

## **Unit AF1      Develop information systems to meet the needs of users**

### **Elements**

**AF1.1    Identify the needs of users of information systems**

**AF1.2    Identify and recommend improvements to information systems**

**AF1.3    Implement improvements to information systems**

### **Unit Commentary**

This unit is for archaeologists who are not information technology experts, but who do have responsibility for computerised and manual information systems, and who have a need to store information on their activities. Organisations are using ever more sophisticated information systems for a wider range of activities, from archiving to interactive multi-media display systems. On the other hand the use of 'manual' (non-computerised) systems still have a role to play.

This unit deals with the need to keep up to date with developments and seek ways of improving information systems: improvements can be modifications to existing systems, or complete replacement of the hardware or software. This unit covers identifying who is using information systems, consulting with them on their requirements; identifying options for how the information system can be improved; and then seeking resources for implementation and implementing the improvements once they have been agreed, so that the information system is correctly installed and meets all its specifications.

## AF1 Develop information systems to meet the needs of users

### AF1.1 Identify the needs of users of information systems

#### Performance Required

*This will involve:*

- a) Identifying the existing **information systems**
- b) Identifying the types of **users** of the information systems
- c) Estimating the numbers of users of the information systems
- d) Identifying the ways in which the current information systems are used
- e) Identifying the current and future requirements of users and reviewing them with **relevant people**
- f) Identifying and assessing the conflicting requirements of users
- g) Providing users with opportunities to discuss their requirements, and seeking clarification on any issues.

#### Occupational Context

##### 1 Information systems

- computerised
- manual.

##### 2 Users

- current users
- potential users

##### 3 relevant people

- users: internal to organisation, external in field
- supervisors/ managers/ advisors
- maintenance and support staff

#### Knowledge Requirements

*You need to know and understand how to:*

- Design valid questionnaires
- Conduct user surveys

*You need to know about:*

- The different types of users of information systems, and their broad objectives
- How to estimate the numbers of users of information systems
- The likely benefits of user surveys, and their limitations
- Who the people are with whom results should be reviewed
- The likely conflicting requirements of users
- The methods that can be used to communicate with users, and those that have proved successful in the past
- The types of issues likely to be raised by users

**AF1 Develop information systems to meet the needs of users**

**AF1.1 Identify the needs of users of information systems**

**Required Skills**

*You should demonstrate:*

- Needs Assessment
- Survey and questionnaire design
- Interviewing technique

**Evidence Required**

*You should provide evidence that you can identify the needs of users of information systems*

The candidate should be questioned, based upon the documentation provided, to explore how they

- identify the needs of users of information systems.

**Evidence Rules**

The candidate should have been involved in developing procedures for and using information systems over a period of time within a working context

## AF1 Develop information systems to meet the needs of users

### AF1.2 Identify and recommend improvements to information systems

#### Performance Required

*This will involve:*

- a) Regularly monitoring the performance and function of the existing information systems
- b) Matching the requirements of users against the information **systems' capabilities**, and identifying any problems
- c) Encouraging users to provide suggestions on improvements
- d) Consulting suitable information system specialists to assist in the identification of **improvements**
- e) Identifying and evaluating options for improvement
- f) Identifying accurately the resources required for the desired improvement
- g) Consulting users on the **feasibility** and acceptability of implementing options
- h) Proposing recommendations within the agreed timescale

#### Occupational Context

##### 1 Systems' capabilities

- storing information
- preparing information
- processing information

##### 2 Improvement

- in function
- in capacity
- in cost effectiveness
- in validity and reliability

##### 3 Feasibility with regard to:

- specific user needs
- organisational capacity

#### Knowledge Requirements

*You need to know and understand how to:*

- Encourage users to provide constructive suggestions
- Evaluate the options and select one
- Develop a specification for the improvement of the information system

*You need to know about:*

- The current performance and capability of the existing information system, and how they are monitored
- The requirements of users
- The range of options for improving the information system
- The timescales and financial requirements for improvements

**AF1 Develop information systems to meet the needs of users**

**AF1.2 Identify and recommend improvements to information systems**

**Required Skills**

*You should demonstrate:*

- Statistical analysis of financial information
- Interpretation of organisational objectives (project proposals, mission statements, etc)

**Evidence Required**

*You should provide evidence that you can identify and recommend improvements to information systems*

The candidate should be questioned, based upon the documentation provided, to explore how they

- identify and recommend improvements to information systems.

**Evidence Rules**

The candidate should have been involved in developing procedures for and using information systems over a period of time within a working context

## AF1 Develop information systems to meet the needs of users

### AF1.3 Implement improvements to information systems

#### Performance Required

*This will involve:*

- a) Consulting specialists to assist in the implementation of **improvements**
- b) Selecting systems and equipment to meet agreed specifications, and acquiring them in accordance with the organisation's procedures
- c) Ensuring systems and equipment are installed and commissioned according to **specification** and verifying that they meet all relevant **regulations**
- d) Ensuring systems and equipment are configured with existing systems and equipment, and that they achieve their optimum performance
- e) Ensuring **relevant people** are briefed in the use of the systems and equipment
- f) Ensuring data are entered or transferred into the new systems and equipment according to an **agreed plan**
- g) Resolving any problems with the implementation

#### Occupational Context

##### 1 Improvements

- in function
- in capacity
- in cost effectiveness
- in validity and reliability

##### 2 Specification and regulations

- ethical
- departmental
- organisational
- according to the field
- according to the discipline
- in line with project research proposal/ investigative plan/ dissemination strategy

##### 3 Relevant people:

- users: internal to organisation and external in related profession/ industry
- supervisors/ managers/ advisors
- maintenance and support staff

##### 4 Agreed plan:

- pilot / immediate/ staged
- in controlled conditions
- under supervision
- by users themselves

#### Knowledge Requirements

*You need to know and understand how to:*

- Select systems and equipment to meet specifications
- Transfer data between items of equipment

*You need to know about:*

- The most effective sources for the supply of systems and equipment
- The organisation's procedures for purchasing supplies
- The appropriate professional bodies and trade associations for people installing equipment, and what qualifications installers should possess
- What the configuration of the equipment should be
- Who should be provided with information on the installation

**AF1 Develop information systems to meet the needs of users**

**AF1.3 Implement improvements to information systems**

**Required Skills**

*You should demonstrate:*

- Technical skills for system set up
- Book keeping and manual recording/ categorisation of data

**Evidence Required**

*You should provide evidence that you can implement improvements to information systems*

The candidate should be questioned, based upon the documentation provided, to explore how they

- implement improvements to information systems and that the implementation involves the modification and replacement of existing systems.

**Evidence Rules**

The candidate should have been involved in developing procedures for and using information systems over a period of time within a working context