

# Successful Learning Techniques

Manmohan Joshi



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MANMOHAN JOSHI

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# **SUCCESSFUL LEARNING TECHNIQUES**

Successful Learning Techniques

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ISBN 978-87-403-1413-7

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# PREFACE

Learning is the most important activity of human life. Although a lot of learning takes place without any conscious thought, the organised learning in a subject area requires a lot of concentration, effort and strong determination. While some learn easily, others find it difficult to do so. For such people it is necessary to adopt certain techniques which will definitely help them learn various subjects in a systematic way. This book contains a number of strategies which – when practised and adopted – are likely to provide a lot of motivation on the journey of life-long learning.

I take this opportunity to express my gratitude to Karin Hamilton Jacobsen, Sophie Tergeist – who motivated me to write this book – and their team at [bookoon.com](http://bookoon.com) for publishing several of my books on various topics, including this one.

*Manmohan Joshi*

# 1 THEORIES OF LEARNING

## 1.1 INTRODUCTION

Learning is something which is inherent in human nature. A lot of learning takes place automatically in one's environment. From childhood people are taught a number of things by their parents, siblings and others. Several things are pointed out to them, and they are told what is right and what is not, what is safe and what is dangerous. As they explore their environment – which they do every waking moment – they grasp new images, associate them with names and learn to make use of them in everyday interaction.

In fact, learning is unarguably the most important activity which is at the core of the educational process. People learn most of the things outside of any formal educational system. Philosophers and psychologists have always tried to understand the nature of learning, how it occurs, and how it affects the behaviour of a person. Towards this aim, various theories of learning have been suggested. However, these theories give differing interpretations.

In addition to formal theories, people have their own theories also. The questions they raise are: How do we determine if learning has taken place? What factors are responsible for determining this? Where are these factors found? Are they in the environment surrounding people? Are they within themselves?

## 1.2 CONCEPTS OF LEARNING

The term 'learning' means different things to different people. It cannot be assumed that a particular word or phrase, for example, has identical meaning for everybody. Different people interpret learning of a particular idea in a different way. Even the theories of learning have been evolving and changing the definition of learning. This pattern of shifting definition of learning can be summarised as given below:

- First, it meant bringing about changes that occur in the behaviour of an individual;
- Then it shifted to one's participation in activities and resultant interactions with other individuals;
- Then it shifted to changes in an individual's identity within a group.

However, various theories vary considerably from each other in deciding the nature of changes that occur in an individual's behaviour.



### 1.2.1 TYPES OF LEARNING

The occurrence of learning takes different forms. The same rules cannot be applied to all types of learning. The approaches to learning are dependent on two factors:

- Skill-based leaning; and
  - Knowledge-based learning.
- 
- **Skill-based learning:** This type of learning has a practical component. People learn the rudiments of doing a particular job while actually working with the requisite equipment, for example, electricians, carpenters, typists, data entry operators, mechanics, drivers etc.
  - **Knowledge-based learning:** This can be classified into two categories:
    - **Skill and knowledge-based:** Learning which involves knowledge of concepts at a higher level combined with practical experience falls in this category, for example, doctors, engineers, software developers etc.
    - **Concrete or abstract ideas-based:** This type of learning takes place only when one is able to grasp both concrete and abstract ideas, for example, teachers, public speakers, analysts, management professionals etc.

### 1.3 EVOLUTION OF THEORIES OF LEARNING

Prominent among the early psychologists who studied learning were E.L. Thorndike and Ivan Pavlov. Thorndike (1898) presented a dissertation on problem solving. Thorndike's theory was based initially on a series of puzzle box experiments that he used to plot learning curves of animals. In these experiments learning was defined as a function of the amount of time required by the animal to escape from the box. In his view, learning is the process of forming associations or bonds, which he defined as 'the connection of a certain act with a certain situation and resultant pleasure.

Thorndike (1913) provided a formative culmination of his theory of learning in the forms of three laws of learning:

- **Law of readiness:** It was intended to account for the motivational aspects of learning.
- **Law of exercise:** It stated that connections grow stronger when used, and grow weaker when not used.
- **Law of effect:** It is related to the law of exercise and stated that the connection results in a satisfying state of affairs and that they are weakened when the result is annoying.

Pavlov (1927) did research on classical conditioning. He studied salivation in dogs as part of his research programme. He set up an experiment to find out if the dogs could be trained to salivate at other stimuli (not food) such as the sound of a bell. After several trials he rang the bell without presenting the food and found that the dogs salivated in the same way as if food was being presented. John B. Watson (1930) further extended Pavlov's work and applied it to human beings. Both these theories focused on environmental factors such as reinforcement, feedback and practice. These became known as behavioural theories.

However, environmental factors alone do not influence learning. During 1960s it was observed that people definitely learn by observing others, and that the learner's ability to perform a task is crucial.

During the 1970s and 1980s behavioural theories gave way to theories that focused on mental activities and the ability to understand complex concepts. The main thrust of these theories was that learning takes place from inside and not from outside.

During the 1980s the study of self-regulated learning emerged. Zimmerman and Schunk (2001) advocated that:

- Learners are aware of their own learning;
- They have the ability to reflect on themselves;
- They have the ability to manage their own learning.

All these and various other theories apart, traditionally it has been believed that learning occurs within an individual. Individuals may participate and learn in groups, but ultimately it is the individual person who learns. Knowledge is something that an individual acquires. In this process, each individual finds his/her own unique style of learning most suitable to them.

## 1.4 RELATIONSHIP BETWEEN THEORY AND PRACTICE

The relationship between theories of learning and actual practice is quite complex. The factors of culture, environment, one's own ability and inclination, motivation etc. play a major role in how learning takes place. A common perception is that knowledge flows from scientific theories to effective practices. Science, however, does not operate in this way. Quite often ideas emerge from observing and questioning things that happen in real life. For example, Isaac Newton propounded the laws of motion after observing the fall of an apple from the tree. Archimedes shouted 'Eureka!' after he stepped into a bath and noticed that the water level rose, and understood that the volume of water displaced must be equal to the volume of the part of his body he had submerged.

Modern concepts of learning recognise that learners are active participants in the learning process, and hence they are capable of experimenting with various techniques, and ultimately deciding on what is most appropriate to their abilities and specific situations.

## 2 PREPARATION FOR LEARNING

Before you actually start the process of learning a subject, you need to prepare yourself in all respects. This includes physical preparation as well as getting mentally prepared to embark on your learning journey. The following practical suggestions will go a long way in creating a learning environment.

### 2.1 SELECT A PLACE AND TIME

Everyone has their own idea about the best and most comfortable place to study. Whether it is your bedroom or living room or your separate study room, find a space that works for you and stick with it. Select a place which is relatively free from distractions like telephone, TV etc. If you are a compulsive user of your mobile phone, keep it on silent mode and away from you. However, if you wish, you may check it at hourly intervals and not earlier. If you are able to ignore it throughout your study period, it will be much better. Keep your study table equipped with necessary essentials such as your books, notebooks, pen and pencil etc. Keeping a flower vase on the table adds to the ambience. Use the same space every time you wish to study. It creates a pleasant and inviting environment and helps in boosting concentration.

It is equally important to stick to the time schedule that you have prepared for yourself. There is no fixed time for everybody. People concentrate as per their habit; it could be early morning, afternoon, evening, or even late at night. Different time slots work for different people, so choose your best time.

### 2.2 STUDY EVERYDAY

Being regular in doing what you do is the key to success. If you are in the habit of having 'on-days' and 'off-days,' then it is difficult for you to learn to do anything well. Learning is a mental activity which requires that all your faculties need to be aligned and geared towards your objective. To ensure that you are mentally prepared to engage in the learning task, you need to cultivate regular habits. When you sit down to learn something on a particular day, you set your mood. This needs to continue every day. If you break it, the invisible thread of interest is weakened, and you have again to make extra effort to gain it back. Take the example of a tennis player. If he/she does not practice regularly every day, he/she becomes rusty and their moves are clumsy at times. Same is applicable to study habits. Whether you are a student or you are employed, it should not be difficult to achieve. Making lame excuses to yourself will hinder your efforts only. Continuity is the key to success.

## 2.3 MAKE A SCHEDULE

Make a weekly schedule of things to learn. You can break it down to daily items so that if you are not able to finish one item on a particular day, you may carry it over to the next day. However, ensure that whatever was planned for the week is covered during that week even if it means that on a day or two you spend extra time in order to cover the unfinished items. A lot of people – particularly students – enthusiastically create a schedule for their learning activity, and proudly announce it to their family that they are now going to follow it rigorously. But what happens in reality? Most of them simply ignore it after the first 1 or 2 days, and go back to their old haphazard ways. Do not fall into this rut. You have an objective, and it is that you want to develop habits that will help you learn in a better and effective way. You can do this very well if you have the will power and a strong determination to achieve your aim. For this you will have to sacrifice your easy ways. Nothing in life comes easy – least of all knowledge. And for this, you need to have a practical schedule that you are most likely to follow without any significant deviation. So make a schedule. Stick to the schedule that you yourself have made. You could maintain a diary or a wall planner stuck on the wall in front of you. Wall planner is always better because you are bound to look at it without making any effort of opening the diary.

## 2.4 RECOGNISE YOUR LEARNING STYLE

Everyone has his/her own unique way of learning. Some prefer to read aloud to themselves. If you think you can learn better this way, do it. There is no stigma attached to this. Others prefer to record what they are reading, and then later they listen to the recording instead of reading second time. If it suits you, and you think you can learn better this way, do it. Some learn better sitting comfortably in bed, some do it on a straight chair, and some do it sitting in a recliner. Still some others learn better if some soft music – preferably classical music – is playing at low volume in the background. It really does not matter what your favourite style is as long as it brings on the desired results and that you are not only comfortable with it but are also sure to continue with it. What matters is the way that makes you concentrate better. Decide what style or a mix of the two suits you, and then you may adopt the same.

## 2.5 BOOST YOUR MOTIVATION LEVEL

Motivation is the will to act. What we call ‘motives’ are the reasons why people act in certain ways. Motivation is the prime factor that contributes to the success of human beings. According to Shartle (1956), “motivation is the reported urge or tension to move in a given direction or to achieve a certain goal.” Julius (1975) states, “motivation is the act of stimulating someone or one’s own self to get a desired course of action, to push the right button to get desired action.” So think of the reasons why you are trying to learn something. You might be preparing for your school exams or pursuing higher education, or you might be preparing for a lecture or a seminar, or you might be studying for a professional examination. You need to have an aim to achieve – whatever it may be. Decide to focus on that. To remind yourself keep some relevant pictures, photos, posters, quotes etc. around your study area. Nothing works better than visual reminders of what you wish to achieve and why.



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## **2.6 TAKE CARE OF YOURSELF**

Your mind will work better if you maintain good health. If you have some health issues, your mind will waver and you will not be able to concentrate on the task at hand. It is rightly said that a sound mind resides in a sound body. So take care of your body. It is the only one that you have. So take care! Eat light. Drink lots of water and juices. Avoid hard drinks. Consume caffeinated drinks like tea/coffee in moderate amounts.

## **2.7 DECIDE YOUR STRATEGIES**

The above suggestions are likely to be quite helpful to you. However, these are not the only ones that are available to you. Many people will relate their own experiences to you and advise you to follow the same strategies. But remember that everyone's mental make-up and environment are different. So listen to their suggestions and evaluate them in relationship with your specific situation and needs. Then take out of them what suits you and discard others. In fact, you may modify some of these or add your own if you come up with some worthwhile idea. The main thing is that you plan ahead in such a way that you are able to stick to your plan of action.

## **2.8 TAKE A BREAK**

When you actually sit down to learn something, you don't have to keep sitting for a long period. If you do so, your concentration will waver. So decide to take a break after an hour or so (depending on your individual concentration span). Listen to music, go to the kitchen, have a glass of water or any other suitable beverage, eat something light, or talk to somebody. And then resume your learning activity.

## 3 TECHNIQUES THAT WORK

Effective learning can take place only when one employs several techniques. Some of these are given below.

### 3.1 CONCENTRATION

Learning requires that a person's mind should not be occupied with something else. Quite often it happens that you are doing one thing – reading, for example – but subconsciously you are thinking of something not connected with the task at hand. You might be reading a chapter on aerodynamics, for example, but you might be thinking of your forthcoming travel plans or a tennis match you are going to play next day. In this situation, whatever you read will not register, and you may have to read the same thing repeatedly. The basic rule for comprehending what you are reading is that you fully concentrate on the task rather than allowing your mind to wander. At its own you cannot discipline your mind as you would your student, your younger brother/sister or your co-worker. You need to practice some exercises to improve your concentration. Mind keeps on bringing out ideas, thoughts or images – without your conscious effort. Its nature is very fickle and is quite capable of producing images which you are not even trying to think of at a particular time. You need to control this phenomenon in order to boost your concentration with regard to the task at hand. You need to strengthen the power of your mind. Some of the exercises that could help you are these:

- Sit down on the floor or chair – whatever you are comfortable with – and take deep breaths. Relax all your muscles from head to toe. If you can, do simple yoga exercises.
- Take a text (from a book, newspaper or magazine) and count the words on a page. Count again to ensure you arrived at the correct number.
- Count backwards in your mind, from 100 to 1.
- Count in your mind from 100 to 1 skipping each 3 numbers i.e. 100, 97, 94 etc.
- Look at a picture. Don't try to identify the objects. Just focus on the whole.
- Sit straight on a chair and focus on the tip of your nose. Don't allow your mind to think of anything else.
- Sit still on the chair. Don't make any movement whatsoever. Do it as long as you don't feel strain.
- Sit on the chair with a table in front of you. Keep your hands on the table. Close and open your left fist five times. Then do the same with your right fist. Lastly, do with both the fists simultaneously.
- Sit on a straight backed chair. Press your thumb on the right nostril and take a deep breath through the left nostril. Count to ten. Then put a finger to the left nostril, release your thumb from the right nostril and breathe out through the right nostril. Do it ten times. Repeat the exercise with the left nostril.



You will not see the results in a day or two. It takes time. It is an old adage that Rome was not built in a day. It took a lot of time, human energy, and material to accomplish this task. You don't have to do all the exercises mentioned above. Select whichever suits you, and practice.

### **3.2 SKIMMING AND RE-READING**

It is difficult to absorb everything in one reading, particularly when the text is of a complex nature – either the subject is difficult or too many significant points have been put together or there are far too many difficult or unfamiliar words and phrases.

It is therefore helpful if first reading is done fast without looking at the meanings of words or concepts. This skimming of the text usually gives a general idea of what the text contains. The second reading – re-reading – needs to be done slowly and carefully while trying to understand the underlying concepts or ideas. This is based on the fact that first we look at the overall picture and then see the details. For example, when you enter a room for the first time, you see the room as a whole – big, small, well-lighted, dark and gloomy etc. Then you look at the individual aspects – size, design and colour of furniture, photos or paintings on the wall, decoration items etc. Similar is the case about learning. We first see the whole picture and get an idea of the whole, and then we discern various individual aspects. This method of first skimming and then re-reading helps comprehension and retention to a large extent.

### **3.3 HIGHLIGHTING/UNDERLINING**

While re-reading a text, either highlight sentences or parts of sentences that have relevant points, or you may underline them. It depends on your own style which method you choose. If you highlight, you may not be able to clear it. But in case you underline with pencil, you may clear it later, if required. This method helps you in two ways: first, you are able to concentrate on the main points later when you refer to the text; and second, it helps you make notes using the highlighted or underlined parts. This also helps in finding the correct points in answer to multiple-choice questions.

### **3.4 SUMMARISING**

Make a summary of a section of the chapter/unit you are trying to learn. While doing so you are bound to include the important points contained therein. In this process, you read, decide on the relevant information, and then you write. This reinforces the learning that might have taken place while reading.

Summarising is not an alternative to note-making. Note-making has its own importance and cannot be sacrificed. Summarising, in fact, further reinforces the notes that you have made.

### 3.5 ELABORATIVE INTEGRATION

It is the process of asking yourself 'why' in an attempt to understand concepts. After you have read a couple of paragraphs, ask yourself questions related to the material. For some, reading becomes generally monotonous after a time. Thus elaborative integration done during reading can relieve you of monotony and help in enhancing learning. This ensures your understanding of the concept(s). To reinforce your understanding, you may even write down your questions and the answers you get.

### 3.6 SELF-EXPLANATION

Self-explanation is closely related to the method of elaborative integration. When doing it, write down the questions that you want to ask yourself, and then write down the answers. It lets your brain organise the material as per its importance. This method is suitable for a wide variety of subjects and textual material. However, you may find this method time-consuming in the beginning, but with practice you will be able to do it faster and start enjoying the benefits accruing from your exercise.

### 3.7 TEST YOURSELF

This is one of the best methods to ensure that learning has taken place. Prepare a short test for yourself after each chapter/unit. It could be subjective type or multiple-choice. Mark your answers with the help of information in the text. You can choose to ask questions to yourself and answer, or you can write down the questions and then answer them. This helps in retaining the information you have learned. Unless you test yourself frequently after studying a particular unit, you will not know whether the facts have registered or not. You don't have to adopt all of the above methods. Choose what suits you. You may even choose a different method for another subject you want to learn.

## 4 NOTE-TAKING

Note-taking plays an important role in effective learning. When you read, you grasp some information. When you take notes of all the important points, you not only reinforce what you have read but also have material in the form of your notes to refer to at a later date. When you take notes, you are involved in two activities – reading or listening and writing – enabling you to remember more than what you could have if you had not taken notes. At that time, you necessarily don't have to read the whole text. Your exhaustive notes will help you remember the concepts and ideas. However, the method of note-taking differs from person to person. Here are some suggestions for note-taking.

### 4.1 NOTE-TAKING ON LECTURE

Taking notes during a lecture is quite a daunting task. You have to understand what the lecturer is speaking about and also to take notes simultaneously. Some lecturers speak slowly while some are fast. Many write points on the white board or make PowerPoint presentation. You need to tune in to different styles of lecturers and listen carefully to what is being said and note down the relevant portions in points. When you are attending a lecture, take notes by using abbreviations, numbers, symbols etc. There cannot be authentic abbreviations for all the words spoken, but you can make your own abbreviations. But make sure you understand what these abbreviations you made stand for. It may seem difficult initially, but with practice you will be able to take down notes for the entire lecture without missing any important point.

At the end of the day – or at the earliest possible, preferably within 24 hours – sit down and convert these abbreviated notes into detailed and proper notes. This is necessary to do so at the earliest because with time gap you will not be able to remember everything and consequently will not be able to expand the abbreviated notes.

After you have made detailed notes, you may write the whole lecture in a summary form, using your detailed notes. This is likely to further reinforce your learning. Remember, time is of essence. You must do this exercise of converting abbreviated notes to detailed notes at the earliest, failing which you are likely to miss out on important information. This is my most trusted method which has never failed me, and so it shouldn't fail you too!

## 4.2 MAKING OUTLINE

Outlining is the method of arranging ideas in an orderly manner in the order of importance. Outlining can be a very efficient method when your source of information is a carefully organised document such as a textbook. However, it is useful even if your source is not organised because outlining can give you an opportunity to re-organise the disjointed information. Thus this exercise will help you immensely. Outline can be made by using headings and sub-headings of a particular text. To distinguish one idea from another, use Roman numerals (I, II, III etc.) or numbers (1, 2, 3 etc.). You may also use bullet points for sub-headings or parts thereof. However, it is essential to maintain consistency in using the numbering system throughout failing which it will be difficult to understand later as to which the main part is and which is the sub-part.

After every point, leave some space for including any additional information you may come across later. It means that you can go back and fill in more information if a lecturer returns to the same subject, or you happen to come across another book or material on the same subject.

A carefully planned and prepared outline can be a good source for revising or making a summary of the text. It works particularly well when 'orderly' learning is your top priority.

Here is an example:

### TEXT

Marketing is a human activity to satisfy needs and wants, through an exchange process. A demand is a want for which the consumer is prepared to pay a price. A want is anything or service the consumer desires or seeks. Wants become demands when backed by purchasing power. A need is anything the consumer feels to keep himself alive and healthy. A transaction consists of a value between two parts. The aim of marketing is to make sales in order to earn reasonable profit for the producer.

Marketing is the creation and the delivery of a standard of living; it is finding out what customers want, then planning and developing a product or service that will satisfy those wants; and then determining the best way to price, promote and distribute that product or service. The purpose of business is to create a customer by which stress is laid on two aspects: (a) identification of consumer needs, and (b) organising the business to meet these needs. The modern concept focuses on the consumers and their satisfaction. The approach of modern marketing is consumer-oriented instead of solely product-oriented.

## OUTLINE

### MARKETING

- I. Marketing is:
  - i. a human activity to satisfy wants;
  - ii. works through an exchange process.
- II. Aim of marketing:
  - i. finding out customer needs;
  - ii. developing a product or service to fulfil these needs.
- III. Approach of modern marketing:
  - i. mainly consumer-oriented;
  - ii. to deliver a standard of living.

## 4.3 CREATING CHART

Creating a chart is another technique of note-taking, and it helps you keep your information organised. It requires that you draw separate columns for each element, and label them. Notes of information obtained from the text or lecture can be entered in these columns. By splitting your notes into labeled columns, you can cut down on repetition and make the entire process more efficient and productive.

It is easy to understand the relationship between the pieces of information and understand the data presented to you. By reducing the amount of necessary writing, creating a chart makes it easier to keep up with fast-paced lectures, presentations and videos. A chart is one of the best sources for memorizing key facts.

However, all types of information cannot be put in the form of a chart. Sometimes you find information that doesn't really fit in any particular box since you cannot make too many boxes – which will not be practical.

A well-created chart will give a systematic and orderly overview of the material that will make it easier to study, memorize and retain information for a long period.

For example, if you are attending a lecture on marketing, and the lecturer is trying to differentiate between marketing and selling – which are often considered to be synonymous but actually have different concepts – you can note the information in the following chart (or it could be from a text also).

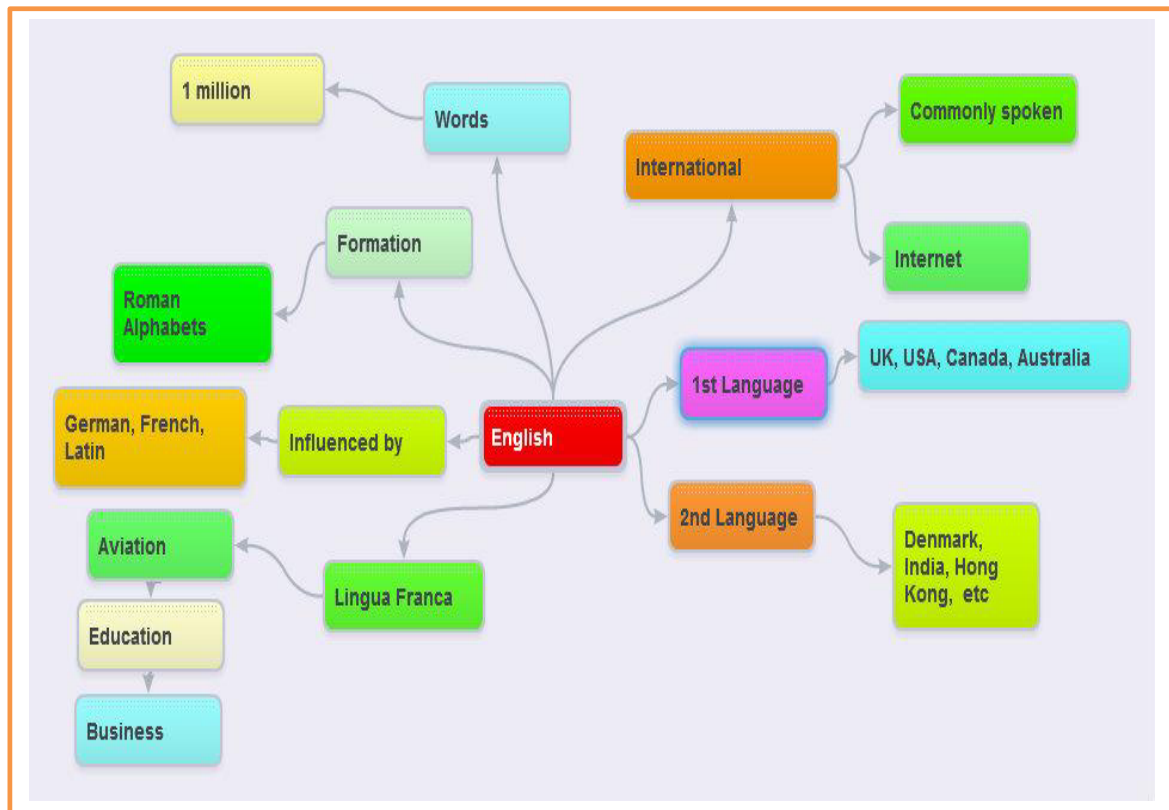
SELLING	MARKETING
<ol style="list-style-type: none"> <li>1. Emphasises product.</li> <li>2. Sales are the primary motive.</li> <li>3. First production, then selling takes place at a profit without knowing customer's needs.</li> <li>4. Internal company orientation.</li> <li>5. Company's need is the motive.</li> <li>6. Cost determines price.</li> <li>7. Selling views the customer as the last link in the business.</li> <li>8. It is an activity that converts the goods into cash.</li> </ol>	<ol style="list-style-type: none"> <li>1. Emphasises on consumer's wants.</li> <li>2. Satisfaction of the customer is primary.</li> <li>3. First customer's need is known and then production takes place; then the product is sold at a profit.</li> <li>4. External market orientation.</li> <li>5. Buyer's need is the motive.</li> <li>6. Consumer determines price; price determines cost</li> <li>7. Marketing views the customer as the very purpose of the business.</li> <li>8. It is a function that converts the consumer needs into products.</li> </ol>

## 4.4 MIND MAPPING

Tony Buzan, a British psychologist, popularised mind mapping. A mind map is a way to visually organise notes and ideas. It is created around a single text placed in the centre, and associated ideas and concepts are added.

Here is how you can create a mind map:

- Start in the centre, with an image of the topic, using colours.
- Use images, symbols, codes, dimensions throughout your Mind Map.
- Select key words and print using upper or lower case letters.
- Each word or image must be alone and sitting on its own line.
- The lines must be connected, starting from the central image. The central lines are thicker and flowing, becoming thinner as they radiate out from the centre.

**Example:****Importance of English Language**

## 5 USING TECHNOLOGY

### 5.1 NOTE-MAKING SOFTWARE

In today's computer age a lot of people are quite comfortable doing all their work on PCs, laptops, smart phones etc. If you are sure you can manage effectively, you may make use of several software programs that allow you to store your notes and any other data in the cloud, and it will be accessible to you from anywhere without carrying a whole lot of notebooks with you.

Given below are some of the popular software programs:



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## Google Drive

It is a free web-based application where you can create, edit and share documents, spreadsheets and presentations in various formats like pdf, DOC etc. You receive 15 GB free storage and basic editing functions.



## One Drive

One Drive is one place for everything. It gives you free online storage for all your files so you can get them from your Android device, computer, or any other device you use.



## One Note

Here you can create, share, and add notes. One Note lets you write, draw, and upload your work organised into notebooks. The full desktop version comes with MSOffice 2013 or Microsoft 365, but the mobile version is also available. OneNote works with the Internet, iPad or any type of mobile device.

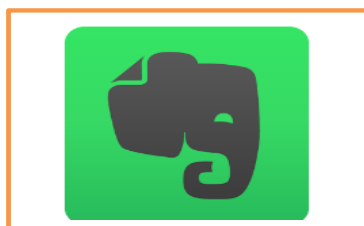


**Simple Note**

It is a user-friendly web-based program that lets you write, revise and share notes. Basic functions are free and should be suitable for you if you wish to use this program.

**Ever Note**

It is accessible via the Internet and all mobile devices. You can save notes, organise notebooks, record audio and clip websites.

**Work Flowy**

Here you can create notes, organise personal lists and write creatively. It is said that “Work Flowy is a zoomable document that provides unprecedented flexibility in organising your ideas.”



**Spider Scribe**

It lets you create mind maps connecting various files, documents, images etc. as well as other functions. The basic version comes free and should suit your basic needs.



However, I'd advise that first you make notes in hand, and then you may transfer them to any of these devices for future use. This is because when you make notes by writing in a notebook, it provides another means of reinforcing your learning through writing.

## 6 MEMORISATION TECHNIQUES

### 6.1 INTRODUCTION

The best method to learn is to understand the concepts and ideas contained in a text or a lecture. However, certain facts and figures – such as dates, amounts, statistics etc. – need to be memorised. While some people have in-born phenomenal memory – almost photographic – and can learn facts and figures by just looking at them once, a vast majority of people struggle to absorb such data. For them it is necessary to train their minds to retain the information read or listened to. This can be achieved by practising certain techniques of memorisation.

### 6.2 REPETITION

When you read a text or listen to a lecture, the information is stored in your short-term memory, and vanishes after some time if not used immediately. In order to retain this information and transfer it to long-term memory, you need to repeat the information. This you can do by reading your notes again and again at frequent intervals. How much interval you need to have between two repetitions depends on your individual ability. Find out for yourself what your short-term memory span is, and repeat the information accordingly. After several repetitions – depending on your retention capability – you will find that the information you want to learn has transferred itself to your long-term memory. This is much like you're creating a document on your computer and then saving it to your hard disc.

### 6.3 RECORDING

Some people learn better by listening to information being provided. You may record a lecture and listen to it any number of times. You can even record your text by reading aloud and recording it simultaneously. This way you can listen to your own recording of the text whenever you want to do so. You can even take notes on your own recording.

## 6.4 RE-WRITING

When you read a text and create notes, you are creating material for future reference. In order to absorb the information and retain it for a longer period, you may re-write your notes. You may re-organise them in the light of the importance of each idea or point. You may even add your own examples to embellish your notes. This reinforces your learning of the information contained in your notes. If you are more comfortable with computer, you may even type and re-type your notes instead of writing them down. This is a good way to increase your understanding and retention of information.

## 6.5 ASSOCIATING

One of the ways to remember something is by associating something unfamiliar with another thing that is familiar. For example, you are not able to recall somebody's name. However, you are able to remember a letter of alphabet which is a part of that name. Think of objects containing this particular letter. You are trying to remember the name "Bobby Fisher." You may try to think of 'something bobbing up and down the sea,' or 'fisherman.' It is just possible that you may get "Bobby Fisher." Sometimes it does work, particularly with names.

## 7 DEVISING YOUR STRATEGY

The best way to learn is to continue learning. When you have a break from learning, you lose momentum. When you wish to resume after the lapse of a long time, you will have to start afresh. So don't stop. Once you have completed a project, think of another, and start working on it. Ultimately it becomes your way of life, and you don't have to make an extra effort to re-learn the basics of how to learn.

Here are some further suggestions.

### 7.1 LEARNING IN MULTIPLE WAYS

In order to ensure that you don't get bored with one method of learning, keep changing your learning style. If you have been reading and making notes simultaneously, stop making notes. Just read, and then summarise – audibly or in written form. If you have been listening to recorded materials, take notes. Change your style from time to time. Remember that change is the only constant factor in life.

### 7.2 RELATING TO PREVIOUS LEARNING

This means relating new information to things you already have knowledge of. Suppose you have already studied about the American Revolution, and now you are studying about the French Revolution. Try to relate whether there is anything common between the two, and in what respects they differ from each other. Another example could be: You have already learned about the history of Denmark, and now you are studying Shakespeare's *Hamlet*. When there are references to Denmark in the play, try to associate with the circumstances prevailing in Denmark during that period. This helps in longer retention of new learning.

### 7.3 STUDYING RELATED REFERENCE MATERIAL

Sometimes you are reading a piece of literature and you find frequent references to another book or scripture. For example, if you are starting to read Milton's *Paradise Lost*, you will come across innumerable references to stories or incidents quoted in the Bible. In order to understand the references in proper perspective, it would be helpful if you read the Bible – at least the units having such references. This will enable you to understand *Paradise Lost* thoroughly, and you are not likely to forget this information.

## 7.4 SHARING

Another way to continue remembering some information is to pass on the information you have learned to another person who may have similar interests. Sharing of your ideas and experiences not only provides information to another person, but it also helps you reinforce what you have learned.

Remember that becoming an effective learner requires adopting a variety of techniques, continuous practice and hard work. Once you have got the hang of it, it will gradually become easier. It is up to you to decide how you can learn best. Choose from among the various techniques suggested.

Mastering the art of effective learning requires greater efforts than before, particularly in view of several attractive distractions which – thanks to fast developments in communication technology – have become available to us.

## 8 E-LEARNING

### 8.1 INTRODUCTION

In today's world most of the people are comfortable working with computers. The proliferation of Internet-based information has made it possible to search for information from innumerable sources. Moreover, a lot of courses are available online, which is a boon for working professionals who can now enhance their competencies and have access to education in different areas.

So if you are pursuing a course online – or even studying otherwise – you can do a lot of things in order to learn systematically, as you can have access to all types of resources e.g. eBooks, PowerPoint presentations, instructional videos, online practice material etc.

### 8.2 WHAT IS E-LEARNING?

E-Learning is the use of technology to connect teachers and students who are physically far apart. This is particularly beneficial to working people who can continue their further education or training from their homes or offices.

#### 8.2.1 TYPES OF E-LEARNING

There are basically two types of eLearning:

- **Synchronous:** This involves interaction of learners with an instructor via the Web in real time. Interaction can be done through instant messages, chat, audio/video conferencing; it can also be recorded for future reference.

Advantages are:

- It can be used for tracking learning activities.
- It is possible to have continuous correction.
- Learners can connect and collaborate globally.

- **Asynchronous:** This allows the learner to complete Web-based training at their own pace – without involving interaction with the instructor.

Advantages are:

- It is available 24/7.
- It can be accessed from anywhere.



A new form of learning – blended learning – is emerging. It makes use of both synchronous and asynchronous learning methods. If you have the time to engage yourself in both types of eLearning, this will probably be good for you.

### **8.2.2 E-LEARNING RESOURCES**

The development of eLearning has progressed rapidly to encompass a wide range of both formal course-based eLearning packages and products together with a huge variety of complimentary or alternative eLearning packages. In order to support learning, these packages may include:

- Links to resources
- Online lectures
- Webinars (web seminars)
- Podcasts or blog posts
- Gaming technology

### **8.2.3 BENEFITS**

E-Learning could do a lot of things for you:

- The interactive computer could be used to give you an alternative to writing as a form of active participation in knowledge-building.
- It can model real-world systems and transactions, and can therefore create an environment in which you can explore, manipulate and experiment.
- The features of the digital environment are fully controlled by the program and so it gives you freedom as appropriate to your level of mastery.

## **8.3 MICRO E-LEARNING**

Micro- learning is a modular delivery approach to online training where content is presented in a series of short, concise and dynamic learning moments.

You can integrate Micro-eLearning techniques into your eLearning course. It offers you an opportunity to more easily absorb and retain the information that is being offered. It breaks down the educational process into lessons that typically last no longer than a few minutes, and enables you to collect and recall learning material more efficiently and effectively.

## 8.4 E-BOOKS

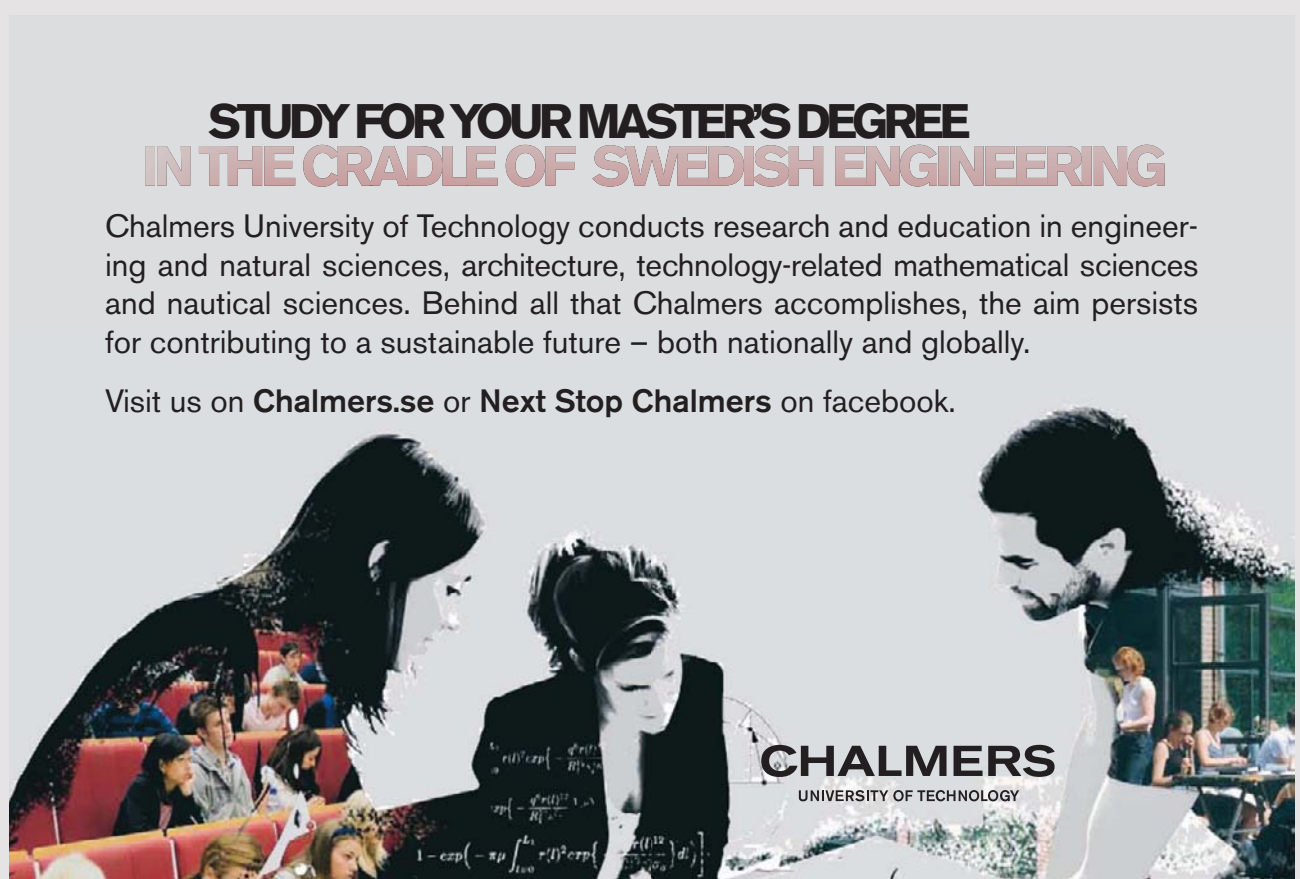
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The advertisement features three large silhouettes of students in the foreground. The left silhouette shows a student in a lecture hall. The middle silhouette shows a student looking at a laptop with mathematical formulas overlaid: 
$$\frac{r(t)^{1/2} \exp\left(-\frac{q^2 r(t)^{1/2}}{2l^2} \sqrt{\frac{2}{\pi}}\right)}{2l^2} \sqrt{\frac{2}{\pi}}$$
 and 
$$\exp\left(-\frac{q^2 r(t)^{1/2}}{2l^2} \sqrt{\frac{2}{\pi}}\right)$$
. The right silhouette shows a student working on a laptop. The background includes a collage of photos of students and the Chalmers University of Technology logo.

**CHALMERS**  
UNIVERSITY OF TECHNOLOGY

## 8.5 POWERPOINT PRESENTATIONS

Several sites have PowerPoint presentations on topics covering various subjects, and these can be very helpful, particularly when you want to make a revision of what you have already learned. Typically, these slide shows can provide a micro-lesson in a short time, and allow you to grasp the concepts of each slide before moving on to the next. Hence it is an ideal technique for learning subjects that may require more in-depth explanations or illustrations, ensuring that you fully understand each one of them. The most popular site for this purpose is [www.slideshare.net](http://www.slideshare.net).

When you have made your notes and are quite confident of what you have done, you may turn your notes into PowerPoint presentation, and you can use them for your revision. If you are confident about the material, you can even upload your presentation on this site.

## 8.6 INSTRUCTIONAL VIDEOS

Getting information about how to do certain things – mechanical, electrical, or any other such activity involving practical component – is easy by watching relevant instructional videos which are freely available on various sites. You can either learn new things or even reinforce your existing learning with the aid of such videos.

## 8.7 ONLINE PRACTICE

Various free websites have practice tests covering various areas like IELTS, TOEFL, GRE, Aptitude, engineering, medical, and many more. You can make use of them very effectively. These practice materials offer you the chance to determine how you are progressing along the way. They can also prove to be a good source of motivation, which always leads to enhanced learning.

## 9 THINKING SKILLS

### 9.1 INTRODUCTION

Learning doesn't mean only rote learning which is the memorisation of information based on repetition. Examples of rote learning are the alphabet, numbers, multiplication tables, statistical and chemical formulae etc. However, its role is limited to learning of basic facts and figures. In order to pursue higher levels of learning, it will be helpful if thinking skills are developed. It will ensure that the learning that takes place will not only be based on real understanding of the subject but will also be of a more lasting nature. It is more so because such learning will be borne out of one's own conviction.

You can improve your thinking skills by understanding specific types of thinking, how they work, and practising to improve your thinking abilities. As you become more conscious about these skills, you become a better learner.

### 9.2 CORE THINKING SKILLS



### 9.2.1 FOCUSING SKILLS

These involve paying attention to selected units of information and discarding others that may not be relevant to the situation. This can be done by doing the following:

- Clarify your needs;
- Sort out discrepancies;
- Ignore situations that confuse you;
- Define the problem;
- Decide the purpose;
- Think of the direction;
- Set goals and objectives.

### 9.2.2 INFORMATION COLLECTION SKILLS

These involve thinking of the relevant data which is required for further processing. You can do this by following these strategies:

- Observe around you;
- Get information using various resources;
- Spot new information;
- Question its validity;
- Select what is relevant for your purpose.

### 9.2.3 REMEMBERING SKILLS

This means storing the information that you have collected. You can do this as follows:

- Store the new information in long-term memory;
- Retrieve it from long-term memory when you need to use it.

### 9.2.4 ORGANISING SKILLS

All the information that you collect must be organised systematically so that you may easily retrieve it when needed. This is like filing your documents in separate files with clear indication as to what each file contains. You can do this in the following manner:

- Sort out information having similar and different attributes;
- Group the information based on their similarities and differences;
- Label them accordingly;
- Put them in a sequential order.

### 9.2.5 ANALYSING SKILLS

This means examining the different parts of information and their inter-relationship. This can be done as follows:

- Decide the characteristics of various parts;
- Identify the patterns of relationship between different parts;
- Identify the main ideas and sub-ideas;
- Identify if there are any logical errors, and correct them wherever possible.

### 9.2.6 GENERATING SKILLS

It means producing new ideas. This is how you can do so:

- Think beyond the available information;
- Anticipate what could happen;
- Explain by adding details and examples.

### 9.2.7 INTEGRATING SKILLS

This means that after you have collected information and generated new ideas, you have to connect the information in order to fit the different pieces in a logical manner i.e. you have to integrate all the relevant information. For this, you have to do the following:

- Make a summary of all the information by combining it in a precise and understandable statement;
- Reorganize the existing information to make way for new information.

### 9.2.8 EVALUATING SKILLS

This means looking at the quality and logic of the information collected. So you evaluate it in the following manner:

- Set standards which you would like to have;
- Set up criteria that you will apply for judging the relevance and validity of information;
- Verify the accuracy of information you have collected.

## 9.3 CATEGORIES OF THINKING

Basically there are two categories of thinking – critical and creative. They not only help you in solving problems but also enable you to be efficient in the process of decision making. However, it is essential that you remain flexible in your thinking. It will ensure effectiveness of your thinking.

### 9.3.1 CRITICAL THINKING

If you have the ability to think critically, it means that you have the skill to judge whether an idea is feasible.

In modern times, things keep moving very fast. New developments take place even before you have been able to implement the ones that came before them. This is a very fast-paced world. If you do not keep up with it – or rather ahead of it – you will be left behind, and your competitors will surge ahead. So what you do is to think critically, evaluate, and make informed decisions. The information that you already have may have gone out of date, so think – and think critically – and learn with confidence.

Once you have developed the ability to think critically, your confidence level as well as the capacity to learn will be enhanced enormously. Think what you can do then out of the following:

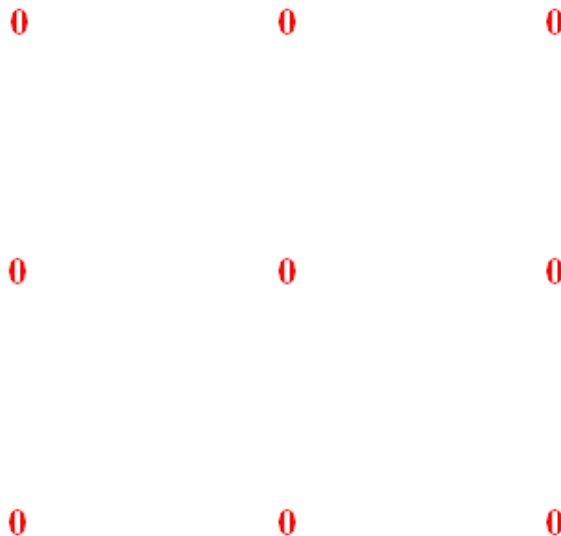
- Be open to assess and absorb new ideas;
- Use your intellect independently;
- Be ready to ask relevant questions;
- Look for validity of information;
- Be able to connect various ideas in a cohesive manner;
- Analyse and comprehend new information;
- Be able to separate fact from fiction;
- Have a questioning temperament;
- Use your reasoning capability avoiding common mistakes;
- You will not allow emotions to overtake logic.

### 9.3.2 CREATIVE THINKING

It means thinking of unusual ideas which have not been brought forth by anyone so far. If you want to think of new ways of doing things, you have to leave the shelter of your limited horizon and think “out of the box.” There are always different approaches to a problem, and many different ways of doing things, so if you choose the uncharted path, you pave the way for yourself to find new meanings, different interpretations, and still be logical.

Here is an exercise for you. There are nine dots. Try to connect all nine dots. Draw only four straight lines. Your pencil must not leave the paper before connecting all the dots.

### Nine Dots Exercise



Have you been able to do it? What did you do first? Did you think of a new way of doing it?

(You can see the method of doing it at the end of this chapter)

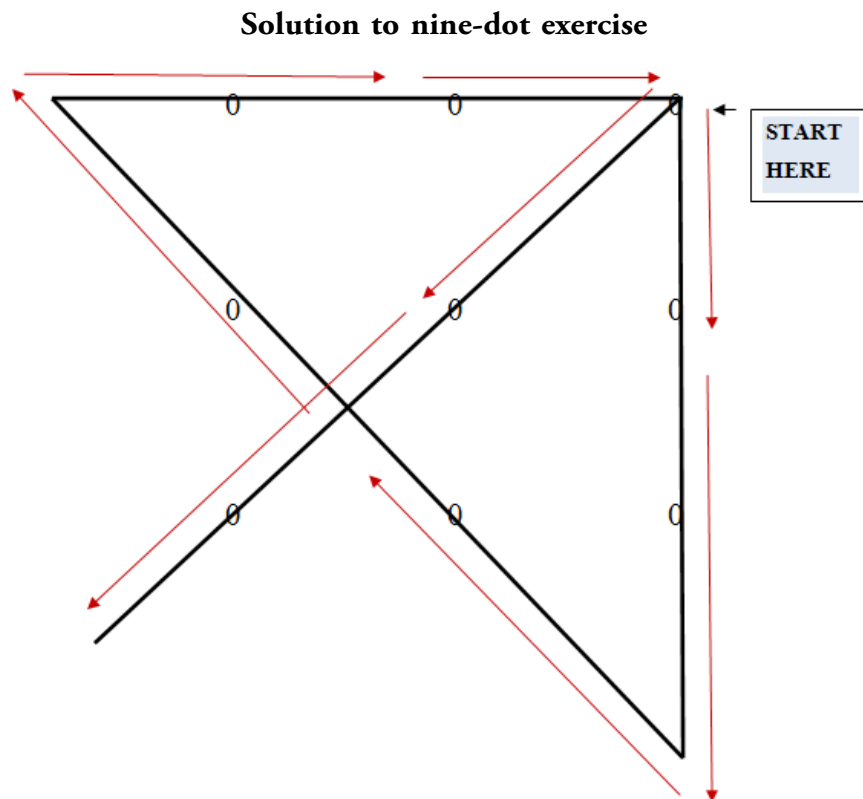
The purpose of this exercise is to show you that you can think of learning to do a thing in an unorthodox way.

Creative thinking will help you develop new ideas and concepts, and ensure long-lasting learning.

When you try to use creative thinking, remember the following:

- There isn't always one right answer. There are many such answers.
- In order to be creative, you may have to forego logic sometimes. Only then you will be able to use your creativity.
- Engaging in creative thinking is quite often fun as you try to explore new ways not yet tried.
- You may not always succeed. Keep trying and ultimately you will hit upon an innovative idea.
- Creative thinking will definitely make you an efficient learner.





So you see that you don't have to confine your pencil to dots only. It can go beyond them! Aren't you being creative? Think about it!

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Manmohan Joshi, M.A., M.Ed., Cert. EA, Dip. HRD, Dip. Mgmt. (UK), MBA (Zurich), has over 40 years' teaching, training and administrative experience. He has worked as Principal of large and reputed educational institutions in India, Kuwait and the Sultanate of Oman.

For his work on Innovative Practices in Value Education he was awarded by the National Council of Educational Research and Training, India.

He is also the recipient of the Best Teacher Award from the Govt. of Tamilnadu, India, as well as the Central Board of Secondary Education, India.

He has presented papers at various national and international conferences under the auspices of UNESCO. He has also conducted various workshops for teachers, students, parents and administrators. The topics covered a wide area viz., Leadership and Team Building, Value Education, Administration Skills, Choosing a Career, Effective Decision Making in Administration, Effective Communication Skills, Interpersonal Relationships, Continuous Comprehensive Evaluation, Skills in Dealing with Managers, Secretarial Skills. He has also authored several books on different subjects.

He has also worked as Acting Chief Executive & Consultant for a reputed Training Institute in the Sultanate of Oman.

He is now Management & Education Consultant, Author, and Training Facilitator, and conducts workshops for college teachers, educational administrators, managers, supervisors and marketing personnel. He also teaches MBA students.

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