

Four Habits of Mind “systems” at work in education

1) Arthur L. Costa and Bena Kallick, Habits of Mind Developmental Series

A Habit of Mind is a predisposition, an inclination and set of behaviors that one can choose in approaching a task in life. Arthur L. Costa, professor emeritus of the California State University has identified 16 habits that successful people exhibit as cognitive as well as character traits.

- A Habit of Mind is knowing how to behave intelligently when you DON'T know the answer.
- A Habit of Mind means having a disposition toward behaving intelligently when confronted with problems, the answers to which are not immediately known: dichotomies, dilemmas, enigmas and uncertainties.
- Our focus is on performance under challenging conditions that demand strategic reasoning, insightfulness, perseverance, creativity, and craftsmanship. The critical attribute of intelligent human beings is not only having information, but also knowing how to act on it.
- Employing Habits of Mind requires drawing forth certain patterns of intellectual behavior that produce powerful results. They are a composite of many skills, attitudes and proclivities including:
 - **Value:** Choosing to employ a pattern of intellectual behaviors rather than other, less productive patterns.
 - **Inclination:** Feeling the tendency toward employing a pattern of intellectual behaviors.
 - **Sensitivity:** Perceiving opportunities for, and appropriateness of employing the pattern of behavior.
 - **Capability:** Possessing the basic skills and capacities to carry through with the behaviors.
 - **Commitment:** Constantly striving to reflect on and improve performance of the pattern of intellectual behavior.

The 16 Habits of Mind identified by Costa and Kallick:

- **Persisting**
- **Thinking and communicating with clarity and precision**
- **Managing impulsivity**
- **Gathering data through all senses**
- **Listening with understanding and empathy**
- **Creating, imagining, innovating**
- **Thinking flexibly**
- **Responding with wonderment and awe**
- **Thinking about thinking (metacognition)**
- **Taking responsible risks**
- **Striving for accuracy**
- **Finding humor**
- **Questioning and posing problems**
- **Thinking interdependently**
- **Applying past knowledge to new situations**
- **Remaining open to continuous learning**

Additional info can be found at <http://www.habits-of-mind.net/>

2) **Ted Sizer and Debbie Meier CPESS** (Central Park East Secondary School's) **Habits of Mind from the Coalition of Essential Schools**

Summary: We created the CPESS habits of mind ... as we realized the need for unity across disciplines and a focus on the essential. We didn't want an endless laundry list, so we wrote down five, based on many years of watching kids and observing our own habits, and now they are posted in most classrooms... They are at the heart of each curriculum as well as being the basis for judging student performance. We never quite write them out the exact same way, and over the years we've realized they are constantly evolving in their meaning. They are:

- The question of evidence, or "How do we know what we know?"
- The question of viewpoint in all its multiplicity, or "Who's speaking?"
- The search for connection and patterns, or "What causes what?"
- Supposition, or "How might things have been different?"
- Why any of it matters, or "Who cares?"

The (Sizer/Meier) Habits

- **The habit of perspective:** Organizing an argument, read or heard or seen, into its various parts, and sorting out the major from the minor matter within it. Separating opinion from fact and appreciating the value of each.
- **The habit of analysis:** Pondering each of these arguments in a reflective way, using such logical, mathematical, and artistic tools as may be required to render evidence. Knowing the limits as well as the importance of such analysis.
- **The habit of imagination:** Being disposed to evolve one's own view of a matter, searching for both new and old patterns that serve well one's own and other's current and future purposes.
- **The habit of empathy:** Sensing other reasonable views of a common predicament, respecting all, and honoring the most persuasive among them.
- **The habit of communication:** Accepting the duty to explain the necessary in ways that are clear and respectful both to those hearing or seeing and to the ideas being communicated. Being a good listener.
- **The habit of commitment:** Recognizing the need to act when action is called for; stepping forward in response. Persisting, patiently, as the situation may require.
- **The habit of humility:** Knowing one's right, one's debts, and one's limitations, and those of others. Knowing what one knows and what one does not know. Being disposed and able to gain the needed knowledge, and having the confidence to do so.
- **The habit of joy:** Sensing the wonder and proportion in worthy things and responding to these delights.

http://www.essentialschools.org/pub/ces_docs/about/phil/habits.html

3) Studio Habits of Mind (copyright 2004 The President and Fellows of Harvard College on Behalf of Project Zero) From the VALUES Project, a network of schools and educators led by The Center for Art and Public Life, the Alameda County Office of Education, and Project Zero at the Harvard Graduate School of Education .

- ***Develop Craft*** Technique: Learning to use tools (e.g., viewfinders, brushes), materials (e.g., charcoal, paint), and artistic conventions (e.g., perspective, color mixing). Studio Practice: Learning to care for tools, materials, and space.
- ***Engage & Persist*** Learning to embrace problems of relevance within the art world and/or of personal importance, to develop focus and other mental states conducive to working and persevering at art tasks.
- ***Envision*** Learning to picture mentally what cannot be directly observed and imagine possible next steps in making a piece.
- ***Express*** Learning to create works that convey an idea, a feeling, or a personal meaning.
- ***Observe*** Learning to attend to visual contexts more closely than ordinary "looking" requires, and thereby to see things that otherwise might not be seen.
- ***Reflect*** Question & Explain: Learning to think and talk with others about an aspect of one's work or working process.
- ***Evaluate*** Learning to judge one's own work and working process and the work of others in relation to standards of the field.
- ***Stretch & Explore*** Learning to reach beyond one's capacities, to explore playfully without a preconceived plan, and to embrace the opportunity to learn from mistakes and accidents.
- ***Understand Art World*** Domain: Learning about art history and current practice. Communities: Learning to interact as an artist with other artists (i.e., in classrooms, in local arts organizations, and across the art field) and within the broader society.

The VALUES project is led by Dr. Lois Hetland, Principal Investigator at Project Zero, Harvard School of Education and Associate Professor of Art Education at the Massachusetts College of Art; Louise Music, Arts Learning Coordinator and Project Director, Alliance for Arts Learning Leadership, Alameda County Office of Education; and Ann Wettrich, Associate Director of Education, California College of the Arts Center for Art and Public Life.

<http://center.cca.edu/about/news/6>

4) Sparks of Genius: The 13 Thinking Tools, Robert and Michele Root-Bernstein
The shared mental processes reported by highly creative people in very different fields.

Primary tools that can function somewhat independently

- **Observing.** Paying attention to what is seen, heard, touches, smelled, tasted or felt within the body. Making sense of sensation.
- **Imaging.** Recalling these feelings and sensations or creating them internally in a private personal shorthand.
- **Abstracting.** Paring down complicated sensations, images or information to simple principles.
- **Recognizing patterns.** Discovering structures in nature or man made things, even when initially not evident. Is the basis for setting and surprising expectations, making predictions, and proposing good questions.
- **Forming patterns.** Creating novel patterns, combining elements in unexpected ways.
- **Analogizing.** Finding common properties or functions of two apparently different things.
- **Body thinking.** Using the preverbal and presymbolic thinking that emerges in the feel of sensation and physical awareness.
- **Empathizing.** “Losing oneself” into the thing under study.
- **Dimensional thinking.** Taking something from a flat plane into space, interpreting images from one set of dimensions as objects in another.

Higher-order tools that use the primary tools in integrated ways

- **Modeling.** Trying out ideas in tangible forms.
- **Playing.** Enjoying the endeavor, irreverently experimenting with conventional procedures, purposes and rules.
- **Transforming.** Translating from one thinking tool to another and into languages of communication.
- **Synthesizing.** Gaining understanding through the holistic integration of data from the various senses and ways of knowing.