Revision and exam skills

This Study Guide tackles the topic of revision for exams. Many of the ideas it contains are from discussions with students who have come for study consultations provided by Student Learning Development.

Revision is a personal, individual process

Revision must be one of the most individualised processes within academic life. Students begin it with:

- different sets of knowledge and understandings;
- different responses to the stress of the revision and exam period;
- different preferred revision techniques; and
- different psychological and life contexts into which to fit the revision.

While it is possible to get ideas from others and from books, about how to revise, you also need to get to know what your own personal strengths and weaknesses are. How much do you already know? How do you revise? What are the factors that usually cause problems for you in managing your revision?

The following table may be useful in identifying combinations of contexts in which you prefer to revise.

<table>
<thead>
<tr>
<th>Early-mid morning</th>
<th>Mid-late morning</th>
<th>Early-mid afternoon</th>
<th>Mid-late afternoon</th>
<th>Early-mid evening</th>
<th>Mid-late evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the library</td>
<td>In a cafe</td>
<td>On a bus/train journey</td>
<td>At home</td>
<td>Outside</td>
<td>In your own department</td>
</tr>
<tr>
<td>On your own in silence</td>
<td>On your own with background music</td>
<td>With someone else but working independently</td>
<td>With someone else and working interactively</td>
<td>In a revision tutorial</td>
<td></td>
</tr>
</tbody>
</table>

Different stages of revision can fit with different contexts. Early on you may prefer to work individually; mid-morning, in silence, at home. Later, you may prefer to work mid-afternoon, interactively, in a café. The important thing is that you match the type of revision you are doing with the context in which you, personally, are able to do that best.

Taking control

It is easy to feel overwhelmed. You may feel that the task is too big, and that whatever you do you will not succeed. It is important to appreciate the size of the task, but it is also important to be realistic about what you can do in the time available. The revision and exam period will inevitably involve stress. You need to monitor this and, ideally, make it work for you not against you.

The key is to be realistic. Yes, you will have less free time temporarily. No, you will not have to go without free time completely.

www.le.ac.uk/succeedinyourstudies
If you find yourself feeling generally worried, give yourself 10 minutes to write down exactly what it is that you are worrying about. You are then in a better position to devise some strategies for addressing those specific concerns.

You can compare the concept of ‘revision’ with that of athletic ‘training’. First read the following table as it stands. Then try reading it again but substituting: ‘students’ for ‘athletes’; ‘revision’ for ‘training’; and ‘exams’ for ‘competition’.

<table>
<thead>
<tr>
<th>Athletes in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletes need to consider both the quantity and the quality of their training.</td>
</tr>
<tr>
<td>Training volume is essential, but so is planned recovery time, otherwise athletes will experience ‘burn-out’, and performance in competition will drop.</td>
</tr>
<tr>
<td>Training needs to be tailored closely to what will be required in competition, rather than just being random, unstructured effort that will fill in time but not bring the rewards in competition.</td>
</tr>
<tr>
<td>Athletes have stronger aspects of their performance, which they need to maintain and capitalise on. But they also need to work on their weaknesses to achieve a successful overall performance.</td>
</tr>
<tr>
<td>Athletes need a high degree of self-awareness to know how they personally respond to training and to recovery, so they can optimise their performance on the day.</td>
</tr>
<tr>
<td>By planning training sensibly, it will be possible to schedule in high quality sessions close to competition, but also to schedule in appropriate rest to support top performance on the day.</td>
</tr>
</tbody>
</table>

**Quality above quantity**

It is important to focus on the *quality* rather than just the *quantity* of your revision. This means that, whatever time you do spend revising, you try to make sure that it:

- is quality time;
- with full concentration; and
- with the most appropriate revision method.

Just as recovery has to be built into physical training sessions to optimise the training effect of the effort, so breaks need to be built into the revision schedule to give the brain time to consolidate the learning.

**Set a realistic, definite time to stop each revision session.** This should help to maintain the quality of each session. *The session should be short enough to guarantee your full attention throughout.* You could:

- agree with yourself that you will exclude other distractions for that period of revision;
- decide your specific revision goals for that session;
- allow yourself to be totally focussed for that period, knowing that, when it ends, you can walk away.

Another way to use short specific time slots to do quality revision sessions is to look for opportunities to **mix revision productively with other activities.** For example:

- a bus or train journey could give you a defined and limited block of time during which you could rehearse in your mind an explanation of a topic;
- you could take an exam question or two on a walk or a run with you.
You could find that being outside and getting exercise will have a dual benefit of keeping fit and freeing your brain to think laterally around the topic in question.

**Scoping the task**

The earlier you can scope the size and characteristics of the revision task the better. Make a systematic list of exactly what you need to cover, and in what depth. This allows you to collect further information or resources to support your revision before you start the serious work. Make sure you have any information that is available on what is expected of you and, importantly, what you are not expected to revise.

**Active versus passive revision**

*Active revision* is much more effective than *passive revision*. Passive revision is associated with such activities as reading notes, and copying material. Active revision is concerned with using and organising material.

Unfortunately, the basic revision technique, on which most other ideas are built, of: 

- reading and understanding the material; *‘reducing’* it to a smaller amount of material in note form; reviewing this again; reducing it again perhaps to a list of bullet points

... can become a passive, time consuming exercise if you aren’t careful.

While this kind of activity may legitimately form the foundation of your revision, you need to make sure you do not spend huge amounts of time copying material in a passive way.

Active and passive learning can be compared with the concepts of *recognition* and *recall*. It is much easier to *recognise* someone’s name when you are told it, than it is to *recall* their name without any clues. Similarly it is much easier to read through a page of notes and think, “Yes, I know this”, than it is to cover up the page and to give a talk on the topic.

**Words associated with an active approach to revision**

<table>
<thead>
<tr>
<th>organise</th>
<th>select</th>
<th>interpret</th>
<th>link</th>
<th>explore</th>
</tr>
</thead>
<tbody>
<tr>
<td>use</td>
<td>calculate</td>
<td>explain</td>
<td>recall</td>
<td>categorise</td>
</tr>
<tr>
<td>teach</td>
<td>reorganise</td>
<td>develop</td>
<td>argue</td>
<td>diagnose</td>
</tr>
</tbody>
</table>

The University of Edinburgh has a useful section on revision on its website. It gives some suggestions for ways of making your revision active:

“Revising actively implies making a real effort to understand what you are learning, rather than simply memorising by rote. Even if your exams require you to remember a lot of facts, you are much more likely to retain detailed information if it is related to an underlying understanding. There are many ways to achieve this; here are some suggestions you might like to try:

- Looking for underlying themes or principles.
- Thinking about inter-relationships.
- Relating what you are learning to ‘real-life’ situations.
- Thinking how the solution to one problem may help you solve others.
• Organising material into a hierarchical structure.
• Creating a diagram or chart to represent a topic.
• Looking for similarities or differences.
• Looking for points for and against an argument.
• Trying to really understand how formulae work.
• Critically evaluating what you are learning.
• Discussing topics with a friend.”

http://www.ed.ac.uk/schools-departments/institute-academic-development/undergraduate/learning/exams

Timetabling

There are several different stages in revision, and it is likely that you will want to cover some elements of your syllabus several times in slightly different ways. When you are preparing your revision timetable you need to build in repeat sessions where possible. Here are three timetable designs you might find useful.

Planner A  Possible design of a planner to cover the whole revision period

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Planner B  Possible design of a planner to cover the forthcoming week

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early-mid am</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-late am</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early-mid pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Planner C  Possible design of a planner to cover the next day

<table>
<thead>
<tr>
<th></th>
<th>9-10</th>
</tr>
</thead>
</table>
On Planner A you can:

a. mark when the exams are;
b. block out time that you already know will be unavailable e.g.: sporting event, concert etc.
c. work back from each exam and schedule in repeat and last minute revision sessions for each topic, close to the relevant exam.
d. within the exam period itself you will probably be able to schedule in revision sessions for the later exams, once earlier exams are out of the way: this should free up time earlier on.

Use Planners B and C to take more specific control on a weekly and daily basis. Again be sure to be realistic about how much quality revision you can do at a time before you need a break.

You could start by revising a couple of topics that you feel quite confident about. This could remind you of the level you need to aim for with the rest of the topics. It could also let you feel you’ve made a solid start.

Monitor how things are going

It is vital to monitor regularly how your revision is going, and to modify your plans accordingly. If you find that it is taking longer than you anticipated, there are several options:

- add in more revision sessions;
- change your revision style to become more efficient;
- if you really have to, then be more selective and reduce the amount you plan to do.

By monitoring your experiences in the early days of revision, it should be possible to modify your revision timetable for the remaining time so that it works most effectively for you.

Be ready to step up your revision techniques

You may find that revision techniques you have used very successfully in the past now need to be modified, extended, or changed in some way to cope with new challenges. Take a critical and honest look at your revision habits. If you find they are not up to the task ahead, find new ways of working. You may find you can make significant improvements. It may even feel as if you have created more time.

Memory techniques

In addition to reading, understanding, and making revision notes, you may feel that you need to use some specific memory techniques to remember collections of facts, or processes. Discover the potential of mnemonics. A mnemonic is a device by which you think of something quite easy to remember, which then prompts you to remember material that is more difficult to remember. A famous mnemonic based on the initial letters of words is ‘Richard Of York Gave Battle In Vain’ for the order of the colours of the rainbow. Two musical examples are: ‘Every Good Boy Deserves Food’ for the names of the lines on the treble clef; and ‘Father Charles Goes Down And Ends Battle’ for the order in which sharps appear in a key signature.
Some disciplines have their own favourites. You can also make up your own mnemonics to help you remember list of ideas, questions, stages, dimensions etc. You could also use a mnemonic to make sure you don’t miss out a crucial stage in a process, or a dimension of a problem.

Similar to a mnemonic is the amazingly useful list of simple questions that you can use to practise lateral thinking around a topic: what? how? where? when? who? why? so what? This list can be useful within the exam to help you think around possible answers to a question, or possible essay plans to use.

When memorising a lot of material you will need to find a range of methods that suit you. Typical advice is to use associations, diagrams, mind maps, narratives, colours, places and so on, to link course content to memorable images or experiences.

**Testing yourself**

As you revise you could create a list of questions relating to what you’ve just revised. When you come back to that topic you could start by seeing how you do with those questions. This will highlight where you need to pay particular attention.

It’s always a good idea to see how much you can remember about a topic before you look at your notes again. You could try allowing yourself time to think through as much as you can before returning to your notes. Thinking hard through a topic like this means that, when you finally check out your notes, you can quickly identify which elements you had forgotten about, and be ready to slot them firmly into your memory.

‘Mind maps’ or ‘thought maps’ are useful if you want to find out how much you can remember on a topic. After you have written down everything you can remember, try to extend the map by adding more to each branch e.g.: a link, an idea, a query, extra description, references, a debate point, or a conclusion.

**Explaining**

A particularly effective way of engaging actively with what you are revising is to learn about a topic then to try to explain it in your own words. You don’t necessarily need any audience except yourself. By trying to explain a topic you quickly discover which aspects you understand and remember well, and which you need to investigate and revise further. Be prepared to have a good go at the explanation before reaching for the answers.

**Group work**

Although revision is very much an individual process, it is surprising how much you can gain by working with others for some revision sessions, either in pairs or in larger groups. Some of the work is best done face to face, but some can be done using electronic communication. Ideas include:

- revising different but closely related topics in advance, then each giving a short talk on their topic, with the others asking questions;
- revising the same topic and coming together to talk about what you’ve learnt and what you can’t understand/remember;
- creating practice exam questions as you revise and putting these into a collective pool of questions that you can all dip into;
- swapping mnemonics you’ve made up.

When you ask someone else to explain something that you don’t understand you will gain from their help. When someone else asks for your help, you gain by having to provide a comprehensive, clear and informed explanation.
Working with exam questions

If your exam will involve tackling a problem, or doing calculations, active revision is crucial. Passive revision would be to read through a completed calculation, or the solution to a problem, and to say to yourself, ‘Yes, I can follow that’. Active revision involves working through a new question or problem on your own. For example:

- in mathematics, it is not enough to follow through calculations: you need to practise doing them on your own;
- in medicine, it is not enough to learn material by rote within each topic: you need to practise making links across topics;
- in law, it is not enough to read through cases: you may need to find or create case studies to practise on;
- in psychology it is not enough to read through examples of how statistical tests can be used, you need to try to work through them for yourself.

If essays are required, however, it is not best use of your time to practise writing full essay responses to exam questions. It may be useful to do this once or twice if you want to, to get an idea of the timing, but this is probably not the most efficient or effective way of using your revision time.

Skeleton essays

More useful than practising writing full essays is to practise creating essay plans, or ‘skeleton essays’. These are a bit like a site map for a website: they will include the main headings relating to the planned structure of your essay, and the associated sub-headings of examples, arguments, and references, etc, but the full content would not appear unless you wrote the full essay.

Allow yourself ten minutes to prepare a detailed plan for your essay, so that writing it would then be straightforward. You will thus have practised the hard part of remembering and selecting information, and creating the best structure for its presentation, but will have taken only ten minutes.

Remember that there may be several ways to answer to a question, and you need to identify the most effective approach to take. Practise identifying the biggest turning point / the information of most consequence / the best examples / the most powerful evidence.

When you practise creating essay plans for exam questions, a four-stage approach can be useful:

- Squeeze everything you can out of the essay title to make sure that you fully understand it and that you are addressing each element of it.
- Brainstorm all relevant ideas onto paper, including references, examples, arguments, queries, links…
- Match up ideas to aspects of the title and organise them into the most powerful order.
- Squeeze out more ideas using a systematic approach of, for example, adding dimensions or asking why, where, who, what, where, when etc, or whatever questions are appropriate to your subject.

Timings in the exam

It is useful to plan how you will allocate your time within the exam. This is not necessarily relevant for exams where short answers are required. Where you will need to write essays, however, it is important to know how much time you can allocate to each individual essay.

Here is an example of a timings plan for a 2 hour exam: 13.00-15.00; where you need to write 3 essays.

13.00-13.05 = settling in; reading instructions; noting down your timings plan; making initial essay choices.
13.05-13.45 = essay 1: 5 minutes planning; 35 minutes writing
13.45-14.25 = essay 2: 5 minutes planning; 35 minutes writing
14.25-15.00 = essay 3: 5 minutes planning; 30 minutes writing

Make sure that you make as good an attempt as you can for ALL of your responses. In general it is considerably easier to get the first 50% of marks for each question than it is to get the second 50%. So, for example, make sure that you make a significant effort for each essay rather than using too much extra time on your favourite ones.

With an essay-based exam it can be useful to begin with the question for which you can think of the most material. This can boost your confidence and get your thoughts flowing. In a paper with no choice of questions, it can be most productive to go through the paper answering all of the questions that you are sure of. This will stimulate your thoughts and help you recall information, putting you in a more active frame of mind for when you go back to the start and give more thought to the remaining questions.

On the start line

When you are waiting to go into the exam room there is no point looking backwards over what you haven’t covered; what you never understood; or what you thought you’d learnt but can’t seem to remember. All you can influence now is the future. You are where you are: now you have to make the best of what you’ve got.

Athletes at the start of a race can’t do anything about the training they missed. There is no point in worrying about whether they are less well-prepared than they had hoped. All they can influence now is what happens after the starting gun goes off. They need to concentrate fully on the race ahead, and use their training as best they can.

Go!

Here are some ideas to help you in the exam:

- Begin by checking very carefully the instructions of the exam paper. Highlight or underline the key instructions.
- Note down (and check) any timings plan you have prepared, so you have it to refer to, and to stop you spending too much or too little time on one question.
- Where there is a choice of tasks or essays, check out the potential of all of the options before making your decision.
- For an essay-based paper, it can be helpful to begin with the title for which you have the most to write. This can boost your confidence, and get you into the swing of planning and writing exam essays.
- Do not be rushed into starting to write your first essay. Remember to take adequate time to prepare a strong essay plan first.
- Even if you have already written a similar essay before, try to bring fresh energy on this occasion.
- Don’t waste energy judging a question. You may think it’s irrelevant, or boring, or badly phrased, but put those feelings to one side. Re-read the question to check if there was anything you missed.
- Respect the question. Take time to ‘listen’ to the question before thinking of the answer, rather than assuming that you know what the question will be. It may be slightly different from what you expect.
- Read all parts of a question before beginning to answer. In that way you can see how the examiner has divided the knowledge between the different parts of the question, so you can be sure to focus on the specific response needed for each part.
• If there is a question you cannot answer, leave it and continue with the rest of the paper. Come back later to make your best effort with the question(s) you left out.