

# 4MAT by Bernice McCarthy

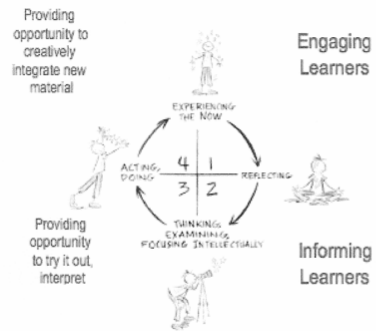
Educ 3100  
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## What is 4MAT

4MAT is a process for delivering instruction in a way that appeals to all types of learners and engages, informs, allows for practice and creative use of material learned within each lesson. A very important component of this method is the need for teachers/instructors to understand and present their material conceptually, presenting the big picture, and the meaning and relevance of material to be learned.

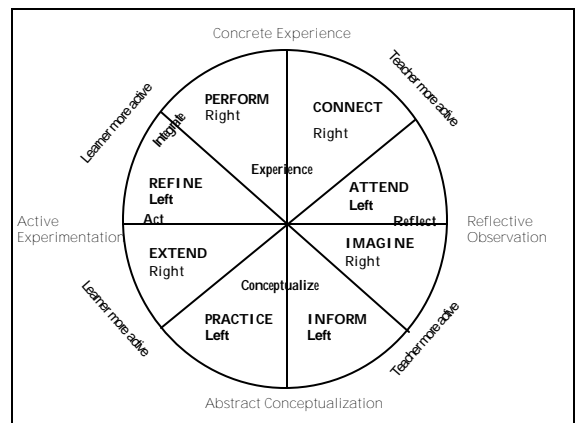
## 4MAT Lessons

- 1) Connect
- 2) Attend
- 3) Imagine
- 4) Inform
- 5) Practice
- 6) Extend
- 7) Refine
- 8) Perform

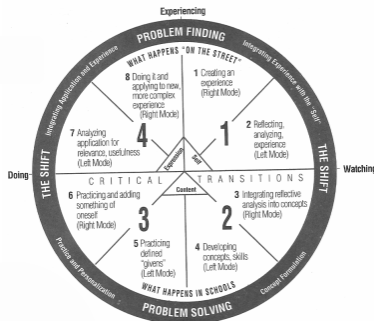


## Brain-Compatible Teaching Strategies

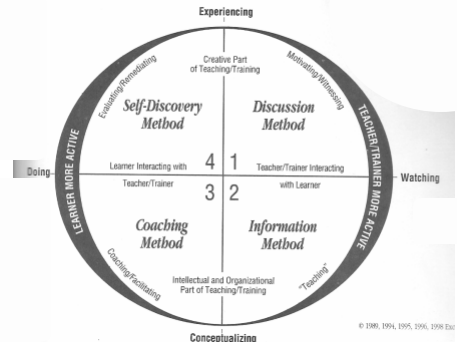
- We know, too, that learning entails interaction between the different modes of brain processing.
- Linear- Operates best through structure, sequence. Prefers language, is sequential, examines the elements, has number sense. Works to analyze or break down information.
- Round- Operates out of being, comprehends images, seeks patterns, creates metaphors, is simultaneous. Strives to synthesize, consolidate information.
- The interplay between round and linear is crucial to higher learning and thinking. It provides a greater range and depth of understanding and encourages creative expression and problem solving.



## What the students do



## What the Teacher does



## Start Teaching in Quadrant One

### Moving from Concrete Experience to Reflective Observation

- Meaning connections based on experience
- Storytelling to create meaning
- Engaging in dialogue
- Establishing relationships
- Listening and sharing similar experiences
- Speaking with subjective voice
- Experiencing camaraderie
- Experiencing the diversity of how others see things
- Gaining insight
- Creating high interest in the material to learn
- Establishing resonance
- Becoming aware of the value of the learning
- Experiencing the discrepancies that the learning will unravel
- Focusing on present and past understandings
- Creating a sense of "I know something about this, and I want to know more"

## Quadrant One

- Climate
  - Trust and openness with permission and encouragement to explore diverse meanings
- Method
  - Discussion of experiences. The students engage in collaborative learning, each contributing their individuality.
- Teacher
  - Initiates, motivates, and creates experiences that capture the students and strengthens student collaboration.

## 4 MAT Lesson Design Quadrant 1



- Quadrant 1 RIGHT: Connect
  - Connect students directly to the concept in a personal way. Capture students' attention by initiating a group problem-solving activity before delivery of instruction. Begin with a situation that is familiar to students and builds on what they already know. Construct a learning experience that allows diverse and personal student responses. Facilitate the work of cooperative teams of students. Elicit non-trivial dialogue from students.

## 4 MAT Lesson Design Quadrant 1

- Quadrant 1 LEFT: Attend
  - Guide students to reflection and analysis of the experience. Summarize and review similarities and differences. Establish a positive attitude toward the diversity of different people's experience. Clarify the reason for learning



## Move to Quadrant Two

### from Reflective Observation to Abstract Conceptualization

- Connecting fascination to facts
- Comprehending the learning
- Receiving expert knowledge
- Examining pertinent information with scientific skepticism
- Establishing links between subjective experience and objective knowing
- Seeing both the big picture and the supporting details
- Organizing
- Connecting to other similar ideas
- Classifying and comparing
- Blending personal experiences with expert knowing
- Patternizing
- Clarifying purpose
- Bringing out the structure and form
- Theorizing
- Engaging in interactive questioning
- Focusing on current hypotheses
- Creating knowledge that will give a solid ground to further understanding

# WHAT?

## Quadrant Two

- **Climate**
  - Receptiveness, taking in, being briefed, a thoughtful, reflective ambiance of attuned and active listening.
- **Method**
  - Information delivery through lecture, readings, and demonstrations to examine expert findings. Move from the world of self to the world of experts.
- **Teacher**
  - Create the bridge with a nonverbal task and then delivers the content, thus melding student experience with expert knowledge.

## 4 MAT Lesson Design Quadrant 2

- **Quadrant 2 RIGHT: Imagine**
  - Provide a metaview, lifting students into a wider view of the concept. Use another medium (not reading or writing) to connect students' personal knowing to the concept (i.e. visual arts, music, movement, etc.). Involve learning in reflective production that blends the emotional and the cognitive. Transform the concept yet to be taught into an image or experience, a "sneak preview" for the students. Deepen the connection between the concept and its relationship to the students' lives. Relate what the students already know to what the experts have found.



## 4 MAT Lesson Design Quadrant 2

- **Quadrant 2 LEFT: Inform**
  - Provide "acknowledged body of knowledge" related to the concept. Emphasize the most significant aspects of the concept in an organized, organic manner. Present information sequentially so students see continuity. Draw attention to important, discrete details; don't swamp students with a myriad of facts. Use a variety of delivery systems; interactive lecture, text, guest speakers, films, visuals, demonstrations, when available.



## Move to Quadrant Three

### from Abstract Conceptualization to Active Experimentation

- Learning important skills
- Practicing and experimenting
- Using expert knowledge to get something done
- Testing accuracy
- Doing
- Establishing the link between theory and application
- Seeing how things work
- Predicting
- Recording the details in action, not just in theory
- Questioning
- Comparing results
- Seeing how form generates
- Resolving discrepancies
- Reaching conclusions
- Mastering skills
- Extending the learning into usefulness in real life

# HOW?

## Quadrant Three

- **Climate**
  - Active! Teachers offer opportunities for students to tinker, try things out, to begin to become experts themselves.
- **Method**
  - Working in centers, with partners and in teams (or alone), experimenting, tinkering, practicing.
- **Teacher**
  - Coach, facilitating, nurturing experiments, guiding the questioning, providing adequate practice for mastery.

## 4 MAT Lesson Design Quadrant 3



- Quadrant 3 LEFT: Practice
  - Provide hands-on activities for practice and mastery. Check for understanding of concepts and skills by using relevant standard materials such as worksheets, text problems, workbooks, teacher prepared exercises, etc. Provide opportunities for students to practice new learning, (learning centers, games fostering skills development, etc.). Use concept of mastery learning to determine if re-teaching is necessary and how it will be carried out. Students may create additional multi-modal practice for each other.

## 4 MAT Lesson Design Quadrant 3



- Quadrant 3 RIGHT: Extend
  - Encourage tinkering with ideas, relationships, connections. Set up situations where student have to find information not readily available in school texts. Provide opportunity for student to design open-ended explorations of the concept. Provide multiple options so student can plan a unique “proof” of learning. Require students to organize, synthesize their learning on some personal, meaningful way. Require students to begin the process of planning how their project will be evaluated, identifying their own criteria for excellence.

## Move to Quadrant Four from Active Experimentation to Concrete Experience

- |                           |                             |
|---------------------------|-----------------------------|
| • Adapting the learning   | • Taking a position         |
| • Modifying and reworking | • Creating new              |
| • Verifying usefulness    | • Identifying discrepancies |
| • Summarizing             | • Making new connection     |
| • Creating new questions  | • Evaluating                |
| • Breaking boundaries     | • Exhibiting/publishing     |
| • Synthesizing            | • Re-presenting             |
| • Establishing future use | • Performing                |
| • Refocusing              | • Celebrating               |
| • Editing and refining    | • Sharing the learning      |
| • Confirming conclusions  |                             |

IF?

## Quadrant Four

- Climate
  - Celebration, one that is performance-oriented, a sharing place with results that can be measured, with new and better questions, with growth.
- Method
  - Mentoring, creating resources, and enhancing self-discovery, assisting learners as they adapt and create their own usefulness.
- Teacher
  - Cheerleader, facilitating independence, getting resources, championing, and leading students to meticulous self-evaluation

## 4 MAT Lesson Design Quadrant 4





- Quadrant 4 LEFT: Refine
  - Give guidance and feedback to student’s plans, encouraging, refining, and helping them to be responsible for their own learning. Help students analyze their use of the learning for meaning, relevance, and originality. Maintain high expectations for completion of chosen options. Help mistakes to become learning opportunities. Summarize by reviewing the whole, bringing students “full circle” to the experience with which the learning began.

## 4 MAT Lesson Design Quadrant 4



- Quadrant 4 RIGHT: Perform
  - Support students in learning, teaching, and sharing with others. Establish a classroom atmosphere that celebrates the sharing of learning. Have opportunity for students to practice new learnings. Make student learning available to the larger community, i.e. books students write are shared with other classes, students report in a school newspaper, student work is displayed, etc. Leave students wondering (creatively) about further possible applications of the concept, extending the “what ifs” into the future.

So how do I use this to plan a lesson?

- Sample Lesson: Elementary 
- Sample Lesson : High School Poets 
- Sample Lesson: Junior High Science 