# I believe, therefore I am...or not!

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Wouldn't it be wonderful if that laidback or helpless student in your class blossomed into a vibrant, eager and enthusiastic learner? And better still, if you – as the teacher – could be instrumental in effecting this turnaround?

Do I hear you protest: 'But that student firmly believes that *she simply cannot do any better!*'? If yes, then here is a researcher – Dr Carol Dweck – whose work you must surely not miss reading.

There is so much of her work available on the Internet that I am freely suggesting a book and two papers. If you don't have the time to read the entire book, do read just one chapter in it: 'The Truth about Ability and Accomplishment'. A second option is her paper with Blackwell and Trzesniewski that is freely downloadable from the Internet. And if even that is too much for you, just read a two-page paper that has questions and answers by Carol Dweck (see all three references in the box below).

Carol Dweck has very convincingly brought to the public eye *the power of one's beliefs about oneself*. Broadly, she declares that people generally possess two types of mindsets: **the growth mindset** and **the fixed mindset**. Those with the former believe that their abilities can grow over time. Those with fixed mindsets, however, believe that they are born with certain unchanging capabilities and that they are tied to these for life. Interestingly, the human mind being as fragmented as it is, it is quite often possible that the same person can have a fixed mindset about certain abilities (e.g. 'I simply can't hold a tune in my head!') while simultaneously holding a growth mindset about others (e.g. 'I don't know French and German, but I am sure I can pick these languages up if I just put in some effort!').

**Book:** *Mindset – How you can Fulfil your own potential* (2006) Author: Dr Carol S Dweck

**Paper:** https://www.mtoliveboe.org/cmsAdmin/uploads/blackwell-theories-of-intelligence-child-dev-2007.pdf

Blackwell, L S; Trzesniewski, K H and Dweck, C S (2007) *Child Development* 78 (1) 246-263

**Paper:** Sujata Gupta (2013) *Proceedings of the National Academy of Sciences*, 110 (37) pg 14818 *QnAs with Carol Dweck*

While brain science has also provided convincing evidence[1] that the brain has enormous plasticity, and can change over time, Dweck's studies on beliefs have shown that those who succeed are the ones with a growth mindset. You see, those with a fixed mindset are wound up with the tension of having to prove themselves at every turn, while those with a growth mindset *don't mind failing* – because they believe that they can learn from their mistakes and move forward.

I know that sounds obvious, even trite ... I mean, don't we all know how important self-confidence is? But the difference here is this: she has done this through very carefully designed and meticulously implemented

Photo: Sakti Prasanna Mohanty
Courtesy: DAV Public School, Pokhariput

research studies that she and her team repeat several times over in order to ascertain the validity of the findings.

To describe just one such study; Dr Dweck and her team were testing the following hypothesis: praising a student's intelligence limits the success of the student, as the student regards intelligence as a fixed entity – while praising *the process employed* by the student encourages the student to try it out again, and believe that it is possible to thus hone one's abilities. Three groups were randomly formed with 400 students between the ages of 10 and 11 years: two experimental groups and one control group. One experimental group was consistently given what is termed 'intelligence praise' (e.g., 'Good! You must be really smart!'), while the second experimental group was repeatedly given 'process praise' (e.g., 'Good! You must have tried really hard!'). The control group was given 'control praise' (e.g., 'Good!') and their scores served as the control measure.

Sounds simple? Now listen to the results (which they reconfirmed by repeating the study six times in all): the students who were praised for their intelligence did not undertake challenging tasks thereafter. Their confidence plummeted when they failed and they even lied about their scores. The students who were praised for their process were far more risk-taking and resilient.

This simple study brought home to me two very important facts: first, how vigilant we need to be, as adults (whether as parents or teachers) in the words and phrases that we use to praise children. We can unwittingly encourage a fixed mindset in children, merely by using words like: 'Oh, how clever you are!' or 'My, you sure are one of the brightest kids that I have ever met!' Instead, when we say things like: 'You sure know how to try out different routes until you succeed, eh?' or 'You stuck it out and got it done! Bravo!' we are actually encouraging the growth mindset. Before you begin to feel that you have to walk on eggshells when you talk to your students/children, let me assure you that Dweck has also shown that *fixed mindsets can be altered into growth mindsets*. In other words, we can steadfastly work to undo the damage that we may have unintentionally caused in promoting fixed mindsets.

Secondly, I was struck by the fact that these subtle messages are so powerfully received by students and that they even last a long time. In the study described in the second reference in the inset (Blackwell, Trzesniewski and Dweck 2007), the students with a growth mindset were outperforming those who regarded intelligence as an entity even *two years after* the start of the study. Isn't that spellbinding? Did you ever imagine your words to be so powerful and long lasting in their impact?

How then does one go about nurturing such a mindset in children? Dweck and her team taught seventh graders that the brain is like a muscle, and that the more you use it, the stronger it becomes. To draw from yet another one of her publications[2]:

> They learned that every time they try hard and learn something new, their brain forms new connections that, over time, make them smarter. They learned that intellectual development is not the natural unfolding of intelligence, but rather the formation of new connections brought about through effort and learning.

This brought hope into many a student who had resigned him/herself to being 'dumb', and students began to show a dramatic turnaround in their scores. It unleashed student motivation and to quote just one example from the same publication:

> One striking example was the boy who thought he was dumb. Before this experience, he had never put in any extra effort and often didn't turn his homework in on time. As a result of the training, he worked for hours one evening to finish an assignment early so that his teacher could review it and give him a chance to revise it. He earned a B+ on the assignment (he had been getting Cs and lower previously).

What doors such research opens out for us, as teachers! How much is possible if we bring into our

1. *The Brain That Changes Itself*, Norman Doidge
2. The Perils and Promises of Praise **Carol S. Dweck** http://www.ascd.org/publications/educational-leadership/oct07/vol65/num02/The-Perils-and-Promises-of-Praise.aspx

**Now bring it into the classroom!**

1. Be cognizant of your oft-used phrases for praise and reprimand.
2. Make a note of how often you praise ability and/or process.
3. See how often you slip into unconsciously praising ability over process, and step back to correct it.
4. Select a few students who you have diagnosed as being 'low in motivation' or 'lacking self confidence'.
5. Begin by spending some time with the entire class explaining to them that the brain is like a muscle and that it can grow stronger with use. Draw from Carol Dweck's strategies for this.
6. Now start practising *process praise* with the students identified in 2 above – and if you are in a position where you don't find any praiseworthy shift in a student's work, then try saying things like: "I liked the effort you put in. Let's work together some more and figure out what you don't understand."
7. After a certain time frame, monitor student progress, if any.

HAPPY TRANSFORMING!

Please do share your responses to these suggestions at thinkingteacher22@gmail.com

students' fields of attention the recently discovered neuro plasticity of the brain, so that they need not imagine themselves trapped in their present level of capabilities. The math-phobic can envision turning into math-lovers, the English-deficient can imagine becoming a Wordsworth or R K Narayan ... oh, the possibilities are immense!

And how much power we wield as adults! Let us use it wisely!

What I love about Carol Dweck's research is that her findings are so simple – yet so, so powerful. It's easy to bring her research into the classroom, as you can see from the suggestions in the box above.

The author is Founder Director of Thinking Teacher (www.thinkingteacher.in), an organization that networks with teachers across the country. Thinking Teacher aims to awaken and nurture the reflective practitioner within each teacher. By taking (action) research out of the classroom, Thinking Teacher develops the (action) researcher in the teacher. And then, by bringing research into the classroom – as in this series – Thinking Teacher's goal is to help build deep inquiry and rich learning into the teaching process. The author can be reached at <neeraja@thinkingteacher.in>.

# PencilBOX

By Debashish B