

Components of a Thinking Skills Program (From Costa, 2003)

Arthur Costa (2003) described four components of a well-developed program for teaching “habits of skillful thinking” or “habits of mind.”

Imagine four concentric circles—like a dart board. In the center, *judiciously selected content* refers to the subject within which the thinking skills will be taught and applied. Content influences the selection of thinking skills in the sense that, for example, a scientific problem will require skills related to logic and scientific control, while social and aesthetic content requires skills related to ethics and artistic judgment. An attractive content also motivates students: “Content activates and engages the enquiring mind” (p. 326).

The second circle is *instruction in the thinking skills* themselves: “the basic tools of effective thinking . . . [which] need to be brought to the conscious level through direct instruction” (p. 327).

The third circle is named *solving problems that require the application of skillful thinking*. Students are exposed to ambiguities, anomalies, conflicts, dilemmas, enigmas, obstacles, or paradoxes that require resolution. Thinking skills are organized into strategies, said Costa, that we call *creativity*, *problem solving*, and *decision making*.

Finally, Costa’s outside circle is *habits of mind*; dispositions or inclinations to use the thinking

skills in suitable circumstances. Students must come to value the thinking skill, be alert to opportunities to use it, be capable of using it, and make a commitment to improve the particular thinking skills.

While there is an infinite number of habits of mind, Costa listed these sixteen comparatively complex thinking skills as especially important:

- Persisting when a solution is not readily apparent
- Managing impulsivity
- Listening to others with understanding and empathy
- Thinking flexibly
- Thinking about our own thinking (metacognition)
- Striving for accuracy and precision
- Asking questions and posing problems
- Applying past knowledge to new situations
- Thinking and communicating with clarity and precision
- Gathering data through all senses
- Creating, imagining, innovating
- Responding with wonderment and awe
- Taking responsible risks
- Finding humor
- Thinking independently
- Remaining open to continuous learning