

13.7 Support and Training

User Support

- Describe the ways in which software houses provide user support, relating these to cost and package credibility.
 - Describe the range of user support options available with industry standard packages. These could include existing user base, support articles, utilities, specialist bulletin boards, communications systems, e.g. Internet; e-mail.
 - Select and justify an appropriate user support system for a particular context.
- Explain the need for different levels of documentation related to user and task.

Training

- Explain the need for different levels of training related to user and task.
- Understand the need for continual skill updating and refreshing.
- Describe the methods by which users can gain expertise in software use and discuss the relative merits.
- Understand the need to develop training strategies to respond to growing user awareness.

USER SUPPORT

The reasons why software houses provide support

- As software packages become more complex there is an increasing need to provide some form of support for all levels of user support. The type and level of support offered might well be one of the criteria used to evaluate the suitability of a software package before purchase
- A good level of support will give credibility to a package but the costs of providing the support will have to be passed onto the customer either by including it in the cost of the package or by charging a registration or annual fee to the end-user.
- Preserve the reputation of the company
- Encourage customer loyalty

Help desk

Offers a point of contact for customers. Similar problems and fixes can be collated. However running a help desk can be a daunting affair as people using it are often at the end of their tether. Problems should therefore be solved at this point when possible rather than passing on to a third person. See examination answer for examples of what is logged. A help desk may collate an expert system

Technical Support Line

The most common support is by use of telephone support. Often a package will come with a fixed term (e.g. 90 days) of free support. This is usually measured from the date of the first call. The support line will usually register the customer for support when the first call is made, noting the package serial number and the customer details and usually assigning the customer an ID number to use for future calls.

After the period of free support the customer will be charged for extended support, either by paying an annual fee or perhaps with a 'one off' registration fee. Some companies provide support using 0891 numbers so that the customer pays only for the help received. If a software house is confident that the package can be easily learned then they may offer lifetime free

support. The end user will still have to register for this support to ensure that the company does not have the overhead of providing free support to pirate copies.
 May be staffed by experts who may sometimes find it difficult to communicate with business users.

On-screen help

Many packages provide on-screen help. This is particularly useful if it has a context sensitive feature that allows the user to rapidly access help appropriate to the current task. In addition there is an increasing use of interactive on-screen tutorials to teach the user about the package and the provision of wizards to automate and simplify common or complex tasks.

On-site support

In critical applications it may be desirable to have on-site support provided. This would be particularly true when the software provided had been specially commissioned by the customer. The cost of such support is obviously high.

Bug fixes

Software houses will often provide support including upgrades and 'fixes' via bulletin boards. Users can also obtain alternative support by way of user groups on the Internet and by buying specialist books (e.g. The Dummies Guide to....) or reading articles in specialist magazines.

Existing user base

Informal support is often provided within an organisation by one or more 'experts' who may be familiar with a package either because of long term experience of using it or because they have well developed IT skills through interest or training.

Bulletin Boards

An electronic notice board to which items of interest, notes, hints and requests for assistance can be pinned.
 A whiteboard facility might allow all users of an organisation to be notified of a particular problem e.g. part of a network down.

Newsletters and Support Articles

http://outreach.missouri.edu/moexpress/guides/moex18-1.html	
http://www.peoplesnetwork.gov.uk/training/links.asp	
http://www.ucisa.ac.uk/groups/tlig/conf/apr1_96/S_Barnes.htm	This paper by Dr. Sally Barnes examines methods of providing user support and training in IT.
http://www.thekjs.essex.sch.uk/yates/it04-7.htm	kjs notes
http://www.thekjs.essex.sch.uk/yates/it04-8.htm	kjs notes

Documentation

There will be different levels, which relate to the particular user and the task itself. You should be aware of the following

Documentation can be one or more possibly large books will normally accompany a complex package. This can be daunting for the novice user who will have neither the time nor the expertise to read and understand this amount of information.

It is now customary to include a small booklet, which will get the new user started. This could include **an installation guide** (which might be a separate booklet) and a simple introduction to using the package and its features.

System documentation - this describes the design, structure and software features of an information system and will include system flowchart, structure charts, file and record layouts, and program listings.

User documentation

Software Documentation - the main aim being to introduce the package and tell the user how to use to its best advantage. This will include: -	
an overview of the package with specific uses and features, sample screens	how to install the software
how to make extra copies for safety	how to configure the software
how to configure to print	tutorial manual for novices "Getting Started" and "Tutorial"
summary sheet or quick reference guide for experienced users "User Guide"	registration card
on-line help file	
Hardware Documentation	
details of connecting leads	dip switches
options that are controlled by software	how to customise hardware - printer drivers, screen display
troubleshooting	general care of equipment
Data input instructions	Transaction authorisation
Sample data inputs	Report distribution lists
Output report samples	Error correction procedures
Operational Documentation - this describes the steps for running and operating a system and will include: -	
computer job specs.	backup and recovery procedures
hardware and operating system requirements	disaster recovery plan

TRAINING

The need for training

All employees need to know how to do their job effectively

Companies in industrialised countries spend huge amounts of money, often several million pounds a year, on training their employees. There are a number of reasons why training is perceived as a valuable investment

- Senior managers manager will require to understand the benefits and problems associated with IT. This will enable them to develop the company IS strategy and allocate resources.
- Middle managers need training in how to define information requirements, how to integrate systems and how to get value for money.
- All users need the skills, attitude and knowledge to do their jobs safely and well. Operator will require skills to do a particular task. Programmer will require technical knowledge.
- New employees need inducting into company procedures.
- Existing employees will need retraining if and when the nature of their jobs change.
- Well trained employees tend to be better motivated - leading to lower staff turnover, better quality procedures and safety records.
- Well trained employees are better motivated and have better chances of promotion
- Training can result in improved sales and a better safety record
- Training in IT is crucial to the success of any IT system

What training would be required for teachers, unfamiliar in the use of ICT, in a secondary school?

Training for senior managers

- Establishing a corporate information systems strategy
- Appraising advice from IT professionals
- Allocating resources to information systems

Training for middle managers

- Correct use of computer systems
- Enabling information to reach the right people at the right time
- Computer security policy
- Defining information requirements
- How to integrate systems
- Realise the potential of any new computer system
- Use of software such as spreadsheets, communications, word processing, specialised software etc

Training for users

Task-based activities

- **Clerical workers:** Loading a spreadsheet, entering sales figures, printing reports etc.
- **Sales staff:** Entering customer details to check credit rating, entering details of sale etc.
- **Secretary:** Word processing reports, letters, using function keys or 'hot keys' to run macros of common tasks.

Skills-based activities

- **Middle manager:** How to create a presentation showing sales figures, how to use a spreadsheet to analyse data and produce graphs etc.
- **Office supervisor:** How to create a template with macros to automate common functions, setting a style sheet for letters and other correspondence etc.
- **Complete the analysis of the advantages and disadvantages of a range of training methods – See separate sheet.**
- **Look at the manuals available at WGS – Which types of user are the suitable for?**
- **Investigate the computer based training (CBT) materials available on the school network.**

Skills-based training

- The user develops generic skills in using a package that will provide the user with skills that should help develop transferable skills that will apply to a wider variety of tasks and which will raise the users confidence in his or her general ability to use computers.
- Skill based is likely to be more in-depth and require formal assessment

Task-based training

- The user learns to perform particular tasks.
- Task based training will concentrate on the particular tasks that the user will need to perform -e.g. entering a sale into the computer.
- The object of this type of training is to focus on the tasks that the user will need to perform so that they can become competent in doing them as quickly as possible.
- The potential problem is that the user may see their use of the computer as a series of isolated routines and thereby lack the wider viewpoint that will allow them to handle unusual or error situations.
- 'Sitting with Nellie' might be used to teach a particular task and might require only a peripheral knowledge of programs and procedure.

Skills updating

- Even experienced users may need refresher courses on aspects of the software that they have not used before or which they use only occasionally.
- To learn new approaches
- To keep track with particular upgrades

Computer-based training

- Can quickly become cost-effective if large numbers of employees are concerned when compared with sending off to be trained.
- Can use when work is slack.
- Can study at own pace.

Instructor-led

- Interaction with tutor and colleagues.

Other forms of training

- Training courses provided by the employer - can be expensive to provide but should cater for the needs of the user.
- Training courses provided by the manufacturer
- Training provided by third party organisations
- Video training
- Interactive video training
- Disk based tutorials
- Bought in training materials/workbooks
- Articles in magazines or newspapers
- Supplied manuals and user documentation
- On-line help and tutorials built into the package
- User group
- Informal training by expert colleague

Corporate training strategy

- Understand the need to develop a company **training strategies** to respond to growing user awareness.
- Without a training policy, an unmotivated and unskilled workforce can undermine everything the company is trying to achieve. Skills must be frequently updated as jobs and technology change.

Past exam Questions. Have a look at more recent exams as well.

QUESTION 1

- (a) Describe THREE items of information a user support line would log when taking a call from a user. (3)
- (b) Many user support lines need to share problems and potential solutions between a number of operators who are answering calls. Describe one method of achieving this (3)
- (c) Some user support lines also offer a mailbox facility to enable users to log their problems using e-mail. What advantages does this have for
 - (i) the software user
 - (ii) the user support staff (4)

<i>(a)</i>	
<i>package version number</i>	<i>serial number of the software (ensure legitimate copy)</i>
<i>nature of problem</i>	<i>call reference number</i>
<i>date and time</i>	<i>users name and telephone number or postcode</i>
<p><i>(b) Knowledge base software which allows enquiry in a variety of ways including keyword, reference code, enquiry type.</i></p> <p><i>(c) (i) the software user avoids engaged and music problem, may not be time critical, message must be acknowledged</i></p> <p><i>(ii) the user support staff - no chasing absent users, not time critical, can smooth out demand.</i></p>	

1998.5 (13 Marks)

The Head of a school decides to adopt an IT package to maintain pupils' records of attainment. The package will be used throughout the school.

- (a) (i) Identify **three** different potential users of this package. (3)
- (ii) With the aid of examples, describe the different types of documentation that each user will require. (6)
- (b) Training in the use of this package may be provided by a variety of methods other than formal training courses. Describe **two** possible alternative methods. (4)

<p><i>(a) Different levels of user may require different types of documentation</i> <i>Mark as (1) for user & (2) for documentation required</i></p> <p><i>i) 3 users 1 mark per user.</i></p> <p><i>ii) must be relevant documentation not information</i></p> <p><i>Clerical support NOT administration : (1) routine volume data input, data control procedures, obtaining reports (all levels) (2)</i></p> <p><i>Teacher: (1) limited data input, obtaining standard operational reports, more complex information extraction for operational use (e.g. sort/search)(2)</i></p> <p><i>Management(1): strategic information, more complex information extraction for operational use (e.g. sort/search)(2)</i></p> <p><i>Technical Support(1): installation instructions, backup, recovery, handling technical error messages e.g. memory out(2)</i></p> <p><i>Accountant/Bursar (1), Form tutor (1), Pupil (1), Careers Staff (1), Head of Year (1), L.E.A. (1)</i> <i>NOT other external agencies Governors (0), Parents (0), College/Univ (0)</i></p> <p><i>NO MARKS IF INFORMATION REQUIRED</i></p> <p><i>NO MARKS FOR ATTENDANCE Any 3x3</i></p> <p><i>(b) Methods of providing training</i></p>
--

Any 2 @ 2 from: Mark as (1) for method & (1) for description
 Computer based training; normally based on a separate package
 Video tapes/disk: separate to package but require concurrent use.
 on-line tutorials/step-through guides: separate or built into the package, force user through a series of planned exercises
 examples/demos: built into software, tend to be processes driven with a more significant (larger) example
 Step by step user guide (1)
 Cascade (1) to devise (1) a selected relevant training programme for others
 Helper, Help desk use manual ... ALL (0)

June 2002.7

A small legal firm is about to replace stand-alone computers with a new computer network. Industry standard software will be installed. As new users of both the equipment and the software, the firm is concerned about the levels of support and training that will be needed. There are three levels of system user: the solicitors themselves, the practice management and the administrative staff.

- a. Explain **two** factors that need to be taken into account when planning the training. (4 marks)
- b. Describe **two** different ways of giving technical support to these users. (4 marks)
- c. State **two** means of providing the training material, and give an advantage of each. (4 marks)

a.
 1 for factor (F), 1 for explanation/example(in context) (E) - max.2 x (2,1,0)

- Level of detail for level of user/type of use of training e.g. skill-based or task-based
- Staff familiarisation with hard/software
- Staff IT literacy
- Strategy for new staff

But NOT

- Timing of training
- Who and how many/train the trainer
- Cost
- Age of trainee
- Location
- Method of training

b. 1 for method, 1 for description - max. 2 x (2,1,0)

- Help Desk/phone line open hours of business (1), someone technical to guide/help (1)
- On-site technical support (1), for first few weeks/months of new installation/to be on-hand (1)
- User guides/articles/utilities/books/documentation (1), people can work at own pace/have instructions at side/look it up for themselves (1)
- Communications systems/bulletin boards/internet site/email updates (1), more able users can help themselves (1)
- On-line technical help (1) use of the internet to get queries solved by a technical expert/via email (1)
- On-screen help (1) installed with package/wizards to help solve problems (1)

c.

1 for method, 1 for advantage - max. 2 x (2,1,0) advantage must be viable in context and is dependant on the method (i.e. no single marks for advantage)

- *CBT (allow CD-Rom or DVD-Rom)/course on intranet/delivered through network, . adv. e.g. Study at own pace*
- *Video/Interactive video adv. e.g. can be rewound On-line tutorial*
- *Self-study/step through guides*
- *Formal external course adv. e.g. tutor present to help or answer questions*

January 2003.5

Describe, with the aid of examples, three different methods of providing training in the use of software, and justify their use. (9 marks)

*1 for Name(N), 1 for example(E) and 1 for justification(J) (the “why” this method is suitable in the example given, often flagged as an advantage)
any 3 x (3,2,1 ,0)*

- *classroom training course (Off-site)*
- *CBT*
- *model office training (Un-site ‘classroom ’)*
- *pre-release version training, at user’s premises*
- *involvement with user testing, at supplier’s premises*
- *skills-based training for IT illiterates*
- *on-the-job training*
- *on-line tutorial*
- *internet-based training*
- *user training manual (NOT User guide)*
- *video/interactive video*

Sample answers might be -

- *Classroom training, off the premises for a group of managers, because they won’t get disturbed by day-to-day office interruptions.*
- *User training manual (accept book) with step-by-step instructions, used generally for individual learning, it can be read for review even if the machine is not available. (often expressed as “read at home”)*
- *CBT, available to be used by individuals as they are required to learn a package, means that everyone gets the same/standard training*

June 2003.8

A large medical centre, **with three** doctors and community health clinics, is introducing an ICT based display system. The new system will give patients general information about the different surgery and clinic times, and who is on duty. There will be display screens in the foyer and in each waiting area. The system will be controlled by a PC, which is to be connected to the medical centre network.

The centre's main reception team will be responsible for operating this new system. The receptionists' role does not currently entail any computer work.

- (a) Describe **two** different ways of collecting the data on which the information to be displayed will be based. (4 marks)

(b) The receptionists will require training in the use of this new system so that they can provide useful information to the patients.

Describe **three** ways in which the training could be provided. *(6 marks)*

(c) The system may also be used to display urgent messages.

Give an example of **one** such use, and describe **one** safeguard which should be present to prevent the misuse of this feature *(3 marks)*