

GUIDED EXERCISE / Effective Guided Exercises

As discussed in the book, just following along while others describe complex tasks – even if you follow closely – does not mean you can complete these tasks yourself. Application is a key factor in becoming a critical thinker yourself. Parts 2 and 3 of *Becoming a Critical Thinker* set out specific, carefully-constructed tasks to enable you to practise such application. Completing all these exercises is essential, even (or especially) when they feel hard. Here we will explore why you should take these instructions seriously and how you should approach the Guided Exercises so that they have the best chance of contributing to you becoming a critical thinker.

UNDERTAKE ALL THE GUIDED EXERCISES

Some students may find some elements being taught 'obvious' or 'common sense', especially early in each chapter. Because they understand it immediately, they may choose to skip practising the exercise associated with that element. However, there is a significant gap between understanding something which someone else demonstrates and actually being able to do it yourself – that is, between understanding and application. Moreover, once the context varies, only those with practice will successfully be able to vary their application. I have seen plenty of students come to class with carefully prepared arguments, with carefully written evidence from reputable sources. But in discussion, when the parameters are changed, they flounder. It is not that their preparation is wrong or wasted – far from it. But they have seen this preparation as the output of their learning, when actually it is one input. The learning happens in the class, in the discussion. The preparation – and in the context of this book the Guided Exercises – are essential, because they *contribute to* the real aim: the ability to apply the improved thinking in different contexts, when the parameters change.

NEVER CHECK THE ANSWER BEFORE UNDERTAKING THE EXERCISE

Linked to the above issue, but also for other reasons, some students may be tempted to check the answers before (or instead of) undertaking the exercise. This misses the point of the Guided Exercises. These are provided in this book not to check you get the answer 'right', but to enable you to practise the process of *thinking*. By skipping the thinking to look at the answer, you learn precisely nothing about critical thinking. It may be tempting to say "yes, but I find this exercise really hard and so if I just know the answer, I'll be better able to work out the thinking". There are two problems with this. The first is that in an assessed, employment, or life context, you don't get given the answer – you get given a question. You need to learn and practise the *process* of answering a question. Second, it is precisely when something is hard that you learn. We call this productive struggle, and will explore it more in Part 1. By struggling through Guided Exercises you will learn the most. If you are lifting weights, you can make it easier by lifting them in a specific way (or by using two hands). This gets the weight above your head and back to the ground – but that's not the point, is it? By making it 'easy' the point of the exercise – the toning of the muscle which was invisible to the naked eye – was lost. By looking at the answers before attempting the questions you might find it easier, but you're not actually developing the invisible outcome – your thinking – at all.

AVOID THE AIM OF 'GETTING IT RIGHT'

As will be repeated in many sections of this book, there are often no verifiably correct answers. There are answers which are offered by credible sources, answers which have very strong reasoning to support them, and answers that have reliable and convincing evidence to offer 'proof'. While this may make some answers better than others, in many (or most) situations it doesn't make them 'right'. There is no 'right' reasoning or 'correct' argument. That's what makes such tasks so difficult, developing your own judgement so important, and succeeding so gratifying. That is also why the section at the end of each chapter is called Suggested Answers. If you turn to the answers and give yourself a tick or a cross compared to what has been suggested, you have missed the point of the exercise. What you *should* do when you compare your answers to the suggested answers is ask yourself the following questions:

- How are your answers different?
- What choices did you make that lead to these differences?
- Did you make different assumptions?
- Did you interpret the question or one of the terms differently and were you justified to interpret a term in this way?
- Do you think the Suggested Answer provided is better than your own?
- What can you learn from that?
- Or do you maintain that yours is a valid answer and that they are equal, but different?

You should judge your success with the Guided Exercises not on how many you get 'right' but on how you improve your application of thinking and reasoning. By the end of the book, you are likely to dispute at least some of the suggested answers. So long as you can provide strong justification for your own answer, this is an indication that you are on the road to becoming a critical thinker.

CHECKLIST / EFFECTIVE GUIDED EXERCISES

- Undertake all the Guided Exercises to practise application
- Even if these seem easy, they consolidate the skill and enable you to adjust when the parameters change
- Never check the answers first
- If the exercises seem hard, this achieves a productive struggle which contributes to learning
- Avoid the aim of 'getting the answer right'
- Compare your answer to the suggested answer and then ask a series of question to understand the difference