

Unit 12: IT Support

Unit code: F/601/3277

QCF Level 2: BTEC First

Credit value: 10

Guided learning hours: 60

● Aim and purpose

This unit will make learners aware of problems IT users experience on a daily basis and enable them to provide support to resolve common IT problems.

● Unit introduction

Computers are relied upon more and more in workplaces as well as by home users and the consequences of not solving problems quickly can be significant. This means that individuals who supply technical advice and guidance to keep the organisation running, and people using the technologies effectively, are key employees. The importance of these roles has increased because of the rapid pace of change in the technologies. This often means that the nature of the support changes to one of supporting people developing new skills in addition to supporting them because of failures of the actual technology.

Learners will gain experience in capturing user problems and requests into structured systems that meet these needs, including mechanisms to escalate problems, when appropriate. They will also be able to identify trends which may indicate underlying issues and develop this into proposing possible solutions.

The unit builds on learners' existing knowledge of IT, perhaps gained through other units. It covers both how IT support systems operate and the work of individuals who provide technical advice.

It is recommended that this unit be delivered early in the programme, as it helps learners understand the workings of IT support systems before practising practical IT support skills.

● Learning outcomes

On completion of this unit a learner should:

- 1 Know the common issues IT users may experience
- 2 Be able to record user support requests
- 3 Be able to provide IT support
- 4 Understand the importance of trends in IT support requests.

Unit content

1 Know the common issues IT users may experience

Common requests: issues eg forgotten login details, device issues, drive mappings, internet connectivity, email, lost files; hardware eg replacements, upgrades; software eg upgrades, new software; services eg intranet access, internet access; permissions; remote access

Support: levels eg first, second, third-line support

Benefits: advantages eg staff confidence, efficiency

IT helpdesk: types eg online, phone support, services offered; advantages; disadvantages

2 Be able to record user support requests

Types of problems: errors eg hardware faults, installing software, reconfiguring software, network issues; supplying consumables; advice on software applications eg use of spellchecker, saving files

User interaction: methods of recording user problems eg software forms, email, verbal reports, error messages, diagnostic reports;

3 Be able to provide IT support

Communicating information: good practice eg being supportive, dealing with stressed individuals, being calm; providing progress reports; verbal feedback; written feedback; escalation of problem eg irregular requests, outside responsibility; archiving requests and responses eg use of computerised databases

Advice and guidance: basic functions eg of hardware, software, networking features; maintenance procedures eg cleaning CD/DVD readers, printer head cleaner utilities, running diagnostic software; troubleshooting advice eg replacing broken equipment, running testing applications, identification of an upgrade/replacement needed

Procedures: recording end-user requests; fault-finding; record problems eg time constraints; use sources of information eg reference manuals, specifications, frequently asked questions, websites; fault resolution flowcharts

4 Understand the importance of trends in IT support requests

Trends: types eg commonly occurring problems, problems reported by users

Effect of technology: developments eg function, capacity; new ways of working; impact on users eg stress, new opportunities; increased support need

Assessment and grading criteria

In order to pass this unit, the evidence that learners present for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 describe the common issues IT users may experience [IE2, IE3]		
P2 identify the benefits of having a helpdesk facility	M1 describe the potential benefits of moving a helpdesk facility offsite	D1 explain the potential drawbacks of moving a helpdesk facility offsite
P3 record information about end-user requests following defined procedures [EP3]		
P4 use different sources of information to communicate about specified errors [IE3]	M2 design and test a fault-finding procedure for users	
P5 respond to multiple user support requests	M3 manage support documentation for multiple user support requests. [TW6, RL6]	
P6 identify trends in problems reported by users [IE1]		
P7 explain the importance of trends in IT support requests.		D2 explain actions for reducing commonly occurring problems identified from trends. [EP3]

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

This unit will prepare learners for working in a support role. It is focused on advice and guidance rather than on the identification and fixing of faults. It would suit learners who wish to progress into a helpdesk type role rather than that of a traditional technician.

Access to work experience opportunities will be preferred by many learners and will give a context and reality that will add value. However, simulations can also be designed which have the benefits of consistency and facilitating assessment. Visits to helpdesks or talks by helpdesk operators will be valuable.

It will be necessary to define for learners some aspects of the working environment that they will need to operate within. This environment may include:

- easy access to manuals, specifications or other sources of information
- clearly defined procedures for documenting requests and advice given possibly using simple flowcharts or other structure diagrams. These procedures should include points where problems may be resolved and where outstanding matters are escalated to a higher level
- rules for escalation of difficult problems or problems outside the scope of the learners' defined role.

In addition, job descriptions could be provided and tailored to suit individuals in such things as the areas of expertise that they are able to respond to and guidelines for escalation. Learners do not need in-depth skills in the areas that they deal with.

There should be a variety of types of sources of information in order to give opportunities for M3. Steady building of learners' confidence and smooth running of the programme will be facilitated by good preparation of scenarios and related materials so that learners are not discouraged early by a lack of source information that relates to the requests they are presented with.

With P3-6, learners will need a range of tasks to complete during class time in what may be considered a 'realistic working environment'. For the purpose of definition, multiple in the context of P5 implies that learners must have addressed at least three requests.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and assessment
Introduction to the unit
Identifying advice and guidance which may be required by IT users: <ul style="list-style-type: none">• whole-class exercise – tutor presentation on how to explain hardware, followed by individual exercise• whole-class exercise – tutor presentation on how to explain software, followed by individual exercise• whole-class exercise – tutor presentation on benefits of providing advice and guidance to users• individual exercise – learners look at the features of an IT helpdesk• individual exercise – learners practise helpdesk procedures.

Topic and suggested assignments/activities and assessment
Assignment 1 – Helping the User Providing advice and guidance: <ul style="list-style-type: none"> • whole-class exercise – tutor presentation on communicating information to a range of users, followed by individual exercise • pairs exercise – interacting with the user • individual exercise – learners identify different types of problem.
Assignment 2 – Supporting the User Identifying trends in user support requests: <ul style="list-style-type: none"> • whole-class exercise – tutor presentation on types of trends, followed by individual exercise • individual exercise – learners look at the effects of advances in technology.
Assignment 3 – Review Support

Assessment

To achieve a pass grade, learners must achieve all of the pass criteria listed in the assessment and grading criteria grid.

For P1, a written report or a presentation with supporting notes (such as speakers' notes) would be an appropriate form of evidence. Work should be based on a visit to a helpdesk facility or talk given by an external visitor. Care should be taken to direct learners to include examples of all types of advice and guidance as indicated in the unit content.

For P2, learners must identify at least two benefits to the individual and two benefits to the organisation of having a helpdesk facility. A written report based on a case study provided by the tutor would be an appropriate form of evidence.

For P3, it is required that enough requests need to be recorded to be confident that learners appreciate and become comfortable with the process. At least ten would be appropriate and they should cover the areas indicated in the unit content for P1. Learners will need the procedures detailing for them but they do not need to design the data capture forms or databases. The recording can be made using either a paper-based or computer system. Evidence could be in the form of completed paper-based forms or an appropriate report printed out from a computerised system.

For P4, learners will benefit from being presented with a wide variety of sources of information. These could be listed for learners and include paper- or web-based manuals or specifications, CD ROM, flowcharts and databases. The evidence provided for P3 could be used as an appropriate source of information. Evidence for P4 could be a written report or an oral or electronic presentation.

P5 is entirely observation based and can be managed with a checksheet or witness statement.

For P6, learners could be given sufficient simulated records or be asked to identify trends in the records documented in P3. Evidence for P6 could be a written report or a presentation.

P7 follows on from P6 and requires learners to explain the importance of trends which could be those identified in P6. Evidence for P7 could be a written report or a presentation.

To obtain a merit grade, learners must successfully complete all of the pass and the merit criteria..

Evidence for M1 could be a written report or, more creatively, learners could act out responses or produce screenplays that describe appropriate and inappropriate responses. In the latter case, care should be taken to avoid a superficial approach and to provide supporting notes that annotate and clarify the basic evidence.

For M2, the evidence could most appropriately be provided as a flowchart, where learners are provided with an example such as faults that might occur with a particular printer or problems that individuals might have with saving files onto a floppy disk. It would be appropriate that there should be at least three stages within the faultfinding process.

For M3, the witness statement or checksheet used for P5 would be ideal, with multiple support requests. Each could be for a different user in a different context where the learner is the class/team lead for some tasks on a specific occasion.

To achieve a distinction grade, learners must achieve all of the pass and merit criteria and the two distinction criteria.

For D1, a written report is appropriate and learners must show understanding of the potential disadvantages as well as the advantages in order to justify. It is not expected that learners provide a commercial justification in terms of costs but they should be aware that keeping people working by providing swift and effective responses to requests for advice and guidance does have a cost benefit.

Evidence for D2 could naturally develop from previous evidence or tutors could provide a volume of simulated records. At least two common faults need to be identified and the actions proposed should be appropriate and could include training, upgrading hardware or software. A written report based on records provided by the tutor would be an appropriate form of evidence.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, P2, M1, D1	Helping the User	Manage an inter-departmental helpdesk and support helpdesk requests. Report on how it went.	Observation Presentation
P3, P4, P5, M2, M3	Supporting the User	Participate in the management and support of multiple users (at least three).	Standardised documents and tutor observation. Presentation
P6, P7, D2	Review Support	Using data you have gathered and other information supplied to you, carry out trend identification data analysis.	Report or presentation using a spreadsheet or chart-based application.

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

This unit forms part of the BTEC in IT sector suite. This unit has particular links with the following unit titles in the IT suite:

Level 1	Level 2	Level 3
		Unit 12: IT Technical Support

This unit maps to some of the underpinning knowledge from the following areas of competence in the Level 2 National Occupational Standards for IT (ProCom):

- 7.2 IT/Technology Service Helpdesk and Incident Management.

Essential resources

Learners will need access to practical resources and suitable technology, they can also use simulators or multimedia tools to gain prior experience before handling 'live resources'

Employer engagement and vocational contexts

Using a local computer retailer, the centre's IT supplier as well as support from the in-centre IT support as well as practical vocational job related tasks.

There is a range of organisations that may be able to help to centres engage and involve local employers in the delivery of this unit, for example:

- Learning and Skills Network – www.vocationallearning.org.uk
- Local, regional business links – www.businesslink.gov.uk
- National Education and Business Partnership Network – www.nebpn.org
- Network for Science, Technology, Engineering and Maths Network Ambassadors Scheme – www.stemnet.org.uk
- Work-based learning guidance – www.aimhighersw.ac.uk/wbl.htm
- Work Experience/Workplace learning frameworks – Centre for Education and Industry (CEI University of Warwick) – www.warwick.ac.uk/wie/cei.

Indicative reading for learners

Textbooks

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

Sanderson S – *Introduction to Help Desk Concepts and Skills* (McGraw-Hill Osborne, 2003) ISBN 007821677X

Websites

www.dmoz.org/Computers/Software/Help_Desk

www.e-help-desk.com/

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
Independent enquirers	using different sources of information to explore specified types of problems from different perspectives identifying trends in problems reported by users to resolve.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Reflective learners	managing support in relevant ways for multiple users
Team workers	providing support for multiple users
Effective participators	proposing practical ways to reduce the occurrence of common faults identified from user support records, breaking these down into manageable steps.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Using ICT	
Plan solutions to complex tasks by analysing the necessary stages	respond to multiple user problems
Manage information storage to enable efficient retrieval	record information about end-user requests following defined procedures
ICT – Finding and selecting information	
Use appropriate search techniques to locate and select relevant information	identify trends in problems reported by users
Select information from a variety of sources to meet requirements of a complex task	use different sources of information to communicate about specified types of problems
ICT – Developing, presenting and communicating information	
Enter, develop and refine information using appropriate software to meet requirements of a complex task	use different sources of information to communicate about specified types of problems
Combine and present information in ways that are fit for purpose and audience	use different sources of information to communicate about specified types of problems.

