 S P E E C H I N C

“Productive Struggle”

makes better learners

By Katie Pengilly MA,CCC,CLP

In the education literature, the term “productive struggle” refers to the process of effortful learning that develops grit and creative problem solving. And neuroscience research shows that deep, lasting learning is achieved through productive struggle. To tap into this learning phenomenon we need to emphasize the effort over the correct answer.

Smart brains are efficient brains. When a student learns a skill or concept, myelin is produced, making brain signals faster and stronger. Challenging tasks which require cognitive struggle increase the production of myelin. Although challenge and struggle may make the learning feel more difficult in the moment, it is a difficulty that pays off in the long run.

We can think about learning as a continuum, with surface learning at one end, and deep learning at the other. An example of surface learning would be a fact that is memorized for a test the next day. This can create an illusion of knowledge, yet this surface learning tends to dissipate, and may not be able to be retrieved for a future application to a new situation.

On the other end of the continuum, we have deep learning, or mastery. Deep learning is enhanced by productive struggle, and results in conceptual understanding and procedural fluency with the new skill that is transferrable across situations and persists over time. For example, by adding some heavy lifting such as “show/discuss/explain your work”, rather than simply produce a correct answer, the element of struggle and effort required can led to more durable learning. Both educators and parents can respond to incorrect answers by asking back questions which narrow the area of struggle, but do not entirely remove the struggle by giving the correct answer.

Techniques to enhance productive struggle can be included in the classroom as well as at home.

In the class setting, students can be called on who may not have the correct answer. (within a safe and supportive environment) Students can be given time to explore and tinker with their ideas, alone or in a pair or group. Assessments can include expression and discussion of ideas and reasoning, the challenge/struggle of which will contribute to enhanced knowledge and retrieval, as opposed to a more passive multiple-choice format which tests a student’s ability to simply recognize a correct answer.

At home, praise can be given for perseverance, or being able to express, discuss or explain a concept. Parents can encourage the child to apply curricular items to personal, meaningful experiences. Mixed practice can be encouraged at home, which may seem counterproductive, but due to the productive struggle which it creates, significantly improves long term performance. Simply highlighting and modeling our own reasoning process can also be educational.

By making learning environments which value the “productive struggle”, in additional to enhancing specific learning, we are also teaching our children the life skill of embracing, rather than being made uncomfortable by, a challenge. We are teaching our children to enjoy the effort, starting with being intrigued by and learning from our mistakes.

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