

# Designing Effective Projects: Beliefs and Attitudes

## Teaching Beliefs and Attitudes

### Beliefs and Attitudes in the Classroom

Although few teachers would argue with the premise that there are particular character and personality traits that are more likely to produce good thinking than others, teaching these attitudes is an even bigger challenge than teaching the skills that support them. There are, however, things that teachers can do to help students acquire the attitudes and beliefs that will make them good thinkers. They can

- Model attitudes such as curiosity and open-mindedness often in a variety of contexts and subject areas.
- Reward the unsolicited demonstration of the attitude. If they notice a student re-thinking a point of view, they point it out as a characteristic of good thinking. When students use humor to keep working on a difficult project, they mention it to the rest of the class.
- Create a school and classroom culture in which good thinking is valued and the attitudes and beliefs that contribute to good thinking are prized.

Tishman and Perkins (1992) describe a method for explicit instruction in thinking dispositions:

- Provide examples of the disposition in a variety of contexts.
- Design student-to-student and student-to-teacher interactions that require the development of the disposition.
- Directly teach the disposition, providing appropriate language cues, such as “Am I being open- or closed-minded?” or “Should I take a risk here?”

We know that students are likely to learn what they are assessed on. But how can you assess a belief or attitude? At first thought, this seems like an impossible task, assessing a student’s flexibility of thinking, empathy, or desire to look for good reasons. However, most teachers have no problem with assessing other kinds of attitudes, such as respect for authority or honesty. There is no reason why we can’t add some or all of these attitudes and beliefs for thinking to those that we normally assess, either through observation or some other method.

Students can use portfolios or journals to demonstrate their habits of mind, to show that they are being mindful. Of course, you can’t give students a C- in curiosity, but you can certainly comment on the fact that it isn’t evident. And these kinds of comments reflect the value that you place on those attitudes that are critical for good thinking.

### Teaching Habits of Mind

Almost any project provides an opportunity for teaching Habits of Mind. Emphasizing a different habit with each project gives students and teachers an understanding of the vocabulary necessary for communicating about the beliefs and attitudes that promote good thinking.

Habit of Mind	Instructional Strategies
Persistence	<ul style="list-style-type: none"><li>• Model how you work through academic challenges, such as reading a difficult book or completing a complex project.</li><li>• Emphasize the long-term benefits of an activity rather than the immediate gratification, what they’ll get out of a project rather than how fun it is.</li><li>• Teach strategies for coping with challenges, such as thinking of alternative courses of action.</li></ul>

Managing Impulsivity	<ul style="list-style-type: none"> <li>• Provide scaffolding through software, group activities, and checklists to help students analyze problems and plan projects carefully before beginning to work on them.</li> <li>• Draw connections between quality products and thoughtful processes.</li> </ul>
Listening to Others with Understanding and Empathy	<ul style="list-style-type: none"> <li>• Teach active listening strategies.</li> <li>• Have students reflect on what they have learned from their peers.</li> <li>• Create an environment where students take pride in group accomplishments.</li> </ul>
Thinking Flexibly	<ul style="list-style-type: none"> <li>• Model changing your mind about an issue after learning more information about it.</li> <li>• Teach strategies for generating multiple solutions and taking multiple perspectives about problems.</li> </ul>
Metacognition	<ul style="list-style-type: none"> <li>• Provide scaffolding such as checklists to help students in planning and monitoring their work.</li> <li>• Ask students to discuss the thinking strategies they are using with their peers.</li> <li>• Prompt students to think about their thinking processes at various points during work on a project.</li> </ul>
Striving for Accuracy and Precision	<ul style="list-style-type: none"> <li>• Provide students with a variety of high-quality models and point out what makes each model excellent.</li> <li>• Co-develop rubrics for evaluating projects.</li> <li>• Provide tools to help students evaluate their own work according to established criteria.</li> </ul>
Questioning and Posing Problems	<ul style="list-style-type: none"> <li>• Model curiosity about academic topics.</li> <li>• Provide opportunities and tools to support questioning.</li> <li>• Highlight and praise exemplary student questioning.</li> </ul>
Applying Past Knowledge to New Situations	<ul style="list-style-type: none"> <li>• Explain new concepts in terms of familiar ones.</li> <li>• Ask students to draw connections between their experiences and what they are learning.</li> <li>• Use comparative language such as metaphors and analogies to explain new concepts and encourage students to do the same to describe their understanding.</li> </ul>
Thinking and Communicating with Clarity and Precision	<ul style="list-style-type: none"> <li>• Share examples of good writing and speaking in the subject that students are studying, such as good science writing or good statistical explanations.</li> <li>• Model both giving and using feedback to improve a project.</li> <li>• Teach students effective strategies for evaluating their own writing and speaking and for responding constructively to the communications of others.</li> </ul>
Gathering Data through All Senses	<ul style="list-style-type: none"> <li>• Provide opportunities for students to think about subjects in non-traditional ways, such as movement in maths or music in science.</li> </ul>
Creating, Imagining, and Innovating	<ul style="list-style-type: none"> <li>• Have a variety of materials and equipment available.</li> <li>• Expose students to a wide range of creative products.</li> <li>• Set an example by thinking creatively yourself and sharing your products, your processes, and your joy in your accomplishments.</li> </ul>

<p>Responding with Wonderment and Awe</p>	<ul style="list-style-type: none"> <li>• Take students out of the classroom for mini-field trips in the neighborhood and encourage them to notice things that interest them.</li> <li>• Share those things related to academic subjects that move you.</li> </ul>
<p>Taking Responsible Risks</p>	<ul style="list-style-type: none"> <li>• Minimize the consequences of failure when students take academic risks.</li> <li>• Create an environment in which trying new things is rewarded even when the results may not be what you wish.</li> </ul>
<p>Finding Humor</p>	<ul style="list-style-type: none"> <li>• Discuss the appropriate use of humor in the classroom.</li> <li>• Design instructional activities which allow students to use humor to accomplish academic tasks.</li> <li>• Create an environment that is relaxed and encourages students to play with language and events in humorous ways.</li> </ul>
<p>Thinking Interdependently</p>	<ul style="list-style-type: none"> <li>• Teach specific skills for working with others such as active listening, building on others' ideas, and drawing out quiet group members.</li> <li>• Take notes while students are working in small groups and summarize the good and bad things that you noticed in a class discussion.</li> <li>• Teach students strategies for working through problems whenever possible instead of intervening.</li> <li>• Highlight the accomplishments of successful groups and point out the strategies they used to work well together.</li> </ul>
<p>Learning Continuously</p>	<ul style="list-style-type: none"> <li>• Share your enthusiasm for beginning new tasks and learning new skills and invite community members into the classroom to tell about their experiences at lifelong learning.</li> <li>• Honor students' efforts to go above and beyond learning activities.</li> <li>• Provide suggestions for activities that enhance what students are learning.</li> </ul>