interactions.

Cognitive Theory
- Scaffolding — Interaction between an adults and a child to help learner achieve specific goals.
- Transfers knowledge to situations and solve problems along the way.
- Predisposition — Learners navigate through multiple solutions.
- Structure of Knowledge — Material is simplified to gain understanding.

Educational Implements
- Every child is capable of understanding complex information.
- Active learners construct their own knowledge
- Spiral Curriculum — Subjects should be taught at levels.
- Discovery Learning — Students construct their own knowledge.

4 components of Instructional Theory
- Reinforcement — Extrinsic and intrinsic rewards
- Optimal Sequencing of Materials — Assist learner in matters by leading through the content sequentially.

Mind Map 2 — Jerome Bruner

Process of education
- students are active learners
- construct their own language

discovery learning
- students construct their own knowledge for themselves

predisposition
- learners navigate through the multiple solutions

structure of knowledge
- student gains understanding
- teacher simplifies materials

cognitive awareness
- inactive, iconic, & symbolic learning

optimal sequencing of material
- teaching content sequentially

reinforcement
- extrinsic awards- party/gift
- intrinsic awards- satisfaction/achievement

symbolic rep. is crucial for cognitive development

3 modes of representations
- enactive (0-1 years) → action-based → encoding action based info. & storing it in our memory
- iconic (1-6 years) → image-based → info. is stored visually in the form of images
- symbolic (7-on) → language-based → info. stored in the form of a code or symbol

way info. or knowledge are stored & encoded in memory

cognitive theory of instruction
- spiral curriculum → simple to complex
- Scaffolding → adult & child interaction, to help child achieve a specific goal
- language is important for the increased ability to deal with abstract concepts

mastery of skills through 3 stages
- acquisition → new knowledge may contradict or parallel with previous knowledge
- transformation → knowledge manipulated to fit new situations
- evaluation → teacher helps learner determine if new knowledge fits

Mind Map 3 — Jerome Bruner

- concept of spiral cirriculum
- Could Bruner's modes of representation be compared to modern "learning styles?"
- Schools should not deem certain material "too difficult" for children but should teach them how to problem solve and think citically.
- language
- children are intelligent and are actively problem solving from birth.
- believes that these stages, and the notion of readiness limit children
- Contrasted with Piaget's idea of "stages"
- shares belief in scaffolding with vygotsky
- Enactive representation: Action based thinking
- 3 overlapping stages of learning
- Iconic representation: Image based thinking
- symbolic representation language based thinking
- 0-1 year old, infants learn by doing things
- 1-6 years old information is stored as images in the mind
- 7+ years Information is stored as "symbols"
- Similar to piaget's sensorimotor stage
- Diagrams and illistrations are helpful
- Symbols: words, math symbols, songs, sounds.
- these symbols can be manipulated, classified, and ordered
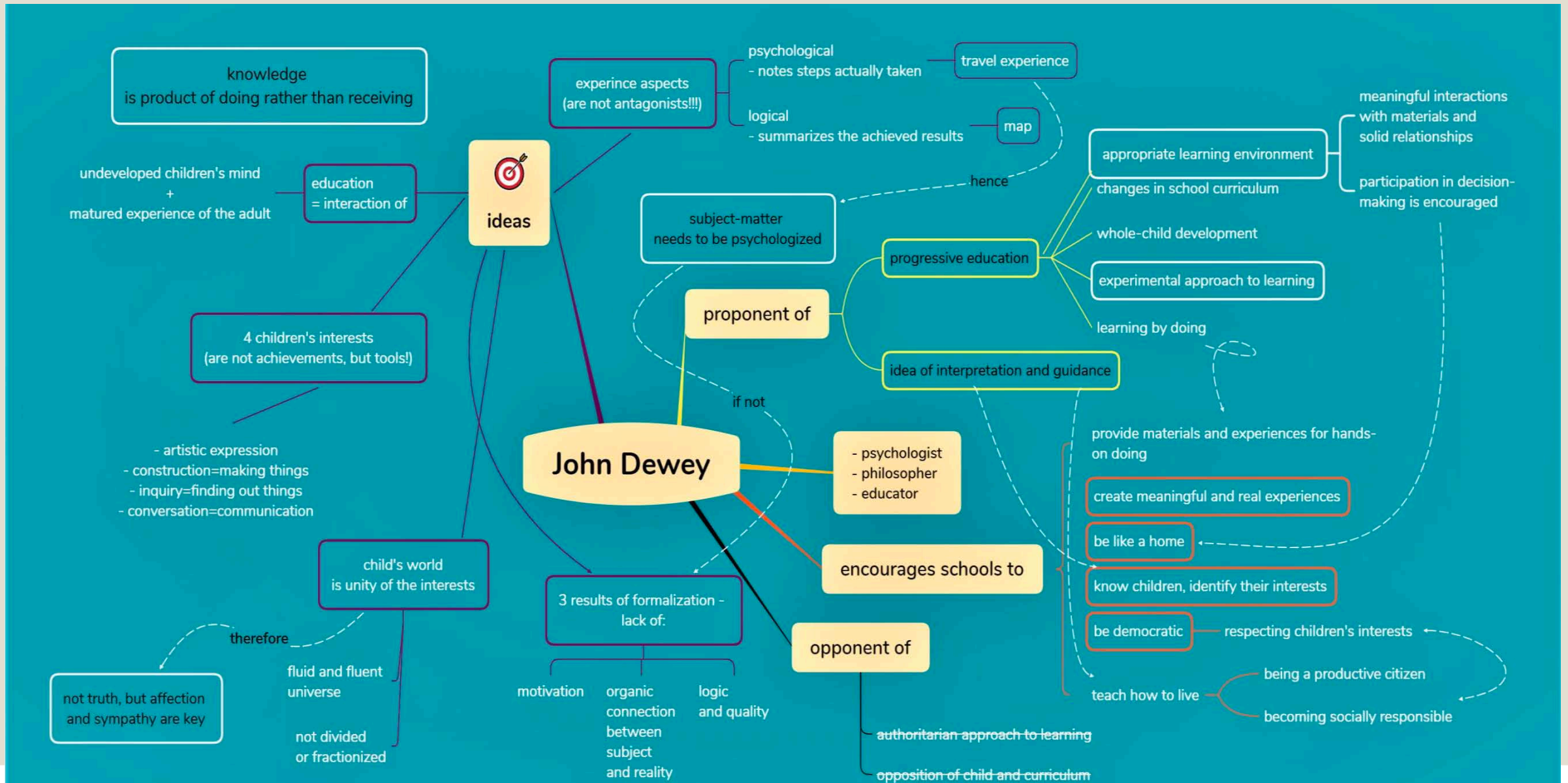
HOW TO ORGANIZE A MIND MAP?

HOW TO ORGANIZE A MIND MAP?

REFLECTION ON EACH MIND MAP

◦ One Word: A core word found in the theory

◦ One Sentence: A very brief summary of the theory

◦ One question: Asking a question connecting the theory and practice

REFLECTION ON EACH MIND MAP

Piaget MI - *Sep 8, 2020 6:21 PM*

One word: Schema

One Sentence: Schema is a connection between thinking and physically doing needed to understand and know.

Question: How do we help children who are behind at a level of cognitive development?

📄 Piaget Mind Map.pptx (143.03 KB)

Piaget Mind-Map - *Sep 11, 2020 7:07 PM*

One Key Word: Stages

One Key Sentence: Piaget believed that children's mental development evolved in stages.

One Question: Is there any aspect of Piaget's Cognitive Development Theory that you disagree with?

📄 Jean Piaget PDF.pdf (59.08 KB)