

SPROUTS. THE FEYNMAN TECHNIQUE. TRANSCRIPT

Feynman's learning technique is effective for learning something new, deepening your understanding of what you already know or helping you study for an exam.

The first step is to pick a topic you want to understand and start studying it. Once you know what it is about, take a piece of paper and write about it, as if you're teaching the idea to someone else. Ideally, write and speak at the same time, just as a teacher does it at the blackboard. This makes you realize which parts you understand and where you still have gaps. Whenever you get stuck, go back to study and repeat that process until you have explained the whole topic from start to end. When you're done, repeat the process from the beginning, but this time simplify your language or use a graphic analogy to make a point. If your explanation ends up wordy or confusing, you probably have not understood it well enough, so you should start again.

Thinking about an idea by explaining it makes this learning method very effective. Once you can explain an idea in simple language you have deeply understood it and will remember it for a long time.

Richard Feynman was a leading theoretical physicist who received a Nobel Prize for his work in quantum electrodynamics. He was notorious for asking his fellow mathematicians to explain concepts in simple language to test their understanding.

VOCABULARY

analogy (noun) - a comparison of one thing with another thing that has similar features, a feature that is similar

concept (noun) - an idea or a principle that is connected with something abstract

deepen (verb) - to improve your knowledge or understanding of something

effective (adjective) - producing the result that is wanted or intended; producing a successful result

electrodynamics (noun) - the study of the way that electric currents and magnetic fields affect each other

gap (noun) - a space where something is missing

notorious (adjective) - well known for being bad

physicist (noun) - a scientist who studies physics

quantum (noun) - a very small quantity of electromagnetic energy

simplify (verb) - to make something easier to do or understand

theoretical (adjective) - connected with the ideas and principles on which a particular subject is based, rather than with practice and experiment

wordy (adjective) - using too many words, especially formal ones