

# PRAEDITUS

*Latin praeditus adj. 1 cl. meaning gifted*

A publication of Allen ISD Gifted and Talented Services

## What is Out-of-the-Box Thinking?

Out-of-the box thinking is the ability to see a problem from a fresh perspective. If you're not accustomed to out-of-the-box thinking, it may be uncomfortable at first because you have to drop all of your assumptions and mental habits.

One of the best ways to get children to become interested in out-of-the box thinking is to present them with complex, counterintuitive problems that require them to step out their mental comfort zone and take risks.

Why help children develop out-of-the box thinking?

Innovators are out-of-the box thinkers. They are the people that are designing the future. A great example is Elon Musk who recommends to his employees that rather than relating new idea to existing things (cars), you think of fundamental principles (transport). This advice requires dropping assumptions and mental habits.

So how can parents help kids develop out-of-the box thinking? Consider a family activity of coming up with list and description of "useless inventions" and share with the family. Building Rube Goldberg machines is not just fun, but also very educational. Programs like *Destination Imagination* are designed to foster out-of-the-box thinking as are many of the gifted and talented camps offered to students during the summer time.



## Family Power ... Setting Limits

Parents are in charge of their children... makes sense. Children are more secure following parents' leadership if they are used to having a strong parental leader. This doesn't mean that parents are bosses but they do set the rules and while children may try to push the limits, they know that "no" means "no".

Sounds easy but gifted children can fool you into thinking that they are capable of making their own decisions. They are highly logical and their appeals can be persuasive, however, too much freedom at an early age can become a trap as kids move into their teenage years. Sylvia Rimm, in her book *Why Bright Kids Get Poor Grades*, explains that guiding kids should be visualized as the letter "V". At early ages, children have limited freedom and narrow structure. As they mature, the "V" expands and they have greater freedom and less structure. Parents are nurturing and guiding them into the decision making and independence process.

Think about the reverse (which a lot of kids proclaim to want). The young child who is given a lot of freedom and many decision choices grows up thinking they are capable of running their own lives. They are making independent decisions before they are able to handle the freedom responsibly. When they reach the teenage years, parents freak out because of the dangers of drugs, peer pressure and other temptations. They start to set limits and restrict the child's freedom. Now, you may end up with an angry and rebellious child.

Teachers often say it's better to start out with more rules and processes at the beginning of the year and then ease up, than to start out easy and get tougher. They know, from experience, that taking power back once it's given away is a real challenge.

As a part of directing your child towards a lifetime of achievement, look at how you are leading them through the power and control learning process. Are you using a "V" shaped model to help your child grow or are you in an inverted "V"? It's not too late to turn around... but sooner is definitely better than later.

## Ways of Thinking

There are two different ways of thinking. Convergent thinking is focused on getting to one correct answer. For example, the answer to the math problem  $2 + 2$  is always 4. That is the single correct answer. You have to use convergent thinking to reach that answer. You use standards and judgements early on in convergent thinking.

Divergent thinking on the other hand, defers standards and judgments while you try to come up with as many solutions as possible to a problem. It is spontaneous, free-flowing, and non-linear.

In creative problem solving, you start with divergent thinking and then move to convergent thinking in order to organize and structure ideas and information.

Gifted kids are often really good divergent thinkers. However, when your brain is going all different directions some tasks are easy... others are harder.

Think about your own child (or think about yourself). If you are a highly divergent thinker these are easy:

- Thinking up wild or unusual ideas
- Feeling strongly and getting involved in those ideas
- Making things up
- Imagining the future
- Trying things out
- Starting new projects

These are hard:

- Focusing on someone else's ideas
- Letting go of your own ideas
- Remembering things you've been asked to do
- Practicing skills repeatedly
- Finishing things

Read on about learner-centered learning, an educational format that is ideal for divergent thinkers.

## Learner-Centered Learning

Average is a problem. In his book *The End of Average*, Todd Rose uses an example from the US Air Force to illustrate this point. Upon investigating why pilots were struggling to control their planes in the 1950s, US Air Force discovered that it had nothing to do with pilot error, but instead the way

the cockpits were designed – to best fit the ‘average’ pilot of the 1920s. The Air Force measured 4,000 pilots on ten dimensions of size, assuming that most would be within the average range for most dimensions, and many would fit all ten. Zero pilots fit the average size profile. “By designing the cockpit for the average man, they were designing jets for nobody,” says Rose.



The Air Force responded by adopting a design that was adjustable, which led to the invention of the adjustable seat – an innovation that we now take for granted.

The concept of ‘average’ just doesn’t work... especially in educating our children. Lessons designed for the average child don’t hit the mark often. Students need to be challenged at their own level. That’s why teachers work so hard to differentiate instruction and to have time set aside regularly to allow students to work at their own pace on challenges of interest to them. It is also why online learning platforms that adjust difficulty level based upon student achievement have become so popular. It’s “learner-centered” instruction.

Learner-centered learning puts students' interests first, acknowledging student voice as central to the learning experience. In a learner-centered classroom, students choose what they will learn, how they will pace their learning, and how they will assess their own learning. To be honest, not all instruction can be learner-centered. After all, it’s just not okay to pass up learning basic math skills just because you aren’t interested in them. However, there is a way to target your interests while you learn math skills. In first grade, few kids object to multi-step word problems about Pokemon. Sixth graders would most likely have an interest in learning about a social studies topic if they could illustrate their understanding with a mixtape of songs that illustrated the subject.

In Allen ISD, Gifted and Talented services are designed to include learner-centered instruction through independent studies, problem-based learning, genius hours, STEM explorations and many other innovative techniques.

**We love suggestions for articles! Is there a question you have about gifted kids? Please send requests for articles to [Praeditus Feedback](#)**