**Study Tips for Data Science Interview Preparation**

How to keep your momentum and make your interview prep efficient

It won’t take you long in your data science job search to learn that there are many subjects to study. In fact, if you aren’t sure about that, then I suggest reading [this blog](https://towardsdatascience.com/interviewing-for-your-first-data-scientist-job-what-to-expect-and-how-to-prepare-1f3f9a977e14) on Data Science Interview Preparation to get an idea of what exactly you need to know.

Because there is a lot to go over, one of the most common questions I get is how to study efficiently.So in this post, I want to cover some tips for helping you do just that.

The tips I want to discuss here are not only for interview preparation but also for studying or learning just about anything.Studying by yourself and with online resources can be tricky. There are three challenges that you have to overcome with this:

1. How do you stay focused and not get distracted?
2. How do you keep your momentum going?
3. How do you work with a tight schedule?

I’m going to go over some tips to help you answer these three questions and use your study time wisely when preparing for data science interviews. If you like watching better than reading, be sure to check out [the corresponding video](https://youtu.be/yqQrpDziWpQ) on this subject on my channel.

Let’s get started!

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**Stay Focused with a Plan**

Let’s begin with what I believe is the biggest overall tip for studying effectively and that is to have a plan. There’s no way you are going to be able to make the most of your time if you don’t take the time to think through what you need to study and organize your time.

Everyone’s individual study plan is going to look different, but there are a few basic rules that I follow that can help you organize effectively.

**Study Two Things a Day**

The first rule is to**study two things a day.**You can break that up into one main topic that you want to focus on and one topic that you want to review. You should study the secondary topic when you are tired and less able to focus. This way you are still making progress even if you aren’t at your absolute best all the time.

The secondary topic also gives your brain a healthy place to go when you do get tired. Instead of going online and scrolling through interview questions and making yourself feel more overwhelmed, you should just switch to your secondary topic.

For example, you could choose product case knowledge as your main topic and focus on learning different metrics that a business is tracking. Then your secondary focus could be SQL, which is related to product case questions but requires more logical thinking. There are many different combinations that can work to help you study efficiently.

The reason for this is mostly efficiency. If you focus on solely one thing at a time, you are likely to experience mental fatigue, get stuck more often, and make overall slower progress. Looking at two subjects at once helps your brain stay more engaged and allows you to make faster progress.

I also suggest that when you study two things at once that you are strategic in what you group together. Picking topics that overlap or are similar such as machine learning and coding could help make your preparation more efficient. You could also select a technical and a non-technical topic such as statistics and behavioral questions so that you do not have to focus on too much technical information at once.

**Give Every Topic a Week**

The next rule for making an effective study plan is to **give each topic at least a week before moving on**. In other words, don’t change the topics you are studying every day. That can feel like you are covering a lot, but it doesn’t give you enough time to truly deepen your understanding. You need time to absorb if you want to feel comfortable with what you are studying.

**Plan Cycles**

Finally, when making a study plan, you should **plan cycles**. What I mean by that is that you should plan to repeat all of the topics at least once. Repetition is essential for true mastery. Reviewing what you have learned throughout your preparation period is the only way to retain a lot of what you learned.

If you learn nothing else from this post, I hope you at least remember to make a plan when studying for your data science interviews.

**Stay Motivated**

So, you have been able to make a study plan, but now, how do you execute it? How do you stay motivated and avoid becoming so overwhelmed by the number of things you need to learn that you cease to be productive?

Staying focused is hard, especially when you are working through something at your own pace and under your own guidance. It’s easy to get distracted by your phone, videos, or other news or information. Even if you aren’t getting distracted by those things, feeling overwhelmed can cause you to lose your momentum just as easily.

It’s much easier to lose your momentum than you may realize. If you start thinking that there are too many things to learn, that you are making progress too slowly, or that the interview questions are too difficult, you may find your studying slowing and slowing until you stop because you feel discouraged. These feelings are very natural, so how do you combat them?

**Set Small Goals**

I believe that the key to staying motivated is **setting small goals.** Instead of having just the single goal of landing a job, give yourself small daily or weekly goals. Small goals help you to see and feel your progress. If you only have one large goal, you will never feel like you are making progress, and it will be easy to lose motivation.

For example, some large goals might be something like I want to work at Meta, Google, or Amazon or I want to be a data scientist at a FAANG company. You might also have the goal of wanting to earn $200K per year. These goals are all far too big to keep you motivated. You need to break them down into smaller goals.

Learning to break things down into small goals can be difficult. If you have no idea how to go about using small goals, I recommend the book Atomic Habits. It’s a #1 New York Times Bestseller and a great read. The main idea that the book explores is the importance of setting very small daily goals and then rewarding yourself when you achieve those goals. Celebrating small wins is very important to keep the momentum going!

So, instead of focusing on the goal of making $200K a year, you could instead set goals like I’m going to work on 1 easy SQL problem or 1 easy coding problem every day, I’m going to spend 30 minutes studying product case knowledge every day, and I’m going to spend 15 minutes reading helpful blog posts. You should aim for 2 to 3 of these small goals.

Why is setting small goals so much better than one large goal? When you set small goals, you don’t have nearly as much resistance to getting started. It’s a much easier hill to climb and so it is easier and less frightening taking that first step.

Small goals are also much easier to actually meet when you have limited time and other priorities, so you can still feel accomplished even when you aren’t devoting as much time to your job search. Perhaps most important, small goals are far better at helping you create consistency. They teach you to do a little bit every day rather than encouraging you to have extreme moments of intense preparation followed by long bouts of no motivation.

So, we’ve gone over a way to stay focused (study two things at once) and a way to stay motivated (set small goals). If you just use these two tips, then your studying will improve, but we are not stopping here. I have a couple more tips to help you deal with specific problems when studying for your interviews.

**Dealing with Limited Time**

People often ask me how to prepare effectively when they have limited time. Maybe you are planning to interview in one month or you have an upcoming interview in two weeks. How do you memorize things with a tight schedule?

The fact is that **the only way to master something is by repetition and practice**. I don’t believe that anyone can be really good at something after studying it only once. Even when working with a limited amount of time, you need to plan review sessions for your studying. Doing this will also help you feel more confident, which is crucial for how you come across in interviews.

How does this work with a time limit? Let’s say that you have 4 weeks to prepare for an interview, and you have four subjects you need to study (A, B, C, and D). It’s tempting to study one subject a week, but this is not the best way to master them! If you study one subject per week by the time of your interview, you will have completely forgotten about A.

Instead, use the first tip to plan your studying: study two subjects at once. Your studying weeks should then be A/B, C/D, A/C, and B/D. As you repeat subjects, your speed will increase, and you may realize that you were learning more than you thought. No matter how much time you have to prepare for an interview, you should always plan reviews in your studying schedule.

**When You Feel Stuck**

The last tip for this post has to do with what to do when you get stuck or feel that you are slowing down while studying a subject. For example, you may get stuck on computing the probability in a coin flip problem, or you feel it’s difficult to understand how sample size is calculated in an A/B test. What should you do?

In this case, you want to **remember the 80/20 rule** which says that you spend 20% of the time studying 80% of the things and you spend 80% of the time grinding the details and diving into rabbit holes. So basically, we all tend to let small details and tangents that we don’t quite understand eat up most of our studying time. What does this mean for your studying?

It means that it’s okay to move forward when you feel stuck or start to seriously lose steam with a subject, especially if you are at a beginner level of a subject or it’s the first time you have encountered the problem. Instead of getting caught up on the details, you don’t understand, it’s better to move forward to studying the 80% to get more coverage.

To clarify, I am not saying that you should skip it entirely. You can come back to it to rethink it or review it. You will often find that if you think through something multiple times, you will be able to figure it out. If you really get stuck, you should ask for help from your friends and colleagues or in online forums, such as Quora.

That being said, sometimes if you want to make progress overall **you have to be willing to move on** when you feel stuck. It’s okay, and it’s better for your mentality and studying.

**Conclusion**

Those are my tips for studying efficiently as you prepare for interviews! As you continue with your job search and your studying and preparation, I want to leave you with a manifesto that I share with all my students and clients. **There is no failure, only feedback.**

As you work towards your goal of landing a data scientist job, you will face moments of rejection and disappointment. You probably won’t get every interview you apply for, and you may not even pass every interview. How you choose to handle the disappointments will have a big impact on your overall job search.

So, as you study and practice, remember to see everything as a learning opportunity. Not getting an interview or not passing your onsite is a chance for you to understand what to work on and to come back next time and do better. There is no failure, only feedback.