

How to Pass Exams & Strengthen Memory



Ross Nazir Ullah

Introduction

Examinations are an essential part of student life. Many students never receive any instructions or guidance to deal with them effectively.

Many students find it hard to cope with exams. However there are some techniques and strategies which can reduce exams pressure. If students can learn and follow these techniques, they will find exam time much less stressful.

Our mind absorbs and retains those ideas which are important, comprehensive and reasonable. Memory is built up and improved by thinking.

In this book you will find practical advice on organization of study and revision, techniques to relax and control anxiety, ways to improve concentration and memory and to effectively deal with problems that occur during the examination itself. It is written primarily for college students.

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Learning Process

Education makes people easy to lead, but difficult to drive, easy to govern but impossible to enslave. --Lord Brougham

Success of the student in his exams depends on the work he does by himself before and after lectures. This work is absolutely vital to success and it should be done seriously and regularly.

Starting work is much more difficult than continuing once you are under way. When one has the desire to learn, than learning takes place readily, regardless of age.

If you never talk about your studies you cannot possibly hope to do well. Note-taking is an aid to memory. Some of your card-like-notes can stick to the wall. It is mastering of subject which can alone bring success in the exams, and this mastery comes as a result of continual and purposeful private study, regular college attendance, good lecture notes, and making practice of thinking about study.

Methods of Study

Systematic methods of learning may require more effort and practice in the beginning but soon they become habitual and effective. A few simple suggestions may increase the efficiency.

1. Make up a schedule for studying.
 2. Set aside a suitable place for your work and begin promptly.
 3. Concentrate until you have finished at least one major worth-while task.
 4. Keep up your daily assignments.
 5. Limit your program and everyday efforts to what you can accomplish. It is better to learn one or two topics thoroughly than four or five topics inaccurately.
 6. Instead of worrying about examinations and personal problems, keep yourself busy. Worrying and daydreaming are futile and merely waste of valuable time. Take constructive action to meet each problem, do your best, and be contented about your efforts.
 7. Concentrate on important points and skim less relevant areas.
 8. A quick overview, by skimming rapidly through a chapter, may be highly desirable before you begin slow-reading.
 9. For small quantities of easily assimilated material, try to learn the whole at one sitting.
 10. Sit in a comfortable position, but not so relaxed that you want to doze off. Relaxation of the body effects the mind.
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Aids to Rapid Reading

1. Make a determined effort to increase your speed of reading.
2. Attempt to read more than one word at a glance.
3. Try to grasp main ideas.
4. Reduce lip reading and inner speech to the least possible minimum.
5. Make certain that you understand the difference between rapid reading and skimming.
6. Always adapt your rate of reading to the difficulty of the material.
7. Instead of reading with eyes, read with your mind, and read with understanding.
8. Train your eyes to move rapidly and smoothly across the page.

How to improve your reading

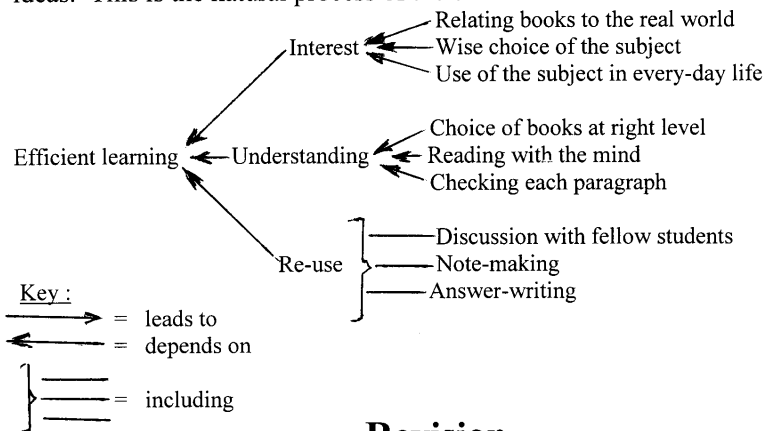
1. Have adequate light coming from behind you and sit in a comfortable chair.
2. Read with a definite purpose in mind.
3. Concentrate and try to bring genuine interest to the subject.
4. Read critically with scientific approach.
5. Adjust your speed to the type of the material.
6. Keep your hands still. Don't follow words across the page with your finger.
7. Search for the central thought or main idea of the passage.
8. When you are searching for specific information, skim over unrelated facts.
9. To remember information, use it.
10. Read twice. First the whole with usual speed. Then read a second time more slowly and with more concentration.

Listening Class Lecture

1. Be prepared to take an active part in class.
 2. Preview the relevant textbook chapter before the lecture to familiarize yourself with the concepts and terminology.
 3. Before your lecture starts, review your notes from the previous lecture to prepare your mind.
 4. Avoid distractions by not sitting beside any distracting activity.
 5. Concentrate upon major points, make sure to record them in your notes.
 6. Be selective in your note taking. Do not attempt to write down every word because that will overload you, and much of the material is probably only illustrative.
 7. Try not to leave your lectures without a basic understanding of the topics covered.
 8. If boredom or distraction affects you, sit straight, take more interest in what lecture is about.
 9. Be flexible, and adapt to changes during the lecture.
 10. Listen with open ears for important points.
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Efficient Learning

Genuine and practical interest greatly speeds up the learning process. We learn best through interest, understanding and continuous re-use of ideas. This is the natural process of the brain from birth to death.



Revision

Careful reading is one skill, concise writing is another. ---Tressler

As you put your revision plan into operation, the following points will be useful.

1. Define your study tasks, and develop the right attitude towards the revision that you are going to do.
 2. If you fall behind on your schedule, catch up on it by the end of the week even if it requires additional work.
 3. As soon as you settle down, start work. Getting started is always the most difficult part.
 4. Rest for a few minutes after every half an hour.
 5. Set yourself for a test or assignment after the completion of each chapter of your textbook.
 6. Draw up a weekly timetable for all subjects to be revised.
 7. Plan your revision to coincide with the College lectures.
 8. Break up large revision jobs into more manageable tasks.
 9. Train yourself for the examination, just like an athlete for a race.
 10. Repetition is one of the major factors in learning.
 11. Use rewards to reinforce progress and positive change.
 12. Study with another person, if you feel it will be helpful.
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Handwriting

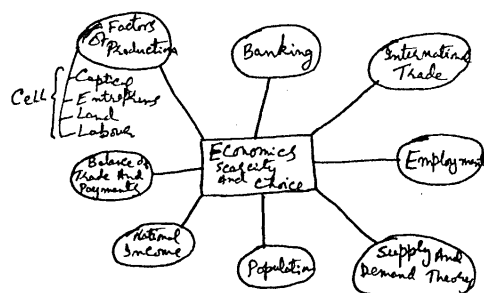
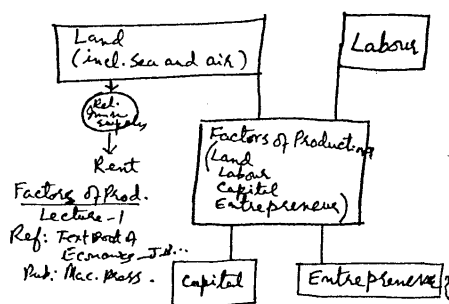
An ancient Chinese lady spent seventeen years writing a love letter. (History does not record whether she got her man !). Handwriting is an art, like gardening, to give joy to oneself and to others. It is, sometimes, given undue importance in judging the quality of the work of a student. You may well lose marks if the examiner has difficulty in reading your handwriting.

1. If necessary, throughout the revision period, try to improve your handwriting until it is completely legible.
2. Try to solve exam questions; at least do one question in 15 minutes as the exam time. It helps you in your handwriting in an ordered way.
3. Clear and legible writing can win you marks.
4. The writing style should be your own.
5. Practice concise and selective writing.
6. Writing helps to fix the ideas in your mind, and dissipate nervous energy.

Diagrammatic notes

Diagrammatic notes can be a very effective method in your revision.

1. We can summarize the ideas in your own words, or by condensing them into a diagram, map or chart.
2. Our brain like to see things in shapes or patterns and we can remember patterns more easily than abstract entries or designs.
3. Diagrams allow plenty of space for additions at any point, and give an overall picture of the topic.
4. When writing in this way, start by placing the main them of the topic at the center of the page, so that you can then move in any direction.



Testing yourself

1. You can set yourself a test (mock examination) each week that relates to the requirements of the examination.
2. Ask yourself "If I were the teacher, what questions would I ask ?" Think out the answers.
3. Obtain some examination-type questions that relate to the topics from:
 - i) Past papers,
 - ii) Text books,
 - iii) Teachers

Begin testing yourself. And get it marked from your teacher.

Subject: Business Administration	
Time:	3 hours
Answer FIVE questions only. All questions carry equal marks.	
5 ✓ 1.	<u>Why</u> should a company <u>formulate objectives</u> ? Give <u>examples</u> of the <u>objectives</u> a company may have and <u>discuss</u> the <u>relevance</u> of those you have chosen.
✓ 2.	What are the functions of management ? Discuss the elements and the relevance of these management functions to a company.
3 ✓ ✓ 3.	What <u>factors</u> in the <u>environment</u> have an <u>impact</u> on the <u>company</u> ? <u>Describe</u> how these factors <u>influence</u> the <u>company</u> .
✓ 4.	"Marketing is a key function in the organization." Discuss this and state how it is related to other functions.
4 ✓ ✓ 5.	What are the <u>functions</u> of the <u>financial</u> <u>department</u> in a company ? Discuss the <u>nature</u> and <u>place</u> of <u>cash flow statements</u> in the company <u>operations</u> .
2 ✓ ✓ 6.	" <u>Production management</u> is concerned with <u>planning</u> and <u>control</u> of <u>production</u> ." Discuss.
1 ✓ ✓ 7.	" <u>Personal management</u> is a <u>functional</u> area of <u>management</u> as well as the <u>responsibility</u> of every <u>line manager</u> ." Discuss.
✓ 8.	"Research and Development should be given terms of reference." Discuss.

Fig. An examination paper marked up for preference by the student.

Relaxing in the Examinations

1. Periodically, close your eyes and take a comfortable deep breath and then let the air out, slowly and quietly. As you breathe out, say, 'RELAX' to yourself and feel the tension flowing out of your body.
2. While relaxing during the deep breath, allow your arms and hands to dangle at your sides. Feel the warmth from the blood flow into your hands. Imagine the tension flowing out through your finger tips.
3. Flex and relax your finger muscles several times to promote blood flow. Stretch your arms, legs and back.

Physical Rest and Mental Relaxation

All work and no play makes Jack a dull boy.

Schedule for Rest

Work out a daily time table allowing in each twenty-four hours time for study, time for mental recreation, time for physical exercise and time for sleep. The brain's efficiency is reduced if the body is out of condition, therefore rest is necessary.

Whatever you do, avoid trying to work and carry on a conversation at the same time. There is no more disastrous way of wasting precious hours than by half-working or by half-playing. Either work intensively or play intensively. A healthy tired mind and healthy tired body are essential requirements of healthy rest.

Nobody would expect to sleep immediately after the intense exertion of running a five mile race. The body needs time to relax first, so does the mind. Always stop work at least half an hour before going to bed. It is an excellent practice to plan tomorrow's work or say prayers at the end.

One or two sleepless nights during certain active period of study are quite normal and nothing to worry about. A good night's sleep is nice during examinations. But if you can't, try doing a quiet reading by a dim light until you feel really sleepy.

At night, before going to sleep think over all your day's work and studies, ask yourself these questions ? "What is the most important new thing I have learned today ? What else I learned ?" Think 10 to 15 minutes.

Relaxation

Any accomplishment is hard without relaxation. One of the common problems in exams is nervousness . If your heart is thumping, breathing rate is racing, your hands are wet , performing in an exam can be difficult. Through relaxation, you can control these problems.

We can learn through practice how to relax. Relaxation training is recommended for just about everyone, especially for those candidates who are troubled by excessive anxiety and nervousness before and during their examinations.

Relaxation Training

The following steps will be helpful.

1. Practice daily :
Place relaxation practice on your daily plan. Turn your mind off from the pressures of the day and on to the relaxation technique.
2. Expect to relax :
You say calmly and decisively : "I am going to relax now."
3. Find a quiet spot :
If possible, try to find a quiet spot. If it is difficult, then try to practice at any place where you see less disturbance.
4. Make yourself comfortable :
You can sit on a chair, lie on a bed (or on the floor) or stretch out in a comfortable spot outside. You can even practice in a crowded bus !
5. Breathing and attention :
Close your eyes and focus your attention upon your breathing. Listen to the sound of breathing.
Focus your full attention on RELAXATION.
6. Positive thinking :
When you are relaxed, your body, heart, and breathing have slowed down. When your mind is relatively quiet and calm, you can say to yourself:
I can relax. I can control my mind. I can concentrate on my studies.
I can perform to the best of my ability.
7. Recovery & Plan :
Come out of your relaxed state slowly. Notice how relaxed you feel. Just enjoy that relaxed and comfortable feeling for a few minutes.
Plan your next relaxation time and make a daily routine chart.

Function of relaxation activities

1. To revive yourself.
 2. To exercise those parts of your mind and body not normally active during periods of study.
 3. To enable you to become broad-minded, interested in the world outside your books and a useful member of the college.
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Preparation for Examinations

An examination candidate is a person who has too much to do and not enough time to do it in.

Most students become painfully aware of the reality of the coming examinations some four to six weeks before the commencement when they get preparation leaves (or see the date-sheet).

It is the mastering of the subject matter which can alone bring success in the exams and this mastery comes as a result of continual and purposeful private study, regular attendance at lectures, and good lecture notes and by making practice of thinking about one's work.

Plan your revision schedule.

- i) Weekly plan.
- ii) Daily plan.
- iii) For the next few hours.

The following points will be helpful :

1. Go through your text up to six times for maximum confidence before you enter the examination hall.
 2. You should know what you intend to do, and how much time you intend to spend on each task.
 3. Your daily work should be task and time specific. The non-specific aim of 'doing some revision' allows you to become lazy. You will feel fatigue although you would have accomplished a little.
 4. If you have short time (say four days), study those things which are to give you most marks.
 5. Concentrate your efforts on the material which is : a) important, b) not hard to understand.
 6. In your revision, think positively by writing on a card the words : 'I CAN DO IT'. Place the card on front wall of your study place.
 7. Keep writing down the main points of the text.
 8. Don't spend all your time revising. Get plenty of fresh air and exercise and do some relaxing work.
 9. Think about things and read your set texts instead of constantly running about to find important notes, as it wastes your precious time.
 10. Remind your family that this is not the time to bother you with problems that can wait until after the examinations.
 11. Organize your time wisely and adjust yourself to keep fit and healthy.
 12. Have confidence in your own abilities. Do not become discouraged by other people appearing to be better than you.
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Exercise (physical)

1. Maintain a regular exercise program during the year.
2. Do not take up severe and strenuous exercise before the exams.
3. Use mild forms of exercise at study breaks.
4. Try simple body stretching exercises at your desk.

Time-Saving Strategies

1. Small amount of time spent in planning your tasks will pay you great.
2. Realize that turning the TV on require little energy, but turning it off can be a challenge.
3. If you want to watch only the news, stay standing—do not sit down.
4. Always carry a book or some handy notes with you so that while waiting for the bus, train or a friend, you can use the time for revision.
5. Do not hesitate to tell others that you are busy.
6. On crowded buses and trains, carry palm-sized cards with new terms, formulas and other memory chores so that your sitting or standing time can become learning time.
7. Use a tape recorder to play back important lectures or your own self-recorded notes.
8. Keep your door closed if you do not want to be disturbed.
9. Try to learn to say 'NO' for irrelevant matters.
10. If you think you can study better at night, then by all means prefer night study to day study.

Immediately before an exam, read only the first and last couple of paragraphs of selected chapters. Remember, word by word reading is very time consuming. A few days before an exam is a very valuable time.

The night before the exams is a matter of individual temperament, some spend in sleeping, others in reading.

Start Early

Revise Regularly

Keep the three P's in your mind :

	<i>Practice</i>
<i>Don't</i>	<i>Panic</i>
	<i>Pace yourself well</i>

The Examination

Panic is the worst enemy of efficiency in studies.

There is no magic formula for obtaining good marks. It is simply a matter of making sure you reach the standards required by your course and the examiners.

In the examinations, many people believe that you need intelligence to pass. Intelligence is of little value if you do not have the knowledge and knowledge is of no value if it cannot be expressed when required.

There is no short cut to success and there is no way of tricking the examiners into thinking that you are better than you really are.

Many papers have a disconcerting way of appearing, at first sight, to be either much harder or much easier than any you have seen before. Don't let this put you off. If the paper is easier than usual, the examiners will demand a higher standard of work; if the paper is hard, they will make some allowances for candidate's difficulties.

Take no notices of other candidates as you work. Even before you enter the hall, you will meet students who appear to be full of knowledgeable self-confidence while you are worried and sick inside. Pay no attention. Such people are either putting on a brave face or so stupid that they think they know it all. The most worried student I have ever taught was also the most brilliant. You will also find that in written papers, there are usually one or two students who appear to be continually asking for extra paper while you are still only half way through your answer sheets. Don't worry. Usually such candidates get low marks. It is quality rather than quantity that the examiners are looking for. But do watch the time.

TV a Practical Problem

Beware ! the TV set can quickly inactivate you into a state of mesmerism and weakens your powers of discipline and determination. If you are weak-willed with the TV, try standing and not sitting for the show you want to watch. It is strange how it takes so much energy to get up and out of a chair in which you have been sitting for a TV program. Realize that turning the TV on requires little energy, but turning it off can be a challenge.

Rules for written papers

1. Read the instructions carefully.
2. Spend five minutes considering all the questions before attempting any.
3. Divide your time.
4. Study the wording. Underline the important words in the questions to focus your attention.
5. Allow a few minutes before starting each question. Write down your initial ideas—the more the better.
6. Plan the answer.
7. Do the easy questions first and return to the harder one later.
8. Watch your language.
9. Be concise. Write neatly.
10. Avoid writing the information not required.
11. Number your answers. Do not re-write the questions.
12. Don't waste your time. Occasionally watch it.
13. Check your paper at the end of the examination period.
14. Don't cheat. If anyone talks to you, do not talk back.
15. Use all the time available in the examination.

Write down your initial ideas

Having read the questions and underlined the key words, jot down immediately the ideas which come to your mind. Don't worry about the quality of these ideas, just get them down. It takes not more than 30 seconds, and 12 to 20 words.

Rating the questions

Give a tick rating to the questions that you can answer and start with the ones which you have awarded the most ticks. (As shown in fig. on page 8).

Stick to the point

Avoid including information which does not help to answer the question. It wastes time and earns no marks.

Towards the Examination Hall

1. Eat a good breakfast, but don't drink milk too much. In this way you will not feel hungry during the examination.
 2. Do not enter into a conversation with other examinees, they will confuse you.
 3. Aim to arrive early so that you can relax before the exam begins.
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In the Examination Hall

When,

Panic attacks

1. Practice mental control
 You might say, "Of course I have control over my mind. Who else would be controlling it ? "
- Fix your eyes on a spot, or shut your eyes and then say RELAX.
2. Develop a strong relaxation response which can be applied in the examination room.
3. keep your breathing rate slow and regular.
4. Replace negative thoughts with positive ones.

Memory blocks

1. Jot down concepts associated with the blocked item and look for connecting links.
2. Imagine yourself as the lecturer writing the questions and noting the correct response. See the question from alternate points of view.
3. Use other examination questions as spring-boards or levers to prompt your thinking towards the blocked item.

Writer's cramp

1. Train your hand muscles to sustain increasing periods of writing.
2. Occasionally allow your hand to dangle limply at your side to relieve the stress and tension.

Physical fatigue

1. Be certain not to cut your sleep hours drastically over the long term.
2. Stretch your limbs at frequent intervals during the exams to relieve tension.
3. Splash cold water over your face in the bathroom if you feel tired and mentally dull.

Diet

1. Don't start eating food with a low nutritional value.
2. Don't drink too much tea and coffee as they contain substances which excite rather than calm your nerves* .
3. Tranquilizers may cause side effects e.g. sluggish thinking, drowsiness, etc.

** During exams your nervous system is already high. Tea, coffee, and anti-sleeping pills can produce negative effects e.g. shaking hands, faulty concentration, restlessness, and many trips to the toilet. An average strength cup of coffee contains about 100 mg of caffeine; tea, about 60 mg and chocolate, about 30 mg. Your body can metabolize or cope with about 600 mg of caffeine in a twenty-four hour period. Going over the 600 mg mark is likely to cause negative effects upon your concentration and study effectiveness.*

Common Failings

I had a good education but it never went to my head. —Alan Bennett

One of the major reasons for students failing in examinations is lack of self-confidence. Other factors are also very important—intelligence, ability to work hard, a knowledge of exam and study techniques—but people who lack self-confidence find it difficult to become motivated enough to use these other qualities.

False assumptions in written examinations

A written exam requires you to present your knowledge in a logical way, for a question to be completed in a limited time. For it we need preparation. For many students, this preparation seems to be a mock. Read the following comments.

1. “I’m not worried about practicing and mock examinations as I’ll do well on the day.”

This attitude is held by students taking exams in the belief that near to exams, they would take some ‘guess’ and the lecturer will indicate some questions. When this doesn’t happen, they suddenly become panic and as the examinations are so close, they cannot study effectively with the result that they usually fail.

2. “I know the subject well and the examiner will recognize this, and therefore he will give me passing marks.

A student with this type of attitude usually writes all he or she knows about a topic irrespective of what the question is asking.

3. “I passed the ‘mock’ exams well so I will pass the finals.”

Mock exams are the indicator of your progress up to that point. If you pass it, and do not continue progress, then the result will not be good.

4. “It doesn’t matter if I do not write much and as long as what I write is correct the examiner will pass me.”

You have to do justice to a question where nearly fifteen minutes are allowed for writing it.

5. “Writing the language well in which the examination is set is not important provided I write the right things.”

Your correct answer depends upon your command of the language in which the examination is set. It is necessary for good presentation.

6. “It doesn’t matter about going lectures all year long as long as I go in the month preceding the examination and do the revision.”

Such type of students waste their revision period catching up on what they should have learned during their course instead of using it to review what they already know.

Reasons why students fail

Following are some defects.

1. Students cannot write and present an answer correctly.
2. Some do not answer the question asked but the question that they would like to answer.
3. Many students do not answer the questions in a logical sequence.
4. Some students have the notes which do not cover the questions asked in the exams.
5. Students ignore time scales.
6. Some students write too much on one aspect and too little on another.
7. Students do not understand the balance between quantity and quality.
8. Students lack self-confidence.
9. Panic is a very destructive state of mind.
10. Students who study from two teachers (one regular teacher and other private tutor) get confused.

Faulty Habits in Reading

Some readers read too slowly because of faulty correctable habits, such as:

1. Failure to bear in mind a definite purpose for reading.
 2. Inadequate preparation.
 3. Bad posture, poor lighting, etc.
 4. Defective vision.
 5. Excessive lip movements.
 6. Regressive movements caused by lack of concentration or of comprehension.
 7. Excessive attention to single words (or parts of words) instead of word groups (conversely, failure to note minor words which change the entire meaning of a sentence).
 8. Failure to connect different parts of reading material with each other.
 9. Excessive guesswork as to the precise meaning of words.
 10. Failure to concentrate on central thoughts and significant supporting details.
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The Examiner's Point of view

Students frequently irritate the examiners. The following are the ways to keep the examiner happy.

1. Legible handwriting

The examiner always gives credit to legible writing in contrast to illegible writing.

2. Rough workings

Always show your workings so that the examiner can know how you arrive at the correct answer.

3. Additional papers

Attach additional answer sheets in the right order.

4. Correct numbering

Put the correct number (as given in the question paper) to each of the question.

5. Appeals to the examiner

Do not write personal excuses or requests to the examiner. They will have no effect on the examiner.

6. Finished sentences

Make sure that you finish your answer in time to avoid leaving half-finished.

Some final advice

Do all the work your teacher considers necessary to obtain good marks. The examiner wants originality. Read widely on your subject.



"I told him he was trying a three-hour test too early in his revision programme."

Examination Plus

When a student receives the result of his examination, once again he is brought face to face with another reality of life.

We as a society, are particularly negative in our relationships with each other. The common compliment you hear in daily life is, 'Not bad'.

Being positive about one's examination, preparation and performance is vital. See a positive thinker. When he fail, he always protects his ego by saying: "Well, if I had really tried, I could have passed. But I made only a minimal effort." Failure under these conditions is easier to accept.

The most successful people fail two-thirds of the time. They don't see themselves as failure, as they would prefer to call them 'experiences'. Consider the strengths and weaknesses of your past efforts. Make the standards high enough to stretch you to some extent, but not so high that you can never attain them and, therefore, become depressed and lose your interest and self confidence.

For a positive thinking, you must realize that with every examination you take, you become a more experienced person. Even if some of your examinations results are not good, you still have the opportunity to learn something positive from your experience.

Positive steps for examination success

1. Ask yourself what is the single most interesting fact from each lecture .
 2. Place yourself in the role of examiner. Construct three examination questions from the notes from each class lecture.
 3. Place a card in front of you on your study table with a positive message: e.g. "I will study daily and pass the exams".
 4. Set study goals with a competent friend and compare your progress.
 5. Reward yourself for thinking positively and then acting productively.
 6. Compile a list of topics, that you did not understand in class and, after reading about them, see your lecturer.
 7. Tell yourself to say, every time you pass a test, "I can pass".
 8. List your past successes and accomplishments.
 9. You must accept the fact that you are talented.
 10. Don't hide your past examination papers. But learn from them.
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About Memory

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Two Types of Memory

1. **Natural memory**—or your own mind's function of remembering.
2. **Artificial memory**—devices for retaining information.

Your natural memory is the result of many facts, ideas and physical activity—all of which are learned through our senses.

Example :

"Camby just had five kittens." That sentence tells you, first of all the fact that five kitten have begun to exist. It also reveals, in the word "just" the fact that their birth was quite recent. But, because of your mind's retention of other facts, previously learned, the sentence tells you even more—you know that Camby is a cat, that the kittens are her offspring and that she is a lady cat. It comes from your mind's ability to register facts.

Now what is a cat ? You can picture in your mind, her basic parts. This impression is the image of an abstract idea.

If you ride a bicycle, you don't think actively, but it comes to you "naturally". Through repeated experience, effort and practice, your mind comes to retain memory of motor activity.

Your artificial memory needs some outside assistance or devices. It doesn't pay to memorize entire Lahore's telephone directory. When you need to call someone, you look for the number. The directory is a device for reinforcement your natural memory.

An alarm clock is a device to wake you up on a special morning at 4: 00 a.m. (daily waking is done through motor activity). Similarly your little address book, list of friends' names, lecture notes, class time-table, and the text books, etc. are the devices.

Do you get the picture ? First your mind is able to feed your memory directly—ideas, facts and motor activity—from its own storehouse of knowledge. We call it natural memory.

And when your mind is unable to furnish the information which you seek, you can aid your natural memory with external devices; your alarm clock, address book, dictionary, timetables, notes, etc. All of this we call your artificial memory.

Basic Principle of Remembering

Interest grows out of knowledge, and knowledge is best retained through interest.

The following 12 points form a program which, when followed, will provide your mind with a handy framework in which to exercise its memory muscles. They constitute a formula with which you will be able to direct your mental efforts. And they let you stop along the way, to see how you re-doing, and to watch your memory as it learns how to handle future tasks.

1. Adopt an optimistic attitude

Prepare yourself for remembering, by letting yourself know at the start that the task is within the limits of your ability. An optimistic outlook clears the rocks from the road. Convince yourself that you can do what you set out to do.

Experiments have demonstrated that people generally retain memory of pleasant things more accurately, and for a longer time, than memory of unhappiness.

You would say, "I want to remember, I can remember, I shall remember". The best way to go about strengthening your retentive ability is your attitude. If you are convinced, then nothing is impossible.

2. Check your progress periodically

While you are in the process of working on each memory task, keep tabs on yourself by periodically evaluating your progress. It should be simple for you to devise little examinations with which you can test your progress. Set up a definite schedule for taking these tests and follow it faithfully, so that you will know when you have completed your task.

3. Motivate yourself for paying attention

When natural interest in a thing is lacking, it then becomes necessary to search more carefully for a very good reason for you to pay attention. Well-attended impressions are large sensations and easier to remember. The stronger your motive for remembering something, the greater an interest you will take in it, consequently, the greater your attention will be. And when you pay attention, you stand a better chance of remembering.

4. Establish a goal

Know at the start of the work just exactly what you are trying to do, so that you will be able to tell yourself when you have done it. Say to yourself, "I must commit to memory every fact about mental health".

5. Use all your senses

When you see an apple, a little vision sensarow is discharged to your brain. When you smell the apple, an olfactory sensarow shoots out at your nose. When you pick up the apple and take a bite out of it, touch and taste sensarrows join the others in your brain. Even the sound of the crunch as you bite down on the apple, produces another impression by which you can identify the apple you are eating. So appleness can be identified by the sum of all the impressions which you have received: a round, red, shiny thing that smells and tastes such-and-such a way, and makes a crunching sound when you bite it. The entire experience leaves a much more strong impression with you than would just a look at an apple.

Get all the impressions that you can, to help you know the subject better. Say things aloud, to get the added benefit of heard impressions.

6. Repeat things

Repetition of the same impression anchors the impression firmly in your memory. This is the principle of memory which helps you to learn by again and again. When you think you have learned it, teach yourself a little bit more, so that you will remember it longer.

7. Look for a Pattern

Things are easier to remember when they conveniently fall into some pattern. In the memorization of a shopping list, the only pattern, would be the actual number of items on the list. Knowing that you must buy ten things, and not eight, will at least tell you that your shopping is not completed when you have bought eight. This pattern has a great value.

You form a pattern by which to remember things by grouping them logically, or alphabetically, or placing them in some order. Arrange them so that their initials spell out a word, or number them in size, place, or visualize them in a meaningful group.

8. Break down big problems to little

When the problem is a very long one, divide it into smaller tasks which you can more easily handle. With small tasks, try to group them with other things which will add depth to your subject.

9. Let your mind see a picture

If you want to remember to give something to someone, then picture that act in your mind. Little mental scenes will increase your ability to remember considerably. Visualize—imagine things happening—as much and as often as you can, to form concrete impressions in your mind.

10. Look for the unusual images and associations

Remember that unusual things—exaggerations, impulsive curiosity, surprises—provide strong impressions. You can utilize this trait of memory to help you remember, by constructing exaggerated associations, devising funny reminders, visualizing your subjects in ridiculous settings when studying them.

11. Write it out

The practice of actually writing out things that you want to remember serves a multiple purpose. It detains you at the thing for an extra moment or two, forcing your attention on it. It adds a sensory dimension to your impression of the thing, as does saying things aloud, by putting you through the activity of physically producing a reminder. It enables you to form a visual pattern of the memory task. All this serves to strengthen your impression of the thing, promising a deeper, longer—lasting memory.

12. Promise yourself extra rewards

Include in your study schedule a prize, such as a cup of tea, or a piece of candy—to be awarded at the completion of a set amount of work. Not anything so wonderful that your mind is going to be distracted from the work at hand, but preferably something that you would only have taken time out for anyway. The big difference is that you will be taking time out for it at the right time, when you convert the distraction into a reward.

Temperature 20 to 21 °F has been found to be best for studying.

Memory Work

Memory is no substitution for knowledge.

Our brain contains 10^{10} cells which are called neurons. Each neuron receives one complete incident. For example, one topic of a class lecture. Average person uses only 12 % of his brain.

Memory is only a way of bringing to mind the things you already know and understand. No amount of study, repetition, visualization, association or whatever you attempt, will get around the need for understanding. The memory devices, about which you have read, in order to be worthwhile, must deal with meaningful material—no monstrous supply of associations will recall a fact that you never knew in the first place. Without knowledge, there is no use of memory. So continue to learn, provide your mind with an ever-increasing fund of information, and your memory's service will increase along with it.

Memory work depends upon:

1. Interest

Whenever you have to remember something that was pleasant you have little or no trouble; but when your memory subject is something in which you are not very interested, you find the task more difficult. Strong interest is accompanied by strong memory.

If you see your weakness in ; word, spelling, arithmetic, names, faces, addresses, appointments, etc., you would find that you remembered only those things in which you were interested.

2. Concentration

Suppose you are doing something, and you are listening news from radio or TV. Casually you will hear that news with more concentration in which you are interested, e.g., if your interest is in cricket, then that news will make deeper impressions upon your memory.

Well-attended impressions are large sensarrows, they can be more easily located in your memory, are easier to remember.

3. Association

Association is the fundamental principle behind every artificial "system" for strengthening memory. By constructing your own list of things with which to associate, you can remember any other things that come along, simply by connecting the thing to be remembered with the appropriate thing from your artificial list. Then try to remember along with its partner.

4. Repetition

Psychologically if you repeat something six times it will be remembered in your mind.

Repetition of the things gives strong impression in your memory.

For an important memory task, plan to begin your study in the evening, just before going to sleep. While you are sleeping, interference is at an absolute minimum, and review of the subject upon waking up will serve to repeat things that are still fresh in your mind.

Memorize or minimize

There is no sense in preparing a valuable memory-minimizer, only to misplace it and without its usefulness. If you use an appointment book, refer to it regularly, at regularly scheduled times; always keep reminder notes dealing with one subject in the same place.

By organizing your time to use your natural memory only for those things for which you require mental remembering, and taking care of the unnecessary—to—memorize in an efficient manner, you will be able to cut your task in half with surprisingly little botheration.

Constant worry about your progress—will only slow you down.

Interference—other thoughts coming into your mind to crowd out pertinent memories—can greatly reduce your ability to remember.

It would be useless to try to memorize something when you are too tired to concentrate.

Improving Your Memory

Remembering

The things we remember with ease are those we come across time and time again—our face in the mirror, our home address, etc. This simple fact of familiarity is central to the learning process—to learn we must remember and to remember we must make ourselves familiar with the subject in question.

4R method of learning

Read, Recite, (w)Rite, Repeat.

Read your text

You might find that colored pens are useful to help you underline major headings and other important points.

It is important to go through your notes within twenty-four hours of the lecture. If you wait beyond that time to revise them, you will probably suffer a memory loss of up to 80 % of the material which you did not get down in your notes but which you may want to recall. Therefore, the sooner you go through your notes after a lecture, the better they are likely to be.

Recite

During the recitation process, try to use the examples, charts, and graphs to help your memory.

Take frequent but short breaks to allow your mind to rest. Just standing up, and stretching and shaking your arms and legs for a minute can be helpful. A one- or two-minute break can easily be extended to thirty minutes or even an hour. Beware !

Write as you recite

Once you have read through your notes and mentally recited the major points, the test of whether you know the material is to write down the points on paper. If you can't write the points down, then you don't know the material well enough. When writing, don't try to reproduce what you learned word for word. Use abbreviations, first letters of words, and any other short hand that comes to mind.

Repeat the lecture

You will probably need to go through your notes as many as five or more times. The number will depend upon the difficulty of the material, your interest and motivation, and, of course, the amount of time available before the examinations begin.

As you go through your notes or text, you will find that the task becomes easier. By the fifth or sixth journey, you will feel more and more satisfied and fulfilled as you demonstrate to yourself that you have a reasonable grasp of the material. The more that glow of confidence can accompany you into the examination room, the better will be the end result.

Memorizing with a tape recorder :

A tape recorder can be a useful aid in memory work. A cassette recorder, especially the small walk-along models with light weight earphones, can be used for revision.

Use your creative talents :

When trying to memorize a complex chemistry formula, think about the possibility of making a cartoon or picture out of it.

Action :

**A-apply, C-cartoon, T-try, I-imagine,
O-orate, N-negate negatives be positive.**

Bibliography

1. "How to pass exams" by W. G. Leader
 2. "How to pass exams" by Fred Orr
 3. "Success in Examinations" by Arty Pereira
 4. "How to strengthen Memory"
 5. "English in Action" by Tressler & Christ
 6. "How to study Physics" by Seville Chapman
 7. "How to be good student" by F. H. Cawson
 8. "Better reading and study habits" by Kelley & Greene
 9. "A Physics Laboratory Handbook for students" by Macfadyen
 10. "Teaching Adults" by Lindhorst
 11. "Best methods of study" by Smith
 12. "Improve your handwriting" by Slote
 13. "How to study" by Guinery
 14. "A student guide to efficient study" by James
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