

DOUBTOLOGY (ABOUT COMMON SENSE, DOUBT AND CRITICAL THINKING)

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Throughout almost twenty years of experience running the Science Centre, I gradually realized that it is not a centre of science that I am running. Promotion of Science is just one of the tools used in order accomplish our main mission – inspiring curiosity and critical thinking.

Our society is facing a pandemic illness without a name but with clear symptoms of apathy in place of curiosity and learning, looking for easy but shallow ways of acquiring knowledge, no interest in seeking the answers to bothering questions, misinterpretation of dialog as being just two monologues, believing instead of having doubts, critical thinking, checking and proving...

There isn't a single country that would claim their educational system is perfect, or even that it is good. Experts are wondering when and where in the education process this curiosity is lost.

Curiosity is something every single human being is born with. Not only humans, many animals start their lives being curious. Curiosity is a driving force for the learning process. It is fuel for the trial and error process – learning by mistakes that are nothing more than personal learning experiences. Instead we have an educational system that despises mistakes rather than looks at them as a necessary learning optimisation method and encouraging them.

Imagine a curious child raising a hand in order to get the attention of the teacher and ask a question, pose a proposition or express a personal idea of the topic. This is one of the crucial moments that will define the future level of curiosity of the whole class.

There is a right and a wrong course of action. The teacher could respond with: “That’s a good question/idea! Let’s talk about it.” “I don’t know the answer. Does anyone have any ideas?” “Wow, great idea. What if we also take into account that ...” “This is a question that also bothered great scientists at that time.” ...

The other response (that demands less effort) might be: “Don’t interrupt the class!” “You should know that by now!” “What a crazy/stupid idea.” “We will talk about it later.” “We have already discussed this. Listen more carefully next time!” “Can someone please explain the idea to him/her. I am tired of repeating the same thing all over again and again.” ...

One can guess which option is a “curiosity multiplier” and which is the “curiosity killer”. Both options directly signal to the curious person (but also to the whole class) the value of being curious, but one option is treating this curiosity as a virtue (the holy grail for creativity) while the other shows that the curiosity does not pay, that the curiosity is punished.

Curiosity is a very tangible substance that each teacher should nurture throughout life. It triggers the passion for learning and creativity. It is also important as a teacher to exercise the answer “I don’t know”. It is precious to admit the mistakes one makes while teaching (especially if the teacher is alerted to the mistake by some doubtful student). This shows that everyone makes mistakes. Moreover it gives the teacher the feedback that 1) students are curious, 2) that they do care what the teacher is communicating, 3) that they don’t just believe what they hear, 4) that they know to doubt and to think critically.

A good teacher is not a teacher at all. A good teacher is an inspirer that amplifies curiosity and encourages doubts and critical thinking. Inspired students will learn by themselves (Fig.1).

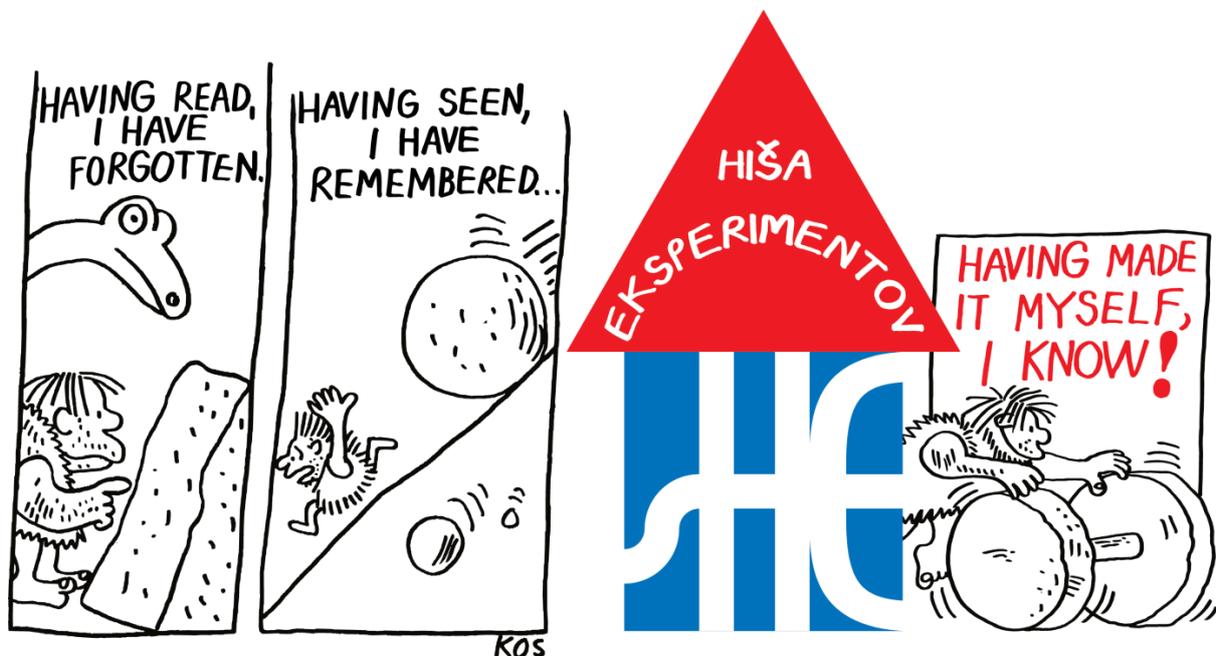


Fig.1. One can never learn from others’ mistakes, only from your own.