How to Learn New Skills Quickly (ft. Thomas Frank!)

Guest Hosts
https://youtube.com/watch?v=cbMNws7SFvA
https://nerdfighteria.info/v/cbMNws7SFvA

(Intro)

Thomas Frank: Hey guys, my name is Thomas Frank, and I'm on a channel called College InfoGeek, where I create videos on how to study more effectively and learn better in college and high school. But, here's the thing. The same techniques that work well for learning things like math or studying for a chemistry exam also work really well for acquiring new skills out in the real world, you know, when you're an adult.

Skill acquisition is learning, and the distinction between academic subjects and the subjects that come to mind when we think of skills, you know, cooking or skateboarding or juggling chainsaws, the distinction is a lot fuzzier than we usually think it is. In both situations, we're literally changing the structure of our brains as we learn, and knowing how this happens is absolutely fascinating, how new neurons are born in certain areas of our brain when we have new experiences or when existing neurons make connections and forge new neural pathways is an absolutely huge field, and I guess the question for you is, how deep down the rabbit hole do you wanna go?

Mike: You only have five minutes, Thomas.

Thomas: Oh. Alright, well, in that case, let's do a quick overview of skill acquisition and give you some practical tips for learning new skills fast. A CrashCourse, if you will. Skill acquisition happens in three distinct stages: the first one is the cognitive stage. This is the stage where you're reading about the skill, researching and thinking about it, and also breaking it down into manageable pieces. From there, you move on to the associative stage, where you're actually practicing the skill, getting feedback, making mistakes, and making micro-adjustments based on that feedback and those mistakes. And finally, you move on to the autonomous stage. At this stage, you can efficiently and effectively perform the skill without having to think too much about it. When you've reached that autonomous stage, you've effectively "chunked" all the information related to the skill in your brain.

Now, Barbara Oakley's book, *A Mind For Numbers*, explains that chunks are essentially bundles of individual pieces of information in your brain united through meaning. Chunking information allows us to quickly and easily access it at later times, which is essential for getting proficient in a skill, and you build chunks by breaking down the material so you can understand it, making connections between each of the steps, and strategically repeating and practicing each of those steps.

Now, there are a lot of different factors that go into your success in building a skill, but since Mike's got a stopwatch on me right now, I'm only going to cover a couple of them. Now, the most important one is probably simple interest. You have to be interested and curious in your subject to actually study that subject, or build a skill, and this isn't just a motivational platitude. There's actually chemicals in your brain called neurotransmitters and they transmit information about how important the other information your brain is transmitting is. So essentially, if your brain doesn't think the information it's processing is important, it's not going to effectively encode it, and you're not going to be able to access it later. The main takeaway here is you have to be sufficiently interested in your subject before you can gain proficiency in it.

So let's talk about our second factor, and this is the one I wanna focus the rest of this video on. It's your actual curriculum, and as an adult or somebody who's probably trying to build your target skill outside of the classroom, you have to build your curriculum, and to help you actually build that curriculum, I want to go over a four step process created by the author Josh Kaufman in his book, *The First 20 Hours*. Kaufman is a fantastically insightful author, and this book of his is about rapid skill acquisition, and as the title suggests, he posits that you can build the bulk of any skill within 20 hours of practice. In the book, he breaks down the process of skill acquisition into four distinct steps, and to show you how these steps cover almost any skill you'd want to learn, I want to use two different very diverse examples.

For each step, we'll look at both skateboarding, which is a very physical skill that requires building lots of muscle memory, and also web development, which is a much more cerebral activity that requires learning several coding languages. So the first step is to deconstruct a skill into smaller sub-skills. In the case of skateboarding, you'd want to deconstruct it into actually balancing on the board, learning how to turn and carve, tick-tack, turn around on ramps, and do basic tricks. When it comes to web development, those skills have actually been broken down pretty well for you already. The basic structure of the web is coded in HTML, the presentation and design is done in CSS, and a lot of the other coding aspects are done in JavaScript or other languages. As a budding web developer, all you have to do to start is basically make a list of the languages you'd wanna learn and in what order.

The second step is to identify the sub-skills you want to practice and learn enough about each one that you can effectively practice on your own and also self-correct. In both the case of skateboarding or web development, there are hundreds of online resources that can effectively teach you, or you can even find a human teacher.

Alright, step number one, you're gonna want to write this down, step on the board.

Once you've done your initial learning and you're ready to start practicing, the third step is to remove any barriers to that practice, whether they be physical, mental, or emotional. This means making sure you have access to the equipment you need to learn the skill, like, you probably need a skateboard if you want to learn how to skateboard and you probably you're gonna need a computer if you wanna learn how to web develop, but also you're gonna want to break down your tasks into manageable chunks that you believe you can achieve, and on the emotional side, you're gonna want to make sure you surround yourself with people who are positive and encouraging about this experience rather than toxic people who only say negative things.

And finally, we come to the fourth step, which is simply to practice that skill deliberately. Now, one additional tip I can give you when it comes to practicing is to interleave your practice. That means taking multiple sub-skills and jumping back and forth between them. For instance, if you spend an hour trying to learn how to ollie and you're stuck at this point, it doesn't really do you any good to keep hammering away at it. Instead, you should go try to do something else, maybe try dropping in on the ramp, and later on come back to ollying. By doing this, you're giving your brain a little bit of time to relax and step back from that very focused, concentrated session of practicing that one sub-skill and coming back later, you're gonna be able to look at it with a more fresh perspective, and you'll ultimately be more successful at it.

So that, in a nutshell, is how you acquire new skills. Now, if you wanna dive deeper into the science of learning or skill acquisition, then both the books I mentioned in this video, *The First 20 Hours* by Josh Kaufman and *A Mind for Numbers* by Barbara Oakley are both fantastic resources.