

# **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 November 2016** 

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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# Moderated units (R002 – R011)

#### **General Comments:**

Most entries were postal, with some OCR Repository entries. There is no visiting moderation option in November.

Some centres encountered difficulties uploading files to the OCR Repository, which were mostly caused by very large file sizes. It should be noted that the maximum individual file size is 20Mb.

As in previous sessions moderators encountered difficulties where centre staff had provided additional guidance to candidates, leading to very similar outcomes from all candidates. Centres are referred to the explanation regarding malpractice in the June 2016 Chief Examiner's Report.

#### **Electronic evidence**

The trend noted in previous sessions, for centres to increasingly submit evidence in electronic form, was again evident this session. Whilst this is equally acceptable to paper when it is done correctly, in the majority of cases problems were caused by a failure to follow the guidance given in Appendix C of the specification and in some cases these severely delayed and/or caused inaccuracies to the moderation process. In some cases it was clear that sufficient care had not been taken when uploading files, with some files missing and in some cases the wrong files uploaded.

A fuller explanation of the main problems can be found in the June 2016 Chief Examiner's Report but they are also summarised below:

- Submission of many different files with no indication of which files needed to be opened, in
  which order, to find the evidence for each section of the marking grid. This delays
  moderation and can result in important evidence being overlooked by a moderator. It is a
  requirement of the specification that centres provide moderators with information regarding
  the evidence available to support their assessment decisions.
- Submission of electronic files in formats that could not be opened by the moderator or using
  non-standard fonts that were not available to the moderator. Centre staff are recommended
  to double check the list of acceptable file formats in Appendix C of the specification, also to
  carry out their own assessment on computers that are not attached to the school network, so
  that they will view the files as they are likely to be seen by a moderator.
- Low quality scans of hand-drawn planning documents, which would have been clearer had the original paper been submitted.
- Files clearly missing from the submission, where credit had been given for a task but no evidence provided.
- Candidate files/folders inadequately labelled. All work, whether on paper or electronic, must be clearly labelled with candidates' full names and candidate numbers.

Many of the problems encountered suggested that centres had not used the files provided for their own assessment. Choosing to provide evidence electronically does not take away the need for candidates to produce and hand in for marking a distinct portfolio of work, which should then be marked by centre staff and kept securely by the centre until after the moderation process, as required by JCQ instructions. It is essential that moderators see exactly the same evidence as that used in the centre to make assessment decisions.

# Other general and administrative issues noted were:

 Some centres submitting work electronically by post also included printed copies of the Unit Recording Sheet for each candidate in the sample, which was much appreciated by

- moderators. Centres are reminded that postal submissions allow a mixture of paper-based and electronic evidence.
- Some centres aided moderation by providing clear justification for their marking on the Unit Recording Sheets, directing moderators to the location of evidence to support each mark awarded. Where centres explain their assessment decisions and direct moderators to the pertinent evidence it is much easier for moderators to agree the marks awarded.
- A number of centres submitted their marks and/or samples after the required deadline. As work should be stored securely after marking by the centre, selecting and sending the required sample should not be time-consuming. Where there are 15 or fewer candidates entered for a unit the administrative guide states that the work of all candidates should be submitted to the moderator at the same time as the marks, without waiting for a sample request. Where this was done it was very much appreciated by moderators but regrettably the majority of centres with such entries did not send the work until they received the sample request email.
- Where paper evidence was submitted the majority of centres presented portfolios as required: tagged with treasury tags, and where this was done it was helpful. Some submissions were more problematic, most especially where these were loose sheets in plastic wallets or envelope folders. Not only does this take more time for moderators to access the work but it also creates the possibility of pages from different candidates getting mixed up, particularly if moderators wish to compare two or more portfolios side by side.
- JCQ Instructions require all word-processed work to contain the candidate's name and number. This not only provides some protection against mistakes when using shared printers but also aids moderation where sometimes candidate work is compared. In some centres errors were found, where the wrong candidate's work was included. Such errors are treated very seriously.
- Centre marks can only be confirmed by the moderator where there is evidence to support them. In some cases no evidence was provided but claims made on the Unit Recording Sheets. This was particularly the case for filing structures, search criteria and testing. If centre staff wish to supplement candidate evidence with witness statements these must meet the requirements of Appendix A of the specification. No marks can be confirmed on the basis of a statement that merely says that candidates have achieved certain criteria, without describing in some detail what the candidate has done.
- Some printed evidence supplied by candidates was unreadable. This was sometimes due to
  the use of over-cropped and/or over-reduced screenshots and sometimes due to poor colour
  contrast. Both of these problems were sometimes exacerbated by draft and/or monochrome
  printing. Moderators cannot confirm marks based on evidence that cannot be read.
- Some centres presented wholly printed evidence which, whilst acceptable, are not the most
  effective way of presenting evidence of the products created by candidates. Systems such
  as spreadsheets, databases, interactive multimedia products, videos, animations, sound
  clips and games are best evidenced through the electronic file(s), even if some supporting
  evidence is provided using annotated screenshots.
- The proportion of centres where even the highest-achieving candidates relied upon presentation software for documenting their work appears to have diminished slightly but documentation remains a weakness. Whilst the use of presentation software is common practice in Key Stage 3 because of the ease with which text and graphics can be mixed, it is not an appropriate in a vocational setting where candidates should be able to demonstrate competence in creating multi-page documents. Many candidates, whilst using more appropriate software, started a new file for each new idea/(sub)heading, rather than demonstrating such competence.
- Some centres' marking was found to be over-generous at the higher levels because key words such as 'most', 'thorough' and 'detailed' had been misinterpreted. The glossary in Appendix D of the specification document provides useful guidelines in the interpretation of key words used in the assessment criteria for the units.
- Some centres' assessment was over-generous because they appeared to have a fixed 'tick list' of skills they were looking for and credited these regardless of the quality, accuracy and

- appropriateness of their use. Most assessment criteria across all units differentiate on quality of outcome as well as range of skills demonstrated, with quality and appropriateness often being the most significant differentiators between the highest two mark bands.
- Assessment standards from a number of centres were found to be inconsistent. It is
  regrettable that this procedure had to be applied in a number of cases this session. It is
  essential that centre have a robust system of internal standardisation to ensure consistency
  of standards. OCR has produced a guide 'Internal standardisation, generic guidelines', which
  is available under 'Key Documents' in this qualification's page on the OCR website.
- It is expected that candidates will be provided with copies of the OCR assignment and of the assessment criteria. It cannot be expected that the assignments will detail exactly what evidence is needed for each task candidates should use the assessment criteria to determine what they need to evidence. It is also recommended that candidates are provided with copies of the learning content of each unit, enabling them to track their learning within the unit and to understand the context in which the assessment criteria will be applied.

#### **Comments on Individual Units:**

Most of the issues identified by moderators were similar to those seen in previous series and centres. Unit-specific comments are provided below for those units where there were sufficient entries to make generalisations possible but for further guidance and commonly occurring issues centres are recommended to refer to previous Chief Examiner's reports.

#### Unit R002

As the only mandatory unit for both Award and Certificate, this unit represented the majority of entries this session.

Both OCR assignments - 'JB Clothing Emporium' ('Tailored Tops') and 'MStreamIT' continue to be acceptable. 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.

Many centres over-generously awarded high marks in Learning Outcome 1 where candidates' folder structures and names were based on tasks rather than content, with little consideration for the need to distinguish files such as letters from others that would be needed in the future, also where there was no evidence of versions or measures taken to protect files from accidental loss.

Similarly, many candidates provided evidence of their use of email but not in the context of the assignment tasks, thereby not meeting specified requirements. Many candidates demonstrated some understanding of the use of some more advanced tools and features of email software but did not cover basic tools. Many centres over-generously assessed candidates as demonstrating a 'thorough' understanding of email etiquette simply because they had written down a fairly long list of 'do's and 'don'ts' but where their explanations and examples of email tools did not mention and/or demonstrate appropriate use this could not be agreed. Centres should ensure candidates are aware of the need for everything submitted to be their own, unaided work and need to be vigilant to ensure that any lists of email etiquette rules are not simply copied or reworded from external sources.

Many candidates used a table format to evidence their searching and sourced components. This was not always successful as there was rarely sufficient space to clearly show the search criteria used and most generic source tables do not prompt for details of the copyright holders, which is what the tasks and assessment criteria require. Centres are not permitted to supply templates specifically for this task and should warn candidates that if they choose to use generic source tables from previous tasks these may not have the most appropriate column headings. Where candidates create their own tables this can be credited within Learning Outcome 3.

Some centres over-generously assessed candidates' search criteria, especially where they had attempted to use advanced search pages and/or Boolean operators but done so unsuccessfully. Centres are advised that Boolean operators are not listed in the specification content because of their limited effectiveness in many modern search engines. Some candidates were overgenerously credited with understanding copyright when they provided details from third-party websites and/or search engine results pages rather than copyright holders.

Many candidates provided effective solutions to the data handling tasks assessed in Learning Outcome 2 and centre marking was sometimes inconsistent here. It is important to note that the assessment criteria refer to accuracy and the extent to which specified requirements are met rather than to any documentation created by candidates. Some centre assessors were overgenerous in their assessment where they did not take account of errors and/or omissions within candidates' solutions. Formatting is assessed in Learning Outcome 4. In some cases there was insufficient evidence that candidates had actually used appropriate data handling tools to obtain their results, eg simple spreadsheet printouts showing only the required results. The best evidence would be the electronic file of the completed database/spreadsheet but where this is not provided some screenshot evidence of methods used is needed. Some candidates attempted to show formulae but where these were in over-cropped portions that did not show row/column headings or as greatly reduced formula prints that could not be read this was not always successful.

The data handling tasks within each assignment are written in such a way that there are many ways in which candidates can approach the tasks and obtain the required results. It is not anticipated that all candidates from a centre will take the same approach.

Marks were sometimes over-generously awarded in Learning Outcome 3 where centres credited candidates with producing a range of file types by including the use of data handling software such as MS Excel and MS Access. Data handling is assessed within Learning Outcome 2 and this third learning outcome assesses candidates' use of software to communicate information. Some centres were over-harsh in the first section to candidates who had used a range of software and had completed every task, although the content and/or formatting may not have been good. If problems in the work are caused by poor content then this is assessed within the second part of this learning outcome, whilst problems with formatting are assessed in Learning Outcome 4. The first section of Learning Outcome 3, as for all sections, should be assessed in the context of the learning content for the unit. It should be noted that this includes the importing of items from one piece of software to the other and the use of mail merge, including merging selected data. Where candidates have set up a mail-merge file but only previewed it rather than merged the data they have not fully met the requirements.

It was pleasing to see more candidates creating items other than simple flyers/posters for the additional item of publicity within the MStreamIT assignment, but there remains some concern where all candidates from a centre are producing the same type of item. The wording of the task is very open and whilst centres may not direct candidates in a particular direction they can emphasise the importance of thinking creatively and remind candidates that there is no one 'best' solution. Some candidates produced excellent flyers, including all necessary information laid out well whilst other candidates attempted more complex items such as videos but produced results that were much less appropriate.

Some centres were over-generous in marking the second part of Learning Outcome 3 because they did not pay sufficient attention to errors within the content of documents created by candidates. Both assignments include the creation of a letter with provided text and the extent to which the letter would be acceptable in a business context is important here. In the MStreamIT assignment consideration should also be given to the appropriateness of the content of the email guide in terms of audience and purpose, the content of the magazine advertisement, whether or not the additional item of publicity advertised both the product and the company, also the completion of the report with appropriate information. In the JB Clothing assignment key

additional considerations are the documentation of email tools and features in terms of audience and purpose and the extent to which the content of the on-screen resource meets the given requirements.

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 – this is a Mark Band 2 response. The specification provides a list of formatting techniques that candidates should be taught and it is expected that a wide range of these 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, where candidates had applied formatting that did enhance the readability of at least some of their documents this would suggest a mark in band 2, rather than 1, would be most appropriate and centre marking was sometimes over-harsh here.

The level of independence when formatting work is assessed in Learning Outcome 4 and is a limiting factor when deciding on the mark band of best fit. Many centres provided no evidence for the level of support provided. Where centres made a comment on the unit recording sheet that clarified any support given, this was helpful and appropriate.

#### Unit R003

There is one OCR model assignment for this unit – 'Make the Grade'.

Most centres appropriately provided the electronic spreadsheet file as part of the evidence for this assignment. 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, eg validation, comments and conditional formatting, had been used. Some centres appeared to have awarded marks because candidates had demonstrated that they had applied particular tools rather than considering the appropriateness and consistency to which they had been applied.

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 may not work on earlier versions than that used by the candidates.

Candidates from some centres produced extensive documentation of their solutions, using annotated screenshots. This is not required. If the electronic spreadsheet file is provided then all that is needed is direction to the various features (eg identifying cells which have validation rules applied) and any explanations required by the assessment criteria and tasks. In some cases there was inconsistency in centre assessment due at least in part to centres awarding marks for documentation of solutions rather than only for achievement of the assessment criteria within the marking grid.

Many candidates produced effective solutions that met many of the requirements in the model assignment, although few considered the issue of enabling new customers and new products to be added and this limited the extent to which user requirements were met.

The user-friendliness of most solutions could have been significantly improved by making more use of features listed in the learning content of the specification and marks in band 3 of Learning Outcome 1 were often over-generously awarded by centres. Whilst most candidates were able to apply formatting to emphasise headings etc in their spreadsheets, few used it well to help users understand how to use the spreadsheet, eg to identify clearly those cells where data needed to be entered and those which contained formulae and so would be automatically updated. Use of input/error messages was often limited and few candidates added any

comments or instructions/explanations for the user. The best solutions ensured that the invoice would fit onto a sheet of paper when printed, with some candidates adding appropriate headers/footers.

The most significant differentiator within the second part of Learning Outcome 1 is the extent to which a range of validation types has been applied to minimise data entry errors and marks were often over-generous to candidates who had used only one type of validation – usually against a list. For validation to be considered relevant and effective it should have appropriate input and error messages. Some candidates restricted data entry in ways that could limit the functionality of the solution, for example introducing limits to the number of items that could be purchased. If candidates were taught the range of validation settings available, including the use of warnings rather than always using the default 'stop', this offers them a wider range of appropriate settings to use. Those candidates who recognised that new customers and products would need to be added in the future were able to demonstrate a wider range of validation types than those who restricted their validation to the invoice.

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 but poorly documented and in others overgenerously awarding marks in the second section where formulae were appropriate but no explanations were given. Choosing the correct formulae is assessed within the first part of this learning outcome and any understanding credited for the second part is expected to be demonstrated through candidates' explanations. Some centres failed to distinguish between formulae and other features such as validation settings, where there is no requirement for candidates to explain the settings chosen. Centres are reminded that assessment criteria should always be interpreted in the context of the content for the learning outcome concerned.

An efficient solution is one where the user is not expected to enter any more data than is necessary and is never required to edit formulae; also where functions are used correctly and where future changes, eg VAT rate, discount policies and delivery policies, can be made easily by the user. Where absolute values for these variables had been simply included within formulae this did not meet the requirements at the highest level. 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. Since such systems would rarely meet user requirements, as customers would be unlikely to order exactly the number of items required for the system to work, mark band 2 requirements are not fully met, although a mark within that band might be appropriate.

Centres often over-generously assessed descriptions of what formulae did rather than explanations of why these methods/tools had been used. Describing functions without explaining why they have been used best fits within mark band 1. At the highest level candidates would be expected to be explaining decisions that led to their formulae being more effective. If formulae are not documented in any way then no requirements of the second part of Learning Outcome 2 are met.

The first part of Learning Outcome 3 – sorting, filtering and creating graphs – 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 particularly the case where they relied upon the electronic spreadsheet file for evidence, as they had not always saved each version separately. In some cases centre assessment was overgenerous to poorly-labelled or inappropriate charts. Pie charts are designed to represent proportions rather than absolute values.

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. 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 used the goal-seek tool for one or more of their solutions but did not explain why it was appropriate for some, but not all of the problems given. Candidates from some centres were over-generously assessed in the highest mark band when they had not made any use of advanced modelling tools such as goal-seek.

#### Unit R004

There is one OCR model assignment for this unit – 'Cards by James'.

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 screenshots. Centres are requested to provide moderators with the name and version of any database software used. Where the electronic file is provided there is no need for additional screenshot evidence.

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.

Marks in the highest band of Learning Outcome 1 were sometimes over-generously awarded where the table structure was not efficient; for example, where both of the required additional fields had not been added or where field lengths had been left at their default values. Where candidates enforced referential integrity within their solutions they were able to ensure that the links were functional and some realised that this formed a key part of their testing process. Centres are recommended to ensure candidates are taught to enforce referential integrity and to interpret any error messages that might be encountered at this point.

Most candidates demonstrated good understanding of validation, although sometimes the validation set was not consistent with the data provided and/or the scenario, demonstrating a lack of testing as well as poor choices of validation. 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 valid data to be entered. 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. 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 a weakness in most portfolios. Where they simply described the rules this met mark band 1 requirements – 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. Many candidates explained the purpose of validation rather than their own rules; this did not meet the assessment requirements.

Queries were generally carried out well by candidates and assessed well by centre staff. The main weakness in Learning Outcome 2 was the quality of reports, which 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; and a failure to set up reports appropriately for printing.

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, for example delete a record, that was not already easy to do. The best forms were clearly laid out with a logical tab order and clearly labelled, consistently placed buttons that would allow an inexperienced user to view and amend data easily. Candidates from some centres had been taught how to add sub-forms, which added to the functionality of their solutions although this was additional to the requirements of the unit. 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.

Candidates from some centres used macros to add tables and 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, in some cases, 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. 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. Where validation rules were incompatible with some of the existing data this demonstrated a weakness within testing regimes.

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.

#### Unit R005

Both OCR assignments – 'Out and Up' and 'Wind and Waves' were used successfully by centres.

Candidates completed this unit using a range of approaches, mostly websites and PowerPoint products..

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 (eg PowerPoint exported to CD) and sometimes additional evidence can be provided by, for example, video, screen capture software and/or witness statements confirming the features that work when the product is viewed in the candidate's user area.

Some candidates produced very extensive products, beyond the expectations for this unit, and this must have limited the amount of time they had to complete documentary evidence. 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. 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. Part of the planning process at the highest level is ensuring the plan will meet all success criteria, including those relating to content needed and those relating to deadlines. Balancing these potentially conflicting success criteria is something candidates working at the highest level should be able to evidence and these candidates are disadvantaged when centres take away that opportunity. Candidates from some centres appeared to have been guided to creating only 3 or 4 pages, which was insufficient to allow them to demonstrate their ability to produce an effective navigation system.

A significant number of centres awarded marks over-generously in Learning Outcome 1 where candidates' specifications were over-brief and general and success criteria were poorly understood. In many cases the success criteria were generic and could equally well be applied to any other product, thereby demonstrating no understanding of the client brief. 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. Some candidates' success criteria resembled design ideas rather than criteria by which the final product could be assessed. Few candidates considered deadlines within their success criteria.

Some candidates' designs showed that they had used their own imaginations to add aspects to the client brief, for example additional/alternative activities for Out and Up or additional products for Wind and Waves. This often led to over-extensive products as noted above and demonstrated only a limited understanding of the client brief provided.

Candidates from some centres made very effective use of planning techniques such as spider diagrams and mood boards but many candidates' planning was limited to 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 this is missing it cannot be agreed that planning is 'sound'.

Where candidates followed the order of tasks within the assignment they were able to choose components and software that fit their design ideas. Regrettably many candidates appeared to have been guided to choose their software and components first, which made it very difficult for them to justify their choices in the context of the design requirements. Candidates from many centres all used the same software and created the same type of product. Unsurprisingly candidates from these centres often provided minimal explanation of these choices, limited to familiarity and availability, which best fit mark band 1.

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 choice. 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. To be considered 'justification' it is expected that there will be some consideration of alternatives, with reasons why one was chosen over the others. Some candidates provided lists of components that were not used within their products, so any reasons for the choice were invalid.

Some candidates spent a lot of time creating their own components, eg company logos, animations and video clips, which do not contribute to the assessment for this unit.

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, there were many centres where simple comments about basic copyright were over-generously assessed. As in all units the assignment provides a vocational context within which candidates must work, so any statement about the use of components being for educational purposes only is considered invalid.

Most candidates were able to produce a working interactive system with at least some choice of pathways, making mark band 2 the best fit for the first part of Learning Outcome 2. However, to fully meet the requirement 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'. Those candidates who had put more thought into their navigation systems, providing both internal and external links in a logical and structured way, considering where a user might want to go from each page as well as providing all other options were able to access the highest mark band. Candidates from many centres were over-generously awarded marks in Mark Band 3 for straightforward, simple navigation bars, which best fit Mark Band 2.

Some centres were over-generous in their assessment of the second part of Learning Outcome 2 because they interpreted interactivity as the use of navigation links, which has already been assessed within the first part of this learning outcome. The learning content of the unit lists interactive features and effects that should be taught, alongside the hyperlinks that are necessary for the navigation system. 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, eg a range of trigger effects, are fully utilised. Many of the PowerPoint products submitted contained minimal interactive features or effects that could be assessed in this section and some contained none. In some cases candidates had added features and effects but they did not enhance the user experience and best fit the Mark Band 1 descriptor. Centre assessors are advised to ensure the qualitative criteria are fully assessed in addition to the range of features added.

Some candidates using MS PowerPoint created products to look like web pages and tried to incorporate features such as forms which would be found on a web page but were nonfunctional in the products created. In such circumstances, where candidates showed that they wanted to create a website, it could not be considered that they had chosen appropriate software, nor that they had made good use of interactive features, as these did not actually work. Candidates are expected to produce working products, or products that would work if hosted, not partly-functional simulations.

Evidence of testing was not always clear. Whilst extensive screenshot evidence of testing is not required there must be clear evidence what the candidates have actually done. Vague claims

such as 'test all hyperlinks' do not show what has been done, especially if some errors can be identified within the product. 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 many cases could only be done on a completed product. The requirement to test while creating can only be met by testing elements as they are added, ie on an incomplete product. Some centres erroneously interpreted this requirement as a single set of tests on a first draft. 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. A number of centres claimed that candidates had tested during the creation of their product but provided no evidence so these claims could not be verified. Centres are advised to refer to the comments about witness statements in the first section of this report.

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, which should cover all interactive features. Test tables that included only generic areas to be tested cannot be considered to demonstrate a high level of achievement. Where products had only very limited interactivity then the range of appropriate tests was more limited. Some interactive features, eg forms, need testing more than once, with a variety of inputs; such a thorough approach was rarely seen, indeed most candidates simply claimed to have tested that their form worked, without any details of test data or confirmation that they had tested that the submit button functioned.

The appropriateness of the feedback obtained is an important element of the assessment criteria for the final section of Learning Outcome 3. Factors to be considered include the questions to be asked and the people to be asked, including consideration of how many people to ask. Where candidates' initial success criteria were not clear, it was more difficult for them to achieve high marks here. Some candidates carried out their own evaluation against their success criteria rather than analysing the results of their feedback. This did not meet the assessment criteria. Other candidates gathered feedback and analysed it in a review of their product but made no reference to the success criteria they identified at the beginning of the work; this met only lower-band requirements.

# Unit 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 aspect 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 'artwork... ... to be used in the shop and on the company's website', resulting in simple outcomes that generally did not demonstrate a good range of techniques.

Consistent with R005, some candidates did not demonstrate a good understanding of what success criteria are, providing lists of design ideas rather than clear, measurable criteria that would allow them to assess the success of their work. Other candidates listed generic success criteria such as 'must meet user requirements' without applying these to the client brief. Such responses did not meet the assessment criteria at the higher levels.

Candidates from some centres made good use of a range of research methods, including spider diagrams, interviews/questionnaires and 'competitor' research but candidates from some centres focused on only one area of research, eg company logos or manipulated images on the internet, which can only be considered a 'limited range'.

Many 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. 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 or very rough sketches. It is expected that a clear design plan will lead logically to a search for appropriate components. Candidates from some centres provided two or three alternative (sets of) designs, which were not required by either assignment task or assessment criteria. Where these candidates then failed to identify which was their chosen design, it could not be considered that their design plans were 'clear'.

A differentiator when assessing the designs is the extent to which they show originality and creativity. Centres frequently appeared to give credit for this but made no comment about it. It would be helpful if centre assessors could identify on the Unit Recording Sheets what it is about a design that was considered particularly original and/or creative. This would make it easier for a moderator to agree.

Comments in R005 above relating to lists of components, reasons for choice and legislation constraints also apply to this unit.

In some cases centre marks were found to be considerably over-generous because marks had been awarded in the absence of any evidence. For example, for setting image size and resolution, the storage of digital files and/or the size, resolution, output medium and colour of the image to be presented to the client. It is not possible for moderators to confirm marks if there is no evidence to support the achievement claimed.

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 importing an image for the background which was not of an appropriate size/shape, resulting in a poor resolution final image. Others set up a canvas and then opened up an image file for the background, oblivious to the fact that this then imported its own size and resolution, resulting in a final file that was not the required size.

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. In many cases where tools have been used well the effect is very subtle and would be missed if it were not documented. The range of software tools used and accuracy with which they have been used should be used to choose the mark band of best fit in the second section of Learning Outcome 2, but the mark within the band must take into account the extent to which the intended message is communicated, the candidate's evaluation and their feedback on digital images. Many candidates failed to provide any evidence of the feedback they had given on other digital images.

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.

The assignment asks candidates to present their image for the competition or to the client. 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. 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 by the centre. In many cases there was no specific evidence of presenting the image; only a printout or a file, which showed the output for Learning Outcome 2. Candidates can only be credited in Learning Outcome 3 where they have considered how they will present their product to their client. Some centre comments suggested that marks had been awarded here for the quality of the product rather than its presentation. 'Presentation' in this context does not imply presentation software, although this is one option a candidate might choose.

# Units R007, R009, R009, R010, R011

Entries for the above units were insufficient to allow generalisations to be made. Centres are referred to reports for previous sessions, particularly June sessions, where detailed comments can be found for these units.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

#### **OCR Customer Contact Centre**

# **Education and Learning**

Telephone: 01223 553998 Facsimile: 01223 552627

Email: general.qualifications@ocr.org.uk

# www.ocr.org.uk

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**Head office** 

Telephone: 01223 552552 Facsimile: 01223 552553



