

**11**

## **TIME & ENERGY MANAGEMENT**

**R**adha and Sita are both friends. Sita stays at home the whole day and looks after the house. Whereas Radha, besides looking after the house has also taken up a job outside the house. Still, Radha seems to have time for every thing and all her activities get attended to. Sita on the other hand, always feels short of time and her various household activities keep pending. Also, there is more confusion in her house especially during morning when her children and husband have to leave for school and work respectively. By the time they leave she is totally exhausted. Have you come across women like Radha and Sita? What could be the reason for having more or less time to perform daily routines? You will study about this in the following lesson.



### **OBJECTIVES**

After studying this lesson you will be able to:-

- define the term time plan and describe its significance;
- prepare a time plan;
- define the terms work and work organisation;
- classify work as heavy, moderate and light;
- state importance of energy management;
- define fatigue and list various types of fatigue;
- suggest ways to avoid and / or remove fatigue.
- enumerate various ways of work simplification.

**11.1 MEANING OF TIME AND ENERGY MANAGEMENT**

If you are able to complete every task you are supposed to do within the time limit, and also spend least amount of energy, you are in fact managing your time and energy well. In other words you can say that:

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Making the best use of time and energy available to us to perform our tasks is known as **time and energy management**.

**11.2 TIME PLAN**

To manage time and energy efficiently, one needs to develop the habit of making a time plan. What is a time plan?

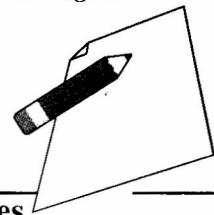
A **time plan** is an advance plan of all the activities to be performed within the allotted time.

A time plan can be made for a part of the day, the full day, a week, a fortnight, a month or even a year. The plan for short periods of time may be just mental, not written. When a plan is made for a long period, it is usually in the written form.

**11.2.1 Steps involved in making a time plan**

How can you go about making a time plan? The various steps involved are:

1. List all the activities to be performed in the allotted time. For example, in the morning a working lady has to prepare breakfast, tiffin and lunch, get the children ready for school, get ready herself and go to work.
2. Underline all the activities which need to be done at a definite time, as in the above case, dropping a child at the bus stop or reaching office on time, etc.
3. Make an estimate of the time required for the activities listed, for example, cooking 45 minutes, getting ready 20 minutes, etc.
4. Arrange the activities in the sequence in which they are to be done. For instance, getting the children ready before the mother gets ready herself or cooking and packing of lunch/tiffin to be done before the children get ready.
5. Keep in mind the schedule of other family members and make necessary adjustments if required. For example, if the mother is preparing the breakfast, the father can get the children ready for school. But if the father also has to leave at the same time, then the mother will have to get the children ready and not wait for her husband's help. Similarly, if on some days the mother has to leave early then the other members will also have to adjust to her schedule.
6. While sequencing, the activities which require similar equipment or work area, should be listed together. For example, in the morning, cooking of breakfast and lunch can be performed together in the same time and place.



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7. Once you have followed these steps, write down the final plan.

- The plan thus written, should be practical, flexible and realistic

It is always better to be realistic. It is always better to allot 35 minutes for an activity which you think will get completed in 30 minutes. Keeping less time could leave you frustrated for not completing the activity on time.

These were the steps involved when you were making a time plan for a small unit of time i.e., morning or afternoon, or evening. When you make a plan for the whole day or a week you will follow the same steps of making a time plan for that period. However, for a plan involving longer periods of time, make provisions for rest and entertainment.

Similarly, if you thought that you would be able to tidy your house before leaving for work in the morning but realise that you do not have time left to do it, leave it for the afternoon. Do not feel guilty about it. When you come back from work you can do it then.

### Period of Peak Load

There are certain times in each family when the members have to complete a number of activities in a small time. This is known as the *peak load time*. Let us consider the earlier example. A lady who has to go to office, has a very busy morning. She has to prepare breakfast, pack tiffins, make arrangements for lunch and get dressed and go to work. This becomes a period of peak load because all these activities are to be performed within a limited time. The same activities or even more when performed on a holiday do not cause much stress or tension because the time constraint is not there.

While making a time-plan peak loads must be given special attention. To reduce the demands of peak load periods the following steps can be adopted:

- All family members can assist in reducing the stress of peak load periods. Outside help can also be taken to meet the demands.
- Apply all the principles of work simplification. The details of work simplification are given in section 12.11 of this chapter.

### Fig 12.1 MANAGING PEAK LOAD PERIODS

#### A Sample Time Plan

(A plan for morning activities for a working woman)

Time	Activity
5.30 – 5.45 a.m.	Wake up, go to toilet, brush teeth
5.45 – 6.00 a.m.	Have tea
6.00 – 7.00 a.m.	Prepare breakfast, tiffins and lunch.

7.00 - 7.30 a.m.	Get the children ready for school.
7.30 - 8.00 a.m.	Get ready to go to office
8.00 - 8.15 a.m.	Have breakfast
8.15 - 8.30 a.m.	Lock the house and leave for work

**Notes**

Be flexible and have breakfast first and then get the children and yourself ready later.

Now you can make a time plan for yourself for the whole day.



**INTEXT QUESTIONS 11.1**

1. Indicate whether the following statements are true or false by writing 'T' or 'F' against each statement:
  - (i) To finish all our work on time, it is necessary to keep working throughout the day.
  - (ii) Knowledge about all the types of work helps in preparing a time-plan.
  - (iii) A time-plan is made for the present.
  - (iv) A time-plan has to be practical and not realistic.
  - (v) A time plan is prepared to squeeze time for all work, rest and entertainment.



**Activity 11.1 :** Prepare a typical day's time plan for yourself. Assume you are gainfully employed at home.

**11.3 WORK ORGANISATION**

In the example stated in the beginning of this lesson, Radha was able to complete all her work on time. Can you guess why she or women like her are able to do this? Yes, you are right. Such women create a system of working which is efficient. If you observe the system of working followed by such women you will realise that they plan and organise their work properly. They place things in their specific places and plan their activities beforehand in accordance with the time at their disposal.

On the other hand, women like Sita do not plan and organise their work. They spend much time searching for misplaced things which lead to wastage of time and fatigue. To complete morning activities more smoothly, if only Sita had packed her children's school bags and ironed their uniforms at night, she would have had more time in the morning to finish other activities.

In addition to this if she would have collected the uniform, shoes, socks, bag,

water bottle and placed them at one place at night, her children would not have had any problem in getting ready. Even if her husband had to get the children ready he would have found every thing at one place.

Can you now define 'Work Organisation'?

Work organisation is planning, arranging and performing one's activities in such a way that they are completed in the allotted time with minimum energy expenditure.

How do you do this? To understand this let us know more about work, its sequencing and simplification.

### 11.3.1 Types of Work

All activities require time and energy. Some activities require very little energy whereas others may require a lot of it. You get tired after performing the activities which require a lot of energy. Depending upon the amount of energy required to complete the activity, these have been classified into light, moderate and heavy activities or work. Light work requires minimum amount of energy and heavy work the maximum.

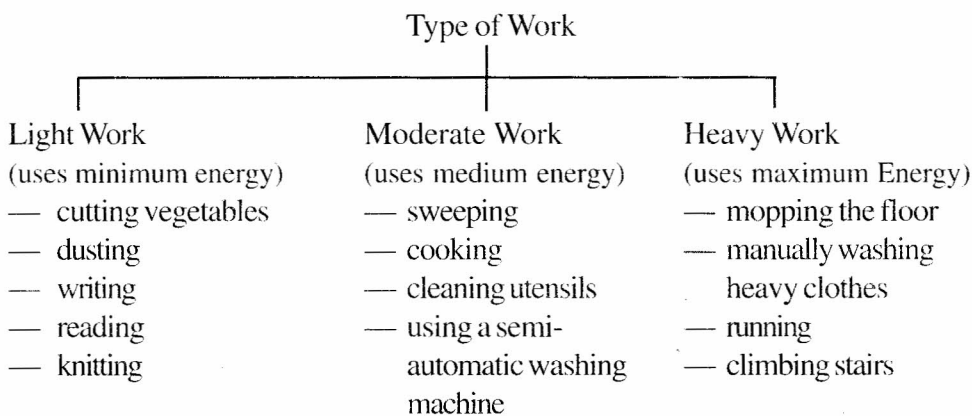


Fig. 11.1 : Light work



Fig. 11.2 : Moderate work



Fig. 11.3 : Heavy work

You can enlarge this list by carefully examining each activity that you perform.

### Notes

While planning your daily activities you must understand the nature of each activity and take care that you alternate heavy work with light or moderate work. This will help in preventing tiredness and improve your efficiency. Remember, efficiency means completing the work within the time limit and spending the least amount of energy.

**Notes**



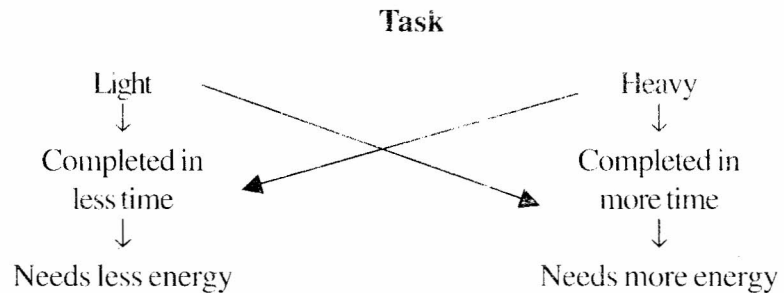
**INTEXT QUESTIONS 11.2**

1. Fill in the blanks :
  - (i) When you save time you can also save .....
  - (ii) By work organisation you are not only able to save time and energy but also reduce .....
  - (iii) Light work requires.....energy as compared to moderate work.
  - (iv) ..... work requires the maximum amount of energy to be completed.
  
2. Classify the following into light, moderate and heavy work:
 

(i) Gardening	(v) Mopping the floor	(ix) Studying
(ii) Brisk walking	(vi) Making a rangoli	(x) Playing hockey
(iii) Playing chess	(vii) Painting a door	
(iv) Digging	(viii) Sewing a dress	

**11.3.2 Work Simplification**

You have learnt that doing work requires energy and different types of work require different amount of energy. You should also know that time spent in completing a job is also related to the amount of energy. For example, you spend more energy if time spent on the task is more. If time spent to complete the task is less, energy spent is also less. It is just like if the task is light you spend less energy and if the task is heavy, you spend more energy. Hence, if the task is heavy but you finish it fast then you spend less energy than when the same task is completed in a longer time. Fig. 12.2 shows this relationship between type of work, time and energy required to complete it.



Thus you can reduce the energy spent to complete a job by:

- (i) reducing the time, spent or
- (ii) making the task simpler.

In fact, if you make the task simpler, you will automatically be spending less time on it. For example, you can use a grater to grate vegetables or you can use a food processor to save your energy and the job is done faster. Similarly, if you collect everything you require for washing clothes before you actually sit down to wash them, you will definitely save both time and energy. Thus, in both these examples, you are simplifying your work to save energy and time. Can you now define work simplification in your own words?

**Work simplification** is a method of saving time and energy by using a simple procedure and/or a labour saving device to complete a task.

Work organisation is a much wider concept than work simplification. Here, you plan your activities in advance. You know that if planning is done beforehand you will save time while actually performing those activities. While planning and organising you also think of tools and procedures which could simplify your work.

For example, if you decide to give a party on your birthday, you will first plan about all your requirements and how they are to be achieved. This is work organisation. While actually doing the work for the party you adopt ways which will save your time and energy. For example, you use a mixie to grind the masalas, you use paper plates and disposable glasses which do not require any cleaning and washing before and after the party. This is work simplification. Can you think of some more ways of simplifying your work while working for your party?

### 11.3.3 Methods of Work Simplification

Let us now study about the various ways or methods of work simplification.

**(i) Keeping your work place organised :** You are now aware that while working if all the required things are kept within reach and at an appropriate height you are able to finish your work by spending less of your time and energy. For example if you are cooking you would like that all the food stuffs, utensils and source of water are near the place where you are cooking. Also the height at which these things are kept or stored is appropriate. This means that while working you do not have to move often or stretch yourself every time you need a something. Besides this, the storage containers can also be transparent and labelled so that you do not have to hunt for the things you require.

**(ii) Using labour saving devices** - Using washing machines, mixie, or a food processor for doing your work saves a lot of time and energy. You know now that if you were not using a washing machine to wash clothes you would have to do it manually. This would definitely require more energy and time. Use of a pressure

## Notes



## Notes

cooker, peeler, chapati maker, spray gun, vaccum cleaner, etc., are some of the other examples of work simplification through use of labour having devices.

- If you have to carry many things from one place to another you can save your time and energy by using either a tray or a trolley. Compare the number of trips required to lay a table when using both your hands and when using a tray or a trolley. Decide for yourself which is better.



Fig. 11.4: Trolley for carrying things

**(iii) Using appropriate work movements** - While doing your work if you use rhythmic movement and cut down all extra movements, you feel less tired at the end and you also save time. Some of the ways by which you can do this are:

- While mopping the floor, use long continuous movements instead of short, jerky and zigzag movements.
- You can save time by doing all the things that can be done in the same room in one go. For example, if you are making your bed, tuck in the sheets in long strides, i.e., spread the bed sheet and bed cover and then tuck them in together instead of tucking them one after the other.
- Keep utensils directly for drying on the plate rack after cleaning.

**(iv) Changing the work sequence** - Work can be simplified if it is performed in a proper order.

For example, when you have to iron clothes it would be much quicker and easier if you sprinkled water on all the clothes before you start ironing. If you sprinkle water on one cloth and iron it, and then on the next and so on it takes much longer.

Similarly, while cooking vegetables it would be better if you put the masala on the stove and while the masala is being cooked you cut the vegetables instead of first cutting all the vegetables and then starting to cook.

**(v) Using appropriate postures** - When you use the correct posture to do a



work you save both on time and energy. For example if you stand and cook, you get less tired than when you sit and cook on the floor. Getting up from a sitting posture is much more tiresome than standing. Similarly pushing is always easier than pulling.

- If you can work with a straight back then why work with a bent back? Keeping your back straight while working saves your time and energy. For example, use a long handled broom instead of the regular broom to sweep the floor.



Fig. 11.5

While drying clothes, keep the bucket containing clothes on a stool. You will realise that you do not have to bend everytime to pick up the clothes. This will keep your back straight and relieve you of the stress of frequent bending.

(vii) **Working at appropriate height** - Have you noticed that you feel more tired if you have to work in a kitchen where the work surface and storage is not in accordance with your height? Why? This is because you have to bend or raise yourself while working. Which of the following methods of ironing clothes is the least tiresome for you? Sitting on the floor, bending to iron the garment placed on bed or using an ironing board? Naturally the third one, as it is the most appropriate height.



Fig. 11.6

## Notes

(vi) **Dovetailing** - Dovetailing is the process of combining two or more activities at the same time. This way you can save both time and energy, e.g. after putting water to boil for making tea, you can knead the dough, heat the milk or cut vegetables till the time the water boils.

## Notes

Can you suggest some more activities which can be dovetailed?

(vii) **Using ready - to - consume items** - Have you used ginger and garlic paste or onion powder to prepare masala instead of using fresh garlic, ginger and onion each time you cook? What is the advantage? Yes, you save time and energy. You can buy those from market or prepare these and keep it in your refrigerator. Preparations save your time and energy when actually performing the activity. You can save still more time and energy by consuming ready-to-eat foods! You would also realise that using paper plates instead of normal crockery saves time and energy. Can you say how?

(viii) **Attractive working place** - If the work area is attractive and well organised, you tend to finish your work fast and spend less energy. This is because you enjoy working in such an environment. This increase in efficiency is mainly because of the mental satisfaction. You can make your work place attractive by:

- keeping it clean and tidy
- using bright coloured containers and patterned crockery
- organising and storing things in their respective places
- providing ample light and ventilation.

Can you suggest some more?

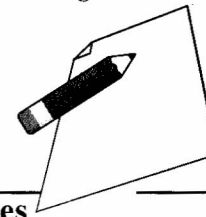
(ix) **Perfect your skills** - If you practice and perfect a skill you will require less time and energy in doing that work. Besides this, you will also be able to get a better product. A tailor or anybody who has learned the skill of stitching can stitch clothes in a much better way and faster than an unskilled person.

Do you remember the popular saying "Practice makes perfect"?



## INTEXT QUESTIONS 11.3

1. Tick mark the most appropriate answer out of the four options given:
  - (i) Work simplification leads to
    - (a) spending more money
    - (b) reducing work heights
    - (c) saving time and energy
    - (d) use of gadgets.



Notes

- (ii) Dovetailing is
  - (a) finishing a job before starting the next.
  - (b) doing two or more activities at the same time.
  - (c) working at correct height.
  - (d) using a labour saving device.
- (iii) Correct posture helps us to
  - (a) do work on time
  - (b) get enough rest
  - (c) do two activities at the same time
  - (d) save energy while working.



**Activity 11.2:** Observe cooking and washing activities in your house. Suggest work simplification measures wherever necessary.

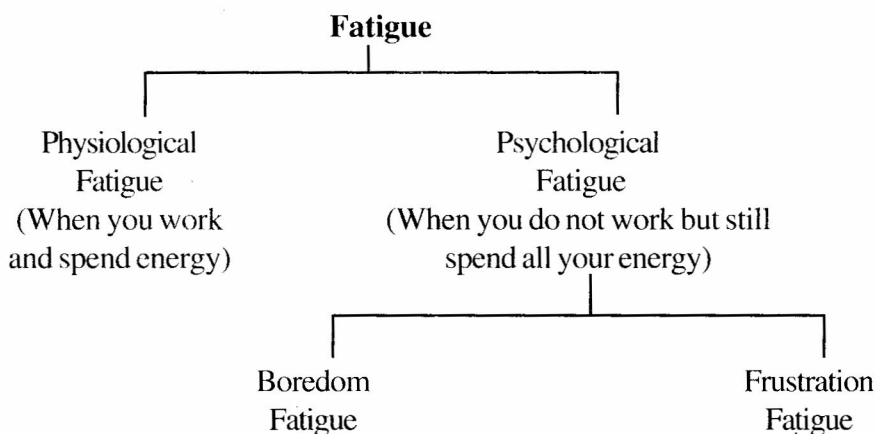
**11.4 FATIGUE**

What happens when you work for a length of time continuously? You feel like resting. This is because the capacity of your body to work has reduced and therefore, needs rest.

**The feelings of tiredness causing desire to stop working is called fatigue.**

This feeling may come not only because you have worked very hard but also because you have not worked at all or are unable to complete a task. Thus fatigue can be of various types.

**11.4.1 Types of Fatigue**



## Notes

(i) *Physiological Fatigue* - It occurs after you perform any physical activity, such as, sweeping, mopping, running or walking. After performing these activities you feel physically tired because you have consumed all the available energy and some waste products have accumulated in the muscles. When you rest for some time, these waste products are removed from the muscles.

Physiological fatigue occurs when a lot of energy is utilized for physical activities and you feel exhausted.

(ii) *Psychological Fatigue* - You must have noticed that sometimes fatigue may occur even when you have not worked at all or after doing a little bit of work. This type of fatigue may be the result of the feeling of boredom or frustration. You feel dissatisfied and restless, experience bodily discomfort and have a desire to stop work. This type of fatigue is called psychological fatigue because you feel tired psychologically although there is no physical reason to feel tired.

Psychological fatigue occurs due to the unsatisfactory work and work conditions and not due to physical exertion.

In *boredom fatigue*, there is discontentment, yawning, restlessness and a desire to stop working. This happens because the work is monotonous and uninteresting. The working conditions are unsatisfactory or dull and the tools used are troublesome.

In *frustration fatigue* there is bodily discomfort, general feeling of tension, unsatisfactory results and a desire to escape from the situation.

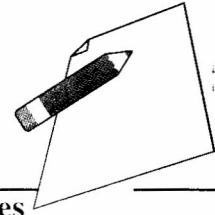
This happens because the worker is inexperienced, disturbed too often, worried, overworked and not appreciated.

#### 11.4.2 Ways to Remove Fatigue

It is very easy to remove physiological fatigue. All you need to do is :

- take rest briefly
- alternate light and heavy task
- use labour saving devices
- delegate some work to others
- make the work more interesting
- work in groups instead of alone
- have a proper work place
- have proper equipment
- develop skill at work

- make the atmosphere pleasant
- reduce mental tension
- appreciate the worker, and
- give rewards for good work.



Notes



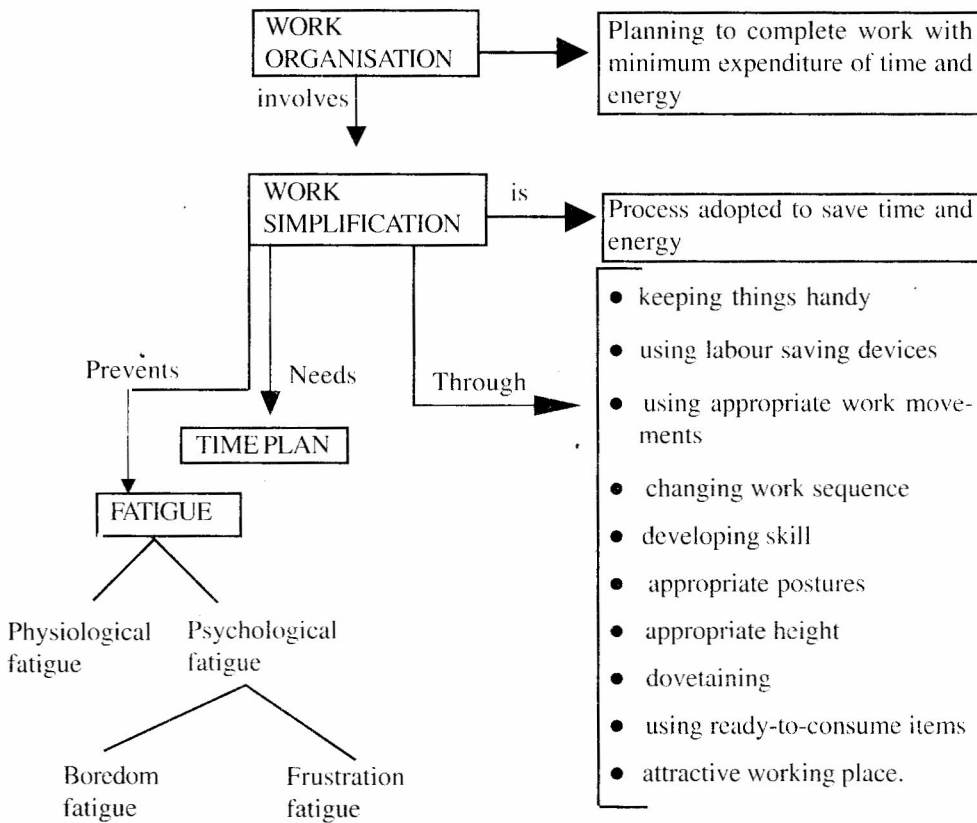
**INTEXT QUESTIONS 11.4**

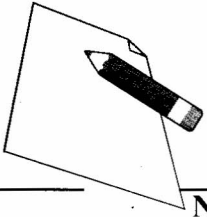
Q. Rearrange the letters in the following words to denote:

- |   |                |
|---|----------------|
| (i) feeling tired                               | IEFGAUT        |
| (ii) boredom fatigue                            | COHCYSPISLOGLA |
| (iii) accumulation of waste material in muscles | LCIOOSPYHILGA  |
| (iv) desire to quit work                        | SUPERTARTNOIT  |



**WHAT YOU HAVE LEARNT**





Notes



**TERMINAL EXERCISE**

1. Your neighbour always complains that she cannot finish her work in time. What are your suggestions to her?
2. List the steps involved in making a time plan.
3. State the various measures one can take to simplify work.
4. Identify the different types of fatigue. Suggest some measures to overcome them.



**ANSWERS TO INTEXT QUESTIONS**

- 11.1 (i) F, (ii) T, (iii) F, (iv) F and (v) T.
- 11.2 1. (i) energy  
 (ii) stress/tension  
 (iii) less  
 (iv) Heavy
2. (i) moderate (ii) moderate (ix) light  
 (iii) light (iv) heavy (x) heavy  
 (v) heavy (vi) moderate  
 (vii) moderate (viii) light
- 11.3 1. (i) (c)  
 (ii) (b)  
 (iii) (d)
- 11.4 (i) FATIGUE  
 (ii) PSYCHOLOGICAL  
 (iii) PHYSIOLOGICAL  
 (iv) FRUSTRATION

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