Cambridge Nationals

ICT

Level 1/2 Cambridge National Award in ICT **J800**

Level 1/2 Cambridge National Certificate in ICT **J810**

Level 1/2 Cambridge National Diploma in ICT **J820**

OCR Report to Centres June 2017

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of candidates of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, Cambridge Nationals, Cambridge Technicals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support, which keep pace with the changing needs of today's society.

This report on the examination provides information on the performance of candidates, which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the examination.

OCR will not enter into any discussion or correspondence in connection with this report.

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Understanding computer systems (R001)

General Comments:

The quality of answers for this examination series remains extremely varied, as is to be expected for one with such a wide range of possible grade outcomes. However, whilst we expect some candidates to struggle, the lack of technical understanding from across the grade range is very disturbing. The lack of subject specific vocabulary shown across the ability range suggests a lack of understanding that challenges examiners to give marks, especially when exhibited at the top end of the ability range.

Questions such as 2b, which focussed on the need for backup, usually elicited general descriptions of data being "lost" or "broken", whilst question 4a resulted in answers about "copyright strikes" or equally vague terms. The answers to question 7b were particularly concerning, as the range of non-ICT terms used to describe the situation where a mobile phone was out of range of a base station suggested a real lack of technical understanding in this area.

The reliance on such answers suggests that candidates are trawling through general knowledge, rather than any focussed subject specific understanding. Areas such as the Data Protection Act, or Copyright Legislation, are frequently included in this paper and for candidates to be relying on apparent general knowledge and understanding is, at best, surprising.

A second area of concern is the apparent lack of understanding in context amongst candidates. The pre-release tasks are intended to give a context within which candidates prepare and which give this course its unique focus. Whilst many candidates are clearly well prepared and have considered the context in some depth, others seem unaware of the context and are therefore prone to give answers that are not allowable within the context of the scenario.

A case in point is question 7b, where candidates were asked to identify a reason why the smartphone may be unable to receive a telephone call. The scenario specified that phones were not allowed to be switched off. Despite this, candidates gave "phone switched off" as an answer.

This question will be discussed further below.

Comments on Individual Questions:

Section A

Question 1a was intended to settle candidates into the paper by asking fairly straight forward question. Many candidates were able to identify a suitable type of applications software from a range of suitable answers.

Question 1b many candidates missed the focus of this question and gave generic answers. The question specifically focussed on storing and locating data, therefore, answers about the use of graphs or other such features were wrong.

Question 1c presented little challenge to the majority of candidates. However, a minority of candidates suggested more exotic answers, such as a projector, which would be suitable within context.

Question 2a was completed well by the majority of candidates. Some missed the fact that this was a paper-based data capture form and they designed an online data capture form. Despite this, the elements included meant that good marks were awarded.

Question 2b has been addressed above within Question 2a. Despite concerns over the quality of answers, good marks were awarded, although in some cases this was based on an interpretation of what candidates had written, other than clear and focussed answers. Candidates need to be aware of hints given within questions so that context can be applied.

Question 2c candidates were asked to identify a storage media that could backup a whole computer system. The question asked here clearly differentiated this question from a standard one about backing up individual files and so the capacity of the storage was important here. Secondly, as backups need to be removable, candidates who identified a "hard drive" as an answer were not awarded the mark.

Question 3 was a banded response question. As with previous banded response question, candidates were asked to consider the impact of a range of features on two specific areas. In this specific question, the context was "features of shared online calendars" and the areas of impact were staff at Indiana Motors tracking bookings and an improvement on customer service.

Unfortunately, the vast majority of candidates focussed on the impact of online calendars themselves and failed to identify features. This therefore restricted them to gain a maximum of four marks for this task. Where candidates did consider features, they tended to focus on one and so were again restricted in their marks.

Question 4 focussed on the presentation used in the showroom. This question tended to highlight a lack of contextualised understanding, as some candidates focussed on a general presentation, or even, it would appear, a website.

Question 4a, some candidates did not identify an issue, but gave a cause of an issue and so missed out on relatively easy marks.

Question 4c, candidates had to describe an advantage, to the customer, of being able to interact with the presentation. Where candidates focussed on the customer benefits, answers were generally good, but many candidates answered with benefits to the showroom.

Question 5 was answered fairly well, with virtually all candidates able to identify the correct purpose of GPS.

Question 6a was targeted at more able students and proved to be a challenge to most. Very few students achieved full marks for this question and many either left the question blank or had a guess that the question was something to do with passwords.

Question 6b followed a similar pattern to 6a. Many candidates failed to take account of the exclusion and identified methods of protecting data, whilst others were only able to give vague references to actions that would comply with the Data Protection Act.

Question 6c did not buck the trend started by question 6a. Very few candidates were able to suggest a moral consideration and most simply repeated an aspect of the DPA.

Question 7 was about the use of mobile devices by Dulcie, in her day-to-day work.

Question 7a the majority of candidates were able to describe one benefit, although a small minority identified two (and so achieved a mark of 1).

Question 7b has been referred within the general comments section above and showed a lack of understanding of the pre-release tasks. Most candidates answered that there may be a lack of signal, but then fell back on the phone being switched off as their second answer.

Question 7c answers were generally correct, although a small number of candidates either gave “telephone message” or simply “message”. The first answer was excluded as it was not another method and the second answer was too vague.

Question 7d a range of incorrect answers was given, including charger and other inappropriate devices, as well as output devices. The understanding of input and output devices is a fundamental part of this course and should be one of the first concepts taught.

Question 7e was really well answered, with the vast majority of candidates able to identify the correct method of connection.

Similarly, many candidates were able to give clear answers about why Dulcie may be given a hands-free headphone set. These reasons ranged from the practical implications for the organisation, through to legal considerations.

Repository postal and visiting – Moderated units (R002 – R011)

General Comments:

Most of the issues identified by moderators were similar to those seen in previous series.

Administration

Most centres chose to submit their evidence by post or through the OCR repository and these are the only two components that will be available in future sessions. Centres are reminded that the postal option allows a mixture of paper-based and electronic evidence, so there is no need to scan hand-drawn designs, so long as any hard-copy materials are clearly referenced on the Unit Recording Sheets (URS) and labelled to show which candidate they belong to. Some confusion was caused by a number of centres entering under component code 01 (repository) and then sending samples by post. The correct component code for postal submission, whether this is paper-based, electronic files or a mixture of the two, is 02.

Some centres presented wholly printed evidence which, whilst acceptable, may not be the most effective way of presenting evidence of the products created by candidates. In some cases candidates presented weighty portfolios full of annotated screenshots, most of which could have been effectively replaced by the electronic file of the product. Where filing structures are assessed (R002 and R006) these were generally poorly evidenced in paper-only portfolios, as candidates rarely showed the contents of *every* folder. In most cases it was felt that centres might have disadvantaged candidates by choosing not to submit electronic files, either because paper-based evidence was unclear and/or limited or because candidates had been given additional work creating screenshot evidence. This was especially the case in R002/6 for filing structures, R0005/6/7 for storage of components and R003/4/5/7 for functionality and appropriateness of completed products.

Although most centres presented paper portfolios appropriately tagged so that portfolios could be opened flat with no possibility of mixing up work from different candidates. Some difficulties were encountered by moderators where centres failed to tag sheets together and/or used plastic pockets or presentation folders that did not allow pages to be opened flat.

Some printed evidence, most particularly where this was contained within screenshots, PowerPoint slides and/or spreadsheets, could not be read by the moderator because it was too small or because of insufficient colour contrast and/or draft printing. Centres should ensure all evidence sent to the moderator can be easily and clearly read. In some cases this can be achieved by supplementing printed evidence with electronic files. Some centres submitting electronic evidence included scans of hand-drawn designs which were of insufficient quality for details to be read and the original paper versions would have been clearer for the moderator as well as easier for centre staff. Centres are reminded that they must send to the moderator the same evidence that has been used within the centre for assessment purposes. In some cases the fact that evidence submitted was unreadable suggested that this was not the case.

Centres are requested, when sending electronic evidence through the post, to ensure CD/DVD/USB Pen Drives are adequately protected. In several cases replacements had to be sought because it was damaged on arrival. Additionally, it is requested that CD/DVD/USB Pen Drives should be labelled with centre name and number.

Where electronic portfolios are submitted these should conform to the standards outlined in Appendix C, page 107-108, of the specification document. In particular, attention is drawn to the

list of acceptable file formats. Many moderators again encountered problems this session because evidence was submitted for postal/repository moderation in file formats that they were unable to open, most notably MS Publisher, Adobe Photoshop and Serif software. Where visiting moderation had been chosen this was less likely to be a problem although some computer systems provided in centres did not include access to all necessary software and fonts.

It should be noted that the visiting moderation option will no longer be available after this session, so future moderation will be either from the repository or through postal submissions, making it imperative that all electronic files are of an acceptable format. It is advised that centres inform moderators of the version of software their candidates have used. Some newer versions of software, e.g., MS PowerPoint, Excel and Access, contain features that might not view correctly on earlier versions.

Regardless of the format of evidence it is important that this is always labelled clearly with both candidate name and number. Documents should include this information on all pages, as required by JCQ instructions (page 3 - 3.7 presentation and submission of coursework). In many cases centres submitted electronic files labelled only with candidate names, not always complete or matching names as entered, and this caused difficulty for the moderator.

It is essential that candidates hand in a portfolio of work for marking, whether this is wholly printed, wholly electronic or a mixture of the two. This portfolio, regardless of format, must be stored securely by the centre until after the entries have been made and results received. When the moderation sample request is received it should then be straightforward to ensure the moderator is sent exactly the same evidence, in the same format, as was assessed within the centre. In some cases the moderator was unable to agree with centre assessment because evidence for some criteria was missing, suggesting that centre assessors had used additional evidence not provided for the moderator. It is not appropriate for centres to mark electronic files directly from candidate user areas, as these are not secure and there is no way of guaranteeing that all files will be the same when viewed later by an external moderator. Following the required process should also remove any problems for the centre in submitting the requested sample within the three working days stated on the sample request email. If there is not already a system in place then centres need to ensure that they have a secure area where files can be stored after submission.

Most centres correctly completed an OCR Unit Recording Sheet (URS) for each candidate to show the marks allocated. Where evidence is submitted electronically these should be presented within candidate folders rather than separately. Some centres submitting evidence by post or visit also provided printed copies of the URS, which were greatly appreciated by moderators, allowing easy reference throughout the scrutiny of portfolios. As in previous sessions a significant number of centres submitted URS with no tutor comments and centres are reminded again that *all* sections of the URS must be completed. Where centre staff added comments to show *why* each mark had been awarded and *where* specific evidence could be found, this helped the moderator agree with centre marking and provide more detailed and relevant feedback. Regrettably, many centre comments were less helpful as they tended to restate or reword the assessment criteria rather than explaining why it was felt that these criteria had been met. Moderators again reported many problems locating evidence, particularly where centres submitted electronic files with no referencing to indicate which files need to be opened, in which order, to evidence each assessment criterion. Where paper portfolios are submitted it is expected that the 'page number' column of the URS will be completed and where evidence is electronic there must be a clear reference to each electronic file with, where appropriate, page numbers, for each assessment criterion. Moderators cannot be expected to search for evidence and may not always find everything if file names and locations are not provided. Some centres in this session had to be asked to provide additional information to help the moderator locate the evidence for each criterion before moderation could proceed.
Some centres appeared confused about the purpose of witness statements. These can be used to describe specific actions/outcomes that have been witnessed, for which no other evidence is

available. They are not needed if other evidence is clear and must **not** be used where coursework has been lost, for which the OCR lost coursework procedure must be followed (http://www.ocr.org.uk/administration/stage-3-assessment/special-consideration/). Some centres included witness statements that did not describe what had been seen for each individual candidate but merely stated that specific assessment criteria had been met. These statements had no value and centres are directed to Appendix A (page 60) of the specification, which provides clear guidance on the use of witness statements. There are three units (R002: Learning Outcome 4- be able to use software tools to format information, R007: Learning Outcome 1- be able to prepare for the production of dynamic products and R011: Learning Outcome 1- be able to initiate projects) where it is possible to provide some direct support to a candidate, which forms part of the assessment. In these cases a witness statement would be appropriate to detail the support that was given or to confirm that no support was required such statements, which generally need only be very brief, can be added to the URS.

The number of centres where clerical errors were found in the marks submitted to OCR was less than in previous years but there remained some centres where marks were incorrectly totalled on the URS and/or incorrectly transcribed when sending marks to OCR. It is important to double check the accuracy of all marks before submission, also the accuracy and clarity of all marks shown on the URS. In some instances the 'Mark' column was not completed or had been changed in a way that the final mark was unclear.

There was concern that candidates from some centres had been provided with additional materials and guidance, over and above that which is permitted. Whilst formative assessment should be an integral part of any teaching programme, formal assessment for this qualification must be summative, i.e. it must take place once the candidates have completed their learning and been assessed as ready to undertake the assignment independently. Candidates should be provided with the OCR-set assignment, which includes a copy of the marking criteria and teachers may explain the marking criteria to them. Centre staff may give candidates support and guidance that focuses on checking that they understand what is expected of them and giving general feedback that enables candidates to take the initiative in making improvements, rather than detailing what amendments should be made. Writing frames and specific design guidance must not be provided. Centres are referred to the OCR document, 'Guide to generating evidence', which can be downloaded from the 'Key documents' section of this qualification's area of the OCR website . The JCQ Instructions for Conducting Coursework dictate that credit cannot be given to a candidate for any work produced with assistance that goes beyond this level. The exceptions are those units/Learning Outcomes mentioned above, where support forms part of the assessment.

It should be noted that updated versions of the OCR Model Assignments, now retitled 'OCR Set Assignments' have been produced and these should be used for all future cohorts. The scenarios and requirements have not been altered in any way, except for the removal of one item in R002 (see next section) but tasks have been reworded and additional guidance provided to clarify the requirements. Marking criteria have now been integrated into the assignment documents. These assignments can be downloaded from 'sample assessment materials' section of the subject webpage http://www.ocr.org.uk/qualifications/cambridge-nationals-ict-level-1-2-j800-j810-j820/.

Standards

Some centres' marking was found to be over-generous at the higher levels because key words such as 'some', 'most', 'thorough' and 'detailed' had been misinterpreted. The glossary in Appendix D (page 109) of the specification document provides useful guidelines in the interpretation of key words used in the assessment criteria for the units.

Some centres' marks were found to be inconsistent, leading to an invalid order of merit, as a result of which work had to be returned to the centre for remarking before it was possible to

complete the moderation process. In some cases this was clearly a result of insufficient internal moderation, resulting in different standards being applied by different assessors. It is essential that a robust system of internal moderation is in place to ensure consistency of standards across all assessors. In other cases inconsistencies appeared to be a result of centre staff applying criteria other than those in the specification grids, for example by assessing documentation and explanations where these formed no part of the assessment criteria.

Some inaccuracies in interpretation of assessment criteria appeared to be a result of centre assessors not considering the specified content for each learning outcome. All assessment criteria must be interpreted in the context of both the assignment task and the relevant subject content listed in the specification for the relevant learning outcome. In some cases it was clear that centre assessors were assessing the same achievement in more than one area of the marking grid, which is not appropriate. This was particularly the case in Learning Outcome 3 of R002, where data handling software was often considered, even though this had already been assessed in Learning Outcome 2, also in R005, R006 and R007, where the two sections of Learning Outcome 1 were not sufficiently differentiated, and in R005 Learning Outcome 2, where hyperlinks for navigation were often credited within both sections.

It has been noted in previous sessions that candidates from many centres made almost exclusive use of presentation software to document portfolios. Whilst it is understood that many candidates are taught in earlier years to document work in this way, because of the ease with which screenshots can be imported and annotated, this cannot be considered appropriate for documents in a vocational context unless they are specifically designed to be interactive. When studying R002 it is expected that candidates will learn to choose the most appropriate software for different tasks and outcomes and that they will transfer this knowledge to other units. It was pleasing to note this session an increase in the number of centres submitting portfolios with documentation created in an appropriate format using an appropriate software although many candidates appeared to have started a new file for every sub-task.

It was disappointing to note that again some candidates' portfolios contained text that had been copied and pasted from websites without acknowledgement, which is plagiarism and therefore malpractice. The most common occurrences were when writing about email etiquette in R002 and file types in R007. Centres are recommended to ensure candidates are fully aware of the issue of plagiarism and its consequences, also to be vigilant to identify it within centre if and when it occurs. The JCQ Instructions for Conducting Coursework define the procedure that should be followed in such circumstances. Centres are particularly reminded that sources should be acknowledged even if candidates have reworded the text. It is recommended that centres advise candidates that copying text, even if acknowledged, has no benefit as it is only their own explanations that are taken into account when marking. It should be noted that the R002 assignments and assessment criteria have been edited to remove specific reference to 'email etiquette', to remove any incentive to candidates to plagiarise, although candidates should still be taught to use email appropriately in a business context, as stated in the subject content of the unit and future assessment of their understanding of the use of email tools and features should be undertaken within this context, with any lists of email etiquette rules ignored.

Specific comments on the units submitted

Comments below relate to those units for which the entry was sufficient to enable generalised comments to be made. For those units where there is no comment, centres are advised to consult reports from the June session of 2013, 2014 and 2015.
2013 June report - http://www.ocr.org.uk/Images/143453-examiners-reports-june.pdf
2014 June report - http://www.ocr.org.uk/Images/178008-examiners-report-june.pdf
2015 June report - http://www.ocr.org.uk/Images/251724-examiners-report-june.pdf

Unit R002

As the only mandatory moderated unit for both Award and Certificate, this unit represented the majority of entries this session, as in previous sessions.

The two OCR assignments - 'JB Clothing Emporium' ('Tailored Tops') and 'MStreamIT' continue to be used by centres in equal numbers. Both assignments provide a vocational scenario within which the work should be carried out. Where candidates remained aware of this throughout their work they generally produced more appropriate outcomes.

It was pleasing to note an increase in the proportion of centres that submitted electronic evidence to supplement paper portfolios, allowing candidates to concentrate on meeting the requirements of the tasks rather than producing screenshot evidence. Where centres relied wholly on printed evidence portfolios tended to be very weighty and/or evidence unclear or missing.

There was some evidence that centre assessment considered certain aspects, e.g. formatting, in more than one section. It should never be the case that assessment either credits or penalises in two different areas for the same achievement/fault. Although the same piece of work may be assessed in different areas, each separate area considers a different aspect of the work. For example a leaflet about email will be assessed in Learning Outcome 1, where the candidate's understanding of email will be considered. In Learning Outcome 3(a) the software used and certain tools (e.g. use of tables, integration of information from different packages) will be considered, whilst in Learning Outcome 3(b) the content will be considered in terms of the appropriateness for the purpose and audience stated and the quality of written communication in terms of spelling, punctuation and grammar. The formatting of this document will be assessed, along with all other documents, in Learning Outcome 4. Similarly, if a spreadsheet is created then the data handling aspect will be assessed within Learning Outcome 2 whilst the formatting will be considered in Learning Outcome 4.

As in previous sessions, candidates' file structures were often over-generously assessed in the highest mark band, sometimes because evidence was not provided to show all (or any) file names and locations, but more often because the systems evidenced were not suitable for the vocational setting of the assignment and/or because errors within the system did not appear to have been taken into consideration within centre assessment. Assessors might benefit from asking how easy it would be for colleagues in the future to locate particular files, also to file future documents etc. within the system. It would not be easy, for example, to locate a document on email if it were filed under 'company image' or 'task 1' or a quarterly report (of which it is assumed there will be more in the future) under 'business solutions' or 'task 5'. Letters to customers would not be easily found if they were filed under 'database' or 'task 2'. Default filenames and generic names such as 'MStreamIT' and 'Tailored Tops' cannot be considered appropriate within the context of the scenario. Where filing is clear and logical but based around assignment tasks, this can be considered to fit Mark Band 2 requirements, as the candidate is demonstrating a sound understanding of the purpose of a folder structure but not applying it with any consideration of the vocational context of the assignment. There is no single 'correct' filing structure for either assignment and it is not expected that candidates from a centre will all use the same structure – this must be their own, individual decision.

The two assignments have different requirements for evidence of email understanding – MStreamIT asks candidates to set up their email system for their work in the business and to produce a document to explain to staff the tools and features of email software they will need to use, whilst JB Clothing ('Tailored Tops') asks candidates to write about the tools they have used to set up their email and to explain how email tools and features help them communicate in a business environment. Few candidates fully met the requirements of either assignment, which affected the extent to which they could be considered to have met stated requirements in

Learning Outcome 3. Many candidates using MStreamIT failed to evidence any setting up of their email system (Task 1A) and often produced separate documents for email tools and etiquette. Many candidates' evidence for JB Clothing ('Tailored Tops') resembled an email guide or simply evidenced a few uses of email without explaining how the tools and features would aid communication in a business environment. It is expected that email tools will be taught in the context of appropriate use within business. **Specific reference to email etiquette has been removed from both tasks and assessment criteria from November 2017** (http://www.ocr.org.uk/administration/support-and-tools/siu/cambridge-nationals-ict-110717/) **although future assessment should continue to be carried out in the context of the teaching content of the unit, i.e. in a business context.**

Centre assessment of candidates' search criteria was often over-generous. Some centres appeared to credit at the highest level for any attempt to use Boolean operators, quotes or Advanced Search pages, regardless of the appropriateness of their use and information found, whilst other candidates provided no evidence of search criteria. It should be noted that Boolean expressions are not listed in the teaching content of this unit, in recognition of their limited appropriateness with modern search engines. Candidates from a significant number of centres tried to put Boolean operators within the sections of an Advanced Search page, thereby demonstrating a lack of understanding. Where it is not clear what candidates are looking for it is difficult to credit search criteria at the highest level. In some cases for the JB Clothing ('Tailored Tops') assignment, which provides clear ideas for appropriate search criteria, candidates appeared already to have been told or found a possible website to use or products to find and used these as criteria within an Advanced Search page, which was neither necessary nor appropriate.

Many candidates chose to use standard source tables to show their sources of information and were often disadvantaged by this choice, as the headings on a standard table are unlikely to fully match the specific requirements of an assignment, which in this case requires details of copyright holders that will allow them to be contacted. In most cases candidates using such generic tables identified the URL and whether or not the item was copyrighted but did not identify any details of the copyright holder. Since it is not permissible for a centre to provide specific writing frames for an assignment and a standard source table is unlikely to fully meet requirements, centres are recommended to advise candidates for this, and any other unit where sources need to be acknowledged, not to use standard source tables but to create their own documents from scratch – this would have the added advantage that if they chose to create a table they would be demonstrating additional capability within Learning Outcome 3. Some candidates were over-generously credited with understanding copyright when they provided details from third-party websites rather than copyright holders. Others wrote about copyright in general terms, sometimes demonstrating some understanding, but this did not meet the requirements of either assignment task or assessment criteria at any level.

The Learning Outcome 2 assessment criterion "creates a spreadsheet *or* database" is correct as for any one task only one type of software will be used. However, the most important differentiator in this learning outcome is the extent to which specified requirements have been met. Therefore if only one of the two data handling tasks has been attempted the mark will not be above Mark Band 1 as only some (i.e. about 50%) of stated requirements have been met. In some cases marks were over-generously awarded where the extent to which accurate responses to all requirements had not been accurately assessed or had been ignored. The glossary in Appendix D (page 109-110) of the specification document provides some guidance in interpreting the key words in the assessment criteria. Centres are advised to work through the tasks themselves, to enable them to check the accuracy of candidates' results. Where candidates showed their results in spreadsheet printouts but did not provide any evidence that these had been obtained by appropriate data handling using spreadsheet tools, or where electronic files showed that results had simply been calculated and entered manually, they did not demonstrate achievement of the assessment criteria.

The set of tasks within each OCR-set Assignment is complete and must not be changed or added to in any way. Candidates from some centres appeared to have been disadvantaged by being given additional data handling tasks to complete.

The extent to which candidates' solutions from some centres had the same structure is a cause for concern – if candidates are allowed to decide for themselves how to tackle the assignment tasks, as is required, there are a number of different ways that solutions can be structured. Where moderators considered that similarities in candidate work extended beyond that which could be explained by teaching content and/or acceptable practice work then this was reported and some candidates' marks for the unit were reduced or disallowed. Centres are reminded that any practice assignments must not simply imitate the tasks from any live assignment with slightly different contexts and/or data – they must be sufficiently different to allow candidates to practice solving problems and producing evidence whilst not providing specific guidance for the live tasks. OCR has provided a practice assignment – 'The Little Theatre Company', which exemplifies this point. This can be downloaded from the subject webpage http://www.ocr.org.uk/Images/78345-unit-r002-using-ict-to-create-business-solutions-model-assignment-specimen.zip

Learning Outcome 3 focuses on the use of software to communicate information; this is expected to be largely that specified in the learning content for this learning outcome, i.e. word processing, desktop publishing (DTP), presentation, web authoring and graphics, but where candidates chose other software to create their advertising solutions then these were also credited. Some candidates created animations or video clips, which were perfectly acceptable, but this should be the candidates' own, individual choice and it is not expected that all candidates from a centre will make the same choice. Centre marking was sometimes over-generous in the first section of this learning outcome because centres credited candidates with the use of a range of software by including data handling software (already assessed in Learning Outcome 2), whilst software relevant to this learning outcome was limited to, for example, word-processing and/or DTP. The most significant differentiators in this first section are the range and appropriateness of software used and file types produced, also the extent to which tasks have been completed to meet stated requirements. Centre assessment was sometimes over-generous where, for example, email documentation, whilst demonstrating understanding of email, did not meet the requirements of the task, i.e. a single guide for other staff (MStreamIT) or explanations of how the tools and features are used to make communication in a business setting more efficient and effective (JB Clothing). Some centres failed to take into consideration any failure to complete one or more tasks. At the highest level it would be expected that a range of skills, as listed in the specification, would be demonstrated across different software, e.g., creation of tables, creation of screen layouts, appropriate combining of text and graphics and of data/graphics from other software and the integration of data from different software through mail merge, including the final merge to create the required documents, rather than simply previewing the results. Candidates working at the highest level in this section were able to demonstrate the ability to create appropriate multi-page documents incorporating text and graphics/screenshots.

Where centres were following the MStreamIT assignment, the range of types of product for the item of publicity required in Task 2 was broader than in earlier sessions but most submissions were again limited to a simple page of text and graphics, sometimes with no obvious function. This demonstrated little creative thought on the part of the candidates and often limited the range of file types produced. A significant number created a top-up card, which did not meet the stated requirements. Some centres appeared to have learned that in order to include content that fully meets the requirements of launching the card and promoting the company, a more significant item is likely to be needed and these centres appeared to have steered their candidates towards the creation of PowerPoint presentations, which were of varying quality and appropriateness. Where candidates had made their own choice of product type, as is required, the quality was usually better, with some candidates producing simpler items such as posters and simple flyers and others producing more complex items such as folded leaflets, videos and

appropriately set up presentations. It is expected that candidates will have been taught the range of software tools listed in the specification, allowing them to select the type of promotional item they think will be most effective. Centres are recommended to remind candidates to consider the purpose of the product they are being asked to create and where it will be used but then to make their own decisions about what to produce and what content to include. It is not permitted for centres to direct candidates towards any particular type of product, nor to provide ideas for content. This requirement has been clarified in the reissued assignment.
Candidates using the JB Clothing Emporium assignment generally created some creative PowerPoint slideshows for Task 5, although some merely copied the instructions rather than creating their own text that met the client's requirements. The best submissions came from candidates who had applied appropriate transitions and animations, appropriately timed for automatic progression. In some cases evidence was insufficient to allow any assessment to be made about the appropriateness of settings. Some candidates created static advertisements which, where they were appropriately sized and oriented to fit a screen, gained some credit although they did not generally manage to include all required content. Again, it must be emphasised that it is not permitted for centres to direct candidates towards any particular type of product, nor to provide ideas for content; rather candidates should be encouraged to consider the purpose and audience of the product, where it will be used and to ensure all company requirements are met.

The content of the documents is assessed in the second section of Learning Outcome 3. Common errors of content that were not sufficiently considered within some centres' marking included the content of the magazine advertisement and additional item of publicity (MStreamIT), the exhibition resource (JB Clothing), the letter, the company report (MStreamIT) and the report on research into giveaways (JB Clothing). As this assignment is set within a vocational scenario, content must be assessed within this context. In some cases centres were over-generous in their assessment of spelling, punctuation and grammar.

There are some generally agreed standards for a business letter and many candidates were over-generously assessed when their letters would not have been acceptable in a business environment. Common problems included an inappropriate font face and/or size, inconsistent line/paragraph spacing, lack of or wrongly positioned company and/or recipient addresses and/or date, also incorrect salutations and/or valedictions.

Marks in the highest mark band of Learning Outcome 4 were sometimes over-generously awarded by centres when candidates had used only a limited number of formatting tools and, whilst what they had done had enhanced the readability of the work, much more could have been done to make it more appropriate. The specification provides a list of formatting techniques that candidates should be taught and it is expected that appropriate use of a wide range of these techniques will be evident in the work of candidates scoring highly in this area. Where candidates had used formatting to improve some, but not all, of their work, full marks in mark band 2 were sometimes over-generously awarded by the centre. However, some candidates who used a limited range of formatting tools but generally did enhance the appearance and readability of their documents were sometimes over-harshly assessed within Mark Band 1.

The level of independence when formatting work is assessed in Learning Outcome 4. Many centres provided no evidence for this. Where centres made a comment on the unit recording sheet that clarified any support given, this was helpful and appropriate. Alternatively some centres provided separate, more detailed, witness statements.

Unit R003

Most centres appropriately provided the electronic spreadsheet file as part of the evidence for this unit. Where this was not provided it was not always possible to clearly ascertain the overall structure created by candidates, nor the consistency and appropriateness with which some tools, e.g. validation, comments and conditional formatting, had been used. When sending electronic files, centres are requested to inform the moderator of the version of software used, as some features such as drop-down lists and newer functions may not work on earlier versions than that used by the candidates.

In some cases marks were over-generous where centres appeared to have based their assessment on identifying the use of specified features rather than the overall appropriateness and ease of use of the final product, using these features wherever they are needed, rather than just once.

Although it is expected that the majority of, though not all, solutions will share the same basic sheet structure and invoice layout there are many different areas where it would be expected to find a variety of ideas between candidates. For example, formatting, including use of conditional formatting; validation settings; use of macros and other features designed to improve user friendliness; method(s) to add new customers/products; whether to look up codes or names, methods of calculating VAT; and discount and delivery charge. In some cases the similarity of candidates' solutions within a centre was so clear that it had to be investigated as possible over-direction by centre staff, which is malpractice. Centres are reminded that they must not provide any guidance to candidates regarding the structure of their solution or how to create it – the solutions must be the candidates' own, unaided work. Centre staff should remind candidates of the user requirements and should clarify the requirements of the assessment criteria but they must not provide step-by-step guidance or model solutions. This requirement has been clarified in the new version of the OCR-set assignment.

Many candidates produced effective solutions that met many of the requirements in the assignment, although consideration of the need to enable new customers and new products to be added was generally weak or absent. Where consideration had been given this was generally limited to providing space for them, without thinking of validation or the implications of new entries on invoice requirements. Where macros were included these were largely for fairly generic purposes such as navigation between sheets and simple routines such as saving and printing. Some created macros for routines such as printing for which there is already a software button, in which case they added little if any functionality to the solution, which was also the case for most navigation macros, which merely replicated the functionality of sheet tabs in a less easy-to-use manner.

A few candidates had given a lot of thought to ways in which their solutions could be made user friendly, using a variety of methods including comments, formatting, text boxes and macros but most solutions could have been significantly improved in this area. The best solutions ensured that the invoice would fit onto a sheet of paper when printed, with some candidates adding appropriate headers/footers. Marks in band 3 of Learning Outcome 1 were often over-generously awarded by centres where it could not be considered that the solutions were 'very user friendly', i.e. extremely easy to use by an inexperienced person. Most candidates were able to apply formatting to emphasise headings etc. in their spreadsheet but only a few used it well to help users understand how to use the spreadsheet, e.g. to identify clearly those cells where data needed to be entered and those which contained formulae and so would be automatically updated. Use of comments and input/error messages was often limited and few candidates added any instructions/explanations for the user. Whilst cell protection is not included in the subject content for this unit, candidates from many centres had been taught how to use this feature and where it had been used well to protect formulae from unwitting over-writing by inexperienced users this was given credit as a significant user-friendly feature.

Marks in the highest band of the second part of Learning Outcome 1 were sometimes over-generously given where validation was limited to one section only of the solution and was limited to one type, usually a list. In other cases candidates had attempted to use a range of validation types but in doing so had placed restrictions on data entry that were not appropriate for the scenario, for example, limiting the number of any item that a customer might buy. Teaching candidates how to use different validation settings, e.g. warnings, might enable candidates to produce more appropriate and robust systems. At the highest level it would be expected that validation would be applied wherever it could help reduce data-entry errors and that this would include more than one type of validation, with appropriate error and input messages throughout.

Learning Outcome 2 is separated into two parts – the first assesses the appropriateness and efficiency of formulae used whilst the second assesses candidates' reasons for choosing them. Some centres failed to distinguish adequately between these, in some cases being over-harsh in the first section, where formulae were appropriate albeit not documented, and in others awarding marks in the second section where no explanations were given and therefore criteria were not met at any level. It is clarified here that the understanding credited in the second section is that which is demonstrated by the explanation provided by the candidate, so if there is no attempt to explain formulae then no marks can be justified in this section. An efficient solution is one where the user is not expected to enter any more data than is necessary, never expected to enter the same data more than once, and is not required ever to edit formulae, also where functions are used correctly and where future changes, e.g. VAT rate, discount policies and delivery policies, can be made easily by the user. Candidates who had used LOOKUP functions in their invoice but had no method of avoiding errors if lines were blank were sometimes over-generously assessed by centres – although the use of LOOKUP includes an element of efficiency the solution would not work except in the rare case of having data entered in every line of the invoice, which cannot be considered to fully satisfy even **some** of the user requirements. Candidates whose solutions made use of efficient formulae had the opportunity to explain why these were more appropriate than simpler solutions, thereby allowing their explanations to be considered 'justification', as required at the highest level. Very few candidates achieved the second section of this learning outcome at this level and centre marking was often over-generous in the higher mark bands where candidates had *described what* their formulae did rather than *explaining why* they had been chosen.

The first part of Learning Outcome 3 – sorting, filtering and creating charts – was generally completed very well by candidates and assessed accurately by centres, although some candidates did not provide clear evidence of the outcome of their sorting and filtering. This was especially the case where evidence relied on the electronic spreadsheet file. As sorting, filtering and modelling involve temporary changes to this file either multiple versions/sheets are required for evidence, which can be confusing and does not demonstrate good understanding of the purpose of a model, or some documentary evidence is needed. The weakest area of this first section was the chart, which was often not well labelled and/or not the most appropriate chart type for the data being presented. Pie charts are designed to show proportions, line graphs should be used to present continuous data whilst bar/column charts are most appropriate to show absolute values of discrete data sets.

Most candidates attempted some of the modelling scenarios, although few provided a range of solutions where these were required. Where candidates did provide a range of solutions they rarely considered how to present this information to the customer, although some did use the scenario manager tool, which summarised the results, albeit usually requiring a little additional explanation/labelling to enable them to be fully understood. Marks in this last section of Learning Outcome 3 were often limited by a lack of explanation of the results and of the tools used. Many candidates appropriately used the goal-seek tool, but candidates from some centres were over-generously assessed when they had not made any use of advanced modelling tools such as this. At the higher levels some reasons for the methods used are expected – tools such as goal seek are appropriate for some of the scenarios but not for others and candidates achieving the highest mark were able to explain why this was the case.

Unit R004

Where candidates submitted their final databases in electronic format this provided the clearest evidence of the structure of their solution, including all field names, types, lengths and validation/input masks used, which is difficult to achieve in a purely paper-based portfolio without extensive use of screen shots. Centres are requested to provide moderators with the name and version of any database software used, to ensure electronic evidence can be viewed correctly. Where candidates relied on screenshot evidence this rarely covered all properties of all fields in all tables and often appeared to be trying to evidence the range of features used rather than the appropriateness of all settings within the candidate's solution. It must be emphasised that this assessment, like R003, focuses on the extent to which the candidate has produced an appropriate solution for the client, not just on the range of different tools evidenced.

As for R003, although the data files provided make it likely that successful candidates' solutions will have many basic similarities, there are many different areas where it would be expected to find a variety of ideas between candidates. For example, field lengths; validation settings; layout and format of reports and forms; structure of user interface; and testing. In some cases the similarity of candidates' solutions within a centre was so remarkable that it had to be investigated as possible over-direction by centre staff, which is malpractice. Centres are reminded that they must not provide any guidance to candidates regarding the structure of their solution or how to create it – the solutions must be the candidates' own, unaided work. Centre staff should remind candidates of the user requirements and should clarify the requirements of the assessment criteria but they must not provide step-by-step guidance or model solutions. The new version of the OCR-set assignment makes this very clear.

Centres should note that the assessment criteria allow for a wide variety of responses within this unit. It is possible to fully meet mark band 1 requirements throughout the unit by editing and adding to the single-table database; there is no need to produce a working multi-table relational database at this level. Some candidates who produced very little work for this unit may have been able to gain more marks had they not been attempting to produce a relational database that was beyond their capability.

Marks in the highest band of Learning Outcome 1 were sometimes over-generously awarded where the table structure was not efficient; for example, where additional fields had been added but to the wrong table, where field lengths had been left at their default values and/or where links between tables were incorrect. However, an increasing number of centres appeared to have followed advice from previous reports to ensure candidates are taught to enforce referential integrity and to interpret any error messages that might be encountered at this point, which resulted in more solutions with effective and appropriate links between tables, meeting at least some Mark Band 3 requirements.

Most candidates demonstrated good understanding of validation, although sometimes the validation rules chosen were not consistent with the data provided and/or the scenario, demonstrating a lack of testing as well as poor choices of validation rules. Some candidates' testing of validation rules was limited to ensuring that erroneous data would not be accepted but they failed to test with normal or extreme data and so did not notice that the settings they had chosen would not allow some data to be entered. This was particularly common with input masks for post code and validation rules for telephone number. Some candidates provided only one or two examples of validation, concentrating on showing that they knew *how* to set rules rather than using validation to *minimise* data entry errors in the scenario provided. Similarly, some candidates changed other field properties effectively for only a few fields or in only one of several tables. Although candidates from most centres appeared to have been taught how to create a lookup from values typed in, few appeared to know how to create a lookup from values in a table, which would have allowed them to validate foreign fields and further improve their database.

Learning Outcome 1 requires candidates not only to set validation rules but also to explain/justify their choice and this was the main weakness of this learning outcome in most portfolios. Where candidates simply described the rules this met the requirements for mark band 1 – for higher mark bands some reasons for the rules need to be given. To be considered detailed justification, it is expected that candidates will show that they have considered alternatives, where appropriate, and will explain why they have chosen one over the others. Some candidates explained the purpose of validation rather than of their own rules; this did not meet the assessment requirements.

Queries were generally carried out well by candidates and assessed well by centre staff, although some centres were over-generous where candidates had provided queries that generated results for the specific examples given in the tasks, without providing the more generic solutions that were needed by the client. In some cases candidates' focus was exclusively on search criteria, without considering the fields that would need to be output to best meet the user requirements. Additionally, the quality of reports did not always meet the requirements when higher marks had been awarded. For mark band 3 they should require little or no amendment to the layout in order to make them fit for purpose. Common problems that were not recognised by centres were inappropriate/unhelpful titles; a failure to consider the fields that needed to be output to meet client needs; the use of inappropriate colours, impairing readability; reports that contained truncated data; and a failure to set up reports appropriately for printing. Where early versions of queries/reports, which had been superseded by better ones, had not been deleted, this detracted from the appropriateness and usability of the final database.

Most candidates were able to create usable forms and a menu that provided access to some, if not all, forms and reports. For candidates' interfaces to be considered effective, it would be expected that the menu will load at start-up and that there will be a data entry form for every table for which this is appropriate. Although the assessment criteria for mark band 3 state that forms need to be created for **most** tables, this is in recognition of the fact that some tables, for example lookup tables, do not require a data entry form, rather than allowing candidates to achieve full marks for a solution that is not fully usable. Although many candidates were able to add function buttons to their forms they did not always show that they had considered which would be the most appropriate. Some candidates added every button that could be easily added, in default format, whilst others just added buttons such as navigation that repeated functions already available without considering what a user might want to do that was not already easy to do, for example delete a record. The best forms were clearly and consistently laid out with a logical tab order and clearly labelled buttons that would allow an inexperienced user to view and amend data easily. Most candidates demonstrated a good understanding of house style by maintaining the style used in the reports when they created their forms and user interface although some marks were over-generously awarded in the highest mark band where consistency was limited to colours/fonts, with buttons etc. inconsistently placed, limiting the effectiveness and usability of the interface.

Candidates from some centres used macros to add tables and/or queries to the user interface. This should not be necessary, as forms should provide access to tables, and reports should provide access to queries. Providing users with direct access to tables and queries, where changes could be made and errors introduced, is not generally considered good practice. Where these additional items were added to menus candidates were not penalised but gained no benefit.

As in previous sessions the weakest section of most portfolios was Learning Outcome 4, where candidates often did not document well the testing they had carried out, did not explain the methods they had used and/or did not include any evidence of testing another person's user interface. The test methods candidates are expected to be taught are listed in the teaching content of the specification (page 18). Few candidates showed any appreciation of the need to test queries and validation with a range of data. Where a range of data was used, including normal, abnormal and extreme, it was easier for candidates to explain their testing methods, as

they could explain the data they had chosen to test with. Some candidates attempted to do this but demonstrated a common misunderstanding of extreme data, thinking that this was 'extremely abnormal' rather than understanding that it is at the extreme limits of normality, i.e. where errors are most likely to occur.

Some candidates included evidence of other peoples' testing of their user interfaces, which is a valid part of their own testing and which could have been explained, but failed to include evidence of their own testing of someone else's user interface, on which they need to be assessed. If, when marking the portfolio, centre staff find that this is the case it should be possible to find the feedback that has been given by the candidate and ensure it is included in the portfolio.

Where candidates followed the instructions within the Model Assignment and tested each section of their solution as it was implemented they were more able to demonstrate modifications as a result of testing. Where testing was left to the end it was more likely that most errors had already been corrected, but not documented, making it more difficult for candidates to provide evidence of identifying and implementing required modifications.

R005

Candidates completed this unit using a range of approaches, including websites, mobile apps and stand-alone products created using MS PowerPoint and MatchWare Mediator. Both OCR assignments – 'Out and Up' and 'Wind and Waves' were used successfully by centres. Some centres had amended the assignment to provide an alternative scenario which they thought would be more appropriate for their candidates. Where these were of an equivalent complexity to the original assignment this was appropriate, but centres are requested to ensure a copy of any amended assignment is provided for the moderator. In some cases the replacement scenario did not provide an equivalent level of complexity, restricting the extent to which candidates could analyse the brief and demonstrate a thorough understanding of it. In some cases the user requirements were too specific, stating, for example, the type of product to be created, the number of pages/slides to be included and/or the focus of each page. These scenarios prevented candidates gaining credit for determining these for them from a more open brief. Some centre scenarios attempted to give candidates more choice of content, e.g. a music festival where they could choose the artists, but this lacked vocational realism and failed to provide any depth for candidates to analyse; it also sometimes confused candidates, with planning demonstrating a level of confusion between the event itself and the product they were being asked to create.

Candidates from many centres all produce the same type of product, casting doubt upon the extent to which they had been taught the use of a range of software and made their own choice for the type of product and software to use. The number of centres who appear to have concentrated solely on MS PowerPoint appears to be increasing, which is disappointing as in most cases interactive features and multimedia effects were limited to slide transitions, a few animations and the inclusion of a video and/or sound clip, limiting the quality and appropriateness of candidates' products and the mark available in the second part of Learning Outcome 2 (see below).

Centres are reminded that whilst it is acceptable to replace the scenario within the OCR-set assignment, it is not permitted to reword or replace any of the tasks. The recent updates of all assignments clarify this requirement.

Most centres provided electronic evidence of the final products, which is appropriate. However, some problems were encountered when these products had not been checked on a standalone computer to ensure all features, including sound, video and hyperlinks, worked. If it is found that a product does not work fully on a standalone system then some means of providing more complete evidence to the moderator needs to be found. Sometimes this can be achieved by exporting the final product in another format (e.g. PowerPoint exported to CD) and sometimes additional evidence can be provided by, for example, video, screen capture software, screenshots and/or specific, individual witness statements confirming what particular features do when the product is viewed in the candidate's user area. In some cases candidates submitted files which could not be opened by moderators, for example Serif PagePlus files that had not been exported as websites. Centres are reminded to check the list of acceptable file types for submission, which is included in Appendix C of the specification (page 10-11). It is also important to ensure that candidates are taught how to export files into appropriate formats, especially when creating a website. Regrettably, some centres continue to rely on paper-based evidence, creating a significant additional burden for candidates creating screenshot evidence, as well as making accurate assessment and moderation more problematic, as the quality and appropriateness of many features cannot often be accurately assessed without seeing the product itself.

This unit is about creating interactive multi-media products and not non-functional mock-ups. Therefore if candidates state that they want to produce a website, they should produce a set of html files that could be uploaded as such. Where they have not done this, either because they have not exported their final website or they have used unsuitable software to create something

that looks like a website but could not be uploaded as such, they have not met the user requirements. This should be taken into account when assessing the second part of Learning Outcome 2.

Candidates from some centres appeared to have been advised to create some multimedia items, e.g. video clips and/or animations, for use in their products. The creation of such elements did not meet any assessment criteria except in as much as they might have contributed to the quality and appropriateness of the final product, which other existing components could have equally well done. The specification clarifies that in this unit *learners are not being assessed on the creation of the components but on combining them to create the interactive product*. Candidates who spent time creating these elements would have been disadvantaged by having less time to complete and test their final product and to complete and check their documentation. Centres are reminded that the OCR-set assignment tasks are complete and that candidates need only to follow these tasks and check that they have evidence for all assessment criteria. It is neither necessary nor permitted for centres to add to, or break down these tasks.

Many candidates produced very extensive products, beyond the expectations for this unit, perhaps limiting the amount of time they had to complete documentary evidence or add interactive features and effects. In many cases these products failed to focus on the requirements within the brief and the additional pages generally added nothing to the final mark, repeating the same, low-level skills. Whilst for the highest marks in Learning Outcome 2 there must be sufficient pages to allow candidates to demonstrate their ability to create a clear and coherent navigation structure. Making use of drop-down/sub-menus according to the type of product being created, candidates should be discouraged from creating many more pages than they need and should be encouraged to remain focussed on the client brief. However, the assignments do not specify the number of pages needed and it is not permissible for centres to do so – the structure of their product must be each candidate's own decision.

A significant number of centres awarded marks over-generously in the first part of Learning Outcome 1 where candidates' specifications were over-brief and/or general. To be considered 'sound' it would be expected that specifications will address all aspects of user requirements given in the assignment brief and that clear and measurable success criteria that are specific to the user requirements will be clearly identified. Many candidates' success criteria resembled design ideas rather than criteria by which the final product could be assessed whilst others provided lists of criteria which were not inappropriate but were not specific and could equally well have applied to any other design brief. In some cases candidates' success criteria related to their project as a whole, or to the facility they were advertising, rather than to the product they were tasked with creating. Such specifications were often over-generously assessed by centres. Whilst generic success criteria can form an important part of teaching for this unit, candidates should be taught how to interpret these in the context of a specific design brief, thereby demonstrating their understanding of that brief, as required for the higher levels in this part of the marking criteria. As in previous sessions, in some cases it was not possible for the moderator to ascertain what had been credited by the centre as success criteria, as none could be found.

Candidates' choice of software was often over-generously assessed where their reasons focused on availability and/or familiarity. Candidates are assessed on their reasons for their choice of software to create the product, also on 'the presentation method for the design', which is clarified here to refer to the type of product to be created, which is linked to the software required by users to view/use it. In many cases it was clear that candidates had little, if any, genuine choice, with all candidates creating the same type of product and using the same software, in which credit for choosing that software can only be very limited. Where candidates justified their choice of product type, showing consideration of alternatives, and then justified their choice of software by considering the needs of their designs, they were able to access the higher mark bands for this criterion. It should be noted that the assignment tasks require candidates to choose the type of product and create plans for that product before choosing

software. In many cases it appeared that candidates had been advised to explain their choice of software before they considered what their product would look like, in which case they were disadvantaged as their reasons for software choice could not refer to any specific needs of their design ideas and were likely to be more general and simplistic. For example, some candidates chose a standalone multimedia product and MS PowerPoint and then included feedback forms within their designs, making their choice of software inappropriate. Where candidates stated that they were making a website and then chose slideshow presentation software this could not be considered wholly appropriate and where that software did not allow export as individual html pages it was clearly inappropriate. Centres are reminded that candidates must be allowed to work through the assignment tasks without any additional instructions/guidance.

Candidates from some centres made very effective use of planning techniques such as spider diagrams and mood boards but some candidates appeared to have created one or more of these items in isolation, purely to meet assessment criteria, rather as part of their planning, showing little or no understanding of the purpose of such techniques. Other candidates' planning was limited to a set of page plans and in these cases centre marks were often over-generous. Site plans are a key element in the planning of an interactive multimedia product and where these are missing it is difficult to agree that planning documentation is 'sound'. In some cases candidates had created both page plans and a site plan but these did not correspond with each other so the planning could not be considered to meet higher-band requirements. Sound plans should show some consideration of the multimedia components, interactive features and effects that will be needed to enhance the user experience and where these will be placed. It was surprising to note how many candidates' page plans had insufficient detail to identify the page, with elements such as 'Title' rather than the actual title of the planned page and 'information' rather than any indication of the information that is to be included. Such page plans do not fully meet the criteria even of the lowest mark band.

There was evidence that candidates from some centres had been taught about areas of legislation such as photo permissions and privacy but, as in previous sessions, in most cases simple comments about basic copyright were over-generously assessed. The task and assessment criteria expect candidates to explain the legislative constraints that apply to the use of the individual components listed, rather than to provide a general description of legislation in isolation.

As in R002, candidates from many centres chose to list their components using a generic source table and this may have discouraged them from providing clear explanations and justification for their choices. In some cases centres over-generously assessed 'explanations' that did not go beyond simple identification of the subject of each image or a statement of where it would be used. There is no requirement in the task or the assessment criteria that a table will be used and some candidates who structured their documentation differently gave fuller explanations for their choices. Some candidates identified their components using a source table and then provided a generic explanation of their choices as a following statement. As this did not generally refer to any specific properties of any particular component, this did not meet requirements at anything other than the lowest level.

At the highest level it is expected that candidates will list *all* sources chosen for use in the final product. In some cases there was little correspondence between components listed, the page plans and the components actually used and such lists were frequently over-generously assessed, not only because they could not be considered *comprehensive* but also because any reasons given for choice could not be credited where the components had not actually been chosen for use. Candidates from some centres appeared to have been told to document components that they did not want to use as well as those that they did. This may have been an attempt to meet the requirement for 'justification', where some comparison of alternatives would be expected, but comparing the suitability of alternative components to meet a particular design requirement is not the same as simply listing components and saying why some are 'good' and others 'not good'.

The structure of the specification is assessed within the second section of Learning Outcome 1. Whilst it is expected that candidates will have been taught how to structure a specification, it is not permitted for centres to provide further guidance as candidates are working through the tasks. Writing frames are not permitted. Where candidates presented their specifications as a series of unconnected tasks, often starting a new file for each one, it could not be considered that these were logical and coherent. Candidates working at the higher levels are expected to be able to transfer skills of document creation from R002 and be able to produce coherent multi-page documents with appropriate headings and subheadings.

Most candidates were able to produce a working interactive system with at least some choice of pathways. However, to fully meet the mark band 2 requirements of being a 'sound' navigation system it must be robust and allow a user to move easily between pages in whatever order is required. Where candidates have used MS PowerPoint and not removed the 'advance on click' option, a user could easily bypass any navigation system and click through and out of the presentation. Where candidates have produced applications which operate in full-screen mode with no obvious 'exit' these would cause problems for an ordinary user. A website or other product with an inconsistent or inappropriately sized and/or labelled navigation bar would be considered to have poor usability. In none of these cases could the navigation system be considered *fully* 'sound'. Candidates who created an error-free navigation system using either a consistent navigation bar of appropriate size/location or a user-friendly menu system (non-website products) generally met Mark Band 2 requirements, even if the overall product was relatively simple. Those candidates who had put more thought into their navigation systems, providing links in a logical and structured way, and making appropriate use of sub-menus/drop-down menus and/or considering instances where it would be appropriate to provide additional links from a particular page as well as providing all other options were able to access the highest mark band.

Although most candidates' products were well organised many had limited multimedia components and the page layouts were often very simple. Where candidates had used MS PowerPoint, they had fewer options for interactive features. Although extremely effective interactive multimedia products can be created using this software, this is only possible when its more advanced features, e.g. a range of trigger effects, are fully utilised. Some centres' marking in the second part of Learning Outcome 2 was over-generous in the absence of any interactive features other than the basic navigation system, which is assessed in the first part of this learning outcome. This learning outcome is an example of the basic principle that it is important not to assess the same aspect of work in two different areas of the marking criteria. The first section assesses the layout of the pages and the internal navigation of the product, i.e. any internal hyperlinks, whilst the second section assesses *other* interactive features and multimedia effects. In some cases no additional interactive features could be found and/or no multimedia effects had been added, in which case it was not possible to agree that the requirements of any mark band had been fully met. Where there were neither additional interactive features nor multimedia effects, which was not uncommon, then credit in the second section could be given only for any consistency/house style and resemblance to designs.

Candidates from some centres, particularly those creating PowerPoint presentations, used hyperlinks to add a quiz to their product. Whilst this can be accepted as a way to add some very simple user interaction, to meet the requirements of the higher mark bands the techniques used must enhance the user experience. As neither scenario lends itself easily to this type of feature the questions included by most candidates were usually inappropriate and detracted from, rather than enhanced, the user experience and appropriateness of the product, thereby best fitting Mark Band 1. Centres are recommended to ensure candidates are taught how to add a range of different interactive features so that they are able to choose appropriately for their own product, in the context of the given scenario.

A number of candidates chose to use on-line web and app-creation tools. Where these were used well they allowed candidates to design and create appropriate interactive multimedia

products meeting unit requirements but where candidates did not start with a blank template they were sometimes over-generously credited with using advanced tools and techniques when all they had actually done was replaced page names and/or inserted content into ready-arranged places. As for any other unit, if the final product does not clearly shows which tools/techniques have been used then candidates need to provide their own separate evidence. When assessing products it is important that centres take into consideration the tools that candidates have used and the extent to which the outcome is a result of their own design ideas and efforts rather than provided by the tool being used. As this is not always immediately obvious to a moderator viewing the final product, some clarification should be provided on the Unit Recording Sheet (URS), identifying the template used by the candidate and how much content this contained.

Evidence of testing was not always clear. Whilst extensive screenshot evidence of testing is not required there must be clear evidence of what the candidates have actually done. Vague claims such as 'test all hyperlinks' do not show what has been done. Some candidates added dates to suggest that some testing had been carried out as the product was being created, but these did not always match the type of test being carried out, which in some cases could only be done on a completed product. Where tests are only documented after the product is completed it is likely that most, if not all, of the genuine testing that takes place as components and features are added, and all error correction, has already been completed. Where candidates provided documentation to show what they had done at different stages of the creation of their product, including testing features as they were added and making amendments as necessary, however minor, this evidence was much clearer and met the criteria. Some candidates were over-generously assessed as having tested during the creation of their products when all they had done was document the development, with no evidence that anything had been tested.

To be considered 'thorough', tests must be clearly identified for all areas of the product, identifying specific areas of the product that need to be tested. Test tables that included only generic areas to be testing cannot be considered to demonstrate a high level of achievement. Although teaching is likely to identify general areas that need to be tested it is important to teach candidates to interpret these general principles in the context of the particular product to be tested. Where products had very limited interactivity then the range of appropriate tests was more limited. Few candidates showed that they were able to use their success criteria to generate appropriate tests; this was often as much a result of the weakness of success criteria as of lack of understanding of testing.

Centre assessment for the final section of Learning Outcome 3 was often over-generous. Many candidates carried out their own evaluation against their success criteria rather than analysing the results of their feedback, which did not meet the assessment criteria. Where candidates' initial success criteria were not clear, it was more difficult for them to achieve high marks. The appropriateness of the feedback obtained is an important element of the criteria, with factors to be considered including the questions to be asked and the people to ask, including consideration of how many people to ask. In some cases it appeared that centre staff had given additional guidance to candidates about how to gather feedback and this disadvantaged candidates by preventing any assessment of the appropriateness of the feedback obtained.

R006

Candidates submitted work using both OCR assignments - 'The Camera Never Lies', and 'Keep Pets', with a few centres providing their own scenario. 'The Camera Never Lies' requires candidates to create a competition entry that matches the title 'The Camera Never Lies' and which promotes their local area. Although some candidates included both aspects of this scenario within their specifications many concentrated on only one or the other and so did not demonstrate a sound understanding of the client brief. Where candidates had used 'Keep Pets', many interpreted the brief as requiring only the production of a logo, ignoring the more open, supplementary requirement for 'digital artwork… … to be used in the shop and on the company's website'. This not only demonstrated only a limited understanding of the client brief but also tended to result in simple outcomes that did not demonstrate the appropriate use of a good range of graphic techniques. Where centres had replaced the brief with their own scenario they did not always provide the moderator with a copy and in some cases this was not of equivalent complexity, which disadvantaged candidates, as in R005 above.

In recognition of the fact that many candidates using the 'Keep Pets' scenario did not understand that their task was more than the simple creation of a logo, the requirement to create additional artwork has been re-worded in the new versions of the assignment, which should be used with all future cohorts.

Marks from some centres were found to be over-generous in this unit where no evidence could be found for some of the criteria credited by the centre. Most commonly this was for setting image size and resolution (first section of Learning Outcome 2), storage of digital files (first part of Learning Outcome 3) and/or the presentation of the image to the client, including size, resolution, output medium and colour (last part of Learning Outcome 3). Even when digital files were provided for moderation, often the working files were not included, so there was no evidence of the appropriate storage of both working files and final output. Although the working files are unlikely to be in a format that a moderator can be expected to open, if they evidence storage and filing then they must be submitted unless screenshot evidence is provided. Centres are reminded that moderation is a check that centre marks are appropriate for the evidence submitted so it is essential that all evidence seen by centre assessors is made available to the moderator.

Consistent with R005 and R007, many candidates did not demonstrate a good understanding of what success criteria are, with some providing lists of design ideas rather than clear, measurable criteria that would allow them to assess the success of their work, whilst others listed vague, general criteria that could equally well apply to any brief and therefore demonstrated little, if any, understanding of the client brief they had been given.

Candidates from some centres made good use of a range of research methods, including spider diagrams, interviews/questionnaires and 'competitor' research but in some cases marks were awarded over-generously where candidates had included examples of some or all of the above, without any coherent thread or evidence that this was part of the planning of their solution. It is expected that candidates will be taught the range of research methods listed in the specification and that they will make their own decisions about the research they need to carry out for the specific task they have been given. It is not expected that all candidates from a centre will carry out the same type of research. In some cases centre marks were over-generous because they considered researching a number of different images from the internet, for example, as a 'range' of research methods when in fact it was simply one method, which happened to involve looking at a range of different images.

To be considered 'clear and detailed', candidates' design plans must be sufficient for a third party to implement with little or no additional instruction. Many candidates' designs were limited to a few written ideas rather than a design plan. It is expected that a clear design plan will lead logically to a search for appropriate components. Some candidates did not include evidence of a

design/plan for their graphic(s), thereby not fully meeting the requirements of the second part of Learning Outcome 1 at any level. Conversely, other candidates unnecessarily provided two or three alternative (sets of) designs, which were not required by either assignment task or assessment criteria, and where there was no indication of the final design that was to be used it could not be considered that planning had produced *clear* designs.

To meet the assessment criteria at the higher levels, there must be at least some originality and creativity within the candidates' designs. This is a subjective judgement and, like all other criteria, it is expected that some comment will be made on the Unit Recording Sheet to say why it is felt that this requirement has been met. In this case it would be a comment to identify what it is about a candidate's plan that demonstrates originality and/or creativity. If most or all candidates in a cohort have used the same idea it cannot be considered original.

Comments in R005 above relating to lists of components, reasons for choice and legislation constraints also apply to this unit, as do comments on the structure of the specification. In some cases candidates chose components that were not appropriate because of their size/resolution and this affected the quality of their final image.

In the first part of Learning Outcome 2, candidates are expected to set both image size and resolution if this is appropriate and possible within the software being used. The 'and/or' in the specification is intended to provide flexibility in the type of image and software chosen. For example, resolution would be irrelevant for a purely vector-based image. Where it is possible/appropriate (which is most likely when the scenario is based around photographs) it is expected that both will be set. The marking criteria assess candidates' reasons for their choices and many centres were over-generous in their marking where candidates had stated what they had done but not provided any reasons. In some cases candidates demonstrated a lack of understanding by setting canvas size and then opening an image for the background that was a different size, resulting in a final image that was not the size/resolution that had originally been set.

Some candidates provided good evidence of the use of a range of techniques to produce complex images but in some cases the final product was assessed over-generously when it did not communicate the intended message. The final image alone often does not effectively evidence all the techniques that have been used and candidates should be advised to ensure assessors and moderators can clearly see the range of tools and techniques that have been used.

The second part of Learning Outcome 2 also includes criteria to assess candidates' evaluations of their own products and feedback on digital images produced by others. In many cases one or other of these was missing from candidate portfolios. This was particularly the case where candidates had followed 'The Camera Never Lies' assignment, where the requirement to provide feedback on other people's digital images was often misunderstood. In recognition of this fact, this requirement has been clarified in the new version of this assignment.

Where candidates provided evidence of their folder structures these were often weaker than those seen in R002. Centres are recommended to ensure that candidates are taught the benefit of saving intermediary versions of their final product, in editable form, and of the use of folders to clearly separate source files, working files and final products. Some candidates provided extensive screenshots of all their files and folders for this unit rather than simply for the image/graphics files used. Centre marks were sometimes over-generous in this section and it is important to remember to interpret assessment criteria in the context of the teaching content for the unit.

The assignment asks candidates to present their image for the competition. It is important that they make their own decision about the method they wish to use and that their choice is made clear within their portfolio. The task of 'presenting' the final product does not necessarily require

the production of a PowerPoint presentation, although this could be a valid method. In some cases where centres had made repository entries it appeared that candidates had limited themselves to electronic submission of their competition entries. Had they chosen other methods, this could have been evidenced using an electronic format. Centre marks in the higher mark bands were often over-generous where there was no evidence that the candidate had considered how to present their image to the client, with no evidence of size, resolution, output medium and/or colour. Where the only evidence was the final file and/or printout produced for Learning Outcome 2 it was difficult to agree any marks above the lowest mark band. In many cases, inspection of the properties of the final file showed that it was not an appropriate size/resolution, making many centre marks over-generous.

R007

Although this unit allows candidates to create solutions using audio, video or animation the majority of products presented for this unit were video clips. Most centres provided evidence of the final products electronically, which is the most effective method of demonstrating the quality and effectiveness of the products, although additional evidence of the range of techniques used is generally needed. Occasionally only working files were submitted by candidates, which often did not work, even if the moderator had the required software, because links to components had been lost. Whilst the ability to export files to a suitable file format is part of the assessment, and therefore must be left for the candidate to do independently. If the candidate does not export the file then this should be done by the centre for the purpose of allowing the moderator to view the final product, and an appropriate comment made in the second part of Learning Outcome 2 to confirm that this was not done by the candidate. In some cases, e.g. animations, some guidance to the moderator to clarify how to view the final product would be appreciated. It was disappointing to note that a significant minority of centres continued to rely solely on paper-based evidence, creating additional unnecessary work for their candidates as well as making assessment and moderation more problematic as the overall effectiveness and appropriateness of the final product could not be easily ascertained.

OCR do not recommend particular software but centres must ensure that any software taught as part of this unit is capable of offering the range of tools and techniques listed in the specification. It is expected that this unit will be taught in the context of software that is intended for the production of dynamic products, i.e. sound, animation and/or video.

Evidence was submitted from both OCR Assignments – promoting the local area and the 'Shoulderpads', which worked equally well. Both of these assignments are deliberately left open for candidates to decide on the type of product to create and the software to use to create it – these choices are part of the assessment and must not be made by the centre. As for R005 and R006 it is possible for centres to replace the scenario of the 'Shoulderpads' assignment but it is important that any replacement scenario is of an equivalent complexity to the existing context, offering candidates an equivalent range of client requirements and a choice of type of product to create. Where candidates thought that their task was to create a video clip this demonstrated a lack of understanding of the client brief (first part of Learning Outcome 1) and limited their ability to meet the higher-level requirements within software choice (second part of Learning Outcome 1) where they are expected to explain their choice of software for the 'presentation method of the design', which is clarified here as referring to the type of product to be created and the software users would need to view it.

A few well-designed, creative solutions were seen this session but in many cases relatively simple slide-shows of images or collections of clips with no real coherence or logical progression were over-generously assessed by centres. This demonstrated weaknesses in the design process as well as producing outcomes that did not meet user requirements well.

The level of independence when defining the specification is assessed in Learning Outcome 1, which means that, unlike other units, candidates can be offered some support to analyse the client brief and come up with a specification, perhaps enabling some candidates to produce a better quality final product. This might be particularly appropriate for candidates working at Level 1. However, it is important to provide evidence for the level of support provided and many centres did not do this. Where centres made a comment on the URS clarifying any support given, this was helpful and appropriate.

In order to assess the level of complexity, originality and creativity of the proposed solution within the first part of Learning Outcome 1 it is necessary to assess the candidates' design plans, i.e. timeline storyboards. These need to be detailed before the required aspects can be clearly assessed. Some candidates did not provide any documentary evidence of their designs.

Screenshots/printouts from completed or partially-completed products cannot be credited as designs. Many storyboards consisted of vague ideas for a series of images and/or video clips but it was difficult for moderators to agree that there was anything original or creative about them. As for R006 it is important that, where this criterion is considered to be met, centres provided some explanation of what was considered original and/or creative in a candidate's design.

Where candidates planned their product against a timeline and thought about how to deliver a coherent message within this time, it was more likely that the plan, and therefore the final product, met the requirements of the brief and showed originality and creativity. Where plans were clear it was easier for candidates to explain their choices of components and to identify where these would need editing in order for them to be used within their final product. There is a Mark Band 3 requirement within Learning Outcome 2 to include **some** original components but it is not expected that all components will be created by the candidates individually and candidates from some centres appear to have been disadvantaged by being guided towards filming / recording all of their own components, regardless of the level at which they were working.

Comments in R005 above relating to success criteria, lists of components, reasons for choice and legislation constraints also apply to this unit, as do comments relating to the structure of the specification. It is important that candidates are provided with access to a wide range of components from which they can choose what they feel are the most appropriate to match their design ideas. This is most likely to be realised through access to the internet but where centres choose to provide their own resource bank, perhaps because they have provided a locally-based scenario, it is important that there is sufficient range of resources, in type and content, to allow genuine choice, also to ensure that any video clips and/or sound clips are long enough to require some editing before being imported into candidates' final products. Where centres provided a more limited range of resources, it was generally not possible for candidates to access the higher levels within the second section of Learning Outcome 1 as they were unable to give anything other than the most basic reasons for choosing what they did.

In some cases no evidence of storing components was provided, whilst in others there were screenshots showing files and names but not file types. Where electronic files were submitted and this included all the source files the evidence was very clear, though not often referenced on the URS.

As for R005, candidates' choice of software was often over-generously assessed where their reasons focused on availability and/or familiarity. In both R005 and R007,candidates are assessed on their reasons for their choice of software to create the product, and at the higher levels also on 'the presentation method for the design', which is clarified here to refer to the type of product to be created, which is linked to the software required by users to view/use it. In many cases it was clear that candidates had little, if any, genuine choice, with all candidates creating the same type of product and using the same software. Where candidates justified their choice of product type, showing consideration of alternatives, and then justified their choice of software by considering the needs of their designs, they were able to access the higher mark bands for this criterion. It should be noted that the assignment tasks require candidates to choose the type of product and create a script and/or timeline storyboard for that product before choosing software. In many cases it appeared that candidates had been advised to explain their choice of software before they planned their product, in which case they were disadvantaged as their reasons for software choice could not refer to any specific needs of their design ideas. Centres are reminded that candidates must be allowed to work through the assignment tasks without any additional instructions/guidance.

In many cases candidates provided evidence of their final product but not of the techniques they had used to edit or enhance the components in the creation of that product. The specification lists a range of techniques that provides the context for assessment of editing and enhancing techniques and where there was no evidence of these it was not always possible to agree centre

marks in the first part of Learning Outcome 2. Whilst the use of some tools might be evident from the final product itself, this is not the case for all tools, especially where these have been used well to create subtle effects and/or where components might already include some editing. In some cases it appeared that the inclusion of a single original component had been over-generously considered by centres sufficient to award a mark in the highest mark band. When considering the mark band of best fit, it is also important to assess the range of editing and enhancing techniques used and the extent to which the final product resembles planning and meets user requirements. Where there was no discernible timeline storyboard plan it was not possible to agree that the product resembled planning.

In some cases there was little or no evidence for the second part of Learning Outcome 2. Although many centres provided the final exported files for moderation, evidence that the product had been saved appropriately in raw editable file format was not always provided. To demonstrate understanding of advantages and disadvantages of different file types some documentary evidence, either from the candidate or in the form of a detailed witness statement documenting verbal explanations, is needed. Centre assessors are asked to be vigilant when marking this section to ensure that only candidates' own work is credited. Where plagiarism is detected the procedures outlined in sections 6.2 and 6.3 of the JCQ Instructions for the Conduct of Coursework should be followed. In some cases, centre assessment of candidates' understanding of file formats was over-generous where it appeared that the quantity rather than accuracy of the explanation had been assessed. Where candidates, for example, wrote about some file formats not supporting interactivity, where there was no interactivity within their own product, this could not be considered a reason for not choosing that particular format for their products. Some candidates wrote about choosing one file format and then exported using a different format, thereby demonstrating lack of understanding. In some cases candidates used software that did not offer a choice of file formats for output, in which case the only valid explanation for the format chosen would be that it was the only one available, which fits into Mark Band 1. Candidates from some centres wrote about the different export options available within their chosen software, without any mention of the file format used or other possibilities, thereby not demonstrating any understanding. The range of file formats that they are expected to know about is listed in the specification page 23.

Many candidates provided detailed test plans, showing both functionality and qualitative tests carried out, although some test plans were assessed over-generously where they simply stated *what* was to be tested without clearly identifying the actual tests to be carried out (i.e. *how* the item was to be tested) and/or where expected outcomes were not identified. Where planning had been thorough, with specific ideas, perhaps on timing, synchronisation of components etc., candidates were generally able to produce more detailed and appropriate test plans.

To be credited, there must be some clear evidence of testing during completion, not simply a teacher or candidate statement saying that this had been done or a date implying this. In many cases tests that were claimed to have been carried out during completion would not have been appropriate or possible until the product was completed, e.g. testing the length of the final clip or qualitative assessments of the product. If candidates were encouraged to complete an implementation log, this would more easily and effectively demonstrate the genuine tests that are carried out as the product is developed.

R008 – R011

Entries for these units were too small for general comments to be made. Units R008-R010 have only been available for the Diploma since January 2016

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