

CAMBRIDGE NATIONALS

Moderators' report

ICT



J800, J810, J820

R002, R003, R005, R006, R007
Summer 2019 series

Version 1

Contents

Introduction	3
General overview	4
Unit R002 General overview	7
Comments by LO	8
LO1 – Be able to use techniques to search for, store and share information	8
LO2 – Be able to select and use software to handle data	9
LO3 – Be able to select and use software to communicate information for a business purpose	10
LO4 – Be able to use software tools to format information	12
Unit R003 General overview	13
Comments by LO	13
LO1 – Be able to create and populate spreadsheets to meet user requirements	13
LO2 – Be able to select and use spreadsheet functions to meet user requirements	15
LO3 – Be able to use spreadsheet models to present information to support decision making	16
Unit R004 General overview	18
Comments by LO	18
LO1 – Be able to modify databases to meet user requirements	18
LO2 – Be able to produce outputs from databases to meet user requirements	19
LO3 – Be able to create user interfaces for databases to meet user requirements	19
LO4 – Be able to analyse a database's suitability for a business purpose	20
Unit R005 General overview	22
Comments by LO	22
LO1 – Be able to design interactive products	22
LO2 – Be able to create interactive products containing multimedia components	24
LO3 – Be able to carry out usability testing	26
Unit R006 General overview	28
Comments by LO	28
LO1 – Be able to specify a digital image solution for a client's needs	28
LO2 – Be able to create digital images	29
LO3 – Be able to store, retrieve and present digital images	31
Unit R007 General overview	32
Comments by LO	32
LO1 – Be able to prepare for the production of dynamic products	32
LO2 – Be able to create dynamic products	33
LO3 – Be able to test functionality of dynamic products	34

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 Objectives. 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.

OCR completes moderation of centre-assessed work in order to quality assure the internal assessment judgements made by assessors within a centre. Where OCR cannot confirm the centre's marks, we may adjust them in order to align them to the national standard. Any adjustments to centre marks are detailed on the Moderation Adjustments report, which can be downloaded from Interchange when results are issued. Centres should also refer to their individual centre report provided after moderation has been completed. In combination, these centre-specific documents and this overall report should help to support centres' internal assessment and moderation practice for future series.

DOC

Would you prefer a Word version?

Did you know that you can save this pdf as a Word file using Acrobat Professional?

Simply click on **File > Save As Other ...** and select **Microsoft Word**

(If you have opened this PDF in your browser you will need to save it first. Simply right click anywhere on the page and select **Save as ...** to save the PDF. Then open the PDF in Acrobat Professional.)

If you do not have access to Acrobat Professional there are a number of **free** applications available that will also convert PDF to Word (search for *pdf to word* converter).



We value your feedback

We'd like to know your view on the resources we produce. By clicking on the icon above you will help us to ensure that our resources work for you.

General overview

All assignments for these units were rewritten in 2017 to provide clarification for centres and candidates relating to the way the assessment should be conducted and the evidence needed. The actual requirements were not changed.

A significant number of centres this session were still using the now-obsolete versions of the assignments. Centres are advised to check the OCR website to make sure they are using the latest version for all future cohorts.

Centres are permitted to choose how they provide evidence and, as always, a range of approaches was evident this session. Many of the more successful centres submitted printed portfolios supplemented with electronic files of products, which allowed candidates to evidence their achievement in full without the need for excessive screen prints and documentation.

Some centres chose to provide wholly electronic evidence, submitting files either through the OCR Repository or on memory stick/optical disc. This was most helpful where candidates had collated their documentation into a coherent single document and supplemented this with file(s) for the product(s) created. However, electronic evidence often caused problems for moderators, with centres submitting many files without any guidance as to which needed to be opened in which order for each assessment criterion.

Much moderator time can be wasted both looking for evidence and opening early versions of files that have been superseded and it is possible for evidence to be missed if it is inappropriately labelled and/or located. It is essential that centres provide moderators with clear directions to the pertinent evidence for each assessment criterion. This is generally most easily and effectively achieved through the 'comments' section of the Unit Recording Sheets. Stating the location of evidence as well as comments explaining assessment decisions is best practice.

Additional files should not be submitted unless they are needed for evidence, e.g. filing in R002 or R006 or the storage of components in R005-7. In some cases, work had to be returned to centres for them to provide the necessary signposting to make sure the moderator was able to locate all necessary evidence.

Where centres chose to provide only printed portfolios evidence of the final products created was sometimes incomplete. This limits the extent to which candidates could be credited for what they had achieved. Where evidence was clear, candidates had spent a lot of time providing and annotating screenshots.

Comments from some centres suggested that credit had been given for achievement that might have been observed but which was not evidenced in any way. Such credit cannot be supported by moderators, whose role is to make sure that the evidence supplied justifies the mark submitted.

If centre assessors wish to credit achievement that has not been evidenced by the candidate then a witness statement can be submitted but this must keep to the guidance in Appendix A of the specification. The most important requirement is that a witness statement must describe exactly what has been observed and not seek to assess it. For example, if a candidate has been observed searching the internet for specific information a witness statement must clearly identify the criteria used rather than stating, for example, "effective search criteria used".

Sometimes candidates provided screenshot evidence that was too small and/or of too low a resolution for the contents to be read. This not only demonstrated poor document production skills but also meant that the evidence could not be used for assessment or moderation purposes.

Marking from many centres was found to be over-generous, some significantly so. This was often because centre assessors interpreted assessment criteria in isolation. Assessment should take into account the teaching content of the unit **and** the requirements of the assignment tasks. Clarification of words such as “some” and “most” may be found in the Glossary in Appendix D of the specification.

In some cases, it was apparent that centre assessors had given credit for the same achievement or penalised candidates for the same error/omission in more than one area of the marking grid. This should never be the case. While the same output from a candidate might be assessed in more than one learning outcome, each one will assess a different aspect of the work. For example, in Unit R002 the data handling carried out by a spreadsheet will be assessed in Learning Outcome 2, while the formatting of that sheet is assessed in Learning Outcome 4. Similarly, different aspects of candidates' specifications are assessed in the two sections of Learning Outcome 1 in R005, 6 and 7.

Interpreting Assessment Criteria

It is important to interpret assessment criteria in the context of both:

- the teaching/learning content identified in the specification for the learning outcome being assessed
- the requirements identified in the assignment task.

Some centre assessments were over-generous where they assessed very basic responses in the highest mark band, for which much more detail would be required.

In many cases a centre chose the highest mark band when it was difficult to know what lesser evidence might be produced to better fit the requirements of lower bands. For example, where a single, simple sentence was assessed as a “thorough justification” when lower mark bands required “sound reasons” and “basic reasons”.

“Thorough” is defined in the specification Glossary as “extremely attentive to accuracy and detail”.

Choosing the mark band of best fit

When assessing work, it is important to consider the requirements of *all* mark bands before deciding which one best fits a candidates' evidence.

There was evidence in candidate work to suggest that extra guidance had been provided by centres to support candidates. This guidance included simplified breakdowns of tasks, reworded tasks to point candidates towards the use of particular software/tools, step-by-step instructions, examples to follow and/or writing frames that guided candidates through tasks.

The OCR-set assignments have been written to provide all candidates with the same stimuli to allow them to demonstrate their understanding. To provide any extra breakdowns, explanations or examples to follow constitutes malpractice, which will be investigated by OCR and may result in candidates not receiving grades. Clarification is provided throughout the assignment tasks to show that candidates must make their own decisions about how to complete the tasks.

It is important that the order of merit within the marks submitted by centres is valid. If this is found not to be so the centre is provided with guidance and asked to remark the work to provide a valid order of merit. A small but significant number of centres were asked to remark their work in this session. Most often this was when there were several centre staff teaching and assessing and internal standardisation and verification may not have been carried out to make sure standards were similar across all staff.

	<p>OCR support</p>	<p>A document describing successful approaches to internal standardisation can be downloaded from the 'key documents' tab on the OCR web page for this qualification:</p> <p>http://www.ocr.org.uk/Images/286460-internal-standardisation-generic-guide.pdf.</p>
---	---------------------------	---

Unit R002 General overview

R002 is the only mandatory centre-assessed unit. R002 focuses on developing the use of a range of common office software applications in vocational settings.

Candidates are likely to be most successful when they have been taught to apply and extend software skills from KS3 in a range of business-related settings and where, throughout the assessed assignment, they remain focused on the vocational context of the given scenario.

This was demonstrated, for example, through business-appropriate examples of emails and filing systems, search criteria that would lead to the most appropriate items to meet the stated requirements and near-professional quality documents that met the requirements in layout, formatting and content.

Candidates achieving lower marks often demonstrated competence in the use of software but less understanding of how to make documents appropriate for the purpose and audience stated in the tasks.

There are two possible assignments that can be used – “MStreamIT” and “JB Clothing Emporium”. Both were used successfully by centres. Both produce evidence for the different learning outcomes across a range of tasks.

Many candidates attempted most, if not all of the tasks, suggesting that sufficient time had been allocated by the centre for completing the assignment. However, many did not complete all parts of each task, particularly those involving data handling.

Where centres chose to provide only printed portfolios or their electronic equivalents, evidence was sometimes incomplete. For example, some candidates provided no screenshot evidence of their folder structure or, where they did, often only showed the folders and not the files within each.

Some candidates provided limited evidence only of documents and data handling solutions produced, relying on screenshots that were sometimes too small to enable all contents to be read and sometimes over-cropped, thereby failing to fully show the information needed.

Some portfolios were printed entirely in black and white, providing no evidence of colours used and sometimes providing an inferior contrast to the original. In such cases candidates were disadvantaged because they could only be credited for the achievement they had evidenced.

Where candidates submitted their evidence entirely through electronic files there were often errors in the layout and/or formatting of documents that might have been spotted by the candidates had they been allowed to print. Examples include over-large or over-small font sizes. Where candidates used DTP software and had been unaware of the zoom level adopted, graphics were often placed too close to the edge of a page, sometimes in the non-printing area. Often text was created within graphics packages but the resolution was too low for the text to be read clearly at full size.

While it is appreciated that some centres wish to reduce the volume of printing carried out, printing a document is a good way of carrying out a final test to make sure all settings are appropriate.

Comments by LO

LO1 – Be able to use techniques to search for, store and share information

This learning outcome was the one most often over-generously assessed by centres. Candidates working at the highest level must demonstrate a thorough understanding of how to use tools and features effectively in the vocational context of the assignment.

The most common folder structure evidenced was a set of folders linked to the tasks, either labelled 'Task 1', 'Task 2', etc. or by either adding or substituting the task description. Such a structure would require little or no thought/planning on the part of a candidate and might merely replicate what had been taught in practice exercises.

This can be considered 'sound', if combined with helpful filenames and appropriate locations, as it would clearly help the candidate to store files logically in a way that would make it easy for them to find, so best fit Mark Band 2.

To achieve the highest mark band, often claimed by centres, it would be expected that candidates would consider a system more appropriate to the vocational scenario provided, considering how future files might be added and how others might most easily find the files they had created. For example, it would not be considered logical to store documents about email in a folder called 'company image', a set of letters in a folder called 'membership data' or to store evidence of filing structure in more than one folder or bundled with evidence relating to emails.

Candidates achieving at the highest level created appropriately-named folders that separated files according to content and stored files within these folders using names that enabled the moderator, as an example of any other user, to locate and identify immediately what they were looking for. These candidates also included evidence of appropriate versioning and backups.

Candidates from some centres provided evidence of password-protecting files. If this was in response to the instruction to make sure files were protected from accidental loss this demonstrated some lack of understanding. It also made it difficult or impossible for the moderator to view the contents of the file, as the password had to be found.

It is recommended that if candidates do password-protect a file, the password should be clearly identified on the Unit Recording Sheet, even if the candidate has identified it elsewhere.

	Misconception	<p>Folder and filing systems based around assignment tasks, when well used, best fit Mark Band 2.</p> <p>For Mark Band 3 a more vocationally appropriate system, which would help anyone to locate files easily both now and in the future, is required.</p>
---	----------------------	--

The two assignments ask for evidence of email understanding to be provided in different ways – MstreamIT asks for a guide for new staff while JB Clothing asks for explanations of tools and features. Some candidates following the second assignment produced user guides, which did not address the requirements of the tasks given.

Centre marking of email understanding frequently over-generously assessed in the highest mark band, which requires a thorough understanding to be shown. Referring to the specification content, this should cover the range of tools listed, including the use of appropriate subject lines and body text,

demonstrating understanding not only of how to use the tools but how to use them effectively to communicate with others in a business context.

Where candidates' work covered a lesser range of tools or where it did not demonstrate understanding of effective use in a business context this better fit one of the lower mark bands.

The third section of this learning outcome – searching the internet and providing details of copyright holders – appeared to have been ignored by some centres while others gave credit in the absence of evidence from candidates.

Some centres inappropriately credited work that was not related to the assessed assignment, e.g. internet searching guides which had possibly been produced for a practice assignment. All of these issues potentially led to over-generous assessment in this learning outcome.

Each assignment provides the opportunity for candidates to carry out a purposeful search for graphics and they need to provide evidence of search criteria used, as identified on the assignment evidence checklist.

Where candidates had provided evidence of their search criteria these were often over-generously assessed as 'effective' where they made use only of simple key words, where they made incorrect use of the fields in an Advanced Search Page or where the search criteria were not the most appropriate for the items required by the task.

Candidates often recorded the results of their searches on a standard template provided by the centre for recording sources. This often simply asked if the item was subject to copyright or not and prompted only for the URL. This information did not meet the requirements of the task or the assessment criteria, which related to details of the copyright holders to allow permission for use to be sought.

Many candidates gave URLs identifying 3rd-party websites or search engine results pages, which provided no information about copyright holders and demonstrated a lack of understanding. Where candidates had independently recorded the results of their searches they were more likely to provide the information needed. Additionally, they may have evidenced their own ability to use document features such as tables, which provided evidence for LO3.

	<p>Misconception</p>	<p>URLs are not an appropriate response to the assessment tasks, which ask for details of copyright holders to enable permission for use of the graphics to be sought, nor do they meet the assessment requirements to record "information on the copyright holders of the information found"</p>
---	-----------------------------	---

LO2 – Be able to select and use software to handle data

This was often the most successful learning outcome, with many candidates providing full evidence of manipulating the data with appropriate software to provide accurate responses to most, if not all, requirements of the tasks.

Learning Outcome 2

The most significant differentiator within this learning outcome is the extent to which candidates have met the specified requirements, i.e. those identified in the assignment tasks. The Glossary in Appendix D clarifies that "some" (Mark Band 1) means "about 50% of the content that might be expected" while "most" (Mark Band 2) means "at least 75% of the content that might be expected has been included".

Where marking was over-generous this was mostly where centre assessors had not taken full account of errors and/or omissions within candidates' solutions. In some cases, candidates had used spreadsheet software when a database package would be more appropriate. Database packages provide more flexible output, e.g. choosing output fields and formatting output as reports, as well as allowing queries to be stored for regular use.

Some centres were extremely over-generous when candidates had omitted one of the two assignment tasks completely, thereby meeting no more than 'some' of the specified requirements.

The assignment tasks are deliberately written as scenarios that define the information required and do not mention the software to use or the software tools needed to best achieve the required result. It is important that teachers do not inadvertently refer to tasks as, for example, "the spreadsheet task" or to specific tools such as filters, sorts and searches.

Candidates must be free to make their own decisions about methods to use. In most areas of the data handling tasks there are several different methods that can be used to achieve the required results and it is not expected that all candidates from a centre will use the same methods.

	Misconception	<p>Annotations from many centre assessors showed that formatting had been considered when assessing candidates' work for this learning outcome.</p> <p>The assessment criteria refer only to importing, editing and manipulating data; formatting is assessed separately, in LO4.</p>
---	----------------------	---

LO3 – Be able to select and use software to communicate information for a business purpose

This learning outcome assesses documents created by candidates, with the specification listing word processing, DTP, presentation, web authoring and graphics software as the contexts in which the content should be taught.

The higher mark bands require evidence of "a range" of file types, for which a suitable range of software needs to be used. Neither assignment requires the use of a wide range of software, but it is reasonable to expect candidates to evidence the use of at least three different types of software throughout their work before this can be considered "a range", since Mark Band 1 requires a "limited range".

There is no expectation that all candidates will use the same software or approach to any task, with Task 2 of MStreamIt and Task 5 of JB Clothing Emporium providing the most open tasks, allowing candidates to choose a variety of approaches.

	Misconception	<p>Many centres credited spreadsheet and database software within the range of file types assessed in LO3.</p> <p>As use of these has already been assessed in LO2 they should not be considered in LO3, which focuses on the use of software to communicate information.</p>
---	----------------------	---

The main differentiators within the first section of LO3 are:

- the range of file types produced
- the extent to which requirements specified in the assignment tasks have been met
- the range of software features, as listed in the specification

The above must have been appropriately used.

It should be noted that the content of documents is assessed separately, in the second section of this learning outcome, and formatting is assessed in LO4. Some centre assessment in this first section was over-harsh, penalising candidates for poor formatting and/or inappropriate content which should have been assessed in other sections.

Some candidates were assessed over-generously at the highest level where they had not chosen the most appropriate medium for each type of communication and/or where they had not evidenced the effective use of the tools listed in the specification. Common examples were the use of slide-show software for what were effectively documents with no interactivity and incomplete mail merges where candidates had only previewed each individual letter rather than demonstrated the ability to create all required letters.

Some candidates chose to use graphics software to create some of their documents, which is a reasonable choice. However, in some cases, the resolution was set too low and the result was not fit for purpose. This was especially true of magazine adverts in Task 2 of MStreamIT where the text was unreadable at the required size.

Submission of electronic document files

Moderators were not always able to view documents as candidates had created them. This was sometimes because non-standard file types such as MS Publisher, Photoshop and Serif were presented.

These are not included in the list of acceptable file types for electronic portfolios (Appendix C of the specification).

Sometimes difficulties were encountered in other files, where candidates had used non-standard fonts, which were substituted by software on moderators' computers. It is recommended that centres encourage candidates to provide clear evidence of what their documents will look like, through printing or exporting versions as pdf documents or generic graphic files, as appropriate.

This would not only ensure the accuracy of moderation but is also a valuable lesson for candidates regarding the portability of documents in raw form.

Some centre assessment within the second section of this learning outcome was over-generous when insufficient attention was paid to the requirements stated in the task or where document content was not fully appropriate for purpose and audience.

Common errors were to edit the provided text for the magazine advert and to provide insufficient content within the second item of publicity to help launch the new product and promote the company (MStreamIT), or errors in the content of the on-screen resource in Task 5 (JB Clothing), email documents that did not meet stated requirements and letters that did not follow accepted conventions for business letters.

LO4 – Be able to use software tools to format information

This learning outcome assesses the range of formatting demonstrated throughout the assignment and the appropriateness of formatting choices in the business context of the assignment.

Some centre assessment was over-generous, choosing the highest mark band when candidates had used only a limited range of formatting tools, as listed in the specification, often lacking evidence of many features other than basic font formatting.

Where formatting using a limited range of features appropriately enhances document appearance and readability, this best fits Mark Band 2 as the application of a greater range of features listed in the specification would further improve them. In some cases, formatting applied did not enhance readability or appropriateness and these best fit Mark Band 1. Common examples of poor formatting include poor colour contrast, inappropriately large or small font sizes, inappropriate number formats in spreadsheets (e.g. number of decimal places, currency) and inconsistency within documents. Only rarely did candidates display an ability to insert a page break, which is a relatively straightforward tool.

Centres are recommended to choose the mark band that best fits most documents produced, with the position within the mark band taking account of any missing documents or those formatted particularly well or poorly when compared to the majority.

It was particularly helpful when centre assessors explained their assessment decisions by noting the range of formatting techniques that had been credited.

Support provided to candidates in formatting their work

Learning Outcome 4 is unique in this unit, in that there is accommodation for some support within the assessment criteria.

These criteria should be used as limiting criteria, i.e. if a candidate requires more than occasional support they should be given a mark in the lowest mark band. The highest mark band is available only if the candidate works completely independently when formatting documents.

It is essential that some evidence of the level of support provided is available to the moderator. This could be in the form of a separate witness statement, but it can equally well be provided by a statement on the Unit Recording Sheet, identifying any support provided or confirming that the candidate worked completely independently.

Unit R003 General overview

The best evidenced work for this unit came from centres where candidates submitted the electronic file for their spreadsheet and a single document, either electronic or printed. Much of the evidence for learning outcomes 1 and 2a is best found within the spreadsheet itself, although some documentation is required for assessors and moderators to find all the features used, especially validation. Learning outcomes 2b and 3 require documentary evidence.

Some electronic evidence included all files created by candidates during their work on this assignment, including drafts and documents that had been printed. While a candidate might save different versions of the spreadsheet file to evidence the different parts of Task 3, which is acceptable, it is important that the only files presented to the moderator are those that need to be seen to support marks given. Where electronic files are presented it is always necessary for the centre to provide guidance on the Unit Recording Sheet to identify which files need to be opened, in which order, for each assessment criterion.

Some centres' marking in this unit was inconsistent, with different marks given for similar evidence. This was because centre assessors were marking candidates' explanations in areas of the marking grid that did not require them.

	<p>Misconception</p>	<p>It is important to assess work solely against the assessment criteria. If these require explanations, i.e. LOs 2b and 3b, then these must be assessed.</p> <p>In other areas of the marking criteria there is no mention of explanations, so marking should not take explanations (or lack of them) into consideration.</p>
--	-----------------------------	--

Candidates from some centres had been taught how to protect cells within their sheets, which is good practice. When some candidates had protected their sheets, they allowed minimal access and applied a password. This made moderation extremely difficult as some features such as validation settings could not be seen from the file and formulae were more difficult to see.

Centres are requested to make sure that when files are presented for moderation any protected sheets are accessible without a password, or that the password is provided on the Unit Recording Sheet.

Comments by LO

LO1 – Be able to create and populate spreadsheets to meet user requirements

The first section of this learning outcome focuses on the overall structure of the candidates' solutions, i.e. the different sheets created and the naming of these sheets, formatting within these sheets and any user-friendly features that help a new user understand what the spreadsheet model does and how it is used.

Formulae are assessed in LO2 and so should not be considered in this section. Some centre marks were over-harsh here, where candidates' structures would have allowed user requirements to be met had there been appropriate formulae.

Conversely, some centre marks were over-generous where candidates' formulae were appropriate, but no user-friendly features had been added.

	Misconception	Formulae are assessed in LO2 and so do not contribute to the assessment of LO1, which should consider the skills listed in the specification for this learning outcome.
---	----------------------	---

A structure which allows all of the information provided about customers and products to be entered, together with an editable invoice that contains all of the areas given on the example, which has appropriate sheet tab names and some appropriate formatting that makes the data easier to understand and provides an invoice that could be printed is likely to best fit within Mark Band 2.

Some extra user-friendly features, e.g. comments or instructions, would be needed before the requirements of this middle mark band are fully met.

To move into Mark Band 3 it would be expected that extra user requirements will have been considered, i.e. the need to be able to add new customers and new products in the future, and that the solution will fully use comments, text (boxes) and formatting to make sure a new user would know exactly how to use the sheets and how to distinguish between cells that need to be edited (inputs) and those that must be left (outputs).

Cell and sheet protection are not required by the specification but when well used can be credited here.

Common errors which were not always recognised by centre assessors include invoices with fewer rows for items than shown on the example, lack of recognition of the need to enter invoice numbers and dates, and invoices that were formatted inappropriately and/or were wrongly sized for printing.

Where the insertion of additional sheets to evidence Task 3 made locating the basic sheets more difficult this was not penalised by moderators although it did demonstrate a lack of focus on the creation of a product for a client.

	Misconception	Some confusion was evident in some cases between <i>comments</i> , which can be easily identified when viewing a sheet and which become visible when hovering on a cell, and <i>validation input text</i> , which is only shown when a cell is chosen. While input text is helpful it should not be considered within the first section of LO1 as it is specifically assessed in the second section.
---	----------------------	---

Although technically listed in other learning outcomes some credit can be given when candidates choose to use macros to enhance the user friendliness of their solutions. However, in many cases use of macros was simplistic and did little to make systems easier to use.

Candidates from many centres set up navigation systems which added little, if any functionality and often were more difficult to use than the sheet tabs provided by the software as they did not remain visible when the user scrolled down the sheet.

Another popular macro was one that simply replicated the print button, again providing little benefit for a user. It is not expected that all candidates from a centre will include macros, or that these will have the same functions.

Candidates would benefit from being taught to consider how a spreadsheet system will be used and to deduce from this what sequences of choices might be commonly needed, rather than simply learning a few generic macros that could be used on almost any system but with limited advantage to the user.

The main differentiator in the second section of LO1 is the extent to which candidates have implemented relevant and effective validation. Effective validation would include input and error messages to minimise data errors.

Appropriate customised error messages are a normal expectation for any validation set. Many centres over-generously marked this section where candidates had only used one type of validation (usually against a list) and had not set any input messages, and so had not met any higher-band criteria.

Where candidates understood that new customers and products would need to be entered as well as invoice details they were more likely to be able to apply a wider range of validation types, although in many cases some of the validation rules were not appropriate as they would have prevented valid data from being entered.

Testing spreadsheet solutions

Although testing is not tested separately in this unit, it is part of the specification. Candidates would benefit from being reminded to test their solutions at regular intervals to make sure features added work as intended and produce the right results.

Where validation rules are created a good way of testing would be to make sure all existing data can be entered.

The extent to which skills/knowledge have been transferred from other units can generally be seen without specific evidence. Examples include basic formatting and formulae, and the creation of appropriate documentation using appropriate software.

Where candidates started a new document for every part of a task and/or when they used software that would be considered inappropriate for creating documents in a vocational setting, e.g. slide-show software, this did not evidence the transfer of skills from R002 at the highest level.

LO2 – Be able to select and use spreadsheet functions to meet user requirements

Centre marking of the first section of this learning outcome was often accurate. This assesses the formulae candidates have used within their systems and is generally best seen by looking at the electronic spreadsheet file.

Where printed evidence is relied on it is essential that all formulae can be seen and read clearly, in full, and that the location of each formula is clear.

The most common errors were to over-harshly mark within Mark Band 1 when a solution would provide some useful results and included the appropriate use of formulae such as LOOKUPS and/or IFs that added some efficiency to the solution. Evidence was also over-generously assessed at the highest level when efficiency improvements could have been made and/or errors remained.

When teaching the use of LOOKUPS it is important to make sure candidates are provided with strategies to avoid errors if, for example, cells are blank. It is also recommended that candidates are taught that the user of a spreadsheet model should not be expected to understand or edit formulae in any way. Therefore, an effective system will allow any changes to be made to data and not to formulae or the structure of the sheet.

Ordinary use of this system will require it to work regardless of the number of items a customer needs and future changes might include not only the addition of new customers and products but changes in VAT rate, discount policies and delivery pricing.

The second section of this learning outcome complements the first by assessing candidates' understanding of the formulae they have used, as shown in explanations.

Some centres over-generously credited understanding solely from the fact that formulae had been used, which has already been credited in the first section. If a candidate gives no explanation, then no marks can be given in this section.

It is most likely that explanations will be written, although it is possible for them to be verbal, so long as a detailed witness statement, containing all questions asked and responses given, is provided. This is likely to be appropriate only in exceptional circumstances where a candidate is unable for good reason to provide the necessary documentation.

Many candidates' explanations of their formulae were limited to describing what they did. This level of explanation fits best within Mark Band 1 but was often over-generously marked by centres.

For higher mark bands there must be some explanation that demonstrates understanding of the benefits of using functions in particular places.

For the highest mark band, it would be expected that candidates will justify the use of formulae by comparing them with other options that would be less effective; this is likely to be possible when candidates have found ways to make their solutions more effective and efficient.

LO3 – Be able to use spreadsheet models to present information to support decision making

This learning outcome assesses candidates' responses to the tasks within Task 3 of the OCR assignment. Where these were completed they were generally good, with filtering and sorting particularly well understood. A significant number of candidates did not attempt any part of this task, potentially missing some comparatively easy marks.

Centre marking of the first section of this learning outcome was generally sound, although some centres were over-harsh when candidates had demonstrated good solutions to all scenarios in part A, and produced a suitable chart for part B. The data provided as the outcome of sorts and filters should be sufficient to support decision making, so extra documentation is not required if the outcome is clear.

The weakest part within this first section was usually the chart, which was sometimes an inappropriate type and/or insufficiently/inappropriately labelled. Common errors included unhelpful or missing titles and/or axis labels and unneeded legends not removed.

Choosing the correct chart type

The specification for this unit includes the need for candidates to “recognise that data type influences the graphical method used”.

It is important that candidates are taught to understand that different types of chart display data in different ways for different purposes, e.g. some are designed to show proportions while others compare absolute values. Some chart types are designed for continuous data while others are appropriate for discrete items.

The second section of this learning outcome assesses candidates' responses to the modelling scenarios in part C of Task 3 of the OCR assignment. Where candidates understood the principles of modelling and had created a solution that allowed them to easily change data and see the results of these changes they were easily able to provide responses to the first few scenarios. Candidates from some centres showed some confusion in this area and tried to create a new set of formulae for each scenario.

While many candidates obtained results for most, if not all of the set scenarios, their supporting documentation often did not meet the requirements beyond the lowest mark band, so limiting the overall mark that could be supported.

The higher bands require at least some documentation presenting the results for the customers and explaining the methods used to obtain these results. Additionally, the higher mark bands require alternative outcomes to be produced where appropriate – two of the scenarios lend themselves to the presentation of alternatives to the customer.

It is likely that in Mark Band 2 methods might be limited to trial and error but for the highest mark band some use of complex modelling tools, with justification for their use, is needed. This is likely to be the use of Goal Seek, which is listed in the specification, although candidates from some centres also successfully used Scenario Manager to present their alternative outcomes and explanations for this approach can also be credited.

Few candidates appeared to demonstrate any understanding of when Goal Seek is an appropriate modelling tool and why it is not appropriate in other situations. Therefore it was possible to justify full marks for this section on very rare occasions only.

Unit R004 General overview

Although one of the less popular units, this was generally well done by those centres who chose it.

As for R003, evidence was most effective where candidates submitted the electronic file for their database and a single document, either electronic or printed.

Much of the evidence is best found within the database itself, although LO1 also requires explanations of validation rules used and LO4 requires explanations of testing.

The unit is written to allow candidates to achieve within Mark Band 1 using a single-table database only, amending the given table for LO1, using it for the simple queries and reports in LO2, adding a form and menu for LO3 and testing for LO4.

Comments by LO

LO1 – Be able to modify databases to meet user requirements

The most important aspect of this learning outcome is the extent to which the provided database has been modified to meet user requirements – according to the title of the learning outcome – and this should be the main consideration when choosing the mark band of best fit.

Centre marks were sometimes over-harshly placed in the lowest mark band when candidates had added fields and tables, edited some field properties, e.g. field types and lengths, and added some validation rules, even if these rules had not been explained.

It is possible for the best fit to be in Mark Band 2, even if explanations are missing. Lack of explanations would simply indicate that a mark towards the bottom of the band would be appropriate.

For Mark Band 3 it would be expected that the tables will be appropriately linked by key fields within the basic structure and not simply within queries. It would also be expected that the majority, if not all, fields, properties and validation would be set appropriately, with the position within the mark band chosen by the extent to which this is the case, also the extent to which detailed justification is given for validation rules.

Some centre marking was inaccurate because it did not distinguish between validation rules and other settings when assessing candidates' explanations.

	Misconception	The assignment task and assessment criteria require candidates to explain and justify the <i>validation rules</i> chosen. Explanations of other features are not required.
---	----------------------	--

Validation rules are any settings which restrict what a user can enter in to a field, so input masks and drop-down lists are also included.

Centre marking at the highest level was sometimes over-generous when candidates had not explained why particular validation rules had been chosen but simply demonstrated an understanding of the importance of validation as a tool. This level of explanation just meets Mark Band 1 requirements. Many candidates chose settings that would not allow existing data to be entered, which would impact significantly on the functionality of the database; these cannot be considered effective.

The assignment asks candidates to test their modifications as they are implemented and to show any further changes that they make to correct any errors. For most candidates this was limited to testing each validation rule once, usually by attempting to enter some invalid data. This left significant features, e.g. links, field types and lengths, untested and did not ensure that all potentially valid data would be accepted.

The test data provided in the original database includes a good range of different formats for fields such as postcode and telephone number, for example, and this could be used to help improve the effectiveness of testing.

Where candidates had been taught to enforce referential integrity, this could have been used as an important test to make sure the links were valid. Although testing itself is assessed in LO4 it is important to remind candidates of the importance of thorough testing, as if they fail to recognise errors in their modified database they will be unable to access the highest marks in LO1.

LO2 – Be able to produce outputs from databases to meet user requirements

Many candidates achieved very well in this section, producing appropriate open queries to meet all required scenarios and creating reports for each of these.

Where candidates were unable to use parameters within their query criteria and created queries only for the specific examples given in the scenarios these would not be considered sufficient complex to meet Mark Band 3 requirements.

Some candidates demonstrated a level of confusion, with their databases containing many similar queries, including some that did not work and/or unnecessary duplicates. Stronger solutions included just the required queries, clearly named.

Some centre marking was over-generous where candidates had used appropriate selection and sort criteria but had not given sufficient thought to the output required in terms of choice of fields, order of fields and layout of the report.

Many candidates included a logo as part of their house style, although this is not a requirement. Some candidates' choice of colours detracted from the appropriateness of their reports and a common error was to leave data or column headings truncated and/or to fail to ensure the report would fit onto a printed page.

LO3 – Be able to create user interfaces for databases to meet user requirements

Most candidates achieved well in this learning outcome, with centre marking generally accurate.

There was harshness where marks in the lowest band were chosen, especially where the candidate had created forms for each main table and a simple switchboard that provided access to at least some of these forms and some reports.

To achieve the highest level, it is not necessary for menu systems to provide direct access to either tables or queries – this is generally not considered good/safe practice. Instead, access to the data in tables would generally be through forms and access to queries would be through reports. Therefore, a menu system that provides form access to all data about customers, prices and sales, also to a report for each query created, fully meets the requirement.

The Mark Band 3 requirement to create data entry forms for only most of the database tables is in recognition that there may be extra tables, e.g. any created for lookup fields, which do not need a form.

Some candidates might choose to create sub-forms for some data rather than simply one form per table. For the menu to provide access to all the database objects, it is necessary to provide data entry for each table through a suitable form.

	Misconception	<p>To meet Mark Band 3 it is not necessary to provide direct access to queries from the user interface – this should be provided through the reports.</p> <p>Although candidates are not penalised if they do add queries to their menus, it <i>is</i> necessary for the forms created to allow data to be input to <i>all</i> the main areas, including customers, prices and sales.</p>
---	----------------------	---

Some centre marking was over-generous at the highest level where forms and/or menu systems were not well-structured with consistent layouts and a range of features to help the user when entering data – this is not simply drop-down fields but also requires the addition of a range of command buttons, helpfully labelled. At this level it is also expected that menus will load on start-up.

LO4 – Be able to analyse a database’s suitability for a business purpose

This learning outcome was generally the weakest in candidate portfolios and most often over-generously marked by centres. It is important to assess against the criteria, which require explanation of testing, justification of methods used, analysis of results and identification/implementation of modifications needed, also evidence of the testing that the candidate has carried out on the user interface created by someone else.

	Misconception	<p>Candidates are assessed on the testing <i>they</i> have carried out on the user interface created by <i>someone else</i>, so it is important that they include evidence of this in their portfolio. Candidates are not assessed on the quality of feedback they receive from others, rather the analysis of this feedback, along with their own test results, and the modifications identified/implemented as a result.</p>
---	----------------------	--

When considering testing methods used, reference should be made to the specification content, which includes the use of test plans, the use of normal, extreme and erroneous data, end user testing and peer testing of user interfaces.

Candidates must make their own choice of method(s) and test data to use and should then be able to give reasons for their choice(s).

Most candidates’ evidence best fitted Mark Band 1 because there was little, or no, explanation of methods used and little or no evidence of modifications. Candidates can be reminded throughout that the assignment reminds them to test each element as they construct their database solutions. It is very likely that this initial testing will highlight some issues that need resolving.

Candidates who leave documentation of testing until they have finished are less likely to be able to find and document areas for future improvement. It is also worthy of note that modifications do not necessarily have to be correction of errors, they can be improvements to make sure the database system is either easier to use or better fits user requirements.

The type of test data most often omitted by candidates is the most important – extreme data - where errors are most likely to occur. It is recommended that centres stress the importance of this type of test data, explaining why it is at the extremes of acceptability that most problems will occur.

	<p>Misconception</p>	<p>Candidates from many centres seemed to misunderstand 'extreme' data, interpreting it as 'extremely erroneous' rather than its correct interpretation, which is data at the extremes of acceptability.</p> <p>For example, these may be the shortest/longest names, names including special characters such as hyphens and apostrophes, postcodes/telephone numbers that do not fit the most common format, prices on the limit, etc.</p> <p>These extreme values should be accepted by the system but can often be rejected by validation rules that are too limiting.</p>
---	-----------------------------	---

Where candidates did attempt to use more than one type of data this was generally restricted to validation rules, rather than checking queries and reports with a range of data, ensuring all valid queries will run and that the associated reports will fit on the page regardless of the input given.

Unit R005 General overview

This unit focuses on the creation of an interactive multimedia product to meet the needs of an identified business. There are two OCR-set assignments available – ‘Out and Up’ and ‘Wind and Waves’.

It is acceptable for a centre to replace the scenario (but not the tasks) with an alternative that is considered more relevant to the candidates. If a replacement scenario is used it is the centre's responsibility to make sure that the client brief is of an equivalent complexity as the OCR-set ones so that candidates have access to the complete range of available marks. Few centres chose this option, with the two OCR-set assignments chosen in roughly equal proportions.

The best evidence was provided by centres who supplied an electronic version of the final product together with a single document, either printed or electronic. Occasionally a product was evidenced online, with a URL provided.

Where documentation was spread over a large number of different files it was more difficult for a moderator to access and did not demonstrate good transfer of skills from R002 on the part of the candidate.

Where evidence of the product was limited to printouts and/or screenshots this made assessment of interactive and multimedia components extremely difficult, especially at the higher levels where some confirmation of quality and appropriateness is required.

Candidates from most centres appeared to have no real choice in the type of product they created or the software they used. This not only limited creativity but also prevented them from meeting higher-band criteria relating to choice of software, as they were unable to compare their chosen software with any alternatives.

Although many candidates produced acceptable working products these were often unexciting and lacking in interactive features other than navigation, with very limited multimedia content. Where interactivity was limited this in turn limited the range of appropriate tests that could be carried out.

The assessment guidance within the specification for this unit confirms that candidates are not assessed on the creation of the components but on combining them to create the interactive product. Candidates from some centres spent a lot of time creating components which did not contribute to the assessment of the unit.

Comments by LO

LO1 – Be able to design interactive products

Centre marking was often over-generous in both sections of this learning outcome, often significantly so, with some errors and inconsistencies resulting from centres crediting/penalising for the same achievement/omission in both sections.

	Misconception	<p>There should be no overlap in the achievement assessed in the two sections of LO1, even though all may be contained within a single specification.</p> <p>The first section assesses the identification of client requirements and the success criteria that are produced as a result of the analysis of these.</p> <p>The second section assesses the candidates' planning as well as the overall structure of the entire specification.</p>
---	----------------------	--

Centre marking often over-generously assessed the understanding of the brief as shown in candidates' success criteria. Each brief contains several clear areas that the client wishes to promote, as well as some instructions regarding functionality and features. To be considered 'sound' it would be expected that most, if not all, key points would be included within suitable success criteria.

In many cases candidates' success criteria resembled design ideas while other candidates reproduced generic success criteria that could equally well apply to any other product, thereby demonstrating no understanding of the particular requirements of the brief they had been given. Some candidates produced some valid criteria but considered only one aspect of requirements.

Where candidates were successful they provided an overview of the product required, then analysed the brief to extract all key requirements and translated these into a set of clear, measurable criteria against which the success of their final product in meeting these requirements could be measured. They considered a range of aspects, e.g. functionality, content, ease of use, interactivity and attractiveness as well as any practical constraints such as deadlines.

Centre marking was often over-generous in the second section of this learning outcome for a few reasons.

Some candidates were credited in the higher mark bands for their choice of software where it was clear that the only reason for their choice was that it was the only option they knew how to use or that was available to them. Some candidates tried to explain by looking at features offered by their chosen software but where these options would be equally well available with any other package this did not provide a valid reason.

In some cases the software chosen was clearly inappropriate, e.g. when candidates stated they wanted to create a website and then chose slide-show software that would not allow the creation of appropriate html pages. Similarly, some candidates designed interactive features such as forms and then chose software that would not allow them to implement these.

	Misconception	<p>This unit requires the creation of a working interactive multimedia product, not a non-functioning mock-up. If candidates wish to create a form this should allow a user to input data and provide a means by which this data can be sent on when the product is exported and hosted appropriately. While websites do not have to be hosted they are expected to contain features that would work if they were.</p>
---	----------------------	--

Centres are reminded to refer to the teaching/learning content of the unit when teaching and assessing. A number of planning documents are identified in this learning outcome and a good range of these would be expected from a candidate before assessing their planning in the highest mark band.

In many cases candidates' plans consisted only of page plans, with some appropriately adding site plans but missing any of the other planning documents as listed in the specification.

Planning the product

The assignment asks candidates to identify success criteria, and then choose the type of product they think will best meet these criteria.

They are then asked to create a plan for their product after which they are asked to choose the software they think will be most suitable to implement this plan, then the components that will be needed.

Some candidates tried to follow the order of the assessment criteria rather than the order of the tasks in the assignment. This made it more difficult for them to justify their choice of either software or components, as they did not have design plans with requirements that could be referred to.

A significant differentiator in the second section of this learning outcome is the extent to which candidates have justified their choice of components. Brief, often repeated, reasons or those that simply identify where a component will be used or what it shows, fit best within Mark Band 1. For Mark Band 2 some specific reasons why each particular component has been chosen are needed while at the highest level some comparison of alternatives is required.

This is not the same as simply providing a list of components that will be used and another list of those that won't – it is a high-level comparison, looking at more than one possible component for a particular area of the plan, comparing the two and identifying the one that best meets the need, explaining why.

At the higher levels candidates are expected to explain the legislative constraints that apply to the use of their chosen components. This is not met by a generic statement about copyright – candidates need to check the requirements for each component sourced. The specification lists the legislative areas that need to be considered. In most cases candidates gave only a brief mention of copyright, limiting the extent to which higher-band criteria were met.

Many candidates recorded their sources on generic source tables which usually did not include a column asking them for reasons for choosing each component. In such cases reasons were generally not given so the requirements were not fully met even in the lowest mark band.

Where a centre did recognise this, marks were often significantly over-generous.

There is no requirement for this section to be evidenced in a table and if a candidate chooses to use a table they should be reminded that it is best not to use generic templates as they may not include the prompts that match the requirements of the task.

LO2 – Be able to create interactive products containing multimedia components

This learning outcome assesses the products created by candidates. It was often the strongest element of candidates' submissions.

A range of products was submitted, including websites, stand-alone PowerPoint applications, mobile apps and Flash products. In some cases, the moderator had to ask the centre to export these products into a suitable format before they could be viewed.

An important part of learning to create these products is to understand how they will be viewed and candidates should be taught to export their products into appropriate generic formats. This is perhaps especially true of websites; where candidates did not demonstrate an understanding of the need to export these to html this was a very basic omission. It should be noted that a moderator would not wish

to download an app onto their personal phone. Most app creation software provides an online preview for which the URL can be provided. If a website has been created using online software it should again be possible to provide a URL from which it can be viewed, if it is not possible to export files that can be viewed off-line (which is preferable and an option on Weebly although not Wix).

Marking of the first section of this learning outcome was often accurate. Where errors were found it was sometimes over-harsh assessment of appropriate navigation systems within Mark Band 1, and over-generous assessment of quite simple systems in Mark Band 3.

A 'sound' navigation system, as required for Mark Band 2, would be one that demonstrates an understanding of what is needed in the type of product chosen. For websites this would be a standard navigation bar while for other products it might be a navigation bar or it might be a menu system.

Anything less than this, for example a navigation bar that does not provide direct access to all main pages, or a menu system that does not allow a user full choice of different routes through the product, fits best within Mark Band 1 while for Mark Band 3 something more is required; this is usually a well-structured system that includes some appropriate use of sub-menus.

The mark within the band should be chosen taking account of features that affect the usability of the system, e.g. the logic or otherwise of the order of choices, the appropriateness of size/colour/font/layout choices and whether there are any errors.

Common errors included those candidates who used MS PowerPoint and did not remove the 'advance on click' feature, so rendering any navigation structure of peripheral value only. For the highest mark it would be expected that all pages will also be well laid out and clear to read.

How many pages?

The assignments do not prescribe the number of pages that need to be created although they do provide clear guidance regarding content to be included.

While a certain number of pages will be needed to necessitate the structured navigation system required for the highest mark band, candidates from many centres produced very extensive products containing many pages than necessary. Often candidates added extra items that were not mentioned in the brief. In many of these cases candidates had clearly spent a lot of time creating more pages rather than adding interesting and effective interactive components and multimedia effects. This probably made it more difficult for candidates to gain higher marks in the second section of this learning outcome.

While centre staff must not dictate to candidates how many pages they should create it would be appropriate to remind them, at both design and implementation stage, to focus on the client brief and to make sure that they do not create unnecessary pages to the detriment of quality and range of features.

The second section of this learning outcome was completed very well by candidates from some centres, who included a wide range of appropriate interactive features. The unit specification provides a list of features that might be taught but many different features are now available, according to the software used.

Some issues were encountered when features either had not exported correctly or could not be viewed on standard browsers; this appeared to be an issue when using Serif WebPlus. It is important that centre assessors view products on stand-alone computers to replicate a moderator's position, so that any issues can be documented.

For example, some centre assessors appropriately added comments on the Unit Recording Sheets guiding moderators to a particular browser or highlighted where a particular feature would not be viewed as the candidate saw it.

Where there were difficulties extra evidence was often appropriately provided by annotated printouts/screenshots. Where such measures were not taken a candidate might be disadvantaged because a moderator might not know that they were not viewing the product as the candidate had created it.

Some centres over-generously marked this section where candidates had added few or no interactive features other than the hyperlinks that formed the basic navigation system. As the navigation system has already been assessed in the first part of this learning outcome these links do not contribute to this second section.

Some basic features were often missing, even when candidates created a range of other features, e.g. email addresses which were not linked, maps that claimed to be interactive, but which were just screenshots, social media icons that were not linked, forms that had no 'submit' option. Where MS PowerPoint was chosen the range of tools available to create interactive features is more limited but a creative use of triggers can produce a range of different interactive features for the user.

Some centre marking focused solely on the range of interactive features and effects created by candidates, without considering the qualitative criteria included at the higher levels. While a mark at the lower end of Mark Band 2 might be appropriate if a candidate has used a range of techniques to create interactive features and effects, if these do not enhance the user experience and/or meet the client brief then the higher marks cannot be supported.

Some centres had taught their candidates how to create a quiz and credited this as an interactive feature but only a few candidates came up with an idea that made use of this feature in a way that was appropriate to the client brief, so in many cases these detracted from, rather than enhanced the suitability of the product.

Other examples of where elements detracted from the suitability of the product included pages that looked like forms but which had no functionality, or which allowed a user to enter data but then did nothing with it.

It is not expected that all candidates from a centre will use the same range of interactive features and multimedia effects. It is important to make sure that a good range of software tools are taught and that candidates are encouraged to independently decide which features they will use to create a unique product that meets the client brief.

LO3 – Be able to carry out usability testing

The first section of this learning outcome assesses the testing planned and carried out by the candidate while the second assesses the collection and analysis of feedback.

The major limiting feature for marks in the first section was a lack of evidence from many candidates of genuine testing during the creation of their products, which is required above Mark Band 1. Some candidates provided no evidence of this while others produced two test tables, each containing the same set of tests, sometimes with identical outcomes. As this could not possibly evidence genuine testing during development it could not be credited.

	Misconception	<p>Testing during the development of a product is not the same as testing a first version. As candidates add components and features to their product they should test each one and make sure these tests are recorded. These tests during development will be of different components/features of an incomplete product and should be very different in nature to tests of the final complete product.</p>
---	----------------------	---

Candidates who documented the development of their product in the form of a log were more successful in showing genuine testing and correction of errors.

To be considered 'thorough', as required for the highest mark band, testing both during development and post completion should cover all interactive elements and multimedia features and should also address the client brief.

The second section of this learning outcome assesses feedback obtained by candidates and how this has been analysed to evaluate the extent to which success criteria have been met. Many candidates did this well, coming up with clear and appropriate questions that provided them with appropriate feedback and then analysing this against their success criteria. Candidates working at the highest level were also able to explain why they had chosen the methods they had, i.e. how to collect feedback, from whom and what prompts/questions to use.

Candidates from some centres were over-generously assessed where they misunderstood the task and provided their own evaluations, without referencing feedback obtained, which did not meet the assessment criteria. Similarly, where minimal feedback had been obtained, making meaningful analysis impossible, and/or where others were simply asked to comment on the product, without any structure provided by the candidate, this did not meet the requirements beyond the lowest level.

Unit R006 General overview

This remains a popular unit, with candidates generally evidencing good digital imaging skills which are often the strongest element of the portfolios. Candidates achieving at the higher levels generally were able to carry out a fuller analysis of the client brief and to remain focused on the range of client needs throughout their work.

There are two OCR-set assignments, with more centres choosing 'The Camera Never Lies' than 'Keep Pets', although good work was seen from both scenarios. To achieve higher marks candidates needed to appreciate both aspects of 'The Camera Never Lies', i.e. to produce an image that looks like a photograph and to promote the local area, or both requirements of 'Keep Pets', i.e. the need for a logo and for additional graphics.

The clearest evidence came from candidates who provided a single document, either electronically or printed, plus printout(s) and/or electronic files of the final graphic(s) created.

Some centres submitted black and white printed portfolios and therefore provided no evidence of colours used by candidates. This not only made it difficult to determine all techniques used and the overall effectiveness of the final images but also meant that most candidates were unable to fully meet higher levels in the last section of the marking criteria, as, without additional screenshots, they provided no evidence of presenting their image to the client using suitable colour.

As filing is assessed in LO3 many centres appropriately provided all candidates' files for the unit, in their original folder structure. Some problems were encountered by moderators where these centres had not given clear directions to the files that needed to be opened, in which order, for each assessment criterion.

Much moderator time was wasted opening unnecessary files that had been provided purely to evidence storage. These difficulties were avoided when centre assessors had provided comments on the Unit Recording Sheets directing the moderator to appropriate evidence for each section of the marking criteria.

Comments by LO

LO1 – Be able to specify a digital image solution for a client's needs

As for R005 centre marks for both sections of this learning outcome were often over-generous. In the first section this was usually because candidates' success criteria were insufficiently specific to the brief and/or too limited in scope to meet the assessment criteria.

In the second section it was usually because reasons for the choice of components, with associated comments relating to legislative constraints, were either very basic or missing. Comments in R005 LO1 above relating to success criteria, component choices and legislative constraints also apply to this unit.

	<p>Misconception</p>	<p>Success criteria should be clear, measurable criteria against which the extent to which the completed product meets the client brief can be evaluated.</p> <p>Some candidates listed design ideas while others gave over-general criteria that could equally well apply to any other brief and fit best within Mark Band 1.</p>
---	-----------------------------	--

The specification for this learning outcome lists a number of research methods that candidates should be taught and the range of methods used by candidates should be assessed with reference to this list, although if candidates have gained useful information from other methods this can also be credited.

Many candidates carried out little research, often using only one method, e.g. researching existing company logos on the internet. This was often over-generously assessed.

	<p>Misconception</p>	<p>Researching several items of the same type or from the same source, e.g. a few different edited images on the internet or giving out questionnaires to a number of people is <i>one</i> type of research, not a range.</p>
---	-----------------------------	---

The quality of candidates' designs was often lacking, with rough sketches the most common form. Where these sketches were insufficiently detailed for another person to create a graphic to match the candidate's ideas these could not be considered 'clear', as required at the higher levels.

In some cases, pencil and paper sketches had been scanned and inserted into documents and the result was very difficult or impossible to read. Centres are recommended to send the original versions of plans, which is easier to do as well as ensuring the moderator can read them clearly.

Candidates from some centres wrongly thought that a number of alternative designs were required. In these cases design plans were often lacking in any detail and where candidates did not state which one they would follow it was impossible to agree that they had produced 'clear' design plans.

For the higher mark bands the design(s) created should show some originality and creativity. Many centres chose marks in these bands but did not clarify what it was about the design that was considered original or creative.

Where many candidates from a centre used very similar ideas it was not possible to agree that they were either original or creative. Centres are recommended to remind candidates that to be successful in the 'Camera Never Lies' competition the winner will be judged on the originality and creativity of their design as well as the quality of the finished graphic.

Similarly, to be successful a company logo and promotional graphics need to stand out from others and candidates can be reminded to consider how their designs might stand out and be noticed, through some original design ideas.

When choosing components to use, higher-achieving candidates demonstrated an understanding of image size and resolution, recognising that if they choose small and/or low-resolution images as components this would impact the quality of their final product(s).

LO2 – Be able to create digital images

The first section of this learning outcome requires clear evidence that the candidate has set up the canvas appropriately for the image(s) to be created. Explanations for the choice of size and resolution set and for the choice of software used to create the image(s) are also needed.

Centre marks were often over-generous where candidates gave no evidence of setting up the canvas before they created their images and/or no explanations of these settings were given. Setting size and resolution after the image has been created is not the same, as changing either at this stage could reduce the quality of the image.

Candidates from some centres clearly had the choice of a range of different software and were able to compare their strengths and weaknesses, with the highest-achieving candidates relating these to the needs of their own designs, recognising that none was 'better' than the others but that the appropriateness of each had to be considered in relation to the design to be implemented. Where candidates chose software at the beginning of their work before they creating any designs, they were not able to give anything more than a limited explanation of this choice.

As in R005 some candidates appeared to have no genuine choice of software to use, making it impossible for them to give any reason other than familiarity and/or availability, which can only be considered very limited reasons.

Centre assessment of the second part of this learning outcome was sometimes a little over-harsh when candidates had demonstrated good use of a range of specialised software tools but had perhaps not provided feedback to others and/or evaluated their work.

The specification for this unit lists features that should be considered 'standard' and 'specialised'. Where candidates and centre staff listed the tools and techniques that they had used this was very helpful in allowing the moderator to agree centre marks although step-by-step descriptions of how the images were created are not needed.

Choosing the mark band of best fit in LO2b

This section includes criteria relating to the use of digital imaging software, the complexity of the final image and the extent to which it meets the client brief, also evaluation of the final image and feedback given on other people's images.

This unit is about 'Creating Digital Images' and this learning outcome is titled 'Be able to create digital images'. It is therefore appropriate to choose the mark band of best fit by considering the image created by the candidate – its complexity and appropriateness and the extent to which it meets the needs of the brief.

The final assessment criterion, relating to feedback to others and evaluation, should be used to help determine the most appropriate mark within that band. Where there are no, or only weak evaluations and/or feedback, this does not limit the mark to the lowest mark band.

Where centre marks were over-generous this was often because candidates had demonstrated competence in the use of the software but had either used only a very limited range of tools or had not produced final image(s) that were appropriate to the brief.

Candidates who had achieved well in LO1, by producing a clear and appropriate list of success criteria, clear designs and appropriate choice of components, remaining focused on the client brief, were most likely to produce appropriate final images and to evaluate these well against the brief and their success criteria.

The revised assignments clarified the requirements for candidates to provide feedback to other people on their images and this section was evidenced better than in previous years.

Some candidates did not provide any evidence of this, with some providing evidence of feedback they had received, which they often appropriately considered within their own evaluations, but not the feedback they had given.

LO3 – Be able to store, retrieve and present digital images

Candidates who provided full evidence of their filing system for the unit generally achieved well in the first section of this learning outcome, although some simply saved all files into a single 'Unit 6' folder, so not demonstrating any use of relevant knowledge/understanding from R002 and not meeting the requirements for folders.

When assessing this section, it is important to interpret the criteria in the context of the learning content of the unit, which includes the use of appropriate naming conventions, version control and archiving as well as the use of appropriate file formats. Some centre marks in the highest mark band were over-generous because these had not been considered.

The second section of this learning outcome was often the weakest part of candidates' evidence, with many providing no specific evidence that they had addressed Task 3C, which required them to present their image to their client.

Simply including the printed and/or stored image as part of their work for LO2 is not sufficient – candidates need to specifically address how they will present their image to their client. This is likely to require some documentation. The specification lists a range of presentation methods that candidates are expected to know about.

Some centre marks for the final section were over-generous when the final product submitted by candidates was clearly not the size and/or resolution that the client required. This was sometimes because, although the candidate may have set up the canvas appropriately before starting, they then began by opening up an image for the background which brought with it its own settings, rather than importing it as a component onto the blank canvas.

Unit R007 General overview

This unit concerns the creation of dynamic products, e.g. sound, animation and video. For the assessment candidates can choose to create any one of these, or to combine more than one into a single product. Most candidates created a video clip and many appeared to think that this was the only possible solution.

There are two OCR-set assignments – promoting the local area and 'The Shoulderpads'. Although both have been used equally effectively in past sessions the majority of centres this session chose to use the first of these choices. Some centres modified this scenario to allow candidates to choose what area of the country/world they promoted and this is acceptable. However, by choosing areas that are not local this may have restricted candidates' ability to include original components, as required at the highest level in the first part of LO2.

The most effective evidence was where candidates submitted a single document, either printed or electronic, supplemented by an electronic file of the exported final product in a generic format that could be opened on a moderator's computer.

Although some candidates provided screenshot evidence of storing the raw editable file, it was equally acceptable where both raw and exported files were provided electronically, even if the moderator was unable to open the raw file, as only the storage of this file is assessed.

Comments by LO

LO1 – Be able to prepare for the production of dynamic products

Centre marking for this learning outcome, as for R005 and R006, was often over-generous, with common problems including success criteria that were either over-general or that more resembled design ideas and weaknesses in reasons for choice of components and software and legislative constraints. Comments from R005 above relating to these also apply to this unit.

While most candidates included the time limit in their success criteria and many also copied the requirement for the product to "be suitable for the computer device and type of internet connection being used to play the product" few candidates demonstrated any understanding of the implications of this second requirement in terms of final file type and size.

The assessment criteria for the first section of LO1 in this unit also include an assessment of the design for the solution, as included in the specification, which should be in the form of a timeline storyboard. At the higher levels this should show at least some originality and creativity. In most cases it was not possible for moderators to identify anything that was original or creative, with most storyboards consisting simply of a sequence of images/clips in a random order.

Where these storyboards did not include any timings it was difficult to consider the solution anything other than simple. Examples of features that demonstrated some creativity include where there was some planning of a sequence of clips to deliver a message, creative captions and consideration of links between sound track and visual events.

Candidates might benefit from being reminded that the most successful products will be those that stand out from the rest because of particularly original/creative elements. Where all candidates from a centre had the same basic ideas, these could not be considered original.

Planning a dynamic product on a timeline

Most candidates' planning began by looking for components/themes and then allocating time to each. Planning might have been more effective had they started with a timeline and considered how to split up the time available. It is recommended that centres teach candidates how the final time limit can be used as a visual tool to help determine the overall flow of a product *before* deciding on particular components.

When choosing components to meet the requirements of the plan, candidates can choose to source from existing components or to create their own. Explaining reasons for this choice can contribute to the explanations required in the second section of this learning outcome.

However, candidates are not assessed on the creation of components but on sourcing, editing, combining and exporting to create a timeline-based product. The use of some original components is expected for the highest mark band in LO2 but these could be simple photographs and/or sound/video recordings, or the creation of a simple soundtrack.

LO2 – Be able to create dynamic products

The first section of this learning outcome assesses the actual product created by the candidates, including the appropriateness of components, the range of techniques used to edit these components and to create the final product, also the extent to which the product matches the plans and meets requirements.

Most candidates demonstrated competence in the use of their chosen software but final products, especially where these were video clips, were often unexciting. Centre marks were sometimes over-generous where candidates had provided little or no evidence of editing components to meet requirements or where the final product did not meet the requirements of the brief.

Where candidates' plans were missing or vague it was not possible to assess the extent to which the final product matched the planning so credit could not be given for this criterion.

Where candidates' planning was good and where the client brief remained in focus, candidates' products tended to be more well-structured and appropriate.

The second section of this learning outcome assesses candidates' understanding of exporting products in appropriate generic formats and this was often a weak point of candidate submissions. The range of file formats that candidates are expected to know about is listed in the specification for this learning outcome.

Candidates from some centres demonstrated a level of confusion between file formats for components and those for the final product – only file formats appropriate for the final product are relevant here.

Some candidates tried to explain their choice of file format by producing a table of comparisons but where these comparisons were not related to the product to be exported this did not demonstrate understanding.

For example, many candidates commented that particular video formats did not support interactivity but if there was no interactivity in their product this was not relevant. Some candidates showed some confusion between different export settings, different file formats and different default software (as shown in file explorer windows) and sometimes this was not recognised within centre marking, leading to over-generosity and some inconsistency of standards.

Where candidates had clearly been taught about the main strengths and weaknesses of the different formats and then experimented by exporting their product in each, exploring how the results differed and evaluating each according to the client brief, they were more likely to be able to meet the higher-level requirements by providing sound, justifiable reasons for their final choice.

Occasionally a candidate did not export their product, which limited the mark they could achieve. However, it is important that an exported version is available to the moderator. In such cases centre staff could export the product for moderation purposes and could confirm this on the Unit Recording Sheet, explaining why a higher mark had not been given.

LO3 – Be able to test functionality of dynamic products

The two sections of this learning outcome are linked, with the first section assessing the test plan and the second assessing the actual testing.

Where candidates created a formal test plan, identifying the main areas to be tested, the tests to be carried out (i.e. how these areas were to be tested) and expected outcomes the higher mark bands could be considered.

Some centre marking was over-generous where candidates had not identified the key areas of their product that needed to be tested and/or where they had not considered what tests would be needed for these. For example, some tests could be carried out by observation by the candidates themselves while others might require input from others. Candidates achieving at the higher levels should be able to choose the method of testing that is most appropriate for each area required.

Centre assessment of candidates' testing, in the final section of the marking criteria, was often over-generous, as in R005, where there was no evidence of testing during the creation of the product. In such cases the assessment criteria were not fully met at any level.

Where candidates provided a commentary/log itemising the testing they carried out while they added/edited components and effects this was generally more successful.

Where candidates simply produced two identical test tables, labelled to suggest that they showed testing at both stages, this did not evidence testing during the creation of the product as such testing would be on an incomplete product and final testing would be on the completed product, thereby necessitating different tests.

Supporting you

For further details of this qualification please visit the subject webpage.

Review of results

If any of your students' results are not as expected, you may wish to consider one of our review of results services. For full information about the options available visit the [OCR website](#). If university places are at stake you may wish to consider priority service 2 reviews of marking which have an earlier deadline to ensure your reviews are processed in time for university applications.

activeresults

Review students' exam performance with our free online results analysis tool. Available for GCSE, A Level and Cambridge Nationals.

It allows you to:

- review and run analysis reports on exam performance
- analyse results at question and/or topic level*
- compare your centre with OCR national averages
- identify trends across the centre
- facilitate effective planning and delivery of courses
- identify areas of the curriculum where students excel or struggle
- help pinpoint strengths and weaknesses of students and teaching departments.

*To find out which reports are available for a specific subject, please visit ocr.org.uk/administration/support-and-tools/active-results/

Find out more at ocr.org.uk/activeresults

CPD Training

Attend one of our popular CPD courses to hear exam feedback directly from a senior assessor or drop in to an online Q&A session.

Please find details for all our courses on the relevant subject page on our website.

www.ocr.org.uk

OCR Resources: *the small print*

OCR's resources are provided to support the delivery of OCR qualifications, but in no way constitute an endorsed teaching method that is required by OCR. Whilst every effort is made to ensure the accuracy of the content, OCR cannot be held responsible for any errors or omissions within these resources. We update our resources on a regular basis, so please check the OCR website to ensure you have the most up to date version.

This resource may be freely copied and distributed, as long as the OCR logo and this small print remain intact and OCR is acknowledged as the originator of this work.

Our documents are updated over time. Whilst every effort is made to check all documents, there may be contradictions between published support and the specification, therefore please use the information on the latest specification at all times. Where changes are made to specifications these will be indicated within the document, there will be a new version number indicated, and a summary of the changes. If you do notice a discrepancy between the specification and a resource please contact us at: resources.feedback@ocr.org.uk.

Whether you already offer OCR qualifications, are new to OCR, or are considering switching from your current provider/awarding organisation, you can request more information by completing the Expression of Interest form which can be found here: www.ocr.org.uk/expression-of-interest

Please get in touch if you want to discuss the accessibility of resources we offer to support delivery of our qualifications: resources.feedback@ocr.org.uk

Looking for a resource?

There is now a quick and easy search tool to help find **free** resources for your qualification:

www.ocr.org.uk/i-want-to/find-resources/

www.ocr.org.uk

OCR Customer Support Centre

Vocational qualifications

Telephone 02476 851509

Facsimile 02476 851633

Email vocational.qualifications@ocr.org.uk

OCR is part of Cambridge Assessment, a department of the University of Cambridge. *For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored.*

© **OCR 2019** Oxford Cambridge and RSA Examinations is a Company Limited by Guarantee. Registered in England. Registered office The Triangle Building, Shaftesbury Road, Cambridge, CB2 8EA. Registered company number 3484466. OCR is an exempt charity.



Cambridge
Assessment

