

CAMBRIDGE TECHNICALS LEVEL 2 (2016)

Moderators' report

IT



05882, 05883, 05884

2019 series

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Introduction

Our Moderators' reports are produced to offer constructive feedback on centres' assessment of moderated work, based on what has been observed by our moderation team. These reports include a general commentary of accuracy of internal assessment judgements; identify good practice in relation to evidence collation and presentation and comments on the quality of centre assessment decisions against individual Learning Outcomes. This report also highlights areas where requirements have been misinterpreted and provides guidance to centre assessors on requirements for accessing higher mark bands. Where appropriate, the report will also signpost to other sources of information that centre assessors will find helpful.

General overview

The OCR Level 2 Cambridge Technical in IT was available for first teaching from 1st September 2017. The qualification was designed to meet the funding requirements for a 16-19 study programme. The OCR Level 2 Cambridge Technical Certificate in IT and the OCR Level 2 Cambridge Technical Diploma in IT are also listed on the Performance Tables. The qualification currently has a last registration date of 31 August 2022, with a final certification date of 31st August 2024.

The qualifications in the suite are:

- The OCR Level 2 Cambridge Technical Award in Digital Business Technologies
- The OCR Level 2 Cambridge Technical Certificate in IT
- The OCR Level 2 Cambridge Technical Diploma in IT

Level 2 Technical Certificate in IT

This is a 180glh qualification and Units 1, 2 and 17 are mandatory. Units 1 & 2 are the externally examined units of 90glh in total. The internally assessed and externally moderated (by visit) units are:

- Unit 8: Using emerging technologies (30glh)
- Unit 16: Using social media channels for business (30glh)
- Unit 17: Using data analysis software (60glh) – **Mandatory unit**

Refer to page 26 of the centre handbook available via the following link:

<https://www.ocr.org.uk/qualifications/cambridge-technicals/it-2016-suite/administration/>

Level 2 Diploma in IT

This is a 360glh qualification and it also includes pathways. Each pathway has several mandatory units that must be achieved. These are a combination of the two examination units and internally assessed, externally moderated (by visit) units. Candidates must also achieve further optional internally assessed, externally moderated (by visit) units.

Refer to page 27 of the centre handbook available via the following link:

<https://www.ocr.org.uk/Images/324475-centre-handbook.pdf>

Level 2 Award in Digital Business Technologies

Centres are reminded that the OCR Level 2 Cambridge Technical Award in Digital Business Technologies is not on the performance tables as it does not include external examinations. It was developed for candidates who are unable to pass the examinations so that they can still achieve a qualification.

Refer to page 25 of the centre handbook which can be access via the following link:

<https://www.ocr.org.uk/qualifications/cambridge-technicals/it-2016-suite/administration/>

Some centres have elected to register candidates on the Level 2 qualifications in order to develop their skills within IT prior to them moving on to the Level 3 qualifications.

Centres who are familiar with using a more holistic, project approach for the Level 3 qualifications have also implemented a similar strategy for the Level 2. This has been effective and has enabled the candidates to achieve multiple units through working on larger assignment briefs that reflect the working environment within the IT industry.

Other centres are using or adapting the OCR model assignments which have been developed for the mandatory internally assessed units.

Unit 17 in the IT Certificate and Units 3, 4, or 5 (dependent on the pathway chosen) in the Diploma, should be taken as the final unit, as candidates will draw on their skills, knowledge and understanding acquired through other units and apply what they have learned. This provides opportunities for synoptic assessment and enhancing the applied nature of the qualification.

Most common causes of centres not passing

- Most centres delivering the Level 2 qualifications have been very successful with the outcomes for the units. Other centres are still not ensuring that candidates present an appropriate depth of response for some of the higher command verbs such as evaluate, compare and assess. These command verbs are associated with the distinction criteria. Where the evidence has not fully met the command verbs, OCR Moderators have adjusted the grades for the candidates concerned and provided guidance to the centres. This has enabled the assessors within the centres to provide feedback to the candidates for further development of their evidence leading to candidates being resubmitted for the second moderation visit for higher grades with a positive outcome.
- Centres are reminded that some assessment criteria refer to requirements in the plural e.g. organisations, businesses, solutions, designs. Candidates are required provide evidence for at least two for which the plural is referring. Only submitting one example will result in grades being adjusted by the OCR Moderator.
- Another area of weakness is with respect to the test plans and iterative testing of a product. Test plans should be prepared prior to commencement of the development of the product (which can include a computer system build, network etc), and further tests added during development. In addition, test plans should be testing the functionality of the product and not whether there are spelling errors.

Common misconceptions

Meaningful Employer Involvement: The certificate and the diploma both require a centre to implement meaningful employer involvement. Some centres believe this to mean work experience for the candidates. Whilst this is one way that it can be achieved there are many other ways that MEI can be addressed as follows:

- Project(s), exercises(s) and/or assessments/examination(s) set with input from industry practitioner(s)
- Units delivered or co-delivered by an industry practitioner(s). This could take the form of master classes or guest lectures
- Industry practitioners operate as 'expert witnesses' that contribute to the assessment of a candidate's work or practice, operating within a specified assessment framework. This may be a specific project(s), exercise(s) or examination(s), or all assessments for a qualification.

Further information can be found on pages 31 and 32 of the centre handbook:

<https://www.ocr.org.uk/Images/324475-centre-handbook.pdf>

Teaching Content: The teaching content in every unit state what must be taught to ensure that candidates are able to access the highest grades. Anything which follows an i.e. details what must be taught as part of that area of content. Anything which follows an e.g. is illustrative, it should be noted that where e.g. is used, candidates must know and be able to apply relevant examples in their work, although these do not need to be the same ones specified in the unit content. For internally assessed units you need to ensure that any assignments you create, or any modifications you make to an assignment, do

not expect the candidate to do more than they have been taught, but must enable them to access the full range of grades as described in the grading criteria. A frequent question from centres is whether every bullet point in the teaching content must be included in the candidates' evidence. The answer to this is 'no'. Candidates are expected to draw on the knowledge, skills and understanding that they have been taught and select what is relevant to the context of the assignment brief to which they are working.

Acceptance testing

Many candidates do not understand what is meant by the term acceptance testing. OCR Moderators have reported instances where they have presented the same test plan, they used for testing the system themselves or they have provided a form for the 'client' to sign to say they accept the system. To clarify, acceptance testing requires the candidates to prepare a test plan where they indicate the tests that they would like the end-user to carry out. The end user would complete the plan by stating what the actual outcomes were for each test. The end-user may even identify other tests that they have conducted to check that the system functions are required.

Avoiding potential malpractice

It is important that candidates are taught how to reference their sources and understand how much they can quote from the resource. Whilst candidates have used their own words and interpretation from their research in order to achieve a particular assessment criterion, there are occasions where a candidate has used a quote from a resource without citing the source.

Helpful resources

<https://www.ocr.org.uk/qualifications/cambridge-technicals/it-2016-suite/planning-and-teaching/> - Meaningful employer involvement - centre plan

<https://www.ocr.org.uk/qualifications/cambridge-technicals/it-2016-suite/planning-and-teaching/> - Progress tracker

<https://www.ocr.org.uk/qualifications/cambridge-technicals/it-2016-suite/planning-and-teaching/> - Qualifications calculator

<https://www.ocr.org.uk/qualifications/cambridge-technicals/it-2016-suite/planning-and-teaching/> - Delivery guides for each of the units in each of the pathways

<https://www.ocr.org.uk/Images/273311-command-verbs-definitions.pdf> - Command verbs

<https://www.ocr.org.uk/qualifications/cambridge-technicals/it-2016-suite/assessment/> - Sample assessment materials, model assignments, candidate exemplars.

<https://www.ocr.org.uk/qualifications/cambridge-technicals/it-2016-suite/administration/> - Key documents such as the Unit Recording Sheets, Candidate authentication statement form

<https://social.ocr.org.uk/> - OCR community

<https://www.cpdhub.ocr.org.uk> – CPD Hub for advisory telephone calls, on-line and live training events, assignment checking service

Additional comments

Evidence:

Many centres are presenting a wider range of evidence including the use of video for performance evidence as well as presentations. It is important that candidates are taught how to develop presentations where key points are identified on the slides as bullet points and the detail is provided in the speaker notes. The OCR Moderators have noted that there are still candidates who fill slides with text which would normally be included as speakers notes. This is not an effective use of presentation slides. It is also important that the video evidence is clear with respect to the quality of the video and the audio. OCR Moderators have reported that they have seen examples of excellent presentations using video, where candidates have spoken with confidence and demonstrated good understanding of the subject.

Test plans are still a weakness with many centres, and it is important that they reflect industry requirements and show how the candidate has tested the functionality of their product as an iterative process. It is important that candidates identify the tests they know they will need to carry out and to add further tests during the development of their prototypes or final products.

Where a unit requires candidates to create only to the prototype stage, it is important that this is available as the evidence and not a full working product. Failure to produce the prototype will result in a candidate's grade being adjusted by the OCR Moderator.

Presenting evidence for the OCR Moderator

Centres are completing the Unit Recording Sheets for each unit and the vast majority are completing them in detail where the assessor is justifying their assessment decisions. This is important as it gives a clear indication as to why the assessor is confirming the criteria has been met. There is still a weakness with respect to the referencing of the evidence. There must be specific reference to where the evidence for each of the assessment criterion can be located. Where the Unit Recording Sheets are completed electronically, centres are using hyperlinks to the specific evidence. This is an example of good practice within centres.

Unit 3: Building IT Systems (Mandatory unit in the IT Technical Practitioner pathway)

It is important that a centre has sufficient resources to enable candidates to work independently in order to provide their own evidence against the assessment criteria. They cannot build IT systems as part of a group of any size as this does not allow them to present independent evidence.

LO1: Understand the roles of technical support

P1 and D1 could be combined as one piece of evidence. For P1, candidates could look at a number of roles within IT technical support and explain how these roles provide support within an organisation. They could then extend their evidence by comparing the different roles, considering the similarities and differences between them.

LO2: Be able to design IT systems to meet business needs

If a centre does not use the OCR model assignment, they can develop their own. When developing an assignment, it is important that the information made available to the candidates, provides enough information that they can make an informed decision of the type of IT system they need to design. Where centres have used the OCR model assignment the candidates have provided some good evidence justifying the choices they have made. This has enabled them to achieve P2 and M1.

LO3: Be able to select the components for the designed IT systems

As this is a practical outcome, candidates must be provided with a variety of components and software that will allow them to make informed choices when selecting. If they are given the components and the software they required for the system, they are not meeting the requirements of P3 and P4 where they are required to meet the demands of the command verb 'select'. If they are unable to make these decisions for themselves, then they will be unable to provide evidence for M2, where they are required to justify why the selected components meet the proposed specification.

LO4: Be able to build and configure IT systems to meet business needs

Candidates are required to provide evidence of building and configuring the proposed system by installing the hardware and software components that they selected previously. During the build and configuration, they will carry out tests to check the functionality of the system. This is known as iterative testing (P5, P6). For M3, candidates will carry out acceptance with the end-user. For this they will have developed a specific test plan for the end-user to complete. D2, requires the candidates to evaluate the results of their tests and the tests conducted by the end-user. This evaluation should enable the candidates to recommend improvements based on the results of these tests. It is important that candidates provide evidence that they have actually evaluated the results from testing and not merely describe the outcomes.

Unit 4: Creating programming solutions for business (Mandatory unit in the Digital Software Practitioner pathway)

This unit primarily focuses on developing programming solutions for businesses. Many centres ask if there are programming possibilities within the Cambridge Technicals in IT and this unit presents an excellent opportunity.

LO1: Understand the roles of software practitioners

P1 requires candidates to describe the role of a software practitioner. This requires candidates to research into the role in order to present a good description of what it is and what it entails.

LO2: Be able to research the features of programming languages used for business solutions

Candidates are taught about a variety of programming languages which can be used to develop business solutions. They would then investigate the features of different programming languages and consider which ones would be the most appropriate for different types of business solutions. The key here is not only looking at a variety of programming languages but also the different types of solutions a business may need to be developed.

LO3: Be able to plan business solutions using programming languages

As with any unit, the assignment brief must provide candidates with sufficient information to understand the business context and the type of business solution it requires. Candidates will then plan programme they are going to develop through the use of flowcharts and pseudocode and other tools which aids the planning of the solution. (P3). For M1, candidates are required to justify the programming language they have selected. The learning that has taken place for LO2, will help them provide this justification.

LO4: Be able to create business solutions using programming languages

For P4, the candidates will develop the solution, based on their plans from P3, using the programming language they justified for M1. M2, requires the candidates to format the program code using appropriate layouts. As the candidates will have been taught how to layout programming code, the

evidence for this should be readily available within the evidence for P4. D1, requires the candidates to annotate program code with comments. This is also something that candidates will have been taught. For the more able candidates this will be a natural activity that they will do. So, whilst they are writing the code, they will automatically use appropriate layouts and annotate the code with comments.

As with any programming solution, testing takes place and is an iterative process. Candidates will need to provide evidence of testing and debugging where applicable. This can include test plans, screen shots of debugging taking place and/or video footage. It is very rare that a candidate would not have errors in code when developing a programming solution. When this occurs, they will document the issues and implement changes for the program to work. This allows them to naturally provide evidence for M3. For D2, candidates will then evaluate the functionality of the solution that they have developed against the business requirements.

To carry out an evaluation of the functionality of the program, candidates will need to carry out an:

- evaluation of test results against the expected outcomes
- evaluation of the program against the design specification

Unit 5: Creating business solutions (Mandatory unit in the Digital Business Practitioner pathway)

LO1: Understand the role of the digital business practitioner

This learning outcome requires candidates to describe how the digital business practitioner supports business. It is important that candidates understand the role within a business environment and the activities that someone in this role will carry out. They can then look at these various activities and how they support businesses e.g. through using software to develop spreadsheets to inform business decisions or solve problems. Candidates will then be able to address the assessment criterion for P1: describe how the digital business practitioner supports business.

LO2: Be able to design solutions to meet business needs

It is important that the candidates are provided with a scenario which they can analyse sufficiently to identify what the business need is and then proceed to design the solution. The business need could relate to developing a spreadsheet or a database so that the business can make better business decisions. P2 requires the candidates to provide evidence of 'design a solution to meet a business need.' Evidence would be drawn from section 2.5 of the teaching content. This gives guidance on the type of evidence a candidate could present but at the very least it must contain the actual design documentation. For D1, candidates must 'justify how the design proposal supports the business needs.' Therefore, good evidence presented for P2 can help with the justification. If the candidate provides a solution specification (as per section 2.5 of the teaching content), they will just need to add why their design met the business need based on their own analysis.

LO3: Be able to present business solutions to stakeholders

P3, requires the candidates to create a prototype of the proposed business solution. It must be a prototype and not the finished design. If a candidate presents a completed solution with no evidence of a prototype, this cannot be accepted by the OCR Moderator. P4, requires the candidates to present their prototypes to the identified stakeholders. This could be evidenced using video or audio recordings of the candidate giving their presentation of the prototype. This could be further enhanced with the inclusion of evidence such as the presentation slides and actual prototype. Centres are reminded that their peers cannot take on the role of stakeholders. It could be a member of staff or someone from industry (Meaningful Employer Involvement could be used here). Assessors can present witness

testimonies, but they must be individual for each candidate and provide the context of the presentation. Other forms of evidence seen includes minutes of meetings. It is the expectation that the stakeholder(s) will provide the candidates feedback on their prototype. For M1, candidates are then required to modify the design in response to stakeholder feedback. OCR Moderators are frequently asked what evidence is required for this. Section 3.3. of the teaching content clarifies what evidence is acceptable.

LO4: Be able to use IT applications to meet business needs

P5 requires the candidates to create the proposed business solution. It is important the business solution reflects the design documentation (or updated design based on stakeholder feedback). The best form of evidence is to provide the OCR Moderator with a digital copy of the solution. This is the proof that it was created. For M2, candidates are required test the solution to test functionality. The candidate should have planned for the initial tests they expect to carry out and document them in preparation on a suitable test plan. Some centres are still accepting testing to include whether there are spelling errors. This is not an acceptable test as it is the functionality that should be tested. The testing should also be iterative and documented as the solution is being created. The evidence required will be the completed test plan. P6, requires the candidates to present their solution to the stakeholders and obtain feedback. The evidence can be in a similar format to P4/M1 where they presented their prototypes. D2 requires candidates to assess the appropriateness of the solution to the business need. Assess is one of the command verbs where candidate evidence can be weak. Candidates must understand what the expectations are to meet the demands of the command verb 'assess'. Section 4.4 of the teaching content provides guidance on what candidates should be considering when carrying out an assessment of the appropriateness of the solution. If a specification has also been produced for P2 in the form of a proposal, then they could refer back to the proposal and assess why their solution meets the requirements.

Centres are reminded that there are model assignments for these units which can be used as they are, or the scenario adapted to reflect a more local context for the candidates.

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