

Habits of Mind

Introduction

The focus on learning has shifted significantly in the years since you and I went to school. Whilst we still strive for academic excellence, we are placing an increasing emphasis on developing the skills students need to be successful, lifelong learners.

At MHOC, we use the Habits of Mind as a set of behaviours or dispositions that will assist children now and in the future. We aim to develop expert problem-solvers, thoughtful decision-makers and creative thinkers. Our goal is to train the children to understand and use these habits to help guide their decision-making in everyday life.

Follow the link below to hear the creator of Habits of Mind, Art Costa, describe the kinds of behaviours we are trying to develop:

<http://mindfulbydesign.com/art-costa-describes-habits-of-mind/>

The descriptors below are taken from the article, "Describing 16 Habits of Mind" by the creators of Habits of Mind, Arthur L. Costa, Ed. D. and Bena Kallick, Ph.D.

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1. Persisting



Effective learners stick to a task until it is completed. They don't give up easily. They are able to analyse a problem and to develop a system, structure, or strategy to attack a problem. They employ a range of alternative strategies for problem solving. They collect evidence to indicate their problem-solving strategy is working, and if one strategy doesn't work, they know how to back up and try another. They recognise when a theory or idea must be rejected and another employed. They have systematic methods of analysing a problem which include knowing how to begin, knowing what steps must be performed, and what data needs to be generated or collected. Because they are able to sustain a problem solving process over time, they are comfortable with ambiguous situations.

Common Behaviours of Students who Don't Persist

- They give up in despair when the answer to a problem is not immediately known.
- They say, "I can't do this," "It's too hard."
- They write down any answer to get the task over with as quickly as possible.
- They have difficulty staying focused for any length of time and are easily distracted.
- They lack the ability to analyse a problem.
- If their first strategy doesn't work, they give up because they have no alternatives.

2. Managing Impulsivity



Effective problem solvers think before they act. They intentionally form a vision of a product, plan of action, goal or a destination before they begin. They strive to clarify and understand directions, develop a strategy for approaching a problem and withhold immediate value judgments about an idea before fully understanding it. Reflective individuals consider alternatives and consequences of several possible directions prior to taking action. They decrease their need for trial and error by gathering information, taking time to reflect on an answer before giving it, making sure they understand directions, and listening to alternative points of view.

Common Behaviours of Students who Don't Manage their Impulsivity

- They blurt out the first answer that comes to mind.
- They start to work without fully understanding the directions.
- They lack an organised plan or strategy for approaching a problem.
- They make immediate value judgments about an idea - criticising or praising it - before fully understanding it.
- They may take the first suggestion given or operate on the first idea that comes to mind rather than considering alternatives and consequences of several possible directions.

3. Listening with Understanding and Empathy



Highly effective people spend an inordinate amount of time and energy listening (Covey, 1989). Some psychologists believe that the ability to listen to another person, to empathise with, and to understand their point of view is one of the highest forms of intelligent behaviour. Good listeners are able to paraphrase another person's ideas, detect another person's feelings or emotional states in their oral and body language and accurately express another person's ideas, emotions and problems. To listen fully means to pay close attention to what is being said beneath the words.

We want our students to learn to devote their mental energies to another person and really listen to other people's ideas. We teach students to temporarily hold their own values, judgments, opinions, and prejudices in order to listen to and entertain another person's thoughts. This is a very complex skill requiring the ability to monitor one's own thoughts while, at the same time, attending to the partner's words. This does not mean that we can't disagree with someone. A good listener tries to understand what the other person is saying. Even if the listener ends up disagreeing, they need to know exactly what they are disagreeing with.

Common Behaviours of Students who Can't Listen with Understanding and Empathy

- They often say they are listening, but they are rehearsing in their head what they are going to say next when their partner is finished.
- They ridicule, laugh at, or put down other students' ideas.
- They interrupt and are unable to build upon, consider the merits of, or operate on another person's ideas.

4. Thinking Flexibly



An amazing discovery about the human brain is its plasticity - its ability to "rewire", change and even repair itself to become smarter. Flexible people have the capacity to change their mind as they receive additional data. They draw upon a range of problem solving strategies and know when it is appropriate to be broad and global in their thinking and when a situation requires detailed precision. They create and seek novel approaches and have a well-developed sense of humour. They are able to identify a range of possible consequences.

Flexible people can approach a problem from a new angle using a novel approach. They consider alternative points of view or deal with several sources of information simultaneously. Their minds are open to change, based on additional information and data or reasoning, which contradicts their beliefs.

Common Behaviours of Students who Don't Think Flexibly

- They have difficulty in considering alternative points of view.
- Their way to solve a problem seems to be the only way.
- They give up after a first failed attempt at problem solving because they can't think of another way to approach the problem.

5. Thinking About Your Thinking (Metacognition)



Metacognition is our ability to know what we know and what we don't know. It is our ability to plan a strategy for producing what information is needed, to be conscious of our own steps and strategies during the act of problem solving, and to reflect on and evaluate the productiveness of our own thinking.

The major components of metacognition include developing a plan of action, maintaining that plan in mind over a period of time, then reflecting back on and evaluating the plan upon its completion. It helps us make judgements and monitor our interpretations, perceptions, decisions and behaviors. Intelligent people plan for, reflect on, and evaluate the quality of their own thinking skills and strategies.

Common Behaviours of Students who Don't Think about their Thinking

- They don't take the time to wonder why they are doing what they are doing.
- They seldom question themselves about their own learning strategies or evaluate the efficiency of their own performance.
- They have no idea of what they should do when they confront a problem and are often unable to explain their strategies of decision making.
- When teachers ask, "How did you solve that problem; what strategies did you have in mind"? or, "Tell us what went on in your head to come up with that conclusion". Students often respond by saying, "I don't know, I just did it."

6. Striving for Accuracy



People who value accuracy, precision and craftsmanship take time to check over their products. These people know that they can continually perfect their craft by working to attain the highest possible standards. They take pride in their work and have a desire for accuracy so they take time to check it carefully. People who strive for accuracy aim for exactness, precision, accuracy and correctness.

Common Behaviours of Students who Don't Strive for Accuracy

- Their completed tasks are often sloppy, incomplete, unedited or unchecked.
- They are more anxious to finish the task than to check it over for accuracy and precision.
- They are willing to put in minimum effort rather than investing their maximum effort.

7. Questioning and Posing Problems



One of the distinguishing characteristics between humans and other forms of life is our ability to FIND problems to solve.

Effective problem solvers know how to ask questions to fill in the gaps between what they know and what they don't know.

Effective questioners are inclined to ask a range of questions.

Here are some examples;

Questions that challenge other people's ideas and points of view:

"What evidence do you have...?"

"How do you know that's true?"

Hypothetical problems:

"What do you think would happen IF...?"

Questions about the world:

"Why do cats purr?"

"Why does the hair on my head grow so fast, while the hair on my arms and legs grows so slowly?"

"What are some alternative solutions to international conflicts other than wars?"

Common Behaviours of Students who Don't Question and Pose Problems

- They don't ask questions, even when something doesn't make sense to them.
- They don't realise that questions vary in complexity, structure and purpose.
- They lack curiosity about the world.

8. Applying Past Knowledge to New Situations



Intelligent human beings learn from experience. When confronted with a new and perplexing problem, they will often draw on experience from their past. They can often be heard to say, "This reminds me of..." or "This is just like the time when I..." They explain what they are doing now with reference to previous experiences. They call upon their store of knowledge and

experience as sources of data to support, theories to explain, or processes to solve each new challenge. Furthermore, they are able to abstract meaning from one experience, carry it forth, and apply it in a new and novel situation.

Common Behaviours of Children who Don't Apply Past Knowledge to New Situations

- They students begin each new task as if it were being approached for the very first time.
- They don't remember how they have solved similar problems in the past.
- They can't identify links between what they have already learned and their new learning.

9. Thinking and Communicating with Clarity and Precision



Language and thinking are closely entwined. Like either side of a coin, they are inseparable. When you hear fuzzy language, it is a reflection of fuzzy thinking. Intelligent people strive to communicate accurately in both written and oral form, taking care to use precise language, defining terms and using correct names and labels. They strive to avoid overgeneralisations, deletions and distortions. Instead they support their statements with explanations, comparisons, quantification, and evidence.

Common Behaviours of Students who don't Think and Communicate with Clarity and Precision

- They use imprecise language.
- They describe objects or events with words like 'weird', 'nice', or 'OK'.
- They use non-descriptive words as 'stuff', 'junk' and 'things' to describe.
- They punctuate sentences with meaningless interjections like 'ya know', 'er' and 'um'.
- They use vague or general language e.g. "They told me to do it" or "Everybody else is allowed!"

10. Gathering Data Through All Senses



We learn about our world by observing or taking it in through all our senses including taste, smell, touch, movement, sound and sight. Those whose sensory pathways are open, alert, and acute, absorb more information from the environment than those who don't notice a range of sensory stimuli.

Furthermore, we are learning more about the impact of arts and music on learning. Forming mental images is important in Mathematics and Engineering and listening to classical music seems to improve spatial reasoning. Social scientists solve problems through scenarios and role-playing; scientists build models; engineers use mini cameras; mechanics learn through hands-on experimentation; artists experiment with colours and textures. Musicians experiment by producing combinations of instrumental and vocal music.

Common Behaviours of Students who don't Gather Data through all Senses

- They don't notice textures, rhythms, patterns sounds and colors around them.
- Sometimes children are afraid to touch, get their hands "dirty" or feel some object that might be "slimy" or "icky".
- They operate within a narrow range of sensory problem solving strategies wanting only to "describe it but not illustrate or act it", or "listen but not participate".

11. **Creating, Imagining and Innovating**



All human beings have the capacity to create original, clever or ingenious products, solutions, and techniques - if that capacity is developed. Creative human beings look at problems in a variety of ways, examining alternative solutions from many angles. They start with the big vision of what they are hoping to achieve and then find strategies to achieve their vision.

Creative people take risks and frequently push the boundaries of their perceived limits. They work on the task because they enjoy the challenge, rather than for any material rewards. Creative people are open to criticism. They hold up their products for others to judge and seek feedback in an ever-increasing effort to improve their creation.

Common Behaviours of Children who Don't Create, Imagine and Innovate

- They are often heard to say, "I can't draw," "I was never very good at art," "I can't sing a note," "I'm not creative".
- They believe that people are born creative, not that it is a skill that can be learnt.

12. Responding with Wonderment and Awe



Successful people not only have an "I CAN" attitude, but also an "I ENJOY" feeling. They delight in making up problems to solve on their own and often seek new challenges. They enjoy figuring things out by themselves, and continue to learn throughout their lifetimes.

People who respond with wonderment and awe have an enthusiasm and passion for learning, inquiring and mastering.

They are curious about the world around them. They reflect on the changing formations of a cloud; feel charmed by the opening of a flower bud and sense the logical simplicity of Mathematical patterns. They find beauty in a sunset, intrigue in the geometry of a spider web, marvel at distant constellations and experience the joy of all creation.

Common Behaviours of Children who Don't Respond with Wonderment and Awe

- They avoid problems and are "turned off" learning.
- They believe they are not good at a particular skill and so won't attempt challenging tasks that require use of that skill.
- They believe thinking is hard work and choose not to participate in games or challenges that demand too much of it.
- They believe learning is 'boring' and not something that makes them feel happy and fulfilled.

13. Taking Responsible Risks



Flexible people seem to have an almost uncontrollable urge to go beyond established limits. They are uneasy about comfort; they "live on the edge of their competence". They seem compelled to place themselves in situations where they do not know what the outcome will be. They accept confusion, uncertainty, and the higher risks of failure as part of the normal process and they learn to view setbacks as interesting, challenging and growth producing.

However, they are not behaving impulsively. Their risks are educated. They draw on past knowledge, are thoughtful about consequences and have a well-trained sense of what is appropriate. They know that all risks are not worth taking! It is only through repeated experiences that risk taking becomes educated. It often is a cross between intuition, drawing on past knowledge and a sense of meeting new challenges.

Common Behaviours of Students who Don't Take Responsible Risks

- They hold back games, new learning, and new friendships because their fear of failure is far greater than their experience of venture or adventure.
- They are reinforced by the mental voice that says, "if you don't try it, you won't be wrong" or "if you try it and you are wrong, you will look stupid".
- They are more interested in knowing whether their answer is correct or not, rather than being challenged by the process of finding the answer.
- They are unable to sustain a process of problem solving and finding the answer over time, and therefore avoid ambiguous situations. They have a need for certainty rather than an inclination for doubt.

14. Finding Humour



A unique attribute of human beings is our sense of humour and our ability to laugh. Laughing has positive effects on psychological functions include a drop in the pulse rate, the secretion of endorphins and an increased oxygen in the blood. It has been found to promote creativity and higher level thinking skills. People who engage in the mystery of humour have the ability to

perceive situations from an original and often interesting point of view. They appreciate and understand other people's humour and are verbally playful when talking to others. They are able to laugh at situations and themselves.

They don't laugh AT others, rather they laugh WITH others and can identify situations when laughter and humour is appropriate.

Some common behaviours of students who don't find humour

- Some students find humour in all the "wrong places"- such as laughing at others because they are 'different' or less capable. They will laugh at behaviour that is dangerous, vulgar or violent.
- They laugh at others, yet are unable to laugh at themselves.
- They rarely find humour in their own mistakes; rather, they become upset or embarrassed.

15. Thinking Interdependently



Human beings are social beings. We congregate in groups, find it therapeutic to be listened to and draw energy from one another. In groups, we contribute our time and energy to tasks that we would quickly tire of when working alone. Cooperative humans realise that all of us together are more powerful, intellectually and/or physically, than any one individual.

The ability to work collaboratively is considered by educators and employers to be an essential skill for employees in the 21st Century. Working in groups requires the ability to justify ideas and to test the feasibility of solution strategies on others. It also requires the development of a willingness and openness to accept both positive and negative feedback. Through this interaction, the group and the individual continue to grow. Listening, consensus seeking, giving up an idea to work with someone else's, empathy, compassion, group leadership, knowing how to support group efforts, altruism - all are behaviors indicative of cooperative human beings.

Common behaviours of students who don't think interdependently

- They have underdeveloped social skills.
- They feel isolated, they prefer their solitude. "Leave me alone - I'll do it by myself". "They just don't like me". "I want to be alone."
- They seem unable to contribute to group work either because they take over and are bossy or conversely, letting others do all the work.

16. Remaining Open to Continuous Learning



Intelligent people are in a continuous learning mode. Their confidence, in combination with their inquisitiveness, allows them to constantly search for new and better ways. People with this Habit of Mind are always striving for improvement, always growing, always learning, always modifying and improving themselves. They seize problems, situations, tensions, conflicts and circumstances as valuable opportunities to learn.

Our wish is for creative students and teachers who are eager to learn. The first step in learning is to admit what you don't know and then you need the courage to not be afraid to find out.

Common behaviours of children who don't remain open to continuous learning.

- They confront learning opportunities with fear rather than mystery and wonder.
- They would rather be told an answer than search for answers themselves.
- They value certainty rather than doubt; want to give answers rather than to inquire, and want to know which choice is correct rather than to explore alternatives.