

Unit 28: IT Support for End Users

Unit code: F/601/0458

QCF Level 4: BTEC Higher National

Credit value: 15

- **Aim**

To enable learners to perform user support tasks and to provide training materials for users and user support staff.

- **Unit abstract**

As the number and variety of systems used by management, administration and other non-IT professionals grows, and as organisations become increasingly dependent upon these, the need to provide efficient, effective and consistent support to the users of these systems becomes paramount.

Computer users need appropriate training and support in order to be able to make best use of the systems available to them. As problems will inevitably occur, they also need access to knowledgeable and sympathetic staff within a formal framework of support. This is often via a help desk which, depending on the complexity of the problem, may provide direct assistance, remote support or refer to further expert support.

Learners will begin this unit by looking at how to analyse a reported problem and provide user support. This can be in the context of the problem and also in preventive training. Learners will evaluate how problems affect user productivity.

Learners will then deliver appropriate user support, both by remote means and in person. They will design and apply methods of monitoring and documenting user support activities.

Finally, learners explore user support planning including production of user manuals, training courses, and plans for system maintenance and disaster recovery.

- **Learning outcomes**

On successful completion of this unit a learner will:

- 1 Understand user problems
- 2 Be able to provide user support
- 3 Be able to create user support programmes.

Unit content

1 Understand user problems

Analysis of problem: incoming incidents; problems; change requests; identifying user requirements eg accessing user computer systems (remotely or at the desktop), user description; using software tools; human factors eg appreciation of user frustration, appropriate communication techniques

Types of problem: technical problems eg hardware (compatibility, failure, degradation, configuration), software (compatibility, failure, corruption, configuration), system capacity problems, transmission problems (cables, switches, routers), connectivity problems (internet, other systems, printers, shared resources); continuous; user created; system changes (automatic updates, installed patches)

Response: support levels, methods of supporting a user eg immediate response, advice on access to manuals, help systems, obtaining additional support

Evaluation: estimations of system downtime and reduction in user productivity

2 Be able to provide user support

Incident recording: details eg customer name, problem, date and time of call, response, action taken, time taken to resolve problem; media to store details eg paper, software; support materials consulted eg manuals, guides, multimedia, courses

Fault diagnosis: tools eg remote fault diagnosis, third-party utilities; record tests carried out, advise on corrective action, confirm problem has been solved

User support: remote; in person; incidents eg software update, device driver installation, re-configuring network card, adding memory chips; change of motherboard; installing new hard drive

3 Be able to create user support programmes

User support manual: troubleshooting eg logging on, accessing the network, email, browser issues, printer problems, viruses, mobile access; accessing software eg office, company bespoke.

User training: identifying training needs; IT policy (email, web, software installation); security; applications; routine maintenance.

Support planning: upgrading/replacement of existing system hardware/software, infrastructure (backbone, routers, switches, cabling, WAPs).

System maintenance: preventative, predictive, remedial; routine maintenance eg backing up, cleaning, virus scan, defragmentation, removal of temporary files, password policies.

Recovery plans: hardware failure (workstation, server), natural disaster, power failure, major loss of data, security breaches, restoring data.

Learning outcomes and assessment criteria

Learning outcomes On successful completion of this unit a learner will:	Assessment criteria for pass The learner can:
LO1 Understand user problems	1.1 discuss an analytical approach to solving different types of user problems 1.2 evaluate the impact of problems on user productivity
LO2 Be able to provide user support	2.1 design suitable methods to monitor and document technical support activities 2.2 deliver user support, both at the desktop and remotely, to meet user needs
LO3 Be able to create user support programmes	3.1 design a user support manual for an organisation that could be used by users before contacting the help desk 3.2 devise a training course that could be presented to new employees of a company to enable them to be familiar with company IT policies and systems 3.3 produce a system support services plan for an organisation that includes support planning, system maintenance and disaster recovery.

Guidance

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

The learning outcomes associated with this unit are closely linked with:

Level 3	Level 4	Level 5
Unit 12: IT Technical Support	Unit 2: Computer Systems	
Unit 13: IT Systems Troubleshooting and Repair	Unit 24: Networking Technologies	
Unit 29: Installing and Upgrading Software		

This unit has links to the Level 4 and Level 5 National Occupational Standards for IT and Telecoms Professionals, particularly the areas of competence of:

- IT/Technology Service Helpdesk and Incident Management
- IT Application Management/Support
- IT/Technology Management and Support.

Essential requirements

Learners must be given access to appropriate hardware and software to allow them to practise and demonstrate practical skills as evidence of learning. This will necessitate the provision of well-managed break-fix resources.

Resources

Books

Beisse F – *A Guide to Computer User Support for Help Desk and Support Specialists, International Edition* (Course Technology, 2009) ISBN-10: 1439042055

Bruton N – *How to Manage the IT Help Desk: A Guide for User Support and Call Center (Computer Weekly Professional)* (Butterworth Heinemann, 2002) ISBN-10: 0750649011

Gookin D – *Troubleshooting and Maintaining Your PC All-in-one Desk Reference for Dummies* (Wiley, 2009) ISBN-10: 0470396652

McRae K, Marshall G – *Computer Troubleshooting: The Complete Step-by-step Guide to Diagnosing and Fixing Common PC Problems* (Haynes & Co, 2008) ISBN-10: 1844255174

Sanchez A – *Technical Support Essentials: Advice to Succeed in Technical Support (Beginner to Intermediate)* (CA Press, 2010) ISBN-10: 1430225475

Wooton R – *Building and Running a World Class IT Help Desk* (McGraw Hill, 2001) ISBN-10: 007213237X

Websites

www.answersthatwork.com/

www.internet4classrooms.com/support.htm

Employer engagement and vocational contexts

Working with a live system will present many risks, that the centre, employer and learner must be aware of using a current vocational context to deploy an additional or alternate solution will enhance the learners experience and enable understanding of wider technical application.