

# The problem with physics education

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The problem with physics education is that it is not really education but a platform for self-learning. Professors try to share their field of research through lectures without having any didactic preparation or structure, this a direct consequence of letting researchers teach.

The university way of teaching physics requires a fundamentally different type of student who cannot expect to simply do all the exercises and pass. It is required to piece together all missing links, missing background knowledge and finding the true learning objectives without the professor even knowing themselves. This system is catastrophic for those unable to adjust from middle school to the new circumstances, with as a result many capable students dropping out due to a failure to adjust.

This way of learning, however, is necessary to become a researcher. Research in physics contains many unsolved areas of research which do not explicitly connect, it is left to the researcher to find the connections. Though the system is flawed in the sense that it does not connect to previous education, the final objective of a physics programme is to achieve independence and persistence in problem solving that is only learned by some amount of suffering during the learning process.

In summary, physics education should try best to connect to middle school education in the first year, after which it should focus on teaching students skills to become independent and critical, as this is needed in physics research for which they are ultimately being educated.