
UNIT 15 PERSONNEL FUNCTION — WORK PRODUCTIVITY

Structure

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15.1 INTRODUCTION

In our previous unit on staff planning and management, we learnt about recruitment and selection process and also about staff training as a crucial process. In continuation with that, in this unit, we shall be focusing on work productivity of personnel. What is meant by productivity and how can we go about improving it?

Productivity improvement is a term widely used in all types of institutions / organizations. A major concern in many organizations is the decline of productivity. How best can we effectively use the labour force is a major challenge facing managers in all types of food service operations. It is an extremely challenging task to keep the labour force content and motivated, on one hand is and on the other hand, getting the best out of the workers in term of efficiency and effectiveness. Therefore, it becomes imperative for managers to design their organization to facilitate goal accomplishment. Using managerial tools like the organization chart, job analysis and work schedules, the manager is expected to develop jobs to fit the structure, identify tasks, who will perform them and how they will be performed. Administrative problems specifically in terms of employee morale, absenteeism, etc. make it mandatory to study or redesign the job design. Many factors affect the performance of workers; a manager could use different techniques to analyze labour productivity. Establishing a quality circle would be considered as an effective technique to solve problems of productivity and lead to some level of work improvement. What do you understand by all these terms? How are these techniques performed effectively in an organization? Let us read and find out.

Objectives

After studying this unit, you will be able to:

- discuss the different managerial tools used in designing the organization,
- recognize and use work simplification techniques,
- describe appropriate techniques used to analyze productivity, and
- conceptualize the impact of a quality circle to improve work productivity in an organization.

15.2 MEANING AND DEFINITION OF PRODUCTIVITY

Productivity has been defined as a term descriptive of the level of the output of a manufacturing operation. In this discussion, work productivity is used to describe the performance of jobs by the personnel, working in an organization.

Productivity is also referred to *the ratio of inputs to output in a systems organization*. Productivity can be increased, by reducing input by increasing output or by doing both at the same time. Productivity in the food service organization tends to be low, as effective utilization of labour in the food service industry is especially difficult because of its unique characteristics. Some of these are:

- Many work on seven day week almost on 24 hour basis.
- Operational schedules may be early morning or late night.
- Peaks and valleys that create an intense demand at certain times of the day / year.
- Seasonal variation of patronage.
- Highly perishable nature of the products.
- The labour intensive nature of most of the production and service operations.
- Large number of skilled/unskilled personnel employed in the industry.
- Labour inefficiency could be the outcome of many factors such as :
 - poor product design (e.g. poorly planned menu)
 - manufacturing methods (e.g. equipment poorly maintained)
 - management concerns
 - worker concerns

These may result in material waste, improper tools or methods, inadequate maintenance, poor production schedules, absenteeism without a cause and carelessness from employees.

Therefore, it becomes very important that managers know the organization well, design its organizational set up and control effectively all its functions. So let us get to know about organization structure in the next section.

15.3 UNDERSTANDING FORMAL RELATIONSHIPS AND DUTIES

The organization structure is designed based on the objectives that manager has established and on the plans and programmes developed to achieve these objectives.

The formal structure is frequently defined in terms of:

- *Organization chart and job descriptions or position guides.* The pattern of formal relationships and duties.
- *Differentiating or departmentalization.* The way in which the various activities or tasks are assigned to different units or people of the organization.

- *Integration.* The way in which these separate activities or tasks are coordinated.
- *Delegation of authority.* The power, status, and hierarchical relationships within the organization.
- *Administrative systems.* The planned and formalized policies, procedures, and controls that guide the activities and relationships of people in the organization.

One of the primary reasons for organizing is to *establish lines of authority* which create order within the organization. Without delineation of authority, the chaos of everyone telling everyone else what to do may result, in confusion.

Organizing also improves the efficiency and quality of work, as the coordinated efforts of people working together begin to produce a synergistic effect. Synergism can result from division of labour and from increased coordination, both of which are products of organization.

Improved communications can also be a product of organization and its structurally defined channels of communication among members of the organization. Organizing is basically a process of division of labour, which can be divided either vertically or horizontally. Another way that labour is divided is, line and staff. Let us see what we mean by these types of division of labour.

15.3.1 Vertical Division of Labour

Vertical division of labour is based on the establishment of *lines of authority*. In addition to establishing authority at various levels of the organization, vertical division of labour facilitates communication flow.

The *scalar principle*, which is related to the vertical growth of the organization states that *authority flows through the organization from highest to lowest rank and establishes the chain of command*. This principle is based on the need for communication and the unity of command concept, which state that an employee should have only one immediate supervisor. In theory, this concept is a basis for organization design; however, employees frequently receive directions from more than one person.

Authority, is the right of a manager to direct others and to take action delegated down the hierarchy of the organization. The *tapered concept of authority* is depicted in Figure 15.1. In Figure 15.1 you can see that the breadth and scope of authority become more limited at the lower levels of an organization.

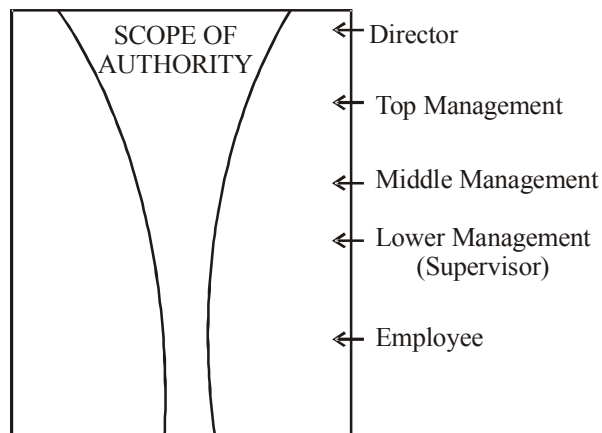


Figure 15.1: Tapered concept of authority

Through the process of *delegation*, the authority and responsibility of organization members are established. Delegation is defined as the *process of assigned job activities and authority to a specific individual within the organization*.

While ‘*authority*’ is the right to direct, ‘*responsibility*’ is the obligation to perform an assigned activity. Since responsibility is an obligation a person accepts, it cannot be delegated or passed to a subordinate. Managers can delegate responsibilities to subordinates in the sense of making subordinates responsible to them; however, this delegation does not make managers any less responsible to their superiors. Delegation of responsibility does not mean abdication by the delegating manager. Ramesh, the head cook, for example, cannot say to the production supervisor “*it’s his entire fault*,” regarding a product failure of one of the assistants cooks, and not bear responsibility himself.

Authority once delegated, however, is given up by the person who delegated it. According to a principle of organization called the *parity principle*, ‘*authority*’ and ‘*responsibility*’ must coincide i.e., management must delegate sufficient authority so that subordinates can do their jobs. At the same time, subordinates can be expected to accept responsibility only for those areas within their authority.

One of the major considerations affecting delegation of authority is *decentralization*. The key question is: How much of what authority should be granted to whom and for what purpose? The degree to which an organization is centralized or decentralized is basic to this question. What is meant by these two terms in context with an organization? Let us see next.

In a *centralized organization*, most decisions are made at the top, and lower level managers have limited discretion in decision making. The degree of centralization / decentralization is related to the number of decisions made at lower levels of the organization, the importance of those decisions, and the amount of checking required for decision making by lower level managers.

Highly centralized authority is common in small organizations in which the top manager is in close contact with all aspects of the operation. For example, in a small nursing home or restaurant, the food service supervisor or manager may be responsible for most decisions about the operations.

The degree of *decentralization* varies widely in large organizations. In some organizations, a high degree of decentralization may exist in major functions, but the auxiliary functions of purchasing, accounting, or personnel may be centralized. In a large hospital, for example, the director or head of the dietetic department may have authority over production and service functions but limited authority for purchasing, since a purchasing department has procurement responsibility for the entire hospital.

We hope the discussion above must have helped you in understanding the vertical division of labour. Next, let us move on to the horizontal division of labour.

15.3.2 Horizontal Division of Labour

Horizontal division of labour is based on *specialization of work*. Its underlying premise is that, by making workers’ tasks specialized, more can be produced with the same effort and with greater efficiency and improved quality.

The advantages of horizontal division of labour are highlighted herewith. These include:

- Each worker is required to have fewer skills.
- Skills can be specified more easily for purpose of selection and training.
- Repetition or practice of the same job develops proficiency.
- Concurrent operations are possible.
- More conformity results if the product is always produced by the same person.

Job boredom is a potential hazard with horizontal division of labour; therefore, the scope and depth of jobs must be considered. *Job scope* refers to the *number of activities or operations that make up a job*. If narrow, it may result in repetitive jobs that may be boring to many workers. *Job depth* refers to *the freedom of workers to plan and organize their jobs*. A job is made up of three components: *planning, doing* and *controlling*. Jobs that focus primarily on the “doing” component may lead to worker dissatisfaction.

Next, let us review the line and staff process of division of labour.

15.3.3 Line and Staff Division of Labour

Another way that labour is divided is, *line and staff*. When the importance, scope, or sheer volume of managerial tasks becomes so great that an individual manager has difficulty handling them, a logical step is to divide the work into specialized components.

Line personnel are responsible for *production of goods and services* in the organization, whereas *staff personnel* may function in *assisting or advising roles*. Staff work revolves around the performance of staff activities, the utilization of technical knowledge, and the creation and distribution of technical information to line managers. In contemporary organization, the number of people involved in staff activities and the type of staff work has increased.

Let us then understand the type of staff and the line and staff authority existing in a food service set up.

A) *Line and Staff Authority*

Line authority is derived from the chain of command and shows positional authorities. *Staff authority*, however, is based on expertise in specialized activities. Generally, staff personnel provide expert advice and counsel to line managers but lack the right to command them, with two exceptions. First, staff managers exercise authority over workers in their own departments; second, staff may have functional authority over the line in restricted areas of activity. This functional authority is delegated to an activity and gives members performing the activity the right to command. Authority granted in this manner, however, is confined to the specialized area to which it was delegated.

The quality control manager, for example, may have functional authorities over the work of supervisors in other departments. If inspectors find a product quality problem, they may require the supervisor to suspend production unit till the problem is corrected. This example applies directly to a commissary food service system. The microbiologist on the quality control staff may identify a problem with microbial count in a product being produced in a food factory and require that production be curtailed until the source of contamination is identified.

Next, let us review the type of staff.

B) *Types of Staff*

Staff work may be differentiated into five functions; service, advice, control and innovation. In addition, service staff renders some specialized functions, such as maintenance.

A staff group, such as *market research staff*, may *supply information and suggestions*. For example, the market research staff in a large food service chain may provide data on prospective locations for new units.

Staff may assist the line in *implementing a control function*, such as the quality control functions, as discussed above. Some staff assists in setting actions in motion and in initiating activities, as a planning staff does.

Finally, some staff may *create new ideas*, such as a *research and development group*. Large food service departments often have a recipe development staff, for example.

Other staff positions may fall into an “*assistant to*” or *liaison category*. The assistant too has no line authority but assists a manager by gathering information, performing special duties, resending the manager, and generally relieving the manager of details.

Liaison staff acts as representatives for their organization in dealing with other organizations. A regional dietitian in the hospital division of a food contract company might function both in a liaison and functional staff capacity, acting as a liaison between the hospital and company while also providing staff expertise to personnel in the contract company’s dietetics department.

Having looked at the type of staff and their functions, we also need to understand that line and staff problems do exist in the line and staff division of labour. Let us get to know them.

C) *Line and Staff Problems*

Line-staff relationships involve both structural and human aspects, which are related to levels of staff participation in the organization and to human interaction problems. Staff group may provide organization-wide service or service within a division or department. Personnel or purchasing departments in a university or hospital are examples of the first; the quality control staff in the food factory is an example of the latter.

Although relationships between line and staff may be specified clearly, conflict is not uncommon. Frequently, of course, line and staff work together as a team, approaching problem solving with a spirit of cooperativeness. The overlapping nature of line and staff jobs, however, provides a potential source of conflict.

Line managers may see staff as usurping their authority or providing unrealistic advice. They may also view staff specialists as working in a vacuum, concentrating on a narrow range of activities, rather than understanding problems from the perspective of the overall organization. Line managers often feel they get the blame for failures, while staff receives the credit for successes.

On the other side of the coin, staff may see line managers as resistant to new ideas and unwilling to try progressive approaches. Another common complaint is that line managers do not make use of available data. Some line managers seem to think that asking staff for advice is admitting ignorance. Staff may also complain that line managers merely go through the motions of asking for advice with no insertions of utilizing their recommendations. Staff personnel often believe they have a greater degree of functional authority than has been delegated to them.

The line and staff concept is often not clear-cut in organizations. For example, managers may have both line and staff responsibilities. The nature of line and staff relationships varies widely among organizations and must be designed to meet the specific needs of a particular organization.

In the discussion so far we have seen that the primary reason for organizing is to establish lines of authority and in this context we learnt about the vertical and horizontal division of labour and the line and staff division of labour. Next, we shall study about the method commonly used in a food service set-up to implement division of labour.

One of the first things that happen when people create an organization is that they divide up their work to allow specialization. As the organization grows and tasks become more numerous and varied, this division of labour is formalized into jobs and departments. Let us understand the concept of departmentalization next.

15.3.4 Departmentalization

Departmentalization, which involves grouping activities into related work units, is the most frequently used method for implementing division of labour. Although these work units can be structured in a number of ways, they all divide the work and thus establish a pattern of task and authority relationships. The pattern becomes the *organizational structure*.

In a small restaurant, for example, a husband and wife may informally share the tasks of preparing sandwiches, salads, and drinks, serving customers, collecting money, wiping tables, washing dishes and utensils, and performing other maintenance duties. They will probably find that each of them will take on principal responsibility for certain tasks; however, as the business grows, they may need to hire part-time workers to assist at peak periods. These workers will probably be assigned specific duties rather than being responsible for the wide range of duties performed by the husband wife team. Thus, jobs are created around specialized tasks.

This small business could eventually be the basis for development of a large multiunit national chain of restaurants throughout the country. Additional levels of management would be needed; highly specialized jobs created, and formalized relationships required. At the corporate level, departments focusing on specific functions, such as marketing, procurement, and finance, would be created.

Departments are commonly organized by function, product, and territory, type of customer, process, equipment, or time. As indicated earlier, the type and size of the organization are key factors influencing the form an organization structure will take. Different types of departmentalization can occur. These are reviewed herewith.

Functional Departmentalization: Functional departmentalization occurs when organization units are defined by the nature of the work. All organizations create some product or service, make these products or services, and finance their adventures. Therefore, most organizations have three basic functions: *production*, *sale*, and *finance*. In the non-profit food service operation, the sales function may be one of clientele service and creation of goodwill, and the finance function may be considered business affairs. Even in these organizations, however, the need to apply marketing concepts is becoming widely recognized.

Each of these basic organizational functions may be further subdivided as necessary. For example, the production department may be divided into the main dish and vegetable, salad and bakery units.

The primary advantage of this type of departmentalization is that all specializations are within function and provides for efficient use of equipment and other resources. It provides a logical way of arranging activities, because functions are grouped that naturally seem to belong together. Each department and its manager are concerned with one type of work.

Product Departmentalization: Under departmentalization by a product or a service, all the activities necessary to produce and market a product or service are usually under the direction of a single manager. Product departmentalization allows workers to identify with the particular product. The emphasis on products encourages expansion, improvement, and diversification. Duplication of functions may be a problem, since each division or department may be involved in marketing, production, and so forth.

This pattern of departmentalization is not common in the food service industry, except perhaps in large conglomerate corporations.

Geographic Departmentalization: Departmentalization by territory is most likely to occur in organizations that maintain physically dispersed and autonomous operations or offices. Geographic departmentalization permits the use of local personnel and may help customer goodwill and responsiveness to local customs.

National restaurant chains are often divided into regional areas, with regional manager and staff responsible for all the operations in a particular region. For example, several of the contract food service companies are divided into several geographic regions, such as East, Midwest, Northeast, Northwest, and South.

Another example of geographic departmentalization could be drawn from school food services. In large metropolitan areas, the school district may be subdivided into several geographic regions, each with a supervisor responsible for overseeing the food service of the school in a region.

Customer Departmentalization: Another type of departmentalization is based on division by *type of customers served*. A contract food service company, for example, that has divisions for school, colleges, and healthcare is departmentalized by type of customer. Or a wholesaler who distributes products to grocery stores and to hotels, restaurants, and institutions may be subdivided into two corresponding divisions. This approach to departmentalization permits the wholesaler to serve the specialized needs of both the grocer and the food service operator.

Other Types of Departmentalization: Equipment, processes, and time are bases for departmentalization. Process and equipment are closely related to functional departmentalization. In large food service operations, a deep fat frying section within the production unit would be an example of process/equipment departmentalization. A food factory, such as that in a commissary food service system, might be divided into units based on process or equipment because of the specialization needed for the large volume produced in the operation.

Time or shift is also common way of departmentalization in some organizations. Organizations such as hospital that function around the clock often organize activities on this basis. Usually, activities grouped this way are first departmentalized on some other basis, perhaps by product or function. Then within that category, they are organized into shifts. For example, a hospital is departmentalized by functions, such as dietetic services and nursing services; the various departments may then have shifts with a supervisor in charge of each, such as the late shift or early shift.

Departmentalization is practiced as a means not only of implementing division of labour but also of improving control and communications. Typically, as the organization grows, it adds levels and departments. Coordination is another key objective in departmentalization. The type of departmentalization that is best depends on the specific needs of the organization.

Most complex organizations may be departmentalized according to several of the methods discussed in the foregoing paragraphs. For example, in a large multiunit chain organization, the company may be departmentalized by function at the top level and by territory or type of customer at the next level. At the individual unit level, process, equipment, and/or time may be the method used. Referring again to the contract food service company for example, it may be divided into several regions which may, in turn, be further divided by type of customers (school, healthcare, etc.).

Having gone through the discussion presented in sub-section 15.2.3 above, certainly now you are in a better position to appreciate how departmentalization is practiced as

a means not only of implementing division of labour but also of improving control and communications.

Next, it is also important for us to learn about the basic relationships of positions and functions while specifying the formal authority and communication network of the organization. This is possible through the construction of an organization chart. The next sub-section focuses on this aspect.

15.3.5 Organization Chart

The organization chart graphically portrays the *organization structure*. It depicts the *basic relationships of positions and functions while specifying the formal authority and communication network of the organization*. The title of a position on the chart broadly identifies its activities; distance from the top indicates the position's relative status. The lines between positions are used to indicate the prescribed formal interaction. Refer to Figure 15.2 which illustrates an organization chart of a restaurant.

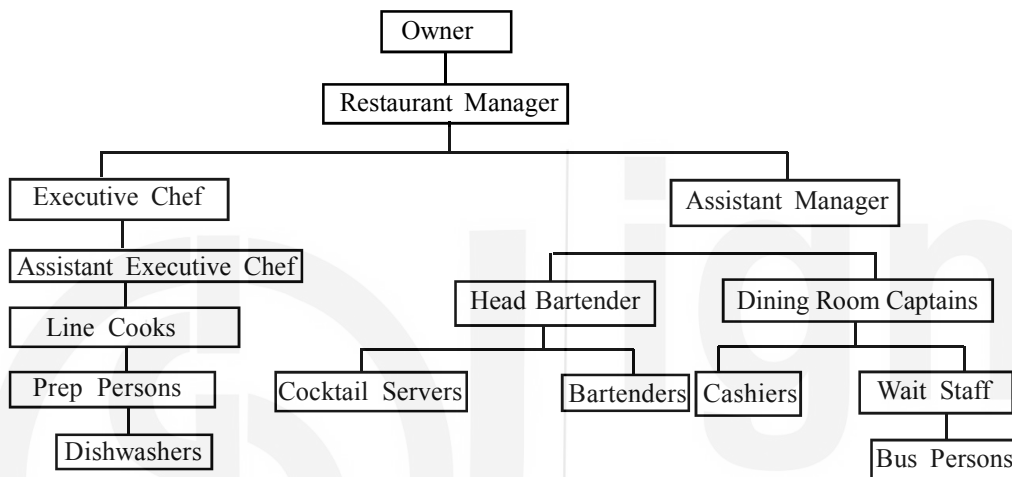


Figure 15.2(a): A sample organization chart of a restaurant

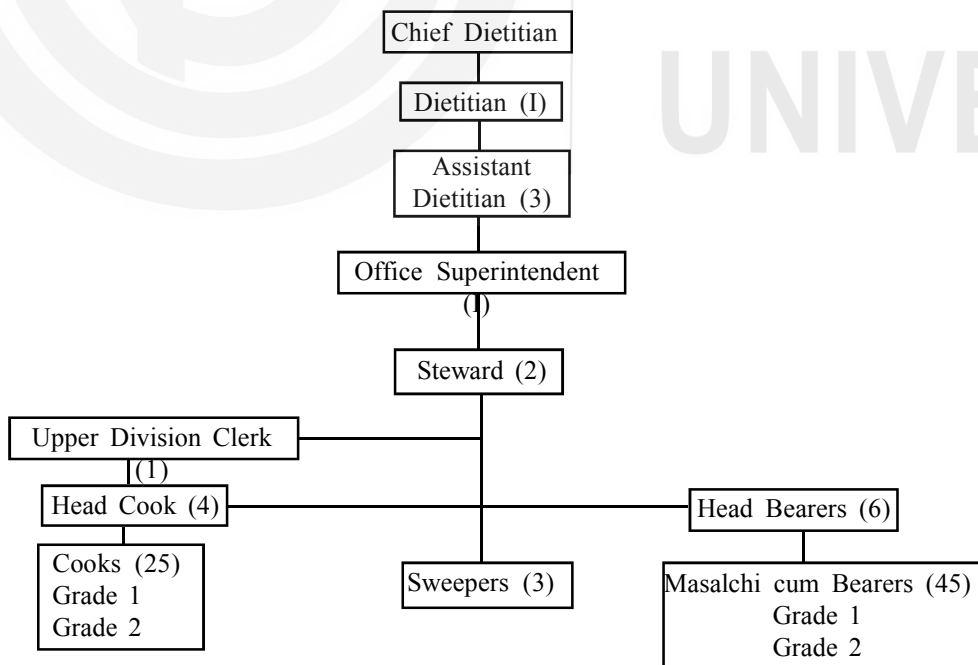


Figure 15.2(b): A sample organization chart of a dietetic department

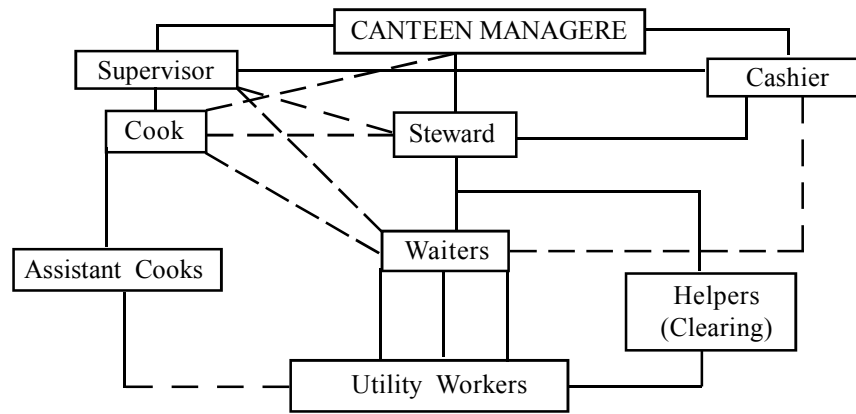


Figure 15.2(c): A sample organization chart of a canteen

As you may have noticed in Figure 15.2, the organization chart is a simplified or abstract model of the structure. It is not an exact representation of reality and therefore, has limitations. The organization chart shows few of the relationships even in the formal organization and none of those in the informal organization. For example, the degree of authority a superior has over a subordinate is not indicated. The chart does, however, assist members of the organization in understanding and visualizing the structure. Charts should be revised periodically, because organizations are dynamic and undergo many changes over a period of time.

Responsibility and authority for the preparation, review, and final approval of the organization chart generally lie with top management, although approval may be the responsibility of the board of directors. At the department level, the chart may be the responsibility of the department head, although approval may be required from the next level up in the organization.

Vertical organization charts are the most conventional type. Although, occasionally a horizontal or a circular chart may be used. In the vertical chart, the levels of the organization are depicted in a pyramid form, with lines showing the chart of command as you may have noticed in Figure 15.2. Special relationship may be indicated by the positioning of functions and lines on the chart. Dotted lines are often used to indicate communication links in an organization as illustrated in Figure 15.2 (c). Staff functions may be depicted by horizontal placement from a line position.

Thus the horizontal and diagonal relationship depicted in an organization chart is the coordination function, which is elaborated next.

15.3.6 Coordination

While reviewing the chart(s) (a and b) given in Figure 15.2, you may have noticed that not shown on the organization chart are the *horizontal* and *diagonal* relationships. The necessary coordination in complex organizations is impossible to achieve through the vertical hierarchy.

In a large medical center, for example, horizontal interaction is required among departments. Nursing service and dietetic service staff often communicate directly rather than through the vertical organization. A staff dietitian may talk directly to the head nurse about a patient problem rather than channel the communication through the head clinical dietitian. Such lateral relationships facilitate communication in an organization.

In a small organization, coordination occurs informally. The larger the organization, the greater the need for formalized coordination mechanism.

To illustrate these concepts, in a small residence hall food service, in which the manager can see the operation from the office and workers are in close proximity to each other, coordination of production and service can occur through informal communication. By contrast, a large facility on the same campus, with preparation on one floor and production and service on another, is a more complex operation to coordinate.

Managers establish policies, procedures, and rules to ensure consistency in operations. For example, the large commercial fast food operations usually have specific standards regarding production and service of products. One doughnut chain, for instance, requires that all products not sold within four hours after frying must be discarded. Specific formulations and frying procedures must also be followed.

The establishment of standards and procedures is an important method of coordination. Managers may also establish schedules and other plans to coordinate action. Events are often unpredictable, however, and must be coordinated by managers using their judgments. Over reliance on rules and regulations can create problems in organizations.

Another way in which managers act to coordinate activities in organization is in a “linking role”. In other words, manager is responsible for communicating or “linking” with managers at higher levels in the organization and with other managers at their own level.

Appointment of committees and task forces is a mechanism used in organizations for coordination. These groups serve an important role when problem solving must involve several departments. Problems involving half a dozen departments, for example, can be dealt with efficiently by such group; otherwise, problems have to be referred upward through the chain of command.

Committees are usually organized formally, with a designated chairperson, specified members and regularly scheduled meetings. They are generally appointed to deal with ongoing concerns in the organization, whereas task forces are formed to deal with special problems. The organizational units or departments appoint the task force members, who may not necessarily be managers. Once a solution is reached, the task force is disbanded.

Committees and task force are common in all types of institutions. For example, most college and university food services must have a menu planning committee and a student advisory committee, as well as, task forces to plan various special events. Healthcare institutions typically have many committees to facilitate interdepartmental coordination.

With this we end our study of coordination and we hope you now have a deep insight and understanding about how the organization structure is designed and how the formal relationships and duties are established within the food service set-up.

Let us try to recapitulate what we have learnt so far by answering the questions given in check your progress exercise 1.

Check Your Progress Exercise 1

- 1) Define the term productivity.

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- 2) Briefly discuss the need of organizing a food service institution.

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- 3) Highlight the salient features of vertical and horizontal division of labour.

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- 4) Explain giving an example, what is meant by the term departmentalization. List the various parameters, based on which different departments have been organized.

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- 5) What is an organization chart? Discuss its shortcoming.

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In our discussion so far we have focused on understanding the pattern of formal relationships and duties and the way the various activities or tasks in a food service establishment are assigned to different units or people of the organization which we defined as departmentalization. Also the concept of integration i.e. the way in which these separate activities or tasks are coordinated and the policies, procedures and controls that guide the activities and relationships of people in the organization was described. Next, in our study on personnel function we shall cover the concept of work design i.e. the function of specifying the work activities of an individual or group.

15.4 DESIGN OF JOBS

Work design is defined as the *function of specifying the work activities of an individual or group for developing assignments that meet the requirements of the organization and the technology, and that satisfy the personal and individual requirements of the job holder*. Work design is a complex function because of the variety of factors determining the ultimate job structure. Several decisions must be made: Who is to perform the job? What tasks are to be performed? How are these tasks to be performed?

Translating the organizational structure into jobs is a process referred to as *job design*. A job is *the set of tasks that must be performed by a given worker*. Tasks are *the individual activities that comprise a job*. Peeling vegetables and measuring or weighing ingredients, for example, are two tasks that are part of an ingredient room worker's job. Thus job design involves analysis, job description, and job enrichment as described in the following sub-section(s).

15.4.1 Job Analysis

Job analysis is the process of *determining, through observation and study, the pertinent information relating to the nature of a specific job*. In job analysis, the purpose and nature of job tasks and the skills needed to perform those tasks are identified. In addition, the mental and physical effort required, equipment use, time needed, and working conditions are evaluated. The manager asks the *who, what, why, where, when* and *how* questions for each job. *Job analysis provided the basis for staffing decisions, job descriptions, performance standards, performance evaluations.*

What is job description? Let us find out next.

15.4.2 Job Descriptions

The end products of a job analysis are a *job description* and a *job specification*. A job description is a *written statement identifying the tasks, duties, activities, and expected performance results in a particular job*. A job specification *identifies the ability, skills, or traits necessary for successful performance of a job*. In other words, a job description identifies the *work to be performed in a job*, while a job specification identifies the *qualifications of an individual who could perform the job*.

Written job descriptions should be available for all jobs in the organization. Each description should include the following information.

- Job title and classification
- Summary of major responsibilities
- Listing of duties and responsibilities of the job, usually in order of importance.
- Job relationships; i.e., supervision received and employees supervised.

Job descriptions should be updated periodically to reflect changes in job content. An example of a job description is shown in Figure 15.3.

JOB DESCRIPTION		
Job Title: <u>Cook</u>	Department: <u>Dietary</u>	Date: <u>August, 2019</u>
Job Title of Person to whom Reporting: <u>Production Manager</u> Job Code: <u>116</u>		
Job Pay:		Revised:
No. of persons supervised: N/A	Education Requirements: High School or equivalent, Education in Food Service or Cooking desired.	
Prior Experience Requirements:	One year experience or equivalent in institutional cooking, preferably in a health care setting.	
Other Comments: Exposed to heat, humidity, steam, cooking odours, refrigerator temperatures and wet floors. Possible job related injuries include serious cuts from knives or power equipment, burns from cooking equipment and strains, sprains, or falls work is performed while standing or walking. Occasionally exerts considerably physical efforts in moving or lifting of supplies and/or hot food items.		
Job Summary:	Works as a team member with one or more cooks in the daily production requirements for patient and/or employee food services. Prepares meats, fish, fowl, vegetables, gravies, sauces, soups, salad ingredients and baked goods according to standardized recipes. Assures freshness, proper serving temperatures, and the minimization of food waste.	

Food	Responsibilities	Performance Standards
	1. Prepares all meats, fish, fowl, vegetables, gravies, soups, sauces, salad ingredients, breads and desserts in accordance with the standardized recipes for patient and employee feeding. Assist in the preparation of hot and/or cold foods for special functions and catering activity as required. 2. Provides back-up services and short order support to the patient tray line and the cafeteria throughout the meal period. 3. Maintains standards of quality as specified by the Department of Dietetics and all basic food handling guidelines as specified by local, state and federal health agencies. Assists in the development and testing of standardized recipes for therapeutic diets and employees feeding as required. 4. Maintains a cost awareness in the preparation and storage of all products with an emphasis on minimizing waste. 5. Maintains standards of safety and sanitation as established by the Department of Dietetics and/or local, state and federal health agencies.	A) All foods will be prepared according to standardized recipes. Exceptions to the standardized recipe may be specified by the Production Manager, with appropriate recipe substitution, for special events. B) All preparation shall be done in sufficient quantities to meet the par levels as specified on the production sheets. A) All foods to be served in the hot state will be prepared as held at an established serving temperature for not longer than a specified time period. Communicates closely with the designated supervisors or serving staff to establish and maintain appropriate product timing. A) All foods are to be stored at proper temperatures. Cold foods at or below 45°F, hot foods at 140°F or above. Holding and processing temperatures between these rang should not exceed 4 hours. B) All foods are to be covered, labeled and dated when store. C) All foods are to be rotated on a first in first out basis in accordance with the department's standards for holding an storing foods. D) All foods are to be presented in a wholesome and eye appealing manner. Appropriate garnishes are to be utilized where specified. E) All foods are to be served at the appropriate serving temperature as specified on the steam-table layout diagrams. A) Records data utilized in the forecasting of production levels (and adjusts accordingly) in order to maintain a predetermined par. B) With the Production manager or Lead Cook he/she determines the use of leftovers or their proper dating, labeling and storage. A) Maintains standards of cleanliness in personal appearance, personal hygiene, food handling and food storage. B) Maintains equipment and work area in a sanitary condition in accordance with established procedures and department standards. C) Reports unsafe working conditions or equipment to the lead cook or appropriate manager.

Figure 15.3: An example of a job description for a cook

The job specification, popularly referred to as the “job spec”, includes a statement of the job conditions relating to the health, safety, and comfort of the employee, including equipment used and any potential job hazard in addition to the personal qualifications needed. Frequently, the written job descriptions in a particular organization may include both the job description and the job specification.

Traditionally, job descriptions and job specifications have relied heavily on personal judgment, which at times has been somewhat arbitrary. In many jobs, for example, a high school education is set forth as a requirement for performing them successfully, yet nothing employees do on those jobs may require this level of education.

Court decisions and equal opportunity legislation now require employers to demonstrate that the criteria upon which employees for each job are selected have proven validity. Employers must also be able to show that these criteria do not serve to discriminate against applicants on the basis of race, sex, age, religion, or national origin.

Next, component in job design is assigning a title to the job. This component is reviewed next.

15.4.3 Job Titles

The titles assigned to jobs are primarily designed to distinguish among various jobs. The job title, however, may serve to indicate level in the organization. For example, the title “head cook” indicates that the job is higher in the organization than “cook” or “assistant cook”.

The title may be used to indicate, to a limited extent, the degree of authority, the job possesses. The title “sanitation supervisor” indicates the job involves more authority than “sanitation worker”.

Until recently, the titles of some jobs indicated that the job was for a male or female employee. Recently, however, the trend has been to “desex” the job title by eliminating the suffixes “man” or “men” in occupational titles; e.g. flight attendant is now commonly used instead of steward and stewardess.

Finally let us get to know about job enrichment which you will learn in the subsequent subsection is an attempt to increase the task dimensions of a job to give greater autonomy, feedback, and so forth.

15.4.4 Job Enrichment

Critics of traditional job analysis methods have contended that workers’ reactions to jobs have been given limited attention. Concern over “blue collar blues” and its effect on productivity, morale, absenteeism, and turnover has led many organizations to look again at the design of jobs. Several researchers have developed approaches for redesigning jobs with the intent of increasing employee motivation and satisfaction.

Some of the classical work has been done by *Hackman* and his colleagues (cited in *SPEARS* 1989). His work (*HACKMAN, 1977*) resulted in the definition of five job dimensions or task characteristics: *skill variety*, *task identity*, *task significance*, *autonomy*, and *feedback*. If these are present to a high degree, *Hackman* observed that experienced meaningfulness of the work, responsibility for work outcomes, and knowledge of work results contribute to work performance and job satisfaction. The model concluded that the greater the extent of all five task characteristics in a job the more likely it is that the job holder will be highly motivated and experience job satisfaction.

Job enlargement and job rotation are both approaches that have been used to restructure jobs. *Job enlargement* means *giving workers several different operations at the same skill level*. For example, the dish room worker might be assigned responsibility for vegetable peeling and chopping, as well as, for washing dishes.

Job rotation is a system in which workers move from one job to another on some type of scheduled basis. Going back to the example above, a food service worker might be assigned to the dish room one week and vegetable preparation the next.

Job enrichment, however, *is an attempt to increase the task dimensions of a job to give greater autonomy, feedback, and so forth*. An example of job enrichment might be the involvement of a cook in production forecasting and scheduling or, in other words, planning of the work rather than only being responsible for food preparation.

Whatever possibilities are tried, managers in all types of food service operations should be concerned about the design of jobs from the standpoint of workers’ reactions. The potential positive impact on job performance, morale, absenteeism, and turnover offers a substantive payoff to the food service organization.

Thus in this section we have seen how translating the organizational structure into jobs is a process referred to as job design which includes, job analysis, job description and job enrichment. From job design we move on to work design which impacts on work productivity.

15.5 WORK DESIGN

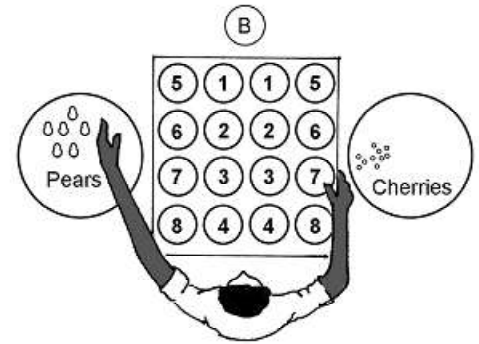
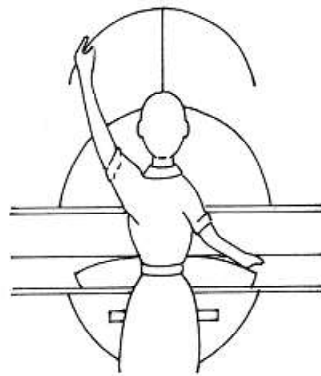
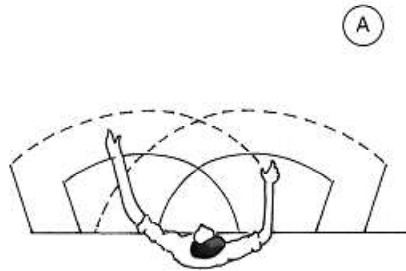
Work design as we have seen in previous section(s) refers to a *programme of continuing effort to increase the effectiveness of work systems*. Industrial engineers, for example, have applied work analysis and design techniques in the manufacturing industries for many years. More recently, these principles have been applied to the service industries. The principles include:

- 1) Minimize all material movements and storages.
- 2) Use the shortest and straightest routes for the movements of materials across the workplace.
- 3) Store materials as close to the point of first use as possible.
- 4) Minimize handling of materials by workers unless absolutely necessary.
- 5) Preposition all materials at the workplace as much as possible to reduce handling effort.
- 6) Handle materials in bulk if at all possible.
- 7) Provisions should be made to remove scrap, trash and other wastes at the point of creation.
- 8) Take advantage of gravity to move materials when feasible.
- 9) Use mechanical aids to lift heavy materials that are frequently used at workplaces.
- 10) Built-in leveling devices can be used to keep materials at a convenient working height.
- 11) Use mechanized conveyors to move materials that follow a fixed route across the workplace if they do not interfere with the work.
- 12) Use well-designed containers and pans that are easy to pick up or move.
- 13) Consider the use of interlocking containers for moving greater loads with ease and safety.
- 14) Consider changing the design of the products involved to improve their materials handling characteristics.

Materials handling refers to *the movement and storage of materials and products as they proceed through the food service system*. Good design of materials movement will lead to increased efficiency and decrease activities that do not add appreciable value to the end product. The amount of materials handling is often dependent on the location and arrangement of storage areas, pre-preparation and production areas and equipment.

The principles of motion economy, relate to the design of work methods, of the workplace, and of tools and equipment. These principles specify that *movement should be simultaneous, symmetrical, natural, rhythmic, and habitual*.

The principles of motion economy that pertain to the human body are aimed specifically at reducing the effort and energy required to do a job; for example, the use of both hands, coordination of hands and eyes, and continuous motion as highlighted in Figure 15.4 (a). The principles related to the design of the workplace and of tools and equipment identify situations that lead to easy body motions; for example, locating tools within easy reach and placing objects in fixed positions as illustrated in Figure 15.4 (b). The points in Box 15.1, and Figure 15.4 which have been adapted from employee training materials on work simplification, illustrate several of the key principles.

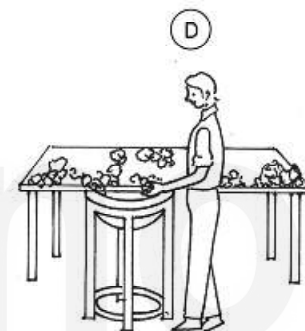


Arranging work and using both hands in rhythm and order improves your methods

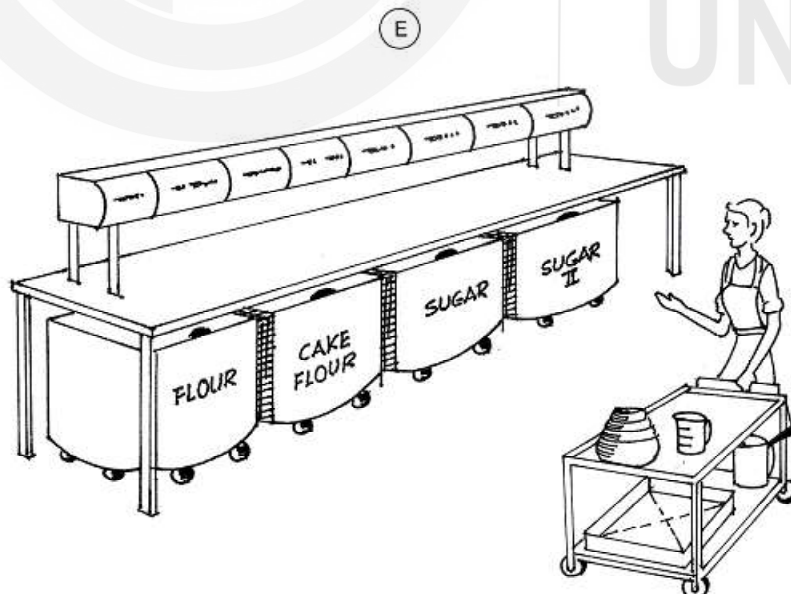
Maximum work area, based on your reach distance, affect tiring



Planned arrangements save time, motion and effort



Drop delivery using proper heights of equipment helps you "work smart"



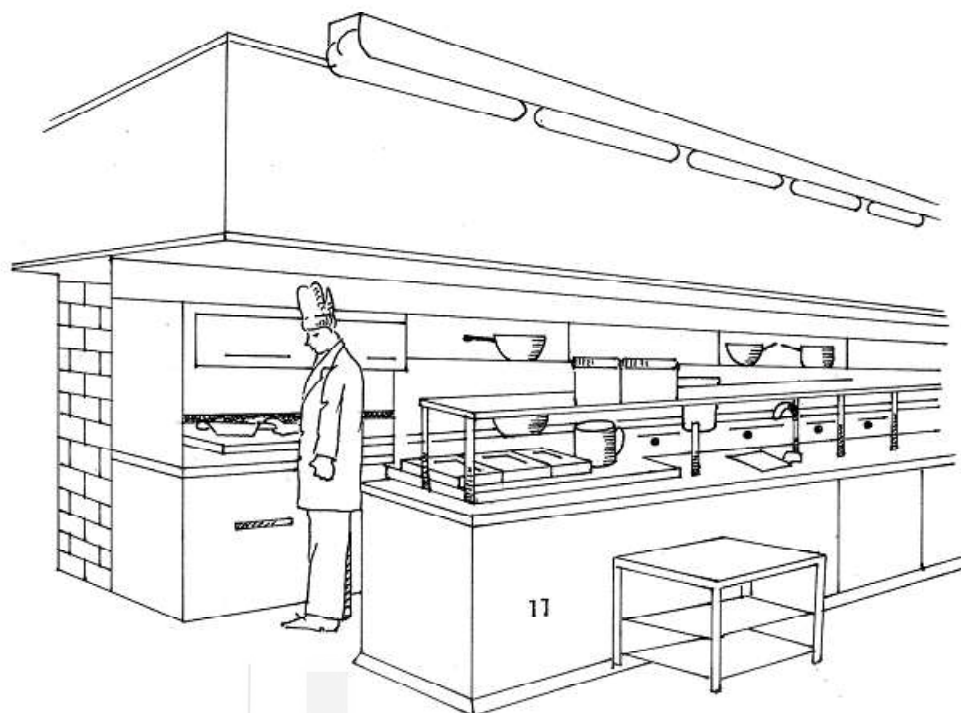
Using proper continues curved motion avoid unneeded starts and stops

Equipment on wheels can help organize work.



Using muscles smoothly when lifting prevents strain

Figure 15.4(a): Principles of motion economy aimed at reducing effort



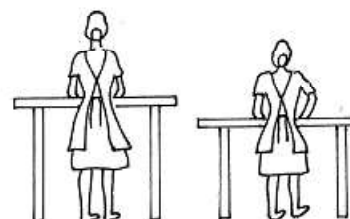
(a)
Proper equipment arrangement helps you "work smart"

** Adjust work heights to your elbow by:

a) Changing height of work on the table.
(Use different thicknesses of cutting boards or platforms
to adjust the level of work.)



b) Adjusting equipment height.
(Use a table to suit your height and job.)



c) Adjusting the chair.
(Use adjustable height chairs.)



Figure 15.4(b): Work design principles in food service operations

Source: Konz and Maxwell (1980); Cited in Spears and Vaden (1989)

Box 15.1	Principles of Work Simplification
	A) Use of the Human Body 1) The number of motions required to complete a task should be minimized. 2) The length of necessary motions should be minimized. 3) Both hands should be used for work and should begin and end their activities simultaneously. 4) Motions of hands and arms should be in symmetrical and opposite directions. 5) Both hands should not be idle at the same time except for rest. 6) Motions should be confined to the lowest possible classifications needed to perform the task satisfactorily. 7) Smooth curved motions should be developed in preference to straight-line or angular motions. 8) Motion patterns should be developed for rhythmic and habitual performance. 9) The motions should be arranged to take advantage of momentum. 10) The number of eye fixations required for the task should be minimized. 11) Intermittent use of the different classifications of movements should be provided to combat fatigue. B) Design and Layout of the Workplace 1) Materials, tools and controls should be located within the normal working area. 2) Materials and tools should have a fixed location. 3) Work requiring the use of eyes should be done within the normal field of vision. 4) Tools and materials should be pre-positioned to facilitate picking up. 5) Gravity feed bins or containers should be used to deliver incoming materials close to the point of use. 6) Gravity should be used to deliver outgoing materials as also illustrated in Figure 15.4 (a). 7) The height of the working surface should be designed to allow either a standing or sitting position. 8) The environment of the workplace should be conducive to productive motions. C) Design of Tools and Equipment 1) Tools, hand equipment and controls should be designed for easy grasp. 2) Two or more tools should be combined, if possible. 3) Jigs, fixtures or foot operated devices should be used to relieve the work of the hands. 4) Equipment should be designed so the inherent capabilities of the body members are fully utilized. 5) Levers and controls should be designed to make maximum contact with the body member.

Take a break here and try to assess your knowledge, understanding of the topic discussed in the last section above, by answering the questions given in check your progress exercise 2.

Check Your Progress Exercise 2

- 1) Define the following terms:
 - a) Work design:
 -
 - b) Job analysis:
 -
 - c) Job titles:
 -
 - d) Job enrichment:
 -
 - e) Materials handling:
 -
- 2) Differentiate between job description and job specification.
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.....
.....
.....
- 3) Briefly discuss the approaches that have been used to restructure jobs.
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.....
.....
.....
- 4) What do you understand by the principles of motion economy? Discuss the principles of motion economy in context of design and layout of workplace.
.....
.....
.....

Now let us get to know about work measurement in food service operation which you will learn focuses on effective use of human resources.

15.6 WORK MEASUREMENT IN FOOD SERVICE OPERATIONS

Work measurement is a method of establishing an equitable relationship between the amount of work performed and the human input used to do that work. In any production operation, work measurement is necessary for effective use of human resources.

Data from work measurement studies can aid evaluating alternative production/service systems, determining and controlling cost, staffing, scheduling work, deciding whether to make or buy, planning facilities and layout, identifying needs for changes in employee assignments, and timing or sequencing of tasks. *David (1978) (cited in Spears 89)* indicates that work measurement data are also needed for developing useful managerial aids, such as production time standards. Activity analysis, activity or occurrence sampling, elemental standard data, and predetermined motion time are the primary techniques of work measurement used for analysis in food service operations. Let us review these techniques.

A) *Activity Analysis*

Activity analysis involves continuous observation for a chronological record of the nature of activities performed by individual workers, work performed at one work station, work units produced, or the amount of time for which equipment is used and for what purpose. The data are used to establish standards for short cycle work or long cycle work by persons moving about and to develop elemental standard data. A simplified technique has been developed that involves employee recording of activities at periodic intervals, usually between 5 and 15 minutes. This technique has been referred to as an *employee time log reporting system*. Employees are asked to enter data on the form every ten minutes during each day of a time study, according to the function and project from the code sheet. Analysis of the data permits an analysis of time devoted to various operations within the unit.

B) *Activity of Occurrence Sampling*

Activity of occurrence sampling are terms used in the literature to describe a method for measuring working time and non-working time of people employed in direct and indirect activities, and to measure operating time and down time of equipment.

Activity or occurrence sampling has been worked in food service operations. Much of the classic work has been done at the University of Wisconsin, where a manual was developed describing methods for conducting activity sampling studies in food service operations (University of Wisconsin, 1967). Work functions and classifications include direct work, indirect work, and delays. Let us have a look at each of these, next.

- a) *Direct work functions*: Any essential activity contributing directly to the production of the end product (end product is total of meals served per day). The activities include:
 - *Processing*: Act of changing the appearance of a foodstuff by physical or chemical means.
 - *Pre-preparation or preliminary processing*: Preliminary act or process of making ready for preparation distributions, or service.
 - *Preparation or cooking*: Final act or process of making ready for distribution or service.
 - *Service*: Act of preparing facilities for distribution and of portioning and assembling prepared food for distribution to patients and to cafeteria customers (to coffee shop if dietary is responsible for operation of coffee shop).
 - *Transportation of food*: Act of transporting food, supplies, or equipment from a location in one functional area to a designated location in another area within the department or to patients' wards.
 - *Transportation of equipment, supplies and other*: Act of moving equipments, supplies and other items from a location in one functional area to a designed location in another area within the department.

- *Delivery of trays to patients*: (if this function is performed by dietary services) Act of removing patients' tray from food trucks, dumbwaiter or trayveyor, and carrying to patients' bedside.
 - *Return of trays from patients* (if this function is performed by dietary services) Act of removing trays from patients' bedside to food trucks; dumbwaiter on the ward.
 - *Transportation empty*: Act of moving without carrying guiding anything from a location in one functional area to a designated location in another area within the department.
 - *Clerical (routine)*: Act of receiving, compiling, distributing, and storing of routine records of data and information necessary for operation of the department.
 - *Cleaning*: Act of removing soil or dirt to provide sanitary conditions for the use of equipment, facilities, and supplies.
 - *Pot and pan washing*: Act of scraping, washing, or rinsing quantity food containers and cooking utensil.
 - *Dishwashing*: Act of preparing for or removal of soil or dirt to provide sanitary conditions for use of tableware (china, silverware, glassware, and trays).
 - *Housekeeping*: Act of removing soil or dirt to provide sanitary conditions for the use of installed and mobile equipment and facilities.
 - *Receiving*: Act of acquiring, inspecting, and storing food and/or supplies from an area outside the department.
- b) *Indirect work functions*: Any catalytic activity which contributes to production of the end product. Under this head the activities include:
- *Instruction of teaching*: Act of directing or receiving direction by oral or written communication in a training or classroom situation or on the job.
 - *Appraisal*: Act of judging or estimating the value or amount of work in order to make decisions for future planning.
 - *Conference*: Act of oral communication with one or more persons in the form of a scheduled meeting.
 - *Clerical*: Act of compiling and formulating management control records of data and information necessary for the operation of the department.
- c) *Delay*: All time when an employee is scheduled to be working and is not engaged in either a direct or an indirect work function, is called a delay. These include:
- *Forced delay*: The time an employee is not working due to an interruption beyond his control in the performance of a direct or an indirect work function.
 - *Personal and idle delays*: The time an employee is not working due to personal delays or avoidable delays.
- *Personal delays*: The time an employee is not working due to time permitted away from the work area.
- *Idle time*: Any avoidable delay (other than forced or personal delay) that occurs for which the employee is responsible.

The number of observations required in occurrence sampling depends on the type of study, the type of operations, and the number of personnel. Data from an occurrence sampling study are used to calculate labour minutes per meal equivalent or labour minutes for some other specific activity. One advantage of occurrence sampling is that several workers in a specific area can be studied simultaneously by a single observer.

C) *Elemental Standard Data*

Elemental standard data are time values that have been determined for many elements and motions common to a wide variety of work. From these values, total times for specific tasks can be synthesized. *David* (1978) states the job variables significantly affecting normal time for a given type of operation must first be hypothesized, then data on times be collected on the number and variety of jobs of that type. The data are used to determine the relationship between normal time and each of the variables believed to affect normal time significantly.

Predetermined motion time includes techniques in which tasks are broken down into basic motions for which normal time values have been determined (*David* 1978). The purpose of this system is to establish cycle time for a specify operation without actually performing the task. Instead, the predetermined time for the basic motions that make up the cycle are synthesized. One technique, *Methods Time Measurement* (MTM), is widely used in industry but it is time consuming, and *David* (1978) concludes that MTM is usually not applicable to long cycle work or work with limited repetition, such as that in food service operations. An alternative technique has been developed, called *Master Standard Data* (MSD), in which seven basic elements of work are combined into larger, more condensed elements.

Montag et al. (1964) (cited in *Spears* 89) were among the first to apply MSD to food service operations. They concluded that the method was applicable for developing coded standard elements with universal application in food service operations. Several studies have used MSD for examining production times in food service facilities. *Ridley* et al., 1984 used Master Standard Data to develop labour times for the assembling and microwave heating of menu items in a hospital galley. They also found that the technique could be used effectively for developing standard labour times, since data from their study indicated that total labour time under actual conditions in a hospital galley was similar to MSD predicted time.

David (1978) concludes that progress is being made in food service system toward developing standards for labour time using techniques of work measurement. She asserts, however, that application of the more complex measures requires a combination of the expertise of the food service operator and the systems analyst. Each food service operation should establish its own standards of productivity because of unique differences among operations.

Finally having reviewed the work measurements techniques, we move on to productivity improvement which you would agree is important for any food service set-up.

15.7 PRODUCTIVITY IMPROVEMENT

Here, in this section, we shall get to know about different methods which can be used to improve productivity especially in food service institutions. We shall discuss about it under two sub-headings — productivity measures and quality circles. What are these and how these help to improve productivity? Let us get to know, next. We shall start off with productivity measures, first.

15.7.1 Productivity Measures

A number of methods are used to measure labour productivity in food service operations. These measures can be classified as operating ratios. Because of their relevance to labour control, however, several of the frequently used measures of labour productivity along with the formula for computing each of these measures are delineated here.

- Meals Served per Labour Hour
$$\text{Meals/labour hour} = \frac{\text{total meals served/day}}{\text{labour hours/day}}$$
- Labour Minutes per Meal Served
$$\text{Minutes/meal} = \frac{\text{labour minutes/day}}{\text{total meals served/day}}$$
- Payroll Cost per Day
$$\text{Payroll cost/day} = \Sigma \text{ of hourly rate of each employee} \times \text{hours worked for all employees}$$
- Payroll Cost per Meal Served
$$\text{Payroll cost/meal served} = \frac{\text{total daily payroll cost}}{\text{meals served/day}}$$
- Labour Cost per Day
$$\text{Labour cost/day} = \text{total payroll cost/day} + \text{total of all other direct labour costs (fringe benefits, and so on)/day}$$
- Labour Cost per Meal Served
$$\text{Labour cost/meal served} = \frac{\text{total labour cost/day}}{\text{meals served/day}}$$

Source: Spears and Vaden 1989.

Record keeping systems should be established to record data on a systematic basis to determine the productivity measures that the management of the food service organization has selected for analysis. These measures can be used to examine trends over time within a particular operation, to compare various operations within an organization, or to compare the results from a specific food service operation with available industry data.

Next, let us get to know about quality circles.

15.7.2 Quality Circles

Quality circle is a concept which leads to increased productivity. Small groups of employees, can identify problems, analyze them and then promote better control activities. A *quality circle* is described as *a small group of employees, ranging from 3 to 25 members*. Since part of the concept is to get everyone to participate, a limit of about 10 members, all volunteers, seems to work best. Meetings are typically held once a month, but may be held as often as once a week, with the usual length being one hour. Normally these meetings are within working hours, but may be held outside working hours, with employees being paid extra. Projects are generally nominated by the workers and focus on quality improvement.

Four basic steps are involved in a QC team's approach to a problem. These steps are:

- Step 1. Select the project
- Step 2. Analyze present conditions
- Step 3. Establish goals
- Step 4. Promote control activities.

Training of team members is considered critical to the success of quality circles. It must focus not only on the quality control concept but also on brainstorming and on the various data analysis techniques used in the QC concept (such as fish diagrams, histograms, and check lists and other data recording devices). Managerial support is a prerequisite to success of quality circles in an organization.

In summarizing the literature on quality circles, *Treadwell and Klein* (1984) cite the following as among the benefits from quality circles: improved productivity, product quality, and employee satisfaction and morale; reduced tardiness, absenteeism, and work disruption; and development of the managerial ability of circle leaders. In describing the experience with implementing quality circles in a large hospital dietetics department, they indicate that the first challenge was to define objectives and a code of conduct. Look at Table 15.1 which, presents the patient tray assembly quality circle objectives and code of conduct. Once these were agreed upon, the group was prepared to being in the problem solving process.

Table 15.1: Patient tray assembly quality circle objectives and code of conduct

Objectives	Code of Conduct
To build better relationships among employees	Problem solving is the focus, not personality probing
To give employees an interest in their work through contributing ideas	Criticize ideas, not people
To respect each other as individuals and work together in harmony	All questions and suggestions are accepted – the only stupid question is the one not asked.
To improve quality of work life	Everyone enters with an open mind and is open to ideas of others
To participate as a team member, no matter how small the input	Everyone arrives at the meeting on time.
To participate collectively in the presentation to management	All projects and problems are work related. Salaries, wages, and benefits are not discussed

Their initial team was established in the patient tray assembly area, and during the first 18 months, fourteen projects were completed, six concerned with workers day-to-day frustrations, four with quality, and four with cost reduction and productivity improvement. *Treadwell and Klein* report that a savings of \$10,000 was documented in this first one and a half years and that the quality of food served to patients improved, as well as, the work environment for employees.

Three reasons behind the success of quality circles have been enumerated. These are:

- Use of basic statistics
- Group dynamics
- Job satisfaction.

When problems are attacked in quality circles, the solutions or suggestions are not based on opinions or imagination but on data collected for analyzing a problem logically and systematically. Working together in a group helps people make better decisions and builds a cooperative spirit. Generally, communication improves, labour problems are minimized, waste is reduced and self-inspection becomes routine. Job satisfaction increases as well because people feel that they are part of a company, they are listened to, and they are permitted to enjoy a greater degree of freedom and autonomy in the workplace.

So here in this section we have learnt about the measures of labour productivity and about the concept of quality circles and how employees organized in small groups can work towards improving work productivity, and employee satisfaction. Let us check our understanding on this topic by answering the questions included in the check your progress exercise 3.

Check Your Progress Exercise 3

- 1) Fill in the blanks:
 - a) A method of establishing an equitable relationship between the amount of work performed and the human input used to that work is
 - b) A technique involving employee recording of activities at periodic intervals is employee time reporting system.
 - c) A term that describes the method for measuring working and non-working time of people employed in direct and indirect activities is activity of
 - d) The time an employee is not working due to an interruption beyond his control is referred to as.....
 - e) Time values that have been determined for many elements and motions common to a wide variety of work is.....
- 2) What do you understand by direct and indirect functions. List the various direct and indirect functions.
.....
.....
.....
.....
- 3) What is a quality circle? Enumerate the basic steps involved in it.
.....
.....
.....

15.8 LET US SUM UP

In this unit we learnt about the concept of productivity and the techniques used to analyze productivity. We learnt that based on the organizational objectives, it is important that the manager designs an organizational structure and then develop jobs to fit this structure. Departmentalization according to function, product, location, type of clientele, can be different ways of structuring the organization. Line and staff relationships are significant in terms of production of goods and services and giving of counsel and advice needed.

Organization charts, we learnt, graphically describe the structure of the organization. A job analysis is required to design jobs in an organization; job descriptions and job specification are results of this job analysis process. Further, job design is effective when productivity and employee morale is high and there is a low rate of absenteeism among employees.

Food service industry poses a difficult challenge because of its style of operation and being labour intensive. Productivity improvement, in food service unit, therefore, is to bring out the best in the employee. Work design is a programme to increase the effectiveness of the worker. Principles of work simplification and motion economy if utilized will result in increased productivity. The unit also emphasized that work measurement studies need to be carried out, and data from these studies can be used to develop standard for the organization. Quality circle as a concept which leads to

increased productivity was also described. Small groups of employees, can identify problems, analyze them and then promote better control over activities was emphasized. The effectiveness of this technique lies in that solutions are based on data, and decisions evolve from a group process.

15.9 GLOSSARY

- Fish diagram** : the fish diagram also known as the cause and effect diagram shows the causes of a certain event. It was first used by Kaoru Ishikawa in the 1960's and is considered one of the seven basic tools of quality management including the histogram.
- Histogram** : a histogram is the graphical version of a table which shows what proportion of cases fall into each of several or many specified categories. The categories are usually specified as non-overlapping intervals of some variable.
- Method Time Measurement (MTM)** : it is a system frequently used to set labour rates in industry by quantifying the amount of time required to perform specific tasks.

15.10 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) Productivity has been defined as a term descriptive of the level of the output of a manufacturing operation. In the context of food service establishments, work productivity is used to describe the performance of jobs by the personnel, working in an organization.
- 2) One of the primary reasons for organizing a food service institution is to establish lines of authority which create order within the organization. Organizing also improves the efficiency and quality of work, as the coordinated efforts of people working together begin to produce a synergistic effect. Improved communications can also be a product of organization and its structurally defined channels of communication among members of the organization.
- 3) Refer to sub-section 15.3.1 and 15.3.2 and write the salient features on your own.
- 4) Departmentalization is the most frequently used method for implementing division of labour, which involves grouping activities into related work units. Give an example based on your understanding of the concept. Also refer to sub-section 15.3.3 and list the various parameters, based on which different departments are organized.
- 5) The organization chart graphically portrays the organization structure. It depicts the basic relationships of positions and functions while specifying the formal authority and communication network of the organization. It is not an exact representation of reality and therefore, has limitations. The organization chart shows few of the relationships even in the formal organization and none of those in the informal organization.

Check Your Progress Exercise 2

- 1) a) The function of specifying the work activities of an individual or group or developing assignment that meet the requirements of the organization and the technology, and that satisfy the personal and individual requirements of job holder.

- b) The process of determining, through observation and study, the pertinent information relating to the nature of a specific job.
 - c) The titles assigned to jobs which are primarily designed to distinguish among various jobs.
 - d) An attempt to increase the task dimensions of a job to give greater autonomy, feedback etc.
 - e) Movement and storage of materials and products as they proceed through the food service system.
- 2) A job description is a written statement identifying the tasks, duties, activities, and expected performance results in a particular job. A job specification, on the other hand, identifies the ability, skills, or traits necessary for successful performance of a job.
 - 3) Approaches that have been used to restructure job are job enlargement and job rotation. Refer to sub-section 15.4.4 and discuss these approaches based on your understanding.
 - 4) The principles of motion economy, relate to the design of work methods, of the workplace, and of tools and equipment. These principles specify that movement should be simultaneous, symmetrical, natural, rhythmic, and habitual. Refer to section 15.5 and present a discussion on the principles of motion economy in context of design and layout of workplace.

Check Your Progress Exercise 3

- 1)
 - a) work measurement
 - b) log
 - c) occurrence sampling
 - d) forced delay
 - e) elemental standard data
- 2) Direct functions are any essential activity contributing directly to the production of the end product. Indirect functions are any catalytic activity which contributes to production of the end product. To list the various direct and indirect functions refer to sub-section 15.6 B.
- 3) Quality circle is a concept which leads to increased productivity. In this concept small groups of employees organize into a group which can identify problems, analyze them and then promote better control over activities. For basic steps refer to sub-section 15.7.2 and write down these steps.