

Pulling the Grass Doesn't Make It Grow any Faster..

Gerald Huether

“Will our children become smarter when we start to increase the pressure in kindergartens and schools by introducing more evaluations, learning programs and reforms ?” asks Gerald Huether, brain researcher at the University of Gottingen.

Editor's Note: *Early this year the Paris-based Organization for Economic Cooperation and Development announced the results of its Program for International Student Assessment, known as PISA. The results of PISA were particularly upsetting to the German public, for in the assessment German students placed well-below the OECD average in the three subjects studied-reading, mathematics, and science-and only 21 among the 32 leading industrial nations studied. Predictably, German politicians began to propose legislation aimed at reforming German education. Much of this proposed educational reform bears a strong resemblance to educational policies now in vogue in this country-among them, earlier and more academics and more standardized testing. In the following article, Professor Gerald Huether reflects, with reference to the reform proposals put forward in response to PISA, on the nature of an education required to meet the real needs of the developing child. North American readers will find Professor Huether's article as relevant to their situation as it is to the German.*

The results of the PISA study had hardly been printed

when the first education politicians came with proposals for reform, proposals such as: stricter performance tests for pupils; more evaluations and continued training for teachers; better programs in Kindergarten to challenge children earlier; and schools for parents to increase educational efficacy. There were plenty of demands and proposals. So far, little has come of it in practice, because the necessary funds for these measures could not be raised quickly enough. The urge for reform has therefore died down for the time being. And this may not be a bad thing, because it gives us time to think. This goes for parents, teachers, and especially for those responsible for eventual educational reform. There are still plenty of questions for all of us. What is wrong with our educational system? What is the task of the kindergarten/the school? What should educational institutions ideally look like? How do we train educators and teachers to prepare them better for what they are actually going to face in the classroom ? Where do parents find the support they need in their educational task? Will they still have enough time and energy for their children? And what about the children themselves? What kind of parents, kindergartens and schools do they

¹ when children are barred from finding their

in fact need? What should the world look like into which children come? What kind of a world would give our children the appetite to seek out everything there is to be discovered, to take hold of all that is to be done, and to enthusiastically engage with everything that can be learned in it? Can children feel part of a world which they cannot be co creators of, a world which primarily serves to satisfy the needs of the adults, and which is governed more and more by economic principles determining what life should be like here on earth, for plants, animals and human beings, and, yes, also for children?

Children's brains are much more malleable than even brain researchers had assumed up till a few years ago. That implies they can also be shaped the wrong way. No other species comes into the world with a brain which is as open to learning as that of the human being. The brain is capable of being shaped in its further development and structural maturation by its own experiences. In the animal kingdom the young are never as dependent on the adults for learning what is important for survival, and they do not rely so much and for so long on the care, protection, support and guidance of the adults. In no other species does brain development depend to such a high degree on the emotional, social and intellectual competence of the nurturing adults as is the case with the human being. Yet even in educational theories it has been customary up to now to speak of genetically determined "giftedness" — or the lack thereof—for academic achievement. And this continues to be the case today. We see this clearly, for example, in widely held assumptions which underlie the attempts to differentiate students early on and guide them to schools which will help develop their diverse talents. The consequence of this assumption for students is that differences in development which exist during the elementary school years, and which may or may not have genetic causes, will only be reinforced. For educational institutions this means that they are forced to adapt schooling, educational content and methods to the capacities which their students bring with them. Increasingly, schools are thus forced into the role of service institutions, obliged to apply certain scientifically founded pedagogical procedures; they have to produce results which can be measured and

tested. In this kind of a situation parents can always exercise their customers' rights, in case they're not satisfied with the "product" of the particular service institution, and force the school to improve its pedagogical procedures.

This situation makes an excellent breeding ground for service businesses that supply educational materials which can be improved all the time, for management to oversee and run educational service institutions, for lawyers to press the claims of parents vis-a-vis schools and teachers, and, last but not least, for the educational reform politicians who decide to introduce a new system every four years. But this situation hardly creates fertile soil necessary for the growth of close human relationships. What education truly should achieve has little chance of thriving under these circumstances. Education has the task to pass on the knowledge accumulated so far to the next generation; the capacities and skills of one generation should be transmitted by grownups who have been specifically educated to do this and who have a specific interest in this. When education is no longer available in this way to as many people as possible, the coming generation will lose the capacity to grow beyond its "given" capacities. It will remain caught in the limitations of previous generations and the circumstances created by them.

Brain researchers tell us, however, that it is decisive how and for what a child uses his or her brain. The nature of that use determines which connections among the millions and millions of nerve cells are to be especially well established and stabilized, and those which can only be developed and formed to a limited degree. This goes especially for the youngest part of the brain, the frontal lobe. The connections which are built-up during childhood in this area are responsible for guiding the most important accomplishments of the human brain in the future (independence, motivation, self-control, initiative, and social and emotional skills). In order to be able to build up the highly complex connections required for this, children must have individual experiences which are as numerous and as varied as possible. To that end, they need a large variety of stimuli and challenges which activate their emotional centers, and they must have educational relationships which give them security and orientation so that they can successfully assimilate and digest all

that is offered to them.

Building up secure educational relationships, however, is only the first step in a long and complicated process of socialization. During the course of this process every child learns to use her brain in a distinct way, because she is guided in a certain direction and is stimulated or even forced to develop certain capacities at the expense of others; certain things are stressed more than others and certain feelings are more accepted than others, as a result of which the brain gradually develops in such a way that the child will adapt to the society in which she grows up. Children need help to orient them so that they will succeed in finding their way amid all that comes to meet them and will be able to cope with all the various demands and expectations placed upon them. They need external examples and internal pictures to guide them so that they have something to hold on to, and they need feedback. Only when children have adults around them who are role models, who give them protection, sense their needs and give them competent guidance will they be able to creatively use all that is offered to them and to use this input to recognize their own capacities and possibilities and develop them further. It is only in this way that a picture of the child's own creative potential can stabilize in the frontal lobe and be used for self-motivation in all subsequent learning processes. No proper foundation for development will be built up under such conditions as the following:

- when children grow up in a world in which acquiring knowledge and education is devoid of meaning (as in a society in which everything has to be "fun"),
- when children do not get the opportunity to take part in actively shaping the world (as with passive media consumption),
- when children do not get free space to discover their own creativity in a playful way (as when too much functionality is stressed),
- when children are bombarded with stimuli and become uncertain and fearful (as when too many demands are placed upon them),
own way in mastering difficulties and problems (as when they are pampered),
- and when children are not challenged enough or when their specific needs and wishes are not being perceived (as when they are neglected).

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Until more money becomes available for education, we will have enough time to reflect on this old Native American proverb. And for the educational reformers in the government a cautionary note should be added: "and it won't grow any faster either when it is being cut with new mowers all the time."

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