OCR
Oxford Cambridge and RSA

GCSE

ICT

General Certificate of Secondary Education **J461**

General Certificate of Secondary Education (Short Course) **J061**

OCR Report to Centres June 2014

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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B061 ICT in Today's World

General Comments:

Candidates had sufficient time to answer the questions but, while most candidates were able to access all of the questions, there still a few candidates leaving some questions completely unanswered.

The question paper performed as expected and discriminated well across the ability range.

There some good attempts at the questions requiring longer responses but centres are again reminded that candidates should have practice in answering those questions that require a discussion, explain or describe and/or are used to assess the Quality of Written Communication.

While many candidates could produce good responses which were very well expressed, clearly structured and interesting, it is again disappointing to note that the majority of candidate responses to questions 7 and 9 were often no more than a collection of unrelated points and lacking in sufficient IT knowledge or application of their ICT knowledge. Centres are again reminded that, if candidates are to succeed in this unit, they must be taught the theoretical knowledge referred to in the unit specification. It is apparent from some candidate responses to the questions that this is not the case.

The language, structure and handwriting were generally seen to be poor for candidate answers to questions that required a discussion, 'explain' or 'describe', Some responses were quite difficult to read due to the standard of handwriting.

When answering questions, such as 3a and 3b, amongst others, that are allotted two marks and require candidates to 'describe' or 'explain', candidates must make a point and expand on that point in order to score the two marks. Responses that state two points will only score the mark for the first point – if correct – and not for the second point as responses that give two points are not answering the question.

Centres are also reminded that all areas of the specification can be tested in any examination series.

Comments on Individual Questions:

1) This question required candidates to link an element of a graphical user interface to its use by drawing lines between the two. While most candidates answered this question well, scoring 3 marks, significant number of candidates confused 'Icon' with 'Pointer' and 'Icon' and 'Menu'. Furthermore, a number of candidates made the marking of their responses difficult for the examiner by their untidy, often with frequent crossings out and redraws, drawing of the lines.

2) (a) This question required candidates to describe two benefits to a shop of having bar codes on items. This question was not well answered with few candidates able to describe how the shop benefited. Most of the benefits described by candidates were those to the customer and thus did not answer the question. Many candidates identified the connection between reading the bar code and stock control but very few identified **automatic** re-ordering of stock. A common error was to confuse barcodes and security tags such as RFID tags and any candidates used the terms quicker/faster/easier without any further comment or expansion and so failed to score marks.

(b) This question was quite well answered with many candidates identifying that damaged barcodes would make the data unreadable. Despite the confusion in part (a) about whether the benefit was to the shop or customer, most candidates answered this with reference to the shop. Many answers referred to the need for expensive equipment but did not go on to describe how this may lead to increased mark-ups on prices.

3) (a) This question required advantages of the use of a computer system for monitoring and recording data from a bird table. This question was answered quite well by many candidates. However, a significant number of responses were limited to 'quicker/easier' with no further explanation and did not score marks. Very few students suggested that a benefit would be displaying the data in real time. Also, it was noted that a number of responses were generic and made no mention of the scenario.

(b) This question was quite well answered. Candidates usually managed to make a point but did not make an explanation for the second point. In this type of question, the second mark is only awarded for the explanation not for making a second separate point.

(c) (i) (ii) This question was about the most appropriate display of data gathered from sensors. These questions were answered well as candidates obviously knew about graphs and which types were best for different types of data. However, some of the reasons given were superficial.

(c) (iii) This question was marked as a level of response/banded response. To score in the top band, candidates had to address both the 'create' and the 'use' aspects of the question. Many candidates could do this and some well-developed responses were seen that were awarded the highest level. However, it is disappointing to note that too many candidates gave a list of points without descriptions and thus could not score the higher marks. Questions that ask for 'descriptions' require candidates to expand on the points in order to score the higher marks.

(d) This question was answered quite well by many but some candidates repeated uses from the first part of the question and did not score the marks. A significant number of candidates did not relate their answers to the given scenario and gave answers completely unrelated to the question e.g. they wrote about home security. Better answers described e.g. live steaming of the video for others to see and use of the data by national groups for e.g. monitoring bird numbers/activity.

4) This question was about the use of devices and was quite well answered but some candidates confused touch pad with touch screen. A common error was to describe the device rather than its use.

5) (a) This question was about trouble-shooting and was quite well answered, most candidates appearing to have knowledge of this phenomenon. A common statement was e.g. 'virus' with indication of why/how this would 'freeze' the laptop – the question required reasons to score the marks. Many candidates mentioned overheating as a reason.

(b) Many candidates identified the restart (or task manager) option but then failed to address recovering the file. The most common error was how to stop a 'freeze' happening again rather than fix it now and recover the file. Many candidates did not appear to understand that 'frozen' meant that closing applications or programmes could not be undertaken.

6) This question was about validation and verification. It was well answered by the majority of candidates irrespective of their scores in other parts of the paper. This topic appeared to be well understood although some complete reversals of the ticks were seen indicating that the candidates had the two concepts the wrong way round.

7) This question was designed to give candidates the opportunity to express their views, with examples, about the social and ethical implications of transmitting personal data in electronic form. It was marked as a level of response/banded response. The question was not answered well. Many candidates addressed legal issues (DPA) or issues of storing information rather than transmitting it. It would appear that many candidates did not understand the terms social and ethical or implications. It was disturbing to note that a number of answers were about racism – candidates reading the word 'ethical' as 'ethnical'? – and not answering the question.

8) The topic of backups has appeared in several guises over the life of this specification and this question targeted the reasons behind the use of backups. Most candidates scored at least half of the marks for this question. Rule 1 was the least well answered part of this question with few students recognising that only *one hours' worth (or a small amount) of information* would be lost rather than all of the work. Rule 4 was not answered especially well with many candidates offering the explanation that you would not get backups mixed up. Given that creating and using backups should be a fundamental skill when working with computer files, it was disappointing that this question was not bettered answered.

9) This question was about the remote storage of files. It was marked as a level of response/banded Response For most candidates, this question was an opportunity to score good marks as the use of remote storage is a current topic and within the experience of many. Candidates were able to give good examples of how data could be backed-up and how data could be shared across devices and platforms. Many propriety cloud/remote storage solutions were used to support answers. A number of students wrote about the high cost of 'cloud'/remote storage, and pointed out that some 'cloud'/remote storage is free, and the fact that the data could be compromised. However several candidates clearly had no idea what 'cloud'/remote storage was and based their answers around USB sticks, portable hard-drives, CDs and DVDs which did not properly answer the question.

B062 Practical Applications in ICT

General Comments:

The entries covered all 8 tasks available for this series. There are no more tasks to be released and all 8 tasks will be available unless OCR inform centres otherwise, in which case plenty of warning will be given.

There are many centres who have taken advantage of the INSET courses run in the Autumn term, to gain a greater understanding of the requirements of the unit and the assessment criteria. It is advised that centres new to the course, who have not yet attended an INSET course, try to attend one of the forthcoming courses.

Where centres had submitted the work electronically, either on CD or via the OCR Repository, it was much easier at moderation to see the software features used in the final system and to use this and the diary to determine the understanding a candidate showed of software features used. When candidates submit their work on paper, more screenshot evidence of the software features is required, such as printing clear evidence of formulas and functions used.

Where candidates had used the marking criteria as guidance for headings within their work, they generally provided clear evidence of all that was required, as they were able to check that they had completed the necessary work. It is important that candidates are given the marking criteria at the outset, so that they know what evidence to provide.

The URS should also include specific reference to where evidence can be found, including page numbers of documents. Many centres completed these forms in a detailed manner; however, some centres just used the URS to comment on how well they thought a candidate had done without providing any indication of where evidence could be found to support this.

Some centres are providing too much teacher guidance during the taking of the tasks, either in the form of structured practice tasks which are too similar to the live task or by providing feedback during the controlled assessment task taking. Controlled assessment must be done under controlled conditions and guidance or feedback from the teacher is not allowed. The use of templates is also prohibited.

Too many centres this year did not send the URS sheets with the moderation sample or sometimes sent the wrong URS sheets (e.g. B064 instead of B062, or wrong candidates); this did hold up the moderation process considerably and could have led to candidates not receiving their grade on time if it wasn't for persistent moderators. There were also incidences of centres sending the B062 moderator the B064 controlled assessment, and the other way round – again this held up the moderation process where moderators had to resolve this and obtain the correct sample of work.

Comments on Individual Questions:

Investigating a Need
As mentioned in previous reports, this section is often quite superficial, meaning that candidates are unable to justify their solution and the software features they choose to use. Candidates should do detailed research into software features, e.g. formulae and processing methods used in similar existing systems and they should research suitable data and data formats to populate their finished systems. Often, candidates do one or the other but not both. In some cases, candidates had been taught a few specific software features which they then used to develop their system regardless of the research they had collected about existing systems. This is a shame, as where candidates are left to do their own research they are much better able to produce a system that they can develop and show their understanding of different software features.

Practical use of software tools
There was good use of a range of advanced software features such as form controls, conditional formatting, lookup functions, validation, macros, mail merge, calculated queries, relational databases, customised database forms, etc. Where a teacher tries to guide candidates too closely as to what software features to use and teaches them only five advanced software features, this often results in candidates scoring less well than they might have done if given the freedom to choose appropriate software features and say why they have chosen them. Many candidates provided good evidence of testing their systems, by use of screen shots, although this section is sometimes quite limited. Many candidates are now producing diaries to accompany electronic submissions of systems, though these are often not detailed enough to show understanding of what they did and why. Candidates should provide evidence of testing all parts of their system and should change rules in their system as well as data for the highest marks. There were very few candidates who changed rules in their system to see the effects, with modelling mostly being limited to a few data changes.

Practical use of data structure
As in previous series, this section was generally the least well done by candidates. There should be a link back to the research stage, where candidates should have collected and analysed relevant examples of data and data formats. They should then use this data collected to populate their systems, in the correct formats, and justify this. There should also be some attempt at either designing an initial system or prototyping it in the software, as a proposal of their intended system. This design should contain information about data types and software features, rather than being all about the aesthetics of the finished system.

Present the solution
This is a separate section to the rest of the work and a presentation should be produced, in the form of a slide show, video, leaflet, etc. Most centres did submit a separate presentation for this section, as required and most candidates chose to use slideshow software to produce this presentation which is a straightforward way for all candidates to pick up marks here, regardless of marks achieved in the other sections. Where candidates had produced a presentation in which they tried to 'sell' their system to the end user, the higher marks awarded were justified. However, there were quite a few centres where candidates were still using this section to say how they produced their system, rather than presenting the finished system and saying what it does. Many centres wrongly thought that the purpose of this section was producing a user guide.

Evaluation

Candidates who had kept a detailed diary of work carried out and evidence of issues arising and how they dealt with these issues were able to gain higher marks in the evaluation. However, many of the diaries seen were brief and only a record of what was done or how it was done, when it is 'the reasons why' that show the understanding and contribute to higher marks. It is important that candidates have time at the end to evaluate the finished system and to look at its strengths and weaknesses; they should also be given time to give constructive feedback on each other's systems – they should include both comments that they have made but also comments made about their work by others, to achieve this marking criterion. Many candidates made statements about their own strengths and weaknesses whilst carrying out the task, when what is actually required is a discussion about the strengths and weaknesses of the final system they have produced. Not enough candidates are evaluating against their original success criteria, which is listed in the mark scheme.

B063 ICT in Context

The full ability range was demonstrated in the answers provided. Most candidates were adequately prepared for examination. Others would benefit from more in-depth study of the case study and greater research of the topics on the pre-release material.

It should be stressed that this unit is 25% of the qualification and that a suitable amount of time should be allocated to the study of the pre-release materials and any associated research.
As in previous series, the quality of some candidates hand writing was problematic. Centres must ensure that candidates handwriting is legible. Accessibility to marks may be limited if responses to questions cannot be read.

Q1. Most candidates scored full marks for this question. A small number of candidates confused a Laser Printer and a Document scanner.

Q2. Most candidates scored well on this question, explaining different ways TechMed2014 could try and prevent unauthorised access to patient records. A number of candidates failed to score the expansion mark by simply repeating parts of the question. A small number of candidates provided the same answer three times.

Q3a. Most candidates were able to identify three features that would be found in the entertainment system. A small number of candidates provided features of a patient monitoring system, rather than the entertainment system.

Q3b. Many candidates identified reasons for having an entertainment system, rather than explaining one benefit to patients.

Q4. Whilst some candidates were able to explain how the website could be made more accessible, many candidates explained accessibility in general. A significant number of candidates were providing answers such as ‘have a braille keyboard’ which were not suitable. Candidates should be encouraged to fully read the question before providing answers.

Q5a. A lack of subject knowledge meant that few candidates scored well on this question, with many candidates believing that the purpose of a firewall was to prevent viruses.

Q5b. Most candidates scored well on this question, correctly identifying two components needed to create a network.

Q6a. Despite this being one of the research topics on the pre-release material, many candidates were not able to correctly state what telepresence technology was, with many candidates simply describing video conferencing.

Q6b. This question was generally answered well, with many candidates describing two uses of telepresence technology in context. Poor examination technique meant that a small number gave examples not in context.

Q7. Most candidates performed well on this question. On the whole, the quality of written answers was good. Candidates explained, using examples, the benefits and drawbacks of using wireless networks and hand-held devices. Most candidates focussed on the ability to work from anywhere and the reliability of the devices. Some candidates discussed the cost to purchase the system, which was not awarded marks as the question told candidates that the hospital was already using the technology.

Q8a. Again, most candidates scored well on this question, correctly identifying three items of data that could be obtained.

Q8b. Again, this question was well answered by the majority of candidates. A small number gave answers such as storing in a database, which were not credited as this would be considered storage and not output.

Q8c. Most candidates were able to provide at least one advantage to TechMed2014 of using the patient monitoring system. A small number of candidates repeated their answer for point 2. Some candidates struggled with a disadvantage, again focussing on cost to purchase, which wasn't awarded marks, as the hospital was already using the technology.

Q9. This question was well answered by most. Candidates had clearly researched what an expert system was, with many giving relevant examples from the NHS web site.

B064 Creative Use of ICT

General Comments:

B064 is now a well-established unit and one which candidates seem to enjoy completing. A significant number of new centres entered for B064 this series, which was pleasing to see.

It was pleasing to see the vast majority of centers had opted to submit work in a digital format, allowing the moderation team to use the products produced. If a paper route is chosen it is always useful to send final products to the moderator on a CD or memory stick, along with the printed material, as it is often difficult to appreciate the learners' work from screen shots alone. It is vital though when submitting work digitally that evidence is well presented and structured. It is recommended that the written element of the unit is compiled into a single document so moderators don't have to open lots of different files to try and piece the evidence together. Parts of the design specification produced during the analysis task certainly should be compiled into one single document. Designs produced during the design stage can be scanned in and combined into the final documentation – most modern photocopiers will scan to PDF. There are lots of free portable document creators available on the Internet which can be used to turn word processed documents into a single file. When submitting digitally, the media needs to be checked carefully for viruses. In at least one occasion this series the security of a moderator's computer was compromised from a rogue file.

File formats this session caused a number of issues which hindered the moderation process. Propriety file formats are not supported and moderators should not be expected to download software in order to judge the quality of products. Games should be complied into executable files (.exe) and web pages should be saved as HTML and image files only. A number of centres submitted Serif websites and scratch files in raw format which is not appropriate. Instructions which illustrate how to compile scratch project to an executable file can be found on their website.

Unfortunately, this series some of the products failed to function correctly when the moderator tried to use them. It would be helpful that before submission that center's check, that the products still function as intended. Websites especially will often work on students' areas but sometimes in the transfer process graphics can become omitted as links are absolute rather than relative or the files are in folders outside the working folder. Setting up a root folder in the students' work area and ensuring that all related files are saved to that folder is considered good practice. Multimedia presentations can have problems of missing media when videos and sounds are linked rather than embedded – care also needs to be taken when transferring these. Where candidates choose one of the briefs which require a game to be produced, the file format which the game will be exported to needs to be considered.

Care needs to be taken when choosing a submission component code for this unit. Entry code B064/01 is for repository submission whilst B064/02 is for postal submission.

Unfortunately, the number of clerical errors this series was higher than previous ones, which did hinder the moderation process. Whilst using the electronic unit recording sheets eliminates the possibility of arithmetic errors, as marks are automatically summed, care still needs to be taken to avoid errors when transferring marks to the mark sheets which are submitted to OCR. There were also a number of instances where partially completed work was submitted by accident. In most cases this was resolved by liaising with centres, but please do check samples carefully prior to submission to avoid such issues.

When conducting this unit teachers need to familiarise themselves with the rules associated with controlled assessment. *Writing frames, templates, sentences starters* or *essay structures* cannot be given to learners **under any circumstances**. Most of the analysis section of this unit should be completed at a low level of control and candidates can share ideas with one another whilst researching existing solutions to a similar problem to the one which they are trying to solve. Candidates should then enter controlled conditions to write up the research and propose their own solution. In a couple of instances research work from other students was included within a particular candidate's work. The final piece of work needs to be solely a candidate's own work and even though research is collaborative, work produced by another person should not be included. To show that group work has taken place candidates should surmise the feelings of the group and quote/paraphrase within their research notes what others had to say. When completing the research it is important that the research links to the proposed solution for higher marks within this section. Too often candidates would present their research, then a solution but there was no link between the two. When presenting the proposed solution candidates should state how their decisions have been influenced by their research

Comments on Individual Questions:

The design specifications produced are part of the analysis task and need to include a clear explanation of the solution and how it solves the problem, a list of tasks which need to be carried out to develop the solution with appropriate timings, consideration of hardware and software required to develop and run the solution and detailed user requirements including measureable (both quantitative and qualitative) success criteria. In some cases parts of the design specification were missing or not detailed enough for the award of a mark within Mark Band 3. In other cases the design specifications became interspersed with content from the design section which did lead to moderation problems.

The design task should be conducted under controlled conditions and require candidates to produce designs for their proposed solution and comment on how the designs meet the user requirements defined within the analysis task. It should be noted that both elements and screen layouts for the products should be designed in detail. Designs can be completed on paper or using vector drawing tools on a computer. The quality and detail of the designs will partly determine the mark awarded for this task along with the level of explanation of how the designs meet the user requirements. At the lower end brief designs will be included which another ICT competent person may struggle to follow. For the award of Mark Band 3 candidates need to fully design all elements of their solution in enough detail so another ICT literate person could create their solution. The design task was in general not evidenced very well this series. Many of the plans were not annotated in enough detail and frequently content was not identified. Plans with boxes labelled 'text' or 'image' and no indication of what the content actually is going to be was common. Plans don't need to be works of art but should provide a basic overview which would allow a third party to implement them. Mark Band 3 for this criterion also requires candidates to explain how the proposed solution meets the user requirements; this was frequently missing from the work seen. A simple way to demonstrate this is to list each of the user requirements after the designs and underneath each, explain how the designed solution meets the requirement. How the solution is going to be tested is also an essential part of the design process and candidates should produce a test strategy as part of the design task. The inclusion of a test plan is good practice and is part of the test strategy however there needs to be some explanation of how this test plan is actually going to be used. Statements such as 'I will use this test plan to test my website upon completion within 2 different browsers and on a smart phone' and 'I will make a questionnaire and ask 3 teenagers to comment upon my interactive bus shelter" turns a test plan into a testing strategy.

The development of elements task should be carried out under controlled conditions and requires students to show how the various components which make up the final product have been made. Elements refer to text objects, sounds, different types of graphic, video clips and

animation. There needs to be evidence of making at least three different types of element for the award of Mark Band 3 for this task. It is likely that alternative software applications will be used to create the elements from the one used to produce the actual product. This specification was not designed to be a test of how competent candidates are at producing write ups and the focus needs to be on the skills used. However these skills need to be overt. A straightforward way for candidates to produce evidence for this task would be for them to produce a diary noting down how things have been made – with a few selected screen shots to explain things which they may be having trouble describing with words. In some cases more evidence of developing elements for the solution should be included for high marks. Too frequently, again this series students documented how the actual products had been made. It needs to be reiterated that this is not suitable evidence for this task – this task requires candidates to show how elements had been made.

The development of the overall solution task should be carried out under controlled conditions and marks should be awarded for the functionality and quality of the product which the candidates have produced. The best way to showcase these to the moderator is to submit the work either via the repository or on CD. For Mark Band 3 a wide range of features need to be included and the products should be fully functional – missing graphics and hyperlinks within websites are not acceptable for the award of marks within band 3. The products need to be of a high quality for Mark Band 3 showing how a wide range of features have been used. They should be aesthetically pleasing with a suitable colour scheme being chosen and graphics will be of excellent quality, well placed and scaled in proportion – pixelated graphics are not appropriate within products being award Mark Band 3. The range of features depends on the product being developed, for example, if a multimedia product is being produced it is expected that learners include graphics, text, sound, video and other media, self-created templates, styles, timings and triggers, animation effects, navigational bars/buttons to create a non-linear route through the product, drag and drop/popups/other interactive features. For a website, the use of graphics, text, hyperlinks, styles, self-created templates, rollovers, hotspots, drop down menus, web forms, animation and sound should be amongst other elements. For the award of high marks, for a game, candidates should have a functioning scoring system with lives if appropriate, multiple levels and the ability to interact with the game by answering questions, picking up items/treats or destroying enemies. Another requirement of this task is to comment upon the success in following the plans and any changes made. ‘Success in following plans’ refers to how the candidates followed their time plan, although many also state how they followed their designs as well which is not a bad thing. A good place to include these notes is within the evaluation section although to prevent it being omitted candidates could complete it once the product has been completed. Some wonderful games were produced this series which was pleasing to see. Websites and PowerPoint are still a favourite and did vary in quality.

The testing task should be carried out under controlled conditions and requires candidates to follow the test strategy which they developed in the design task to check that their product works the way in which they intended. All of the mark bands within the testing section require some form of user testing and unfortunately some candidates had not carried this out, which should lead to lower marks being awarded. User testing should be restricted to peers within the group as the work needs to remain in the centre, although arranging outside visitors (for example primary school children or adults) to come into the classroom during the controlled time to test products is acceptable. In some work seen there was a suggestion that work had been tested at home by parents or siblings which is not appropriate. Higher marks for testing should only be awarded when there is clear evidence that testing in different situations has been considered. Testing websites, games and multimedia products on different hardware, operating systems/browsers and screen resolutions should be considered and carried out as far as possible. A few old machines at the back of the class room loaded with different software provide an excellent opportunity for candidates to test under different situations. If due to network restrictions candidates are not able to test their products in different scenarios a detailed written statement describing how they would carry out such testing if the resources were available is acceptable.

The evaluation task should be carried out under controlled conditions and should critique the product made and the candidates' performance when working within groups. For the award of Mark Band 3 candidates are expected to produce a high quality evaluation which reflects upon what the solution does, its strengths and weaknesses, areas for improvement, how limitations found during testing have been dealt with and an evaluation of their and others contribution to group work. Candidates should refer back to the original user requirements and success criteria and state how each has been met. Listing the requirements again within the evaluation and commenting on how it's been achieve (or not) is good practice. Some of the evaluations seen, failed to include enough sufficient detail and a lower mark would have been more appropriate.

B065 Programming project

General Comments:

This unit attracts only a small entry, largely from centres and students who are keen programmers and consequently many of the projects contain some excellent coding. It must be emphasised that this is a coding unit and cannot be completed in other ways despite databases or spreadsheet solutions being possible for some of the tasks.

The methodical approach taken by the majority of centres helps focus on the process from analysis to evaluation effectively and most produce a report that is a single narrative document. The example on the OCR website and the guide to success in B065 provide valuable insights into the most effective approach and the assessment requirements.

Typically students should analyse the problem to identify what is necessary for a working solution to the problem. At this stage students often see different potential approaches and this is to be encouraged. Detailed requirements based on research into similar existing solutions provide the basis for the success criteria and the consequent design of the solution.

Detailed designs that could be picked up and used by another user are the goal - many do not achieve this but there are some decent attempts that are a good basis to go on and develop a working solution.

The weakest parts of the solutions are often development and testing. The development needs to show the stages in the process with evidence of testing at each stage. Final product testing should show that it is a realistic and robust solution to the problem, not just that bits of it work.

Evaluations should relate this evidence from testing during and post development back to the designed success criteria to show how it has met the requirements identified in the analysis.

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