# PC 02: Zero Math Skills?
## How to master stats anyway

No good at math, no good at statistics! Or how about this: "Girls can't do math!" If you've heard either of these, let me assure you that they're both BS. Because the truth is, you don't need a lot of math to understand and apply statistics—and girls definitely CAN do math and be statistics queens!

Welcome to this episode, where I'm going to tell you a little bit about my story so you can feel confident that you, too, can master statistics.
I'll also tell you how to best prepare for statistics, especially if your school days felt like before the last ice age, or you didn't even finish high school and don't think you're the greatest math whiz on the planet.

So, can you do statistics if you have hardly any math skills? The answer is yes: Statistics is totally doable, with some preparation and the right mindset. Let me tell you how I did it.
Up front: Can you believe I was so afraid of statistics that I put off studying psychology for more than a decade? And here I am, successfully teaching statistics since 2012.

What happened? I started studying psychology in my mid-thirties, although I wanted to study it right after high school. But somehow I always avoided the subject because I was so afraid of statistics.
I firmly believed that I didn't have what it takes to understand math or statistics and that my brain just wasn't made for it.
Because the last time I was in a math class was in 11th grade, and I only passed with a lot of good will from my teacher.

Fast forward to my thirties. I had signed up for psychology, but I thought I might be able to avoid statistics by switching to educational sciences. But then I had a bit of a reality check. Turns out, they also teach stats there! And then I thought to myself, okay, I'll go for it now.
Before I had my first stats class, I gathered with fellow students and we found a tutor who gave us a really good introduction to stats. And that was super helpful to lose our initial fear of contact.
I also read various books beforehand and formed study groups.
But what actually helped me the most was that I always explained the stuff we were learning to the others in my study group.

Then, the big day of the first stats exam came around, and I did so well that I was offered a tutoring job right away at the university where I was studying! Guess what! Just four weeks after my first stats exam, I stood before students holding a weekend statistics seminar. As you can imagine, I was blown away!
Later, I started my online business for statistics with courses, a membership, podcast, and a YouTube channel in Germany, and even wrote a book on inferential statistics.

What this means for you: If I can do this, with zero math skills, almost twenty years after graduating from high school, as a single mom with a chronically ill son, you can do it, too! Guaranteed!

You can master statistics without any previous knowledge because first of all, let's question whether you're *really* no good at math.
Or whether that's something your callous math teacher told you—or some weird disempowering belief about girls supposedly being bad with numbers. These things are not, I repeat: NOT true! Unless you believe them to be. But of course, I am fully aware that there's dyscalculia, which is a different case.

Second, let me tell you a secret: You hardly need any mathematical knowledge to understand and apply statistics.
Here's what you DO need to know: The four basic arithmetic operations, namely addition, subtraction, multiplication, and division. Plus, you also need to be able to take the root, square, and convert formulas. So, if you're not good at these things, try to learn them before you start studying.
And that's it! Pinky promise. That's why I'd say: You got this!

**Now on to some tips and tricks!**
The first priority is your mindset, your attitude, your mental approach to statistics. The most important thing is to tell yourself that you can do it. Stay positive, and do not let yourself be driven crazy by what you find on the internet about how statistics is the most horrible subject on the planet. But of course, it can be. I mean, let's be real about that: Statistics CAN be very boring, dry, and super abstract. Also, there are huge differences between the statistics requirements and how it is taught at different universities.

But overall, statistics is something you can learn. The important thing is that you take it seriously from the beginning and keep it active. Because statistics will be with you throughout your studies, right up to your master's thesis, so it doesn't make much sense to say, "Well, I'll just get through stats somehow, try to get a passing grade, and then I'll dump the books in the nearest lake."

I can't stress that enough: Statistics is something you really need throughout your studies. So try to be open-minded and curious about it. Maybe it's not as bad as you thought! Maybe it's even interesting, and you'll feel so smarty-pants for learning it.

Also, you should always remember WHY you're doing this when things get tough. So if you're thinking, oh man, I don't feel like it anymore, I want to throw in the towel, why am I doing this to myself? Then, remember why you started studying. Why do you want to do this? It might help to watch Simon Sinek's video "Start with Why" on YouTube. You'll find the link in the shownotes.

**Let's move on to what you can do to prepare**
I'm always asked if it makes sense to prepare before you go to college or if you can just do it while you're there. Unfortunately, there is no clear answer to this question because it depends a lot on how much time you have, how easy it is for you to study, and how much

prior knowledge you have. Generally speaking, if you can and want to prepare, then by all means do so! It will definitely give you an advantage and is a very sensible thing to do.

The tips that follow apply both to preparation before you start studying and during your studies.
When you start studying statistics, I recommend that you take a look at the topics you need to know. For example, if you have study scripts or recommended textbooks from your university, you can check which statistical topics are covered.

And then I wouldn't start reading the scripts on those topics right away, because they tend to be a bit more complex. Instead, I'd advise you to look at what you need to study now—for example, descriptive statistics, measures of central tendency. Then look for the simplest explanation. That means YouTube videos or the For Dummies books. And only when you understand the topic in videos or simpler books do you go back to the study scripts and read the specified literature.

I also recommend reading one or two empirical studies on a topic that interests you early on. Because then, even if you don't understand everything that they're doing in the study, you still get the feeling that, oh, THIS is how they're using this statistical stuff that I need to learn. It's very helpful to get that practical, hands-on approach to statistics and not see it as this boring theoretical construct with little to do with reality.

The bottom line is that statistics can be mastered without prior knowledge, with hardly any math skills, and with the right attitude, support in the form of books, videos, tutoring, or video courses, and, of course, perseverance. It's best to study a little every day, or at least four or five days a week. Because, unfortunately, statistics is not like learning to ride a bike. You don't learn it once and then remember it forever. Think of statistics more like a person. It wants the attention it deserves and it wants to be courted.

So, here's what I want you to take away from today: You absolutely *can* master statistics, even if math isn't your strongest suit. You've got the potential, and you don't need to be a math genius to understand or excel in statistics. The key is to believe in yourself and stay determined. Take it one step at a time, and don't shy away from seeking help or resources—whether it's books, videos, or study groups.

Remember, your journey in statistics is not just about passing an exam—it's about building confidence and realizing that you *can* do this. Every small win, every concept you grasp, is a step closer to mastering the subject.

You're capable of much more than you might think, and statistics is just one more challenge you're fully equipped to overcome. So, start studying today, believe in your ability, and let's crush stats together! You got this!