



Examiners' Report/
Lead Examiner Feedback

June 2014

BTEC Level 1/Level 2 Firsts in
Information and Creative Technology

Unit 1: The Online World (20560_E03)

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Introduction

This report has been written by the Lead Examiner of Unit 1: The Online World. It is designed to help you understand how learners performed on this test. The report provides an analysis of learner responses for each question. You will also find example learner responses, with commentary.

The external assessment for this unit is an onscreen, on-demand test. A number of tests are live within the 'test bank' at any one time and learners are allocated tests randomly. It should be noted that this report refers to the first test retired from the live 'test bank'. Whilst not all learners will have sat this particular test, the Lead Examiner's comments provide valuable feedback, relevant across different tests for this unit.

We hope this will help you to prepare learners for the external assessment for this unit.

Grade Boundaries

Introducing external assessment

The new suite of 'next generation' NQF BTECs now include an element of external assessment. This external assessment may be a timetabled paper-based examination, an onscreen, on-demand test or a set task conducted under controlled conditions.

What is a grade boundary?

A grade boundary is where we 'set' the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade (Distinction, Merit, Pass and Level 1 fallback).

Setting grade boundaries

When we set grade boundaries, we look at the performance of every learner who took the assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark should be for a particular grade.

When our experts set the grade boundaries, they make sure that learners receive grades which reflect their ability. We have awarded grade boundaries for the first time for our new next generation BTECs, so this means that a learner who receives a 'Distinction' grade on a particular test will have similar ability to a learner who has received a 'Distinction' grade on another onscreen test. Awarding grade boundaries is conducted to ensure learners achieve the grade they deserve to achieve, irrespective of variation in the external assessment.

Variations in externally assessments

Each test we set asks different questions and may assess different parts of the unit content outlined in the specification. It would be unfair to learners if we set the same grade boundaries for each test, because then it wouldn't take into account that a test might be slightly easier or more difficult than any other.

The grade boundaries for this onscreen, on-demand test are shown below:

Grade	Unclassified	Level 1 Pass	Level 2		
			Pass	Merit	Distinction
Boundary Mark	0	13	22	31	41

General comments

This test is the second external assessment to be retired from the live 'test bank'. Following a pilot opportunity for learners in March 2013, onscreen assessment for this unit has been available on-demand since June 2013.

Most learners were able to respond effectively to the questions early on in this test. However, some of the later questions were designed to be more challenging and as such, fewer correct responses were evident.

The most successful learners scored highly across the whole test including the differential questions where they could demonstrate a depth of knowledge.

The less successful learners tended to give minimal responses and often only answered multiple choice questions. It appeared many learners were not confident in understanding the requirements of the command verbs in open response questions, but were able to use the different mechanisms available to answer multiple choice questions.

One such example was the way in which learners responded to questions which used 'explain' as a command word (explain one advantage/disadvantage etc). Centres are encouraged to refer to the Mark Scheme for this onscreen test for guidance in terms of mark allocation for questions of this type. The first mark is awarded for identification of the advantage/disadvantage, with the second mark awarded for the expansion as to why it is an advantage/disadvantage.

When responding to such questions, learners tended to either include one advantage without the expansion or two advantages instead of expanding on one – only one mark could be awarded where this occurred.

Another trend recognised when reviewing responses for this test was an absence of learners drawing on their own experiences when answering questions. As is encouraged in the Delivery Guide for this unit, learners' reflection on their 'online life' can be beneficial. However, it appeared that some learners did use their own experience on the questions relating to VLE, social networking and instant messaging.

It is important to stress that learners need to not only understand what technologies do, but also how they work by providing examples, where appropriate, to explain.

From having practical experience of these aspects of the unit, learners will be better placed to apply their knowledge and understanding to the applied situations in the assessment and gain credit for their responses.

The responses to open response questions were on occasion rather minimal and it was clear that a number of learners did not make full use of the stimulus material provided in the question. The emphasis in this assessment is on learners' application of their knowledge to a variety of practical ICT-related situations.

Stronger responses to extended response questions should demonstrate application along with theory. It is important for learners to have practice in doing this in their preparation for the assessment. Learners that were able to access higher marks for

these questions were able to apply their knowledge and understanding to the stimulus and provide realistic and appropriate suggestions.

As Unit 1 is a vocational ICT-related unit, the external assessment seeks to put the learners in applied situations and ask them to respond to these. It is essential that centres stress to learners the need to read the stimulus information carefully before they answer questions, and be prepared to use that information within their responses.

Learners appeared to manage their time effectively and appeared to be able to complete the assessment in the time available.

Question 1

**Targeted Specification Area: Learning Aim A.1
Online services**

The majority of learners understood that real-time information was the service used for checking flight times online.

Question 2

**Targeted Specification Area: Learning Aim B.3
Email**

Most learners selected the two correct email protocols from the options offered.

Question 3

**Targeted Specification Area: Learning Aim A.3
Online communication**

3a

Most learners gained the mark for this question. Learners were able to provide one way a student could use a VLE. Learners tended to use responses such as the opportunity to ask the teacher for help or to be able to access other course notes. It appeared that some learners used their own experiences of VLEs to help them respond to this question.

The response shown was awarded one mark

'Brian has been set work for the holidays by his teacher but was not present to collect the Assignment Brief. Brian will use a Virtual Learning Environment (VLE) to access the Assignment Brief and submit his work.'

(a) Give one other way the VLE will help Brian to complete the work. (1)

He can ask the teacher for help in the holidays.

3b

Most learners achieved the mark for this question by providing the response shown.

(b) Give one disadvantage to the teacher of receiving Brian's work through a VLE. (1)

Also the teacher needs to be online, and have an internet connection.

Question 4

Targeted Specification Area: Learning Aim B.2 Worldwide web

4a

Most learners understood that an 'internet browser' was the required software that Jon would need to access the internet.

4b

Most learners chose the correct option for the role of the web server being to host HTML documents and files, from the options offered.

Question 5

Targeted Specification Area: Learning Aim B.4 Data exchange

Most candidates correctly identified the header as being a correct component of a network packet to achieve one mark but fewer correctly identified trailer to achieve the second mark.

Question 6

Targeted Specification Area: Learning Aim A.1 Online services

Most learners were aware of the two correct reasons why online multi-user games are popular. This question may have been answered correctly by most learners due to their own experiences.

Question 7

Targeted Specification Area: Learning Aim A.3 Online communication

This question was made up of part (a) and part (b). Both required learners to provide two responses for each part to gain the total of four marks. A number of learners tended to only include one advantage or one disadvantage rather than the two required.

7a

Most learners understood that Suni was abroad and needed to communicate with family back at home. One of the most commonly provided responses was that Suni could share photos with family and friends.

The response shown was awarded one mark as only one advantage was provided.

Suni is going travelling abroad for six months.

(a) Give two advantages to Suni of using online social networking websites to communicate with her family and friends at home.

Suni can access it anywhere in the world from many different devices, laptop, smartphone on wifi.

7b

Learners were required to consider the precautions Suni should take when using social networking. Similarly to responses for 7a, some learners tended to only provide one precaution so could only access 1 mark. The most popular responses to this question were using privacy settings and not posting personal details. The response shown was awarded two marks. The first for 'privacy of profile' and the second for 'only friends can see images'.

(b) Give two precautions that Suni should take to reduce the risks of using online social networking websites. (2)

Keep her online profile and pictures completely private so that only people who she accepts as a friend or follower can view it.

Question 8

**Targeted Specification Area: Learning Aim B.5
Data storage**

Most learners were able to correctly identify presence check as being the validation type that checks that data has been entered.

Question 9

**Targeted Specification Area: Learning Aim B.4
Data exchange**

This question asked learners to explain one advantage of having fibre optic broadband installed for a family to use. Most learners achieved both marks with one mark for the identification of the advantage and the second mark for the expansion of the advantage.

The response shown was awarded two marks.

Helen works from home and has three teenage children. She is considering having fibre optic broadband installed.

Explain one advantage to Helen of having fibre optic broadband installed. (2)

This means that if all her children want to play on online multiplayer games, they will be fast and won't lag.

Question 10

**Targeted Specification Area: Learning Aim A.3
Online communication**

Most learners achieved two marks for correctly identifying two features of instant messaging when chatting to friends. This question may have been answered correctly by most learners due to their ability to draw on their own experiences.

Question 11

**Targeted Specification Area: Learning Aim C.1
Possible threats to data**

Most learners understood what phishing was and were able to select the two correct responses for this question.

Question 12

**Targeted Specification Area: Learning Aim B.3
Email**

Four marks were available for this question. Two advantages needed to be explained to gain full marks. Each advantage could be awarded two marks; one for an identification of the advantage, the second for the expansion of the given advantage.

This question was generally not well answered. Very few learners provided a response for two advantages whilst others identified the advantage but did not provide any expansion.

The response shown achieved two marks – one for identifying the advantage and the second for expanding on it. This was the most common response given by learners.

Internet Message Access Protocol (IMAP) is one of the standard protocols for accessing email from a remote server.

Explain two advantages of using IMAP to access your emails. (4)

As the emails are stored on a central server, IMAP allows you to access the emails from the server from anywhere in the world where you have internet access, which makes emails more accessible to the user.

Question 13

**Targeted Specification Area: Learning Aim C.1
Possible threats to data**

Learners tended to achieve one mark for this question with the correct identification of symmetric encryption.

Question 14

Targeted Specification Area: Learning Aim A.1 Online services

Four marks were available for this question. Two advantages needed to be explained to gain full marks. Each advantage could be awarded two marks; one for an identification of the advantage, the second for the expansion of this advantage.

The majority of learners achieved two marks for their responses to this question. These marks were generally awarded for providing two advantages, but a number of learners did not provide an expansion of either advantage identified, meaning that no further marks could be awarded.

The response shown was awarded three marks. One mark was awarded for identifying that the 'data can be accessed anywhere there is internet connection'. There was no expansion for the second mark for this advantage. The second and third marks were awarded for identifying the cost implications 'only pay for storage space used so considerably cheaper than buying a spare hard drive'

It is important to back up your data so that it can be reinstated if lost or damaged.

Explain two advantages of using an online storage facility to back up data. (4)

Data that is backed up on an online storage facility can be accessed anywhere with an Internet connection using an email and password login, allowing the user full access to all the files saved on there if their computer gets damaged. It is also considerably cheaper than buying a spare hard drive if the user has a lot of data to back up, as they only pay for the online storage space that they use, so they're not paying for storage space that they're not using.

Question 15

Targeted Specification Area: Learning Aim B.3 Email

This question required learners to understand the concept and processes of the store and forward model to be able to explain two disadvantages of it.

Few learners achieved full marks for this question. Typical responses that failed to gain marks often described what store and forward was but not how it could be problematic.

The response shown was awarded one mark for identifying the disadvantage but the learner did not go on to explain why this was a problem and what effect this may have.

The 'store and forward' model is used to send emails.

Explain two disadvantages of the 'store and forward' model.

A disadvantage of the store and forward model is that it may be slow to send the emails because the email sent is not directly being sent but has to be saved on the email server to be then sent to the recipient.

Question 16

Targeted Specification Area: Learning Aim A.2 Online documents

This question required learners to understand how files and images are compressed.

Most learners did not show an understanding of file and image compression. However, the mark scheme allowed learners to show some knowledge of compression to be awarded a mark.

16a

A mark could be achieved for identifying that files could be 'zipped'. Most learners achieved this mark.

16b

A mark could be achieved for identifying that certain 'compressed' image file types could be used. Most learners achieved this mark with the most common response being .jpg.

Question 17

Targeted Specification Area: Learning Aim C.1 Possible threats to data

Although most learners were able to state what anti-virus software does, very few were able to explain how it works.

Most candidates were awarded one mark for understanding that the software allows the user to decide if there is a genuine threat but few achieved the second mark.

The response shown was awarded two marks. One mark was awarded for identifying there is a list (dictionary) of known viruses then the second mark was awarded for the learner expanding on this to say that any found can be quarantined.

Anti-virus software is used to protect data from viruses.

Explain how anti-virus software works. (2)

Anti-virus software scans all of the files on or entering a computer, and references them against a list of known malware. It can quarantine the virus, and sometimes repair some of the damage done by the virus.

Question 18

Targeted Specification Area: Learning Aim B.5 Data storage

Most learners were awarded at least 3 marks for this question and very few gained no marks. Extended writing questions are designed to assess learners' ability to analyse, evaluate, make reasoned judgments and present conclusions.

Many learners made a good number of individual points without expansion and thus, achieved marks in Mark Band 1.

Overall, the quality of written communication could have been improved. However, there was good evidence from some learners of the use of connectives to help achieve a logical flow to their discussion, retaining focus and supporting better organisation. This is a writing skill and should be practiced.

This question required learners to understand the implications of Database Management Systems and to decide whether a school should implement such as system.

There are three mark bands for this question up to a maximum mark of eight marks. Learner responses generally tended to be in the lower two mark bands with some achieving marks in Mark Band 3.

The response shown was awarded marks at the top of Mark Band 3, as the learner had described a range of points and the majority of these points were relevant with a clear link the situation in the question.

Longbridge School wants to introduce a Database Management System to improve the analysis and reporting of pupils' data.

Evaluate whether the school should implement a Database Management System.
(8)

One advantage of using a Database Management System is that there will be less chance of differences between data - so on one table the grade of a pupil could be a B, but on the other his grade could be a C. This will make the teachers have more reliable data.

But DBMS are very expensive - they need to buy all of the hardware, and also the software. They will also need to train/employ people so the database and the DBMS can be maintained.

But a good point is that the DBMS can help teachers make more informed decisions - they will be able to see all of the data on one pupil if they want to see how he is doing in all of his subjects. Also, this would allow teachers from other subjects to see how their pupils are doing in other subjects. This could allow them to get a better picture of their students.

But the DBMS will contain all of the data for pupils, and if this is lost or corrupted, and there is no backup available, then the teachers will lose all of the data. Because of this, the DBMS will have to have regular updates. These may be costly, and staff will have to be trained to properly make use of the data.

But the DBMS will help the school to make its data safer - the DBMS can provide the framework for lots of security, like passwords and levels of access. This is needed because there may be personal information on the database, and this should not be able to be seen by everyone.

Another good point is that the DBMS can answer unprepared questions - this is like if a teacher wants to know the average grade a pupil is working at in all of his subjects. This can allow the teachers to be better informed about the pupils work and progress.

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