

## Training in Memory

Whether memory can be improved by training is a controversial issue though its improvement is desired by all. Every one of us is keen to improve his sense organs and muscles etc., but the improvement of memory as such is not possible. The opinion expressed by Morgan and Gilliland (1942) is relevant in this context:

Memory training is not like muscle training. You can make a muscle develop by any kind of use. Memory is not helped by any kind of exercises.

Mere repetition of material for the sake of memorization in the form of mental exercise does not yield enduring and effective results. As stated earlier, memory consists of four factors—learning, retention, recognition and recall. Improvement in any one or more of these constituents is likely to improve memory as a whole. Therefore, to obtain a logical answer regarding the improvement of memory, its four different components have to be considered: Is it possible to improve learning, retention, recognition, and recall as independent functions? Let us examine these aspects and try to find an answer.

Retention, it is said, is native and inherited and, therefore, cannot be improved by training. We can, at the most, try to protect retentiveness by some measures but it is most hardly possible to improve it by training. In the case of recognition also, it is most difficult to say whether it can be improved by training as it happens to be a prompt and spontaneous act.

The remaining two constituents—learning and recall, have been observed to improve by training. Let us see how they can be improved.

1. While trying to recall something, you should be free from excessive anxiety, fear and other emotional factors which tend to block memory.
2. Have confidence in yourself and never think that you would not be able to recall something. Be calm, avoid nervousness, and concentrate on the task of recall.
3. Remember that association of ideas, connection and systematic thinking, are very helpful in the task of recall. If, for example, you need to recall the place where you have put the key of your drawer, and you should try to think systematically with the help of the principle of association: where was I just before this time, what was I doing. I was taking a bath, so I may have put it in the cupboard of the bathroom. Proceeding like this you can ultimately recall the exact place.
4. Do not strain yourself for too long to recall anything. If you find it difficult to recall something, give up for a while and after allowing yourself a little time to relax, try again later.

Learning is the most important factor of memory. Improvement of memory to a large extent rests upon this factor which can be improved by training. Improvement in learning is mainly influenced by (a) the techniques and methods of learning, (b) the learning situations and environment, and (c) the learner's state of mind.

Improvement in all these aspects calls for interest and earnestness on the part of the learner. Let us now examine some of the requirements and techniques which can lead to successful results.

1. *Will to learn.* There must be firm determination or strong will to learn effectively and successfully. Where there is a will there is a way. Materials read, heard or seen without genuine interest or inclination are difficult to be remembered for being recalled at a later time.

2. *Interest and attention.* Interest as well as close attention are essential for useful learning and memorization. A person who has no interest in what he learns, will not give due attention to it and consequently will not be able to learn it. Bhatia (1968) states this fact in the following words:

Interest is the mother of attention and attention is the mother of memory; if you would secure memory, you must first catch the mother and the grandmother.

Every care should, therefore, be taken to create the necessary interest in the material by making its purpose clear and linking it with one's natural instincts and urges. All the factors causing distraction should be reduced to a minimum so that full attention can be paid to the material in hand.

3. *Adopting proper methods of memorization.* There are several efficient methods of memorization but not all are suitable on all occasions and for all individuals. Therefore, a judicious selection should be made in choosing a particular method in a given situation.

4. *Following the principles of association.* It is always good to follow the principle of association in learning. A thing should never be learnt in an isolated, insular manner. An effort should be made to connect it with one's previous learning on the one hand and with as many related things as possible on the other. Sometimes, for association of ideas, special techniques and devices are used that facilitate learning and recall, e.g., the letters VIBGYOR have proved to be a very effective aid to remembering the colours of the rainbow. Many such associations may be formed and the material to be learned easily remembered with their help.

5. *Grouping and rhythm.* Grouping and rhythm also facilitate learning and help in remembering. For example the telephone number 567345234 can be easily memorized and recalled if we try to group it as 567 345 234.

Similarly, rhythm also proves to be an aid in learning and memorizing. Children learn effectively the multiplication tables by reciting them in a sing-song. The arrangement of the material in verse with rhythm and rhyme is found very useful in this direction. The rhyme about the days of the months is well-known:

MEMO

Thirty days hath September,  
April, June, and November,  
All the rest have thirty-one,  
Excepting February alone,  
To which they twenty-eight assign,  
Till a leap year gives it twenty-nine.

6. *Utilizing as many senses as possible.* Senses are said to be the gateways of knowledge and it has also been found that things are better learned and remembered when they are presented through more than one sense. Therefore, attempts should be made to take the help of audio-visual aid material and receive impressions through as many senses as possible.

7. *Arranging better learning situations.* Environmental factors also affect the learning process and due care should, therefore, be taken to arrange favourable learning situations and environment. A calm and quiet atmosphere and stimulating environment proves to be an effective aid to learning.

8. *The learner's internal factors.* Besides the various external factors there are things within the learner which affect his learning and capacity of recall. His physical and mental health and emotional state at the time of learning as well as reproduction of the material learnt counts a lot towards the effectiveness of his memory. Therefore, due attention should be given to the improvement of the student's health—physical as well as mental. His emotions should also be trained and emotional tensions removed as far as possible.

9. *Provision for change and proper rest.* Adequate provision for rest, sleep and variety in the work should be made as this helps to relieve fatigue and monotony. A mind which is fresh is naturally able to learn more and retain it for a longer period than a mind which is dull and fatigued.

10. *Repetition and practice.* Finally, repetition and continuous practice adds to the effectiveness of memorization. Intelligent repetition with full understanding always helps in making the learning effective and enduring and things repeated and practised frequently are remembered for a long time. Due attention should, therefore, be given to drill work, practice and review etc. in the process of memorization and learning.

11. *Making use of SQ 4 R technique.* Thomas and Robinson (1972) developed this strategy for effective learning and memorization. In this technique, the learners are taught to adopt a systematic approach to learning the desired material involving sequenced steps, i.e. survey, question, read, reflect, recite and review. These steps are named and remembered through the letters SQ 4 R.

- *Survey.* Initially, the material to be remembered is surveyed quickly to get an idea of what is going to be remembered.
- *Question.* In this step the learner asks himself questions like why, what, when, where and who, concerning the material surveyed in the first step.

- *Read.* The material is then read for mental comprehension and to learn the answers to the questions raised in the second step.
- *Reflect.* The information given in the required material is organized and made meaningful by (a) linking it with the previous knowledge, (b) comparing and contrasting the facts, (c) correlating the information with other similar facts, concepts and principles, and (d) attempting to make use of the material in solving simulated problems.
- *Recite and recall.* The information provided in the material is remembered through recitation and recall both orally and in writing.
- *Review.* In this final step, the material needed to be remembered is actively reviewed. The learner asks himself questions related to the information given in the material and in case he is unable to provide satisfactory answers, he reads the material again, recites and remembers it more carefully and then again evaluates his learning or remembering performance.

12. *Making use of mnemonics.* 'Mnemonic' is a Greek word meaning "aid to memory". In this sense, a device that helps us remember information is known as mnemonic and an entire system to improve or develop memory is called *mnemonics*. This system usually makes use of visual imagery to provide useful associations and connections for remembering the required material. Let us consider a few popular mnemonic devices.

(a) *The method of loci.* The word 'loci' means "locations" or "places" in Latin and the loci method is based on the assumption that location can serve as an effective cue for remembering the material. It consists of the following three steps:

- Developing one's own route by identifying a set of places which occur in some natural or familiar order (i.e. 20 or 30 locations in one's own house).
- Converting each item one wants to remember into an image and storing it in a location (a stop on the decided route).
- During retrieval or reproduction, taking a mental walk by recalling what was placed or stored in each place falling on the familiar route.

(b) *The peg-word method.* In this method we have to memorize:

- A set of peg-words rather than a set of locations as cues. The peg-words numbering 1-10 may be memorized with the help of a rhyme such as:

One is a gun	Six is sticks
Two is a shoe	Seven is heaven
Three is a tree	Eight is a gate
Four is a door	Nine is wine
Five is knives	Ten is a hen

- Each item to be remembered is then converted to an image so that



it figuratively hangs on one or the other peg; such as the words gun, shoe, tree, etc. in the foregoing rhyme.

(iii) At the time of recall, the peg-words serve as cues. What one has to do is to simply follow the peg-words in numerical order.

(c) *The narrative-chaining method.* This method consists of making up a story built around whatever things one wants to remember. Here the plot or incidences of the story work as a clue for remembering the items.

(d) *Initial letter strategy.* In this strategy, the initial letters are the focus for remembering and association. Suppose one has to remember the order of the planets going away from the sun, what he has to do is to take the initial letters of the list of the planets and then make a more easily remembered word or phrase like: "Men very easily make jugs serve useful nocturnal purposes". This phrase can be helpful in making the proper associations and then remembering the order of planets i.e., mercury, venus, earth, mars, jupiter, saturn, uranus, neptune and pluto.

Similarly, for remembering the steps to simplify mathematical expressions one can make use of mnemonic BODMAS which stand for bracket (B), of (O), division (D), multiplication (M), addition (A), and subtraction (S) respectively.

(e) *The keyword method.* This method makes use of imagery for remembering the difficult, uncommon and unfamiliar words and items. For example, if one wants to learn 'golova' the Russian word for head, one looks for a keyword resembling and associated with the word golova. It may be Gulliver. Now a mental image can be built around this keyword making note of the other word 'head' of the desired pair for associate learning. For this purpose the learner may visualize Gulliver with his head tied down by the lilliputians and this portrait or mental image may now help him to remember the Russian word 'golova' associated with its English equivalent 'head'.