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Examiners' Report Summer 2009

GCE

GCE Applied ICT (8751/8752/9751/9752)

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Comments from Chief Examiner

Important information
This specification has been revised and ALL candidates will be assessed on the updated version of the specification from summer 2010. Centres should be teaching from the revised specification from this September. This version which has a blue cover has been sent out to centres and many centres would have attended the free inset sessions.

Examined Units
It was clear from the candidates' answers that centres are using past papers to prepare candidates for the examination. This is good practice, however the candidates still need to look carefully at the question or task set, there are variations from one series to another, and candidates need to be prepared to carry out tasks from any area of the unit specification.

Moderated Units
Assessment Issues
Candidates need to supply explicit evidence to support their achievement of the criteria in the various marking grids. It is easier to confirm marks if the evidence is easy to find and supplied in an explicit form.

Assessors must use the e-sheets as an opportunity to explain why they have awarded marks, there are two advantages to this for the centre. If the moderator can see why and where marks are awarded it is easier to agree with the centre marks, secondly if the centre marks cannot be agreed then the moderator can give better guidance to help future assessment.

A number of centres still do not meet deadlines for submitting work to the moderators; the deadlines are published in advance and must be kept unless special permission has been obtained in advance from Edexcel. Permission will only be granted in exceptional circumstances. Centres who miss the deadline risk having the results delayed or the candidates recorded as absent.

Each unit must be on a separate CD, even if sent to the same moderator. Each unit will be forwarded to different Principal Moderators for monitoring and auditing purposes.

Principal Moderator Report 2009

Unit 1: The Information Age (6951)

General Comments
Most of work seen was appropriate and gave the candidates good opportunities to meet the requirements of the specification

Evidence for this unit was reasonable during this session. Centres seemed to have a better understanding of the specification and have considerably improved assessment in relation to previous examinations sessions.

There were however still several examples of work submitted in inappropriate file formats, such as PowerPoint presentations which had not been converted to html format, or long, document-style PDF files.

In some cases, it was difficult to find the entry to the e-portfolio; Standard ways of working suggests that "index.html" should be used as an entry point.

Comments on Strand a
Most candidates described five different types of online services, which are currently available, giving examples of the advantages and drawbacks of each. The range of detail was generally good and most included evaluative comments. Candidates do not give sufficient attention to highlighting or stating the sources they have used.

Better candidates covered the required depth of coverage of each of the services. However many candidates still did the minimum required. For example the only type of communication covered was email. To gain marks above MB1 candidates need to describe and evaluate more than one aspect of each service. Some candidates still simply evaluated websites for this strand, rather than the services themselves.

Candidates gave some very good descriptions of their chosen service making evaluative comments about advantages and disadvantages. Not all candidates gave evaluative comments sufficient to give a clear picture of the scope and limitations of the internet as a whole.

The importance of evaluation of the scope and limitations of the internet has to be emphasised to candidates. The size of screenshots used to illustrate work was more appropriate this session. Candidates tended to use extracts and screenshots from websites and very rarely used journal articles, sound clips or quotes from discussion groups.

Comments on Strand b
To gain higher marks in this strand candidates are required to use a range of relevant information. There was generally a broad coverage of the way ICT has affected people lives. Unfortunately, there was often a lack of depth to the work with candidates only using the internet as a source of information. Pupils should be encouraged to use a variety of information sources i.e. Magazines, newspapers, interviews etc. to achieve the higher mark bands. Some candidates did not include the required description of how ICT is affecting at least five different aspects of people's lives and could therefore not achieve higher marks. In addition, they did not

give well-chosen examples for the descriptions given. Not all candidates managed to provide a well-balanced picture of overall life in the information age.

Comments on Strand c
Candidates who achieved the higher mark bands gave a detailed description of at least 3 factors contributing to the digital divide. Some candidates failed to identify the measures taken to bridge the gap and therefore could not be awarded higher marks. The impact and extent of the digital divide was not well done by many candidates and the descriptions they gave did not illustrate both local and global extent of the divided.

Comments on Strand d
There were some good examples of e-books produced using Dreamweaver, or FrontPage.
Pupils who achieved higher mark bands showed consistency when using background, text and layout. They managed to comfortably accommodate text on the screen and offered the user a means of navigation from page to page, sequential and non sequential.

Better candidates addressed audience and purpose by using an introduction; however, some of the candidates did not address the awareness of audience and purpose at all. Sometimes candidates showed no indication that the purpose of the e-book was for someone in 100 years time.

Some candidates work contained a large amount of scrolling. This was mainly vertical but some e-books also had horizontal scrolling. It is sometime difficult to avoid scrolling, in which case the better candidates used frames and menu that were fixed in position to compensate for this, these candidates accessed higher mark ranges.

A few candidates did not produce an e-book but linked PDF files to their work, this limited access to higher marks in this strand.

Accurate acknowledgements of sources is still a major issue with many candidates failing completely to address this, better candidates included a separate bibliography with references within the text.

Comments on Strand e
Most candidates used suitable ready made components which related to the topic discussed. However, in some cases the use of original components used was rather weak. Some candidates opted to use a video or audio interview, which is a good idea, although candidates need to make sure that questions asked are relevant.

A few candidates did not create their own multimedia work; they used work copied from the internet. Whilst this provides for use of ready made components, it does not show the use of original multimedia. Occasionally the candidates seemed to be unaware that the choice, positioning and mix of components had an effect on the e-books. Some text overlapped other sections of work or there was continuous music played throughout the e-book.

Comments on Strand f
The higher achieving candidates attempted this aspect well and evaluated both their own performance and the performance of the e-Book. They also incorporated feedback and made recommendations for improvements. Lower achieving candidates still do not use feedback well, often including one or more completed questionnaires

but making no use of the information collected. Better candidates commented on the results and used this feedback to suggest improvements to their work. In most cases the evaluation had been placed correctly outside of the e-Book.

Principal Moderator Report 2009

Unit 2: The Digital Economy (6952)

General Comments
Again there was a large entry for this unit with marks across the whole range of 1-58 and a good number of eportfolios in the 40s and 50s. It is good to see many centres assessing to national standards and also to see work of a very good quality submitted by many candidates.

However, it was disappointing to see similar weaknesses in other eportfolios and it would appear that not all centres refer to previous Examiner's reports which have clearly identified such issues across the previous moderation windows. These reports can be accessed on the Applied GCE ICT section of the Edexcel website:

Most candidates produced evidence that addressed the individual strands but there were many instances where the evidence was assessed generously and the work placed in too high a mark band. The Assessment Guidance on pages 42-44 of the unit specification explains how to award the marks for the 3 mark bands across the 5 strands.

Some cohorts demonstrated a very structured approach to evidencing this unit with the result that candidates had not shown the independent approach required for the higher mark bands. There were even examples of writing frames being used which is not appropriate for this level of qualification.

Many centres did submit work on time and followed the correct administrative procedures. There are comments at the end of this report highlighting incorrect procedures that were followed by other centres.

Comments on Strand a
Some excellent evidence addressing this strand very well was seen.

Most candidates selected suitable transactional websites. There were fewer instances of auction sites such as eBay or ticketing sites being used. As has been stated before, candidates should be advised to select a site where goods are ordered from stock and delivered to a stated address. The sites need to have a virtual shopping basket and enable transactions to be made. Such sites enable candidates to address the strand more effectively.

The majority of candidates illustrated their evidence with relevant screen shots. Again many of the candidates were concentrating on the products the site sold rather than evaluating the design of the site or were concentrating on a few features only. To move into MB2, more detailed descriptions of the main features of the site's design are required together with evaluative comments. It is good to see more candidates explicitly evidencing the capture of customer information and evaluating more aspects of the transactional processes, ie the virtual shopping basket and methods of payment but many are still just supplying screen shots of the shopping basket and payment methods but neglecting to explain the process and comment on the effectiveness.

Candidates wishing to raise achievement should look at 2.3 and 2.5 of the unit specification in order to ascertain features to examine. The Assessment Guidance on page 42 clearly lists the requirements for the 3 mark bands.

More candidates are attempting to evaluate the customer experience although sometimes this was too briefly evidenced to support the mark awarded. Many candidates are not indicating appropriate improvements by suggesting such things as adding more products in the product range rather than improvements to the site's design features.

Comments on Strand b

This strand continues to show a steady improvement and it was good to see some work well worthy of MB3. Much of the assessment was to national standards which was also good to see.

There were still some instances of candidates being awarded full marks in MB1 although only one diagram had been provided. The assessment refers to diagrams in the plural. Two are needed for full marks in MB1 and to be able to access MB2, and a comprehensive set are required for MB3. Candidates accessing MB1 need to evidence flows of information in and out of the organisation as well as between departments within the organisation. Few candidates showed the flows between other departments within an organisation and how they might use the information.

Many candidates appeared to refer to aspects of 2.4 but then neglected to include Stock and the processes associated with this in the diagrams submitted.

Candidates are required to create their own diagrams and not include examples copied from textbooks and other sources. Some of the diagrams produced were not totally effective as they related to manual systems and had not been adapted for a transactional website. This was particularly the case when evidencing how payments were handled.

It is good practice to relate the diagrams to the site evaluated for strand a, but this is only appropriate if the candidate has evaluated a site which involves the purchase of a product from stock which is despatched to a customer.

Many candidates annotated and described the diagrams, which is good practice and help demonstrate understanding of the evidence supplied.

There were a few instances of the inclusion of hand drawn diagrams that had been scanned in. This is not an acceptable approach and it is expected that candidates use software to produce neatly presented diagrams.

Comments on Stand c

The comments made in the previous Examiner's report are still relevant. Many candidates are still writing about security in general, often relying very heavily on reproducing textbook content rather than relating their research to the requirements of this strand. There were instances of very similar work produced by whole cohorts which demonstrated a very structured approach.

Having said this, some excellent evidence was seen by candidates who clearly understood the threats and preventative measures that should be looked at from the point of view of the organisation which was providing the transactional website and not the person accessing the site from their own computer. It was good to see some

candidates understanding that the legislative acts can be used as extension of preventative measures and evaluated these as such rather than just reproducing the wording of the relevant act or part of it.

Some candidates had been awarded all the marks in MB1 although legislation was not addressed at all. Sometimes candidates produced evidence about preventative measures but neglected to list or describe any threats, or vice versa.

There were instances of candidates being awarded full marks in MB2 or marks in MB3 although no attempt had been made to evaluate the effectiveness of the preventative measures.

Comments on Strand d

The evidence for this strand was very variable as well as the assessment of it. It was good to see again some excellent evidence which reflected candidates working in MB3. However, there were many instances of work being awarded MB3 where the evidence addressed the lower end of MB2. Previous reports have given full feedback relating to this strand but, again, there were many instances of the same weaknesses observed.

It was disappointing to see the lack of independence to this strand demonstrated by many cohorts with evidence being virtually the same across all candidates. Such an approach does not support the higher mark bands.

Some centres appear to have supplied 3 tables to the candidates. This unit requires one large dataset file to be supplied to the candidates in csv format. The dataset needs to be large enough to contain trends. Each candidate is required to carry out the steps listed below independently.

Candidates should devise their own structure to include any necessary validation and also devise the queries used to manipulate the dataset in order to obtain output. There was very limited evidence to support the use of search criteria, ie searching on more than one field (MB2) and more than one table (MB3).

The comments made in the January 2009 report are very relevant to this series:

"It is good to see many candidates addressing this strand well and more achieving marks in mark band 3. However, it is disappointing to see that many centres still appear to be using a very structured approach with the result that all candidates are producing very similar screens and, indeed, sometimes identical across a cohort.
This has been pointed out in previous reports and such work restricts candidates to mark band 1. Candidates progressing to the higher mark bands should clearly produce evidence demonstrating an independent approach to the creation of the database structure and subsequent manipulation.

Most candidates are evidencing the requirements for mark band 1 well, although some neglected to show the one-to-many link which is part of this mark band. Only two tables with a one-to-many link is required although more can be evidenced.
Candidates are not required to evidence normalisation which is part of the A2 unit 6957.

Candidates should present evidence showing progression through the main steps, ie:

1 examine a large dataset and create a suitable structure for 2 tables
2 test the database structure prior to importation using test data
3 import the dataset into the created structure, showing the number of records imported into each table
4 test the import is successful
5 manipulate the dataset to extract meaningful data and also to identify trends. Likely trends could be patterns of sales over a period of time and/or across different areas. It should be noted that output should be presented in a meaningful way such as reports, charts/graphs. Output presented in datasheet view does not do this.
6 make recommendations on the trends identified.

There were a significant number of candidates who were awarded marks at the top end of mark band 2 or in mark band 3 where there was no evidence showing how the final output was reached. **Candidates need to clearly evidence the manipulation of the database created.**

Explanations with relevant screen shots provide the evidence required. Candidates did not seem to understand pie charts and these were often used inappropriately.

Many screen shots were too small to read.

Many candidates produced screen shots for every step of the importation process which is not required and then neglected to include evidence to support the rest of the strand adequately. Relevant screen shots demonstrating the main practical activities addressing the strand has been undertaken is required.

The database itself should not be included as this is not one of the acceptable file formats for this qualification."

Comments on Strand e

Overall there were few candidates who addressed this strand well. Many of the evaluations were narratives about what they had done rather than reflective and evaluating the 2 main areas, ie the PERFORMANCE of the database CREATED and the candidate's performance across the whole unit. There was a general lack of understanding on how to evaluate the performance of the database and the Assessment Guidance on page 44 gives some help on this. Few candidates appeared to realise that problems relating to the use of the database can form the basis of an evaluation. Problems relating to the use of Access is not what is required.

Candidates tended to refer to a list of what they had done for the various strands instead of looking at what they had achieved and how this could be improved, based on problems incurred, skills acquired along the way, etc.

Feedback from others was often obtained but then only listed and not referred to by the candidate in the evaluative comments.

There were many instances of candidates evaluating e-books which is not a requirement of this strand for this unit.

Standard Ways of Working

File management - Some candidates did not use an obvious link to open the eportfolio. Many candidates did not use a good folder structure with the result that it was not always easy to locate the link.

Eportfolio - There were a few instances of candidates just submitting one pdf file. This is not appropriate and candidates should create an index page or front cover which gives their details and provides a link to the evidence for each strand.

Although few, there were still instances of files being submitted in incorrect formats. Some eportfolios exceeded the file size of 20 Mb.

Quality assurance - Many candidates did not proof read and spell check their work thoroughly.

Legislation and codes of practice – there were examples of plagiarism in strands b, c and d.

Comments on Administrative Procedures

A significant number of centres submitted the work after the deadline of 15 May. It would appear that not all centres had referred to the document: "Moderation of ePortfolios" which can be located on the "Guidance to Centres" section of the Applied GCE ICT section of the Edexcel website.

Most centres named the eportfolios with the correct naming conventions but many did not do so for the naming of the e-sheets. Most centres provided candidate authentication in the form of individual sheets scanned on to the CD or provided hard copy format of these or a signed printout of the submitted marks.

There were some instances where the work was submitted on a DVD instead of a CD which is the requirement. Some of the file sizes exceeded those stated and the file size for each unit can be found in the above document. There were a few instances where a CD was submitted for each candidate which is incorrect. The requirement is one CD per unit containing all eportfolios and related documentation.

The e-sheets were not always well completed. Some marks did not total correctly and/or did not correspond to those submitted on line. Some e-sheets only contained marks and no feedback to explain the assessment decisions made. Very often the feedback was general comments which were copied and pasted into all e-sheets without any attempt to relate to the candidate in question.

Some centres submitted unlabelled CDs.

Principal Examiner Report 2009

Unit 3: The Knowledge Worker (6953)

General Comments
In general most candidates attempted the paper in a logical fashion, showing evidence of good preparation. There is still, however, too much reliance on the similarity of the papers between one exam series and another. In this paper there were some marginal differences in what was required from one or two of the questions and although these were fairly simple, a number of candidates answered the question in the way required in previous papers, thereby losing marks needlessly. It should be emphasised to the candidate that reading the paper and understanding what is required is a necessary action if high marks are to be achieved.

In general, according to the scenarios supplied, the model is supposed to be generated by a non specialist. As such the model will contain inefficiencies, errors and poor presentation. Candidates achieved marks for identifying them. We should, however, emphasise that it is up to the candidates to identify these and their teachers should not communicate them to their students.

Activity 1
In this activity, this series, there were **seven** marks awarded for background, **three** for the decisions. The **final three marks** were awarded for an analysis of what would make a good solution. As usual there was information in the scenario which had no impact on the decision making process. All candidates did well on this aspect with the higher achieving candidates providing fewer of the "red herrings" in their answers. In this case there was only one decision to make but extra marks were given for identifying some of the constraints within the decision. Most candidates realised we were trying to create a time table and some identified it was for the morning peak period. Identifying what would make a good solution would help the candidate develop a strategy for Activity 3, only the higher achieving candidates managed to identify these.

Activity 2
A new approach was used in this activity. Candidates were asked to identify how the data was obtained and then list aspects of how it was collected which made the data fit for purpose or otherwise.

A significant number of candidates managed to gain some marks in this activity, although the lower achieving scored mainly on a description of how the data was obtained. Activity 2, in this exam, is about analysing a data source and candidates need to understand what it is that makes data fit for purpose. Aspects such as currency and reliability, primary and secondary data as well as sample sizes, populations and question phrasing should all be understood and their relevance to the fitness for purpose of data be identified. Candidates are traditionally weak in this area.

Activity 3
As usual this activity was by far the highest scorer, most candidates being able to add the formulae to the model and use it. The changes this time were relatively easy but there were aspects of the model itself which should have sounded alarm bells with the candidates. There were issues with the model which caused some of the

passengers to disappear. Although it is expected at this point that the candidates treat the model at face value, difficulties such as this should be identified and commented on either in the report (activity 4) or more likely in the evaluation (activity 5). Few candidates seemed to have studied the model in enough detail to identify the anomalies.

However most candidates managed to create a working model and many managed a good solution.

Activity 4

In this exam series, especially from the higher achieving candidates there were a few more reasonable reports. There is evidence that some centres are instructing their students in report writing. Candidates should include a suitable title and sub-headings and must include a date.

Most candidates identified a timetable and displayed it in a table (usually a screen shot from the spreadsheet). Some managed to show the effects this would have on the passengers on each train (again probably by a screen shot of the spreadsheet). Few candidates, however, found discrepancies nor were there many justifications.

A large number of candidates included graphs, which were generally more appropriate and better labelled than for previous sessions. Very few candidates used the chart to it full extent as there were very few cases of the graph being used as part of the justification.

There was some evidence of imagination when it came to other factors to be taken into consideration. When marks were awarded it was generally for the old standbys of weather and mechanical failure.

There were, once again, a great many examples of very poor grammar and inappropriate use of language.

Activity 5

Once again, this activity was weak with very few candidates gaining more than a couple of marks. Many candidates did not attempt this activity, or made no comments that gained marks.

There were disappointingly few cases of candidates showing anything but total confidence in the model and as such few gained marks in this area.

Some candidates managed to suggest improvements to the model that gained one or two marks

Administration

There are still plenty of instances of scripts not being assembled correctly, including examples where all, or most, candidates from a centre assembled their folders incorrectly. The main problem is still the printouts not being attached correctly to the coversheet. There were fewer examples of printouts being presented in the incorrect order or without headers and footers.

All printouts should be attached to the cover sheet via a **single** treasury tag to the hole available in the top left corner of the inside of the cover sheet as shown in the instructions. There should be no need to punch extra holes in the cover sheet and the treasury tag should be passed through the cover sheet and the printouts only

once. The instructions are clear and the examiners would be grateful if centres could remind candidates to do this.

Principal Moderator Report 2009

Unit 4: System Design and Installation (6954)

General comments
It was again pleasing to see that a high percentage of the eportfolios submitted were in a format, which allowed the moderator to easily find the evidence. It is not the moderator's role to have to search through eportfolios and folders to find the relevant evidence, summative testing of the completed eportfolio would eliminate many of the problems that occur in locating the relevant evidence. As stated in previous Principal Moderator's Reports eportfolios should be in a format that can be read in a browser and the files should link together.

Assessors are again advised to use the e-sheet to explain how they arrived at a particular mark in a particular mark band and to state if the candidate worked independently. It was again evident that some centre assessors are still giving none or almost meaningless feedback to candidates', comments like 'well done' or 'nice screenshots' do not aid either the candidate, if they wish to improve their work, or the moderator who is trying to establish why a particular mark was given.

Lack of proof reading was still evident throughout a high number of submitted portfolios with alarmingly many examples of evidence containing uncorrected errors. Candidates are recommended to proof read their work thoroughly and should refer to the quality assurance section of 4.12 of the unit specification.

Comments on Strand (a) - Needs Analysis
Candidates' are required to investigate a client's needs and produce a needs analysis based on the investigation. Many candidates' did not evidence two distinct investigative techniques but tended to produce a questionnaire, often not answered, and then use the same questions as evidence of a meeting with their client. As part of the needs analysis candidates' should describe two existing computer systems. Achievement would be raised if candidates' based these descriptions on systems that have a similar functionality to the needs of their client rather than just choosing, at random, two existing systems.
There was still a distinct lack of evidence from the majority of candidates when it comes to being able to evaluate fully the benefits and perceived drawbacks of the chosen systems in order to give their client an informed conclusion. The production of a proper needs analysis for a client with complex needs is central to this strand and centres are again reminded to refer their candidates to section 4.1 of the unit specification.

Comments on Strand (b) - System Specification
A systems specification, addressing all aspects of 'What you need to learn', written in no-technical terms is the minimum requirement of this strand. The specification must cover both hardware and software which meet their client's requirements. Many candidates' are still not taking into account the specific requirements of their client, but tending to produce a generic specification rather than one tailor made for their client.

It is expected that the completed report be written as a non-technical explanation as to why all the components, both hardware and software have been chosen for the client, these should be justified as to why they meet the clients needs and for the

higher mark bands candidates' should offer their client alternatives. This latter point was either omitted completely or very briefly mentioned in a large number of candidates' evidence for this strand.

For candidates' to access the higher mark bands the produced specification should consist of more than a list of components. It should offer explanations, as to what each component does and why it is necessary that the client has it incorporated into their system. As in previous reports centres should ensure that their candidates' are aware of the information in sections 4.2 to 4.6 of the unit specification as to the what areas should be considered when putting together their system specification.

Again as in previous moderation series candidates selected furniture, which they claimed to have ergonomic qualities but failed to explain why they would be suitable for their client.

Comments on Strand (c) - System Build

Many candidates' appear not to have understood that the strand involves three distinct aspects. Initially the candidates' should demonstrate the building of a stand-alone computer system; this will allow the candidate the opportunity to demonstrate their ability to install the necessary internal hardware components and to work safely when undertaking the build. The work should be undertaken as an independent activity and not as group work which is still being evidenced. Upgrading components or the installation of additional hardware components to an already built system will not achieve many marks in this strand as this activity is more suited to unit 6 Technical Support.

Secondly the learner's should evidence the installation of the required system and application software and thirdly candidates' should demonstrate their ability to configure and customise the total system to meet the stated requirements of their client. Achievement would be raised if candidates' based these on the requirements of a client rather than an ad-hoc build and configuration of a system.

Comments on Strand (d) – Testing

Testing should show that the complete system meets the agreed specification standards as it is the quality of the evidence showing real understanding of testing, covering all aspects of the unit that is more important than producing evidence of every single test which results in many pages of similar tests being undertaken.

It was again pleasing to see evidence of some good practice with candidates giving detailed accounts of how they tested the final system and also some end user testing. Photographs and screen dumps of error messages were included.

Candidates should be encouraged to produce annotated evidence of a variety of tests that have been undertaken if they wish to achieve a mark in mark bands two or three. It is important that candidates' ensure the evidence produced covers all aspects of the hardware and software that they have installed in their built system. It should be again pointed out that the quality of the evidence showing real understanding of testing is more important than pages of similar test evidence.

Comments on Strand (e) - Evaluation

Many candidates' are not producing evaluations that relate to this unit, i.e. an evaluation of the **performance** of the system the learner has built and configured and an evaluation of their performance over the whole unit. The evaluation is not about the performance and structure of the candidate's eportfolio, but the performance of

the built, tested and configured system and whether or not it met the needs of their client.

It was again evident that many candidates found it difficult to accurately evaluate the work undertaken in this unit and comment reflectively on their own performance. Assessing their skill level at the outset and reviewing the skills obtained through undertaking the unit can help candidates evaluate both their skill level and their performance overall.

Feedback from others was often omitted and when present was found to be vague and lacking evidence of who provided the feedback and why.

Principal Moderator Report 2009

Unit 5: Web Development (6955)

General Comments
The entry for this unit was not large and moderated marks from 1-49 were seen. It was disappointing to see few eportfolios reflecting A grade standards and this may be due to the weaknesses relating to the evidencing of the process which is commented in more detail in this report.

The comments on the e-sheets often matched the evidence in the eportfolio but the evidence was placed in the wrong mark band. The Assessment Guidance on pages 89-91 of the unit specification gives clarification on how to award the marks for the 3 mark bands across the 5 strands.

Despite being highlighted in previous Examiner's reports, it was disappointing to see that there is still evidence of centres working to structured assignments that do not provide the opportunity to gain all the marks in all the strands and it would appear that some of the tasks set required the candidates to produce irrelevant material. It is important that candidates undertake assignments that enable them to address the assessment evidence as stated on pages 84-85 of the unit specification. This in turn should be assessed according to the assessment criteria on pages 86-88 and marks awarded according to the assessment guidance on pages 89-91.

Most candidates supplied the websites they had created which is a requirement of the unit. However, it would appear that some candidates had concentrated on the production of the website but neglected to evidence the processes required which meant that not all marks for strands a, b and c could be accessed. There were also evidence of centres being influenced by the websites created when assessing these strands and giving marks where there was insufficient evidence to support the decisions made.

Comments on Strand a
It was pleasing to see a good percentage of candidates using project management software for this strand. 5.2 does say "Ideally, you will use project management software…" Spreadsheet software is acceptable for this AS unit. Word tables and action plans such as used in DiDA are not acceptable. Many plans were simply lists of tasks which does not address 5.1 of the unit specification. This includes the use of spreadsheet software which were simply lists of tasks to be carried out. Candidates are required to produce a plan using a graphical format, ie a gantt chart. This unit provides unpinning skills and knowledge for the A2 unit 6958.

The plan did not always appear to be produced "up front" and it would appear that some were reverse engineered which is not acceptable. Many candidates did not understand what to include in the plan. The design, implementation, testing of the website and final handover to the client should be included. 5.1 and 5.2 of the unit specification gives further clarification on what is required.

Many plans were not sufficiently detailed and many did not include the final handover of the website to the client. The evaluation and proposal is not part of this process. Phases were not always used and these should relate to 5.1. Timings were often not sensible.

Few candidates evidenced the use of the plan throughout the implementation of the websites which is required in order to access all the marks in MB1. The best evidence is updating the plan and including the different versions in the eportfolio complete with annotation explaining updates. Project logs/diaries and minutes of meetings with the client can all support the use of the plan.

Comments on Strand b
More candidates are producing some evidence to address both aspects of this strand but often the evidence was leniently assessed and placed in too high a mark band.

There are two very distinct areas to be addressed in order to be able to access the 16 marks available in this strand.

Candidates do need to liaise with a client or, at least, someone role playing the part of the client in order to address this strand, (and strand c) properly. Some candidates referred to "my client" but did not produce convincing evidence of the use of a client.

5.3 of the unit specification give details of how the requirements of the client should be addressed. Candidates addressing this strand well produced a report addressed to the client detailing the requirements, explaining the research carried out and then proposing a website solution to address these requirements. A range of different techniques used is expected for candidates accessing the higher mark bands.

Some candidates produced good evidence of research into competitive or similar websites and used this information to make sensible recommendations to the client. Some of the questionnaires produced did not support this strand well as no open questions were used and it was not clear what audience was used to obtain this information and what relevance they had to the aims of the website to be produced.

There was evidence of writing frames being used by some centres to address this strand. This is not appropriate for an AS qualification.

The design evidence varied considerably. This part of the strand addresses 5.4 of the unit specification. However, 5.5 and 5.8 also have a bearing on the features to be included in the design. Most candidates attempted to produce a storyboard and site map. Many produced flow charts which were more appropriate to unit 2 rather than explaining the main navigation pathways through the website to be created.

A few candidates are still scanning hand drawn designs of poor quality which were difficult to read. Others produced screen shots of the final website which does not support the design process.

The designs produced should evidence the initial ideas presented to the client and clearly address 5.4. Page "mock ups" showing how the ideas might look using some software can help. Some candidates did this using PowerPoint or Fireworks.

Comments on Stand c
There are 20 marks available in this strand and many centres appeared to have awarded these marks on the website produced and not taken into account the other aspects required in order to access all these marks.

It was good to see most candidates included a copy of the website in the eportfolio. This is an essential aspect of this strand as the candidates are required to demonstrate they have produced a functional website.

Many of the websites were of good quality and addressed many areas of 5.4, 5.5 and 5.8. However, there were others that did not demonstrate skills expected for this qualification. Some websites contained many repetitive pages but few skills. Fewer pages demonstrating more skills are a more effective way of evidencing this strand.

The better candidates did produce some evidence of implementation to demonstrate the software skills used and also they understood the basic principles of HTML and were able to modify and edit HTML code.

Many candidates are still failing to demonstrate an understanding of how to prototype the design through to a working prototype and then final version. This process should involve others, such as the target audience and client. Many candidates just listed a few very limited changes, such as changing the background colour, or type of font. Prototyping is a form of formative testing and this strand requires evidence of some prototyping carried out to improve and refine the design in order to obtain all the marks in MB1. Annotated before and after screen shots is one way of doing this as is evidence of meeting the people used in the process and reporting the comments made and how they influenced the changes implemented.

The other area of testing required in order to access all the marks in this strand is summative testing. Some candidates produced completed test tables but did not provide explicit evidence of the actual tests themselves. 5.6 of the unit specification give further clarification on this.

Comments on Strand d

There were some very good evaluations seen which did demonstrate understanding of the difference between the performance and the functionality of the site created. Others did not address the requirements of this strand and evaluated their own performance and the e-book. There were also instances of candidates just listing what they had done rather than including any evaluative comments. There were also many instances of candidates obtaining feedback but not actually referring to this in the evaluations produced and still being awarded all the marks in MB2 or MB3.

The better candidates evaluated the performance of the site using feedback from the various testing processes undertaken including the target audience. The functionality was well addressed by those who evaluated the final website against the client requirements as evidenced in strand b.

A few candidates seemed to try to combine the evidence for strands d and e which is not wise as strand d requires improvements that would enhance the site for the higher mark bands and so it is difficult to ascertain what evidences which strand.

Comments on Strand e

It was good to see a big improvement in the presentation of the evidence for this strand with many candidates producing a formal report addressed to the client.

Some of the weaker candidates just produced general notes covering some aspects of 5.7. There were instances of candidates including strand a evidence taken from unit 2 which did not address the requirements of this strand.

The Proposal should describe and recommend ways of enhancing the functionality of the site created. Few candidates included advice on the impact the changes proposed might have on the personnel and practices within the organisation.

Comments on Administrative Procedures

A significant number of centres submitted the work after the deadline of 15 May. It would appear that not all centres had referred to the document: "Moderation of ePortfolios" which can be located on the "Guidance to Centres" section of the Applied GCE ICT section of the Edexcel website.

Most centres named the eportfolios with the correct naming conventions but many did not do so for the naming of the e-sheets. Most centres provided candidate authentication in the form of individual sheets scanned on to the CD or provided hard copy format of these or a signed printout of the submitted marks. However, some centres had to be contacted to supply candidate authentication sheets. These are an essential part of the moderation process.

There were instances where DVDs had been supplied rather than CDs which is the requirement. Some centres had not checked the CDs and provided blank CDs or the wrong sample. However, most centres had labelled the CDs well with full contact details and problems were quickly resolved.

Principal Moderator Report 2009

Unit 6: Technical Support (6956)

General comments
It was again pleasing to see that a high percentage of the eportfolios submitted were in a format, which allowed the moderator to easily find the evidence. It is not the moderator's role to have to search through eportfolios and folders to find the relevant evidence, summative testing of the completed eportfolio would eliminate many of the problems that occur in locating the relevant evidence. As stated in previous Principal Moderator's Reports, eportfolios should be in a format that can be read in a browser and the files should link together.

Assessors are again advised to use the e-sheet to explain how they arrived at a particular mark in a particular mark band and to state if the candidate worked independently. It was again evident that some centre assessors are still giving none or almost meaningless feedback to candidates', comments like 'well done' or 'nice screenshots' do not aid either the candidate, if they wish to improve their work, or the moderator who is trying to establish why a particular mark was given.

Lack of proof reading was still evident throughout a high number of submitted portfolios with alarmingly many examples of evidence containing uncorrected errors. Candidates are recommended to proof read their work thoroughly and should refer to the quality assurance section of 6.9 of the unit specification.

Comments on Strand (a) - Upgrade
Candidates' are required to undertake and test an upgrade of a current computer system. The upgrade should be at a minimum one, new hardware component and either a software upgrade or the installation of a new item of software. Many candidates' do not take into account the specific requirements of their client, but tending to undertake the upgrades without any rationale or reason.

In order to obtained the higher grade bands, candidates should provide clear screen shots and photographs' explaining through detailed commentaries what was happening and why it was being undertaken. Many candidates still did not include any evidence of relevant testing of the upgrade or ensuring that the hardware components were compatible with the original system.
It should be again pointed out that the quality of the evidence showing real understanding of testing is more important than pages of similar test evidence. Candidates' did not always demonstrate standard ways of working, notably safety precautions undertaken prior to and whilst performing the upgrade.

Comments on Strand (b) - On-screen Support Manual
The content and format of the manual produced by the candidates' should be for the use of an ICT technician not designed as a self-help guide to end users. It is intended to be used on-line and should be in a file format which allows this. PDF and PowerPoint file formats do not lend themselves to on-line publications. During the moderation period it was still evident that candidates and assessors seem to be still unaware of the different user categories the manual is aimed at, in mark band 2 the level of user is an ICT Technician and in mark band 3 the audience for the manual is

someone who should be able to use the information provided without having to refer to others for assistance.

It was still evident that a minority of candidates failed to recognise the fact that the manual was to be viewed on screen and produced a product which needed the reader to continually scroll up and down as there were no links and in some instances from side to side. The lack of a maintenance schedule and a method of recording all the regular and non regular work undertaken restricted many candidates to the lower or middle mark bands.

Comments on Strand (c) - Collaborative Working Tools

Many candidates' appeared not to have understood that this strand involves two distinct aspects. Initially the candidates' should identify and describe the key features of a minimum of four web-based tools used for collaborative working (the list at 6.6 are suggestions not an absolute list). Achievement would be raised if candidates' included a range of well-chosen examples of each chosen web-based tool. Secondly, the learner's should provide evidence of the setup and use of one web-based tool. In many cases there is only evidence of the use of one of the tools.

As in previous series a large majority of candidates were able to identify and describe four collaborative working tools. There were once again major omissions from the evidence produced in that many candidates' failed to indicate significant points relating to the capabilities and limitations of the tools chosen. To enable the candidate to access the top of mark band 1 and move into mark band 2 the candidate must make some comparison of the chosen collaborative tools. These omissions were not always reflected in the grading of this strand by centre assessors.

As stated in previous Principal Moderators Reports and the unit specification it is essential that candidates' who wish to gain marks in mark band 3 must have used a range (at least 3) well chosen examples which fully evaluate the key features of each of the four chosen tools. At this level they must be able to show that the chosen tools are totally suitable for particular tasks and fully describe the processes involved in setting up and using a particular tool.

Comments on Strand (d) - Communication needs of a small business

Candidates' are expected to produce a business report for a stated SME which contains a detailed account of their investigation into the communication needs for the SME. They must have also produced justified recommendations for each of internet connectivity, security procedures, an internet access policy and use of email. These points are comprehensively listed within the unit specification (see sections 6.4, 6.5 and 6.7).

A significant minority of candidates did not produce recommendations for each of the above points, which is a requirement to reach the top of mark band 1; this requirement was not always recognised during the assessment process.

Achievement would be raised if candidates' produced a report for a specific SME and through their investigation identified their client's actual needs rather than generic communication needs.

Even after reinforcing and repeating these comments in previous Principal Moderators Reports a number of centres are still allowing candidates to produce a generic report rather than undertake investigation into communication needs of a specified small to medium sized business.

Many candidates' who had submitted evidence suitable to gain marks in mark band two rarely produced sufficient detailed evidence of an SME's communication needs and did not make any justification for their recommendations for all the required topics, thus restricting them to mark band 2.

Principal Examiner Report 2009

Unit 7: Using Database Software (6957)

General Comments

The evidence from this series seems to show that candidates were better aware of what to expect. It was unusual for candidates not to complete/attempt all 5 questions.

Despite instructions on the question paper, many candidates are still generating far too much paperwork for individual activities, usually screenshots explaining how they had created forms and queries and not explaining how they functioned, and also how they had created reports. A significant number of candidates included a lot of unnecessary pages that had not been asked for in the tasks. These included multiple screenshots of development, designs with data dictionaries, the candidates own test plans and switchboards/ menus.

There were many explanations about setting up macros, often incorrect ones, but no evidence of the outcomes. Again, the report asked for the tickets to be printed yet some candidates still produced screenshots of these AND explanations of what they had done, both of which were not required and gained no marks. Similarly, a step-by-step guide on how to create the customer form was not required and gained no marks per se.

There is still a lot of evidence of candidates either cropping screenshots too much – missing off names of tables, buttons they have added on forms, numbers of records on datasheets, etc, and of printing them out too small or with poor print quality (possibly photocopied) making the evidence illegible.

Solution themes were apparent in the different centres and it appeared that some classes had had a significant amount of advice between sessions. There was evidence that some obviously incorrect structures mysteriously gave the correct results.

There is still evidence that candidates are being entered for this examination who have not been prepared sufficiently with database skills or for whom the specification is inappropriate.

Centres should note that there is no need to use SQL as this is a unit designed for DBMS. Candidates using SQL very often miss marks as the paper is not written with this in mind.

It is probably worthwhile here reiterating what is allowed as regards help and assistance during the exam period. The scenario is released prior to the examination and teachers are allowed to discuss with their students possible answers to the questions. The teacher does not know the final construction of the dataset so that any datasets they give to their students can only really be guesswork.

Once the teacher becomes aware of what is in the live data files they should no longer discuss the examination in context although they are allowed to discuss, with the students, aspects of databases in general terms. For example they can revise normalisation as long as the examination data files are not used as an example.

Further, candidates are not allowed to take anything into their exam sessions or remove anything from the exam room at the end of each session.

The data files are released early in order for the examination rooms to be prepared.

Comments on Individual Questions:

The scenario seemed accessible to candidates and most had a good 'feel' for what was required.

There was some confusion between 'Seat' and 'Bookings' at times. Some candidates produced tables nominated 'customer_exam' and 'booking_exam'. These elicited no marks.

Activity 5 still saw candidates lose a lot of marks due to not following the rubric by using software other than that which formed part of the database.

Activity 1:

Overall, it would appear that candidates are gaining marks more easily and effectively using a diagram than with a written description of the inputs, processes and outputs.

More candidates made a reasonable attempt at some kind of diagram this time, though there was still plenty of accompanying written descriptions which usually did not add much. The most successful style of diagram was that of a flowchart, especially when the candidate used input, decision and process symbols correctly, together with labels and arrows. Many candidates had diagrams of very poor quality, having large text boxes linked together in some way but these did not help their explanations.

However, some candidates still used prose rather than diagrams and this limited the number of marks examiners were allowed to award to 6.

There was still some inefficient annotation following identification of where a decision needed to be made. Candidates tended to note the decision but too often failed to follow up with "Yes" or "no"; "Confirm" or "Quit". Too many decision boxes only had one flow from them thus negating the need for a decision.

One area not well addressed by most of the candidates highlighted the need for candidates to understand what the database does, not just regurgitate the scenario. This aspect was where the scenario advised that when a booking was made the customer was assigned an ID. Too many candidates had a process of 'assign customer ID' when in fact the process was to 'generate customer ID', an ID which is automatically assigned upon the booking being made. Some students still tended to follow the rubrics of unit 6953 and restated the scenario rather than explain the requirements of the system.

Too many addressed what the database would do in terms of how it operated to achieve bookings but failed to realise that an integral part of the system was to PRINT tickets and PRINT cards. These candidates usually managed to attempt Activity 5 so the advice would be to read ALL the questions first as this might give guidance as to some of the processes needed to be done by the database.

Some candidates wrote about the screens and queries they had created, demonstrating that this Activity had been done at the end rather than at the

beginning as it should have been. This is not good practice. Good analysis of the processes required should underpin good database construction.

The majority of candidates gained around half the available 12 marks, with a substantial minority gaining 9 and above.

Activity 2:
There was a variety of solutions from different centres. Often candidates from the same centre created databases with very similar structures, as might be expected. However, where there were errors the same errors tended to be repeated throughout a centre.

Some candidates are wasting a lot of time showing normalisation and data dictionaries for the database. If the tables, fields, primary keys and relationships are correct it is implicit that normalisation has been completed prior to developing the database structure.

Most candidates identified 3 or 4 appropriate tables with most relationships. A large proportion of candidates managed to identify correctly the tables required this time. However, many did not create all the correct relationships and missed the 1:M of Customer to Booking where referential integrity was NOT enforced in order to allow for duplicate customer records. The optional relationship between the customer and booking table caused confusion, with half or more adding in a 'Free' customer to make their enforced relationships workable. This lost the candidate marks and is clearly very poor database design. Otherwise, there were examples of incorrect analysis resulting in unworkable keys and relationships, with a proportion of candidates correctly setting the composite key in the booking table.

There was some evidence of using wizards to check structures; this resulted in incorrect tables being introduced.

Validation was well done on the whole, where marks were lost they were 'easy' marks e.g. required fields on the last name, address and post code. Very few obtained the marks for restricting the date and time. A large minority applied a validation rule to the 'Ticket Printed' field which they had set as a number type, falling to recognise the Boolean data even though this was pointed out to them in Activity 5 of the exam paper.

Fewer candidates than in the past had pages showing very similar input masks for validation, though this was still the most frequently seen type of validation. Postcode validation/masking is still not done well, and resulted in problems with inputting test data in Activity 4 in many cases, or the wrong number of records being imported. Most candidates recognised that the seat position and types needed some kind of check, and used drop down boxes to display the choices, but did not seem to appreciate the need for 'limit to list' for combo boxes, or other validation for list boxes. More candidates than in the past (but still a minority) picked up the need for some presence checks, as clearly signalled in the scenario, but often failed to show clearly that these had been applied to the specific fields. Only a minority applied validation to the date and time of the trip.

Some candidates had validation text which did not marry up with rules they had attempted to create, for example, date and time set as a date/time format were

often misinterpreted as validation on the correct choice of date only being allowed. Many gave an input mask for customer ID which was inappropriate when the field had to be generated.

Overall, many candidates managed to gain 3 or 4 of the extra validation marks available, with a reasonable number managing 6+ marks.

There were fewer poor quality printouts than previously, but some candidates managed to achieve high marks for this activity whilst printing a small number of relevant pages, whilst others are still providing a large number of disorganised pages showing little of value, with a minority still producing pages of printouts showing 'how I imported the data'. There are no marks for explaining how to import records. It is enough simply to show clearly how many records have been imported.

Most candidates this time showed clearly how many records are in the various tables. When importing data into tables, too many candidates are still losing marks through not showing the actual number of records in a table at the bottom of the window. Because of poor structure candidates often ended up with too many records in their tables e.g. 46 customers.

Overall, a large proportion of candidates obtained 14 - 18 marks for the activity, with a few managing 20.

Activity 3:

This activity was well answered. Most candidates obtained marks for this activity even when relationships and tables were not correct in the previous activity.

However, far too much paper is still being generated for this activity. In one case a candidate produced 140 sheets to demonstrate the production of the Introductory Form and the Customer Screen. Candidates are asked to explain how the form works not a step by step guide on how to build the form or show all the VBA used. Examiners are fully aware that it is not the candidate generating the VBA code but Access, all the VBA is showing is that candidates can click on a button.

Surprisingly it is the 'easy' marks which are not being achieved on this activity, adding the logo and heading for the forms, this should be standard practice. Furthermore, too many missed buttons e.g. 'Quit' that were clearly asked for in the pre-release materials.

Nearly all candidates successfully created the initial form and gained the vast majority of marks. Most candidates were able to pick up around 10 marks for their Introductory screens, though most did not include the logo, company name and the purpose of the screen – they often managed one of these, but rarely all 3. Almost all included a drop down choice of date, time, direction and position of seat and a button to move to the next screen. A few decided the customer should enter their details first, or that all the information should be on one screen, in spite of the instructions in the exam paper.

Some candidates missed out on marks by explaining what the form would do from a technical angle rather than how the HCI worked.

The customer screen was less well done on the whole and there was a greater variation of marks compared with the Introductory form, with only a small minority

of candidates getting the marks for showing the required fields. Candidates often lost marks because the last name, address line 1, and postcode fields did not have NOT NULL validation applied. Most managed a drop-down box for the available seats, but the Adult/Child option was often missed or had been put on the previous screen. Most forms had Confirm and Cancel buttons.

The marks for queries and macros were harder to obtain, though the 'Free' seats query was often seen, though frequently not for the right table. Many candidates showed a large number of pages of queries for creating the time/date and seat options, together with a lot of pages for the creation of macros attached to the confirm and cancel buttons. It was difficult to give the marks for macros, as most did not manage to show the relevant detail that proved their macro was taking users to the customer form but there were still many good examples of it. The method of moving to the next form only if a seat was available (C2) was rarely seen.

Although many candidates generated the customer id, this was not always 1 more than the maximum. Generating the customer ID was often obtained by using a random number. This lost a mark as a database should always make sure that numbers cannot be duplicated. Using this method the customer number was being duplicated and lost marks for the candidate.

A substantial minority managed to show append and update queries but candidates are still losing marks through not showing all the information when screen printing queries and formula.

Most candidates scored some marks on this activity but some created a customer form which listed all records.

Some centres entries spent a lot of time creating forms which hadn't been asked for and went on to run out of time for the last activity.

Activity 4:
This activity was better answered than in the past. It was pleasing to note that candidates used the prescribed format for presentation, namely a **form** not a **report,** which they had done previously.

Nearly all candidates attempted this activity and showed all 4 sets of test data. Most candidates obtained at least 4 marks as there was usually sufficient evidence to show each person recorded on the forms. Many were able to get around 7 marks for this activity and a significant number of candidates gained full marks. However, some missed out on one or two marks because they didn't move error pop-up boxes out of the way so the test data were not visible.

In some cases the surname and first name were transposed at input leading to incorrect customer references.

Many candidates then went on to attempt to type the records into the table and it was clear where this was so, for example all uppercase or all lowercase for the text part of the customer ID, incorrect address. This was not what the test was about. It was intended to prove that the functionality of the database was correct and records were stored in tables automatically. An example was where one candidate typed in the answer *"as none of the test data was in the system, I had to enter it into the*

customer table . . .” Where candidates attempted to type the results into the table marks were not given.
In many cases, because of inappropriate validation and also lack of appropriate validation, the candidates’ solutions rejected the second set of data and accepted the third, or accepted the first three and had no spaces remaining for the last one.

This was particularly shown where candidates often missed the fact that Test 3 (Masters) had no post code and where records were typed in or correct validation not used, several marks were lost.

Some candidates lost marks because there was no evidence of the customer ID in the booking table therefore making it impossible to see if a record had been added. Others neglected to show all 4 in the booking or customer table. A small proportion had the wrong seat for the person e.g. Wilson in D04 instead of C28.

Where candidates had achieved a working database with appropriate validation, they went on to score highly on this activity.

Activity 5:
Most candidates who had managed their time well got onto this activity and it was well answered. They had followed the rubric stated and, generally, there were fewer pages to deal with than on some previous occasions.

There was very little evidence presented by candidates of what they had done to generate the report, information that would have gained no marks.

Where this task was attempted most candidates obtained at least 9 marks with 12+ not uncommon. Most had the date and time in large letters as required. However, a lot missed an ‘easy’ mark for having “Deer Valley Experience” on the ticket.

Most candidates managed to produce 4 tickets to a page, though a lot of efforts did not bear much resemblance to tickets. Many candidates failed to get the logo and trip title appearing on each ticket. Only a small minority managed to follow all the instructions relating to items which needed larger text.

Many ‘missed’ the records added when testing therefore losing a mark for not having all 11 tickets. This resulted in them producing 8 – 10 tickets. Very few obtained the marks for Child being printed on correct tickets.

However, there was evidence that entire centres had used word processing or desktop publishing software to create train tickets rather than printing them from a database report. These were not accepted by examiners; database reports only were given marks. As a result these candidates failed to score any marks on this activity. It is important that candidates screen print the report in design view as evidence that the report is generated within the database software.

Several candidates produced reports that were not clear tickets again resulting in a loss of marks.

One or two candidates produced mail merged letters to the customers which was not asked for and therefore wasted their examination time.

Some candidates, fewer than previously, lost marks through screen prints of the report instead of actually printing it. Others produced a report simply listing all the

records in the system; others listed the reports which required tickets without producing an actual ticket layout. These did not gain any marks. It is important candidates follow the rubrics given not what they think they are or what they might consider to be a suitable alternative.

Administration

Responses were not always supplied in the way required. Centres should be aware that examination documents are considered to be the e-portfolio described in the Standard Ways of Working (SSW) section of the specification (practical restrictions mean it is not possible at present to accept the examination work in an e-portfolio). Not having output correctly labelled or in the wrong order is considered to be not "creating an appropriate structure". Marks are awarded for Standard Ways of Working and candidates may lose these if their materials are not labelled or badly ordered.

All printouts should be attached to the cover sheet via a **single** treasury tag to the hole available in the top left corner of the inside of the cover sheet as shown in the instructions. There should be no need to punch extra holes in the cover sheet and the treasury tag should be passed through the cover sheet and the printouts only **once**. The instructions are clear and the examiners would be grateful if centres could remind candidates to do this. Candidates should not include rejected work.

Candidates are still not assembling the folders correctly and the more paper that is generated the more difficult it is for candidates to hole punch and keep in order the hardcopy evidence. Too many candidates lost both the SWW marks because their script was incorrectly compiled. Many failed to complete the script correctly or added unnecessary (and sometimes blank) sheets also depriving them of SWW marks.

Double sided printing, whilst environmentally laudable, makes marking very difficult.

Candidates are still attempting to enter the header/footer by hand. This is not acceptable. It should be noted that in future series candidates work submitted without correct headers/footers will not be given the marks for that sheet as it is proof of authentication. Where headers/footers are missed it is generally on Activity 5.

There were a few cases of candidates printouts being on paper that had been put through the printer again and therefore had other things printed on it. This practice should not occur as it could deprive candidates of SWW marks.

A number of centres were late in posting off candidates' work. Centres need to ensure that work is sent off immediately to the examiner once the exam has concluded.

Principal Moderator Report 2009

Unit 8: Managing ICT Projects (6958)

General Comments
Marks from 1-58 were seen and it was pleasing to see a good number of candidates achieving marks in the 40s and 50s.

It was also good to see more centres addressing the specification for this unit and demonstrating more understanding of the unit requirements. However, in many cases the evidence was placed in too high a mark band. This was particularly the case for strands c and d. The Assessment Guidance on pages 136-138 of the unit specification gives clarification on how to award the marks for the 3 mark bands for each strand.

It was disappointing to note that many weaknesses identified in previous Examiner's Reports for this unit had not been addressed. Centres are strongly advised to read the previous reports, particularly the one for Summer 2008.

There were still candidates not converting files to the correct format and this seriously disadvantages candidates who had not converted project plans into html or pdf format and submitted them in the format of the project management application used. Such evidence cannot be moderated.

Many candidates had used this unit to project manage the product of another unit; in most cases units 10 or 11. Some candidates had produced database products which enable them to acquire the skills needed for unit 7. Both approaches are effective ways of addressing this unit. However, it did appear that the documentation for this unit was created retrospectively in some centres. Reverse engineering this unit does not enable candidates to access the marks available in the strands effectively. It also appeared that some candidates had not been allocated the recommended amount of time for this unit which, again, meant that the strands were not properly addressed. Guided learning hours are clearly stated on page 2 of the unit specification.

Some candidates produced combined eportfolios which did not have clear links to each separate unit which is essential in order for the evidence to be properly moderated. There needs to a clear link to the product produced. When combining with another unit, there needs to be 2 separate CDs sent to the relevant moderator.

There was still a sizeable number of candidates trying to produce the same evidence for strands a and e when combining with units 10 or 11. This has been commented on before and centres are strongly advised not to take this approach. The strands are very different for the units concerned and carry a different mark allocation.

All candidates are required to be a Project Manager and manage a small scale software project themselves. There were some instances of group work being undertaken and there was also evidence of the Assessor leading the group. Such an approach does not address this specification.

There is still evidence of writing frames and templates being used in centres which do not enable candidates to demonstrate an independent approach which is required for the higher mark bands.

Many candidates produced very ambiguous evidence relating to dates. The handover date of the finished product and deliverables to the client should be agreed with the client and finalised in the Definition of Scope and used in the plans. This date should not change and the project should be managed so that this date is achieved. This date should be an exact date which includes the day, month and year and not just a general date of a month only.

The evidence for all strands is very interlinked and candidates who realised this produced better evidence and addressed this unit more effectively.

Comments on Strand a

Most candidates are submitting two documents for this strand, ie a Project Proposal and a Definition of Scope. However, it is clear that many do not understand the difference between the two documents and include similar evidence in each. Not all are presented in a format suitable for the audience. The Project Proposal addresses 8.3 of the unit specification and is the initial document setting out the proposed aspects of the project and is addressed to the Client. Good practice is for the candidate to evidence the "go ahead" by the client prior to drawing up a detailed Definition of Scope. This document addresses 8.4 and 8.2 and lays down the detail of the project to the client and stakeholders. Few candidates successfully addressed the Impact on personnel and practices. Candidates appeared to be confused as to the risks to the project and often listed risks to the product once handed over rather than those that could prevent the handover date being achieved. A number of candidates failed to define the role of the stakeholders to be used as listed in 8.2. Many did not list interim reviews and some included screen shots of the final plan which does not demonstrate the Definition of Scope was produced prior to the implementation of the project.

Comments on Strand b

It was pleasing to note that most candidates had used project management software to evidence this strand which is clearly stated in 8.7 of the unit specification. A range of suitable software was seen which included several different packages that can be downloaded for free from the Internet. A few candidates are still using spreadsheet software which limits their achievement.

Few candidates categorised the risks according to their likelihood/impact on the project. Those that did this well included a separate document detailing these clearly and usually in a table. Most candidates did include some leeway/slippage/contingency time in their plans to account for risks although this was not always built into the plans in a sensible way. There were even some instances of this being shown in the plan after the handover date to the client.

Many candidates neglected to clearly state the handover of the project to the client in the actual plan and some were confused with the submission date of their eportfolio which is not relevant to the plan.

Not all plans took account of the phases of the project as shown in 8.6 and some plans were merely lists of tasks with no mention of reviews, use of stakeholders. 8.7 clearly indicate what should be included in the plan.

Most candidates produced more than one copy of the plan which is a requirement to access all the marks in MB1. Unfortunately few explained the changes made or made any reference to the plan in the evidence produced for strand c.

Some candidates did not appear to understand the project should be managed to a date agreed with the client and that other aspects needed to be changed to enable this to occur. Many timescales were not realistic.

This strand was evidenced well when candidates produced a log explaining what had occurred and provided a link to the current version of the plan and often also relevant communication with the stakeholders including minutes of meetings.

Comments on Stand c

This strand carries 20 marks and there are several aspects to be evidenced if candidates wish to access all of them:

- Communication with a range of stakeholders – see 8.2
- Different kinds of communication, eg different kinds of meetings, quick conversations (face to face, telephone, email etc), peer and end user testing etc
- Progress reports

This strand was often generously assessed and marks awarded in MB2 and MB3 although not all aspects required for MB1 had been addressed.

Many candidates only produced minutes of meetings and no other form of communication, some of these were with only one other stakeholder. Many meetings referred to the product and made no reference to the progression of the project against the current version of the plan. A high number of candidates listed stakeholders in strand a but did not appear to use them in the implementation of the project.

Although agendas and minutes were usually in evidence, many documents were poorly presented both in layout and content. There were many minutes with no attendees listed, or a date or venue given. There were often several minutes at the start of the project and no reviews in the middle. Not all candidates included an End of Project Review Meeting with all stakeholders once the product had been handed over to the client.

Many candidates failed to understand the importance of Progress reports. Ideally these would be reports presented by the Project Manager to the Stakeholders at Review Meetings. The reports should explain where the project is in relation to the plan and look at any changes needing to be made to ensure the handover date will be met.

The evidencing of informal communication was ignored by a large number of candidates and some produced content of emails but no proof of any sending and receipt of such communication. Those candidates that did evidence informal communication often just submitted one or two emails or memos from the candidate giving the date of a meeting. It would be expected that informal communication would relate to various aspects of the progression of the project, eg informal testing sessions with peer testers, informal chat with Senior Manager about some aspects of the progress of the project, contact with Client to check something etc. Some candidates produced diaries/logs detailing all contact with stakeholders with a link to any related documents. This was often very effective.

The Examiner's report for June 2008 gives further guidance on how to evidence this strand more effectively.

Comments on Strand d

Many centres appeared to mark this strand on the quality of the product, not taking into account whether it was produced using project management methods. The product produced needs to be included in the eportfolio and also needs to reflect A2 standards. However, the marks are determined if the product has been project managed effectively and is handed over on the agreed deadline. It is important the date agreed with the client in strand a for the handover of the product and deliverables is met. There may be changes in the dates of some of the activities while the project progresses but these are changed to ensure the end date is kept to.

There was evidence of plans not being used and end dates changing. There was also evidence of products being handed over well in advance of the date with no explanation. Evidence such as this does not support this strand.

There should be correlation of the progress against the plan. This should be evidenced by the updated plans and explanation produced for strand b and the progress reports and other communication submitted for strand c. Many candidates neglected to evidence this well. Many minutes contained no reference to the plan and, although there were often updates to the plans, the explanation of why the changes occurred was often not there.

Few candidates clearly evidenced the handover to the client and many neglected to clearly state this had happened in a handover meeting to the client or in the final end of project review meeting. Some candidates did evidence this well by producing a handover document which the client completed which included the date, signature and sometimes some feedback.

Some candidates produced evidence in their evaluations which addressed some aspects of this strand, eg evaluating against the objectives stated in strand a.

Comments on Strand e

Some candidates produced one evaluation to cover this unit and either unit 10 or 11. In these cases the evaluations rarely addressed this unit. Centres should ensure that all candidates produce separate evaluations addressing each unit properly.

Not all candidates held an End of Project Review Meeting which meant that the marks for this strand could not be accessed. Many that did hold such a meeting, failed to obtain and record feedback from the stakeholders which limited the achievement to MB1. Even when feedback was obtained, it was not always relevant to the requirements of this strand with, more often, comments on the actual product rather than the effectiveness of the management of the project. Very often the assessment was very generous and candidates placed in too high a mark band. Centres would be well advised to ensure candidates understand the importance of producing an agenda for the final meeting that enables them to obtain the relevant feedback from all stakeholders used which means this strand can be addressed effectively.

Comments on Standard Ways of Working

File management - Some candidates did not use an obvious link to open the eportfolio. Many candidates did not use a good folder structure with the result that it was not always easy to locate the link.

Quality assurance - Many candidates did not proof read and spell check their work thoroughly.
Eportfolio - There were instances of evidence being submitted in incorrect file formats, ie Word and various project management file formats. Candidates are required to convert all evidence to accepted file formats for this unit, ie html or pdf. Some eportfolios exceeded the file size of 20 Mb.

Comments on Administrative Procedures
A significant number of centres submitted the work after the deadline of 15 May. It would appear that not all centres had referred to the document: "Moderation of ePortfolios" which can be located on the "Guidance to Centres" section of the Applied GCE ICT section of the Edexcel website.

Most centres named the eportfolios with the correct naming conventions but many did not do so for the naming of the e-sheets. Most centres provided candidate authentication in the form of individual sheets scanned on to the CD or provided hard copy format of these or a signed printout of the submitted marks.

There were some instances where the work was submitted on a DVD instead of a CD which is the requirement. Some of the file sizes exceeded those stated and the file size for each unit can be found in the above document. There were a few instances where a CD was submitted for each candidate which is incorrect. The requirement is one CD per unit containing all eportfolios and related documentation.

The e-sheets were not always well completed. Some marks did not total correctly and/or did not correspond to those on submitted on line. Some e-sheets only contained marks and no feedback to explain the assessment decisions made. Very often the feedback was general comments which were copied and pasted into all e-sheets without any attempt to relate to the candidate in question.

Some centres submitted unlabelled CDs.

Centres are reminded that one CD per unit is required. Some centres used this unit to project manage the product for another unit, usually unit 10 or 11. This is a sensible use of resources but one CD per unit is required as internal checking processes mean that the CDs are often sent to different people although the Moderator may be moderating both units.

Principal Examiner Report 2009

Unit 9: Communications and Networks (6959)

General Comments
There is no need for centres to send research material to the examiner, such material must be kept securely at the centre until after the results have been published.
Most centres adhered to the ICE document guidelines which prevents candidates access to the Internet and any electronic storage during the question response session, but there were several instances of text which appeared to come from Wikipedia, Webopedia and other web sites. The verbatim nature of the text raises the question of supervision standards and whether or not text answers had been literally copied and pasted.

The case study is released well before the examination but a disappointingly large number of candidates seemed to be unaware of its content. Items which were specifically mentioned, e.g. the private telephone network and existing equipment, were ignored and marks were lost because of that.

Activity 1 – Benefits of networks
Notes for George which describe six benefits of a network which would apply to the Tulip and Hyacinth lines.

Candidates generally did well in this task. Most candidates were able to identify benefits and write relevant notes about them. However, the Activity asked for benefits that would apply to the Tulip and Hyacinth lines, too many candidates ignored this requirement to the extent that the railway was not even mentioned. These candidates lost marks

It should be noted that in future examinations, answering questions in the context of the case study will become more important.

Notes for George which explain how four of the benefits would save money and which indicate how these might save a minimum of £5000 over a six year period.
Most candidates could identify two or three cost savings but calculations were usually missing. Very few candidates were able to demonstrate how the £5000 might be saved.

Activity 2 – Network design and connectivity
A document for George which describes three differences between DSL and ISDN.

A large number of candidates seemed to use the same source of information about DSL and ISDN. The similarity of answers raises the question of supervision standards and whether or not text answers have been literally copied and pasted.
Most candidates described the difference in data transmission rate, but after that too many went down the road of operating costs and ISP charges. Thus ignoring the existence of the private telephone system.

A document for George which states the hardware required for each option.
This was generally poorly answered, with candidates unable to identify much more than modems or routers.

A document for George which recommends, with a justification, which one he should use.

Most candidates answered this well and were able to justify their choice in terms of their answers to the preceding sections of the Activity.

Activity 3 – Components of a network

Produce a table which identifies the hardware and cabling**,** state and justifies the quantities, give a reason and cost for each component, and shows the total cost of the design.

This was a question where many candidates achieved a high mark. All candidates could correctly identify several relevant components for the network although too many lost marks through not having enough of particular items. PCs, printers, and cable were frequently under the amount needed.
Prices were usually sensible, the total was nearly always given and was usually below the given budget.
Only a few candidates appeared to have done the research needed to identify WAN specific items such as repeaters and a DSLAM. In fact many candidates seemed to think that the WAN was going to be operated over the Internet using the public telephone system.

It should be noted that in future examinations, the research of information in the context of the case study will become more important.

A document explaining how two of the components comply with the requirements that the system be robust, reliable, easy to maintain, easy to use, and value for money.

Most candidates attempted this but few did it well. The choice of item was often inappropriate, making it difficult to match the requirements. Answers tended to be vague and generic rather than specific.

Activity 4 – Network design

A design for the Daffodil line network with notes justifying each major decision.

Most diagrams were clear and well labelled, although nearly all candidates lost marks by not identifying cable types. There were fewer instances of servers being used as hubs and equipment was usually placed in sensible locations. The Broughton Park layout was usually complete or just missing one office. The stations were usually present, although frequently missing the chip and pin card readers. Few candidates had WAN elements such as repeaters and the DSLAM, and only a handful showed the telephone exchange, even when the telephone line connections were identified.

The notes justifying each major decision frequently ended up being notes describing the layout or notes repeating what the case study said should be done.

Activity 5 – Network addressing and protocols
Technical notes for the signals and telecoms specialists to include an explanation of the network class and why it was chosen, a reason for using DHCP and how it might be used.
Most candidates identified class C and were able to justify the choice in terms of the network size. The function of DHCP was understood but only a few candidates related its use to the scenario.

An identification method used other than IP addresses and why it is needed.
The majority of candidates identified MAC addresses but the requirement for MAC authentication over a WAN was not understood.

How the Daffodil line WAN maps to the standard OSI model and the protocols used.
This section was frequently left out. Those candidates that did attempt it simply gave descriptions of the OSI model with little or no attempt to isolate the layers that are used in WAN operations.

An identification scheme, with an indication of IP addresses and other identification.
Although there were some good answers to this Activity, the majority of candidates simply listed IP addresses with little or no explanation. There was rarely any indication of static or dynamic status and the stations were often treated as an extension of the Broughton Park LAN rather than as separate LANs in a WAN.

Activity 6 – Network management
Six network management tasks for the network manager of the Daffodil line network. Five other tasks where the network manager will train the volunteer network managers.

This is another activity where candidates lost marks by ignoring the context of the case study. Most candidates could identify tasks appropriate for the Network Manager and the volunteer, but in too many cases there was inadequate description of what those tasks would involve. Candidates often failed to differentiate between the sort of activities involved in training a network manager and those involved in being a network manager.

Candidates also frequently envisaged the volunteer workers spending much of their time surfing the internet, visiting inappropriate websites and "abusing the network" through overuse of social sites, once again misunderstanding the context of the scenario.

Standard ways of working
Most candidates gained both marks, with few marks being lost by putting work in the wrong order or not completing the headers and footers as required.

Before every examination series an 'Instruction for the Conduct of Examination' document is published on the Edexcel website. This document gives guidance to centres about the location of the pre-release scenarios and datafiles for each tested unit and the conduct of exams. Centres must read this document before the examination window.

Issue 2 of the specification and sample assessment materials have now been released. Centres should be aware that the revised specification will be examined in May 2010.

Principal Moderator Report 2009

Unit 10: Using Multimedia Software (6960)

General Comments
There has been a marked improvement in the quality of the products produced and in the method of presenting the products. However, some candidates are still producing a web site, which is not what the specification requires, although the product may be accessed via a browser. Many candidates produced a product that did not have a timeline; this is an essential element of a multimedia experience.

Other areas of weakness in this unit resulted from the fact that some centres submitted combined unit 8 and 10. Consequently, candidates did not always address the need of a proper functional specification. Focus was often on the Proposal (for 6958).

Comments on Strand a
On the whole Strand A was completed and assessed better than it had been in previous years, however, the measurable criteria are still vague and in some cases related to the deadlines from unit 8 rather than the functioning of the product itself.

Many of the candidates attempt to describe the context, purpose of the product and the intended audience. However, in some cases these were fairly brief. In many cases, the learners did not describe how they would distribute their finished product.

In most cases, the measurable success criteria by which the finished product was to be judged, were not measurable e.g. no specific measures such as 'produce a 30 second video clip for the opening splash screen'. To reach MB3 candidates must include clearly measurable criteria. Better candidates had a "real" end user for the product and could therefore produce a detailed functional specification for the client.

Comments on Strand b
Designs were often retrospective and candidates did not improve on designs even when they had gathered feedback on them. There was still limited design work related to the actual multimedia components of the product. Candidates gave a brief outline of the page layouts they did not always indicate the use of either original or ready made multimedia components. The best candidates produced comprehensive designs including designs for the multimedia elements.

The changes between prototypes tended to be cosmetic and again not really addressing the prototyping of the multimedia elements. Effective prototyping is not merely showing the progress of a product from start to finish; but more about producing the product, testing it, making modifications, testing it, listening to feedback, modifying and updating it.

It is expected that, although the actual product may be linked using html it should have elements which combine interactivity, a timeline and the use of video and animation (both ready-made and original multimedia components).

In a minority of cases, the candidates failed to produce a product which had any real multimedia aspect to it.

Comments on Strand c
Candidates are required to produce a working multimedia product that will function fully away from the development environment. Most met this aim within the context of the ePortfolio, from where the product should be launched for the purpose of assessment.

Most of the products included sufficient multimedia content to be suitable for this strand. The quality was variable with some very professional products.
Better candidates managed to achieve higher mark bands by using software involving the use of timelines. Better products included video, sound and animation that were clearly the candidates own work. These products followed a timeline where actions take place in a planned sequence with appropriate interaction by the user at the appropriate points

Where the products were fully working and comprehensive, there was little need to have supporting instruction manuals. In many cases these products were so well-developed that starting instructions only needed to be minimal.

There were still a number of centres who produced web site based products with links leading to additional pages usually the site contained many pages of text with the odd image or read made video clip. In such cases candidates failed to achieve higher marks because they simply created a website with little in the way of multimedia.

Comments on Strand d
A range of testing evidence was seen, some good evidence where candidates provided a table showing results as well as screenshots, other used a minimal approach where it was obvious that the product had undergone little if any testing.

There was little feedback from others, apart from the prototyping stage of the project. Involvement of others was very poorly evidenced and making use of any feedback, during testing was lacking.

Most candidates did not show any real evidence of formative testing with many simply producing evidence of simple tests for most of the main elements. Better candidates related final testing to the functional specification or the client's requirements.

Comments on Strand e
Evaluations were often narrative rather than reflective. Better candidates would identify strengths and weaknesses and discuss the effectiveness of the final solution, it was also evident that they had used feedback gathered from the testers.

An assessment of their strengths and weaknesses was also vital for this Strand and this was sometimes either missing or weak.

Candidates combining this with unit 6958 often produced evaluated comments on both units together which meant that they were not focusing on the specific requirement for unit 10. Sometimes project management techniques were evaluated instead of the final product, it is important that the candidates are aware of the

different requirements of the evaluation for this unit. This unit requires the product to be evaluated; unit 8 requires that the project management be evaluated.

Principal Moderator Report 2009

Unit 11: Using Spreadsheet Software (6961)

General Comments

A large number of centres submitted eportfolios for moderation this window with marks awarded ranging from 1 to 56. There were many examples of outstanding work, particularly the spreadsheet products, and it was interesting to note that these were individual candidates at centres rather than entire cohorts. Conversely, there were still instances of incomplete and inadequate portfolios and spreadsheet products which fell well short of the standard expected of the unit.

The requirements of unit 6961 are clearly defined in the unit specification with the assessment criteria indicating the primary focus of the work to be submitted and the assessment guidance explaining how and where marks are accessible and to be awarded. Comprehensive Examiner's reports on 6961 have been published several times and on each occasion the main weaknesses in centre and/or candidate interpretation and approach have been identified. The A2 units are now well established and it is disappointing that there are still centres that do not appear to have considered and implemented the main points of the above mentioned documents and/or taken advantage of the other systems in place to support them and their students.

Fundamental to the unit is the spreadsheet itself and it appears that some centres still fail to recognise this. Unless the spreadsheet product meets the minimum requirements of the unit the impact is considerable. 11.1 of the course specification states "spreadsheets are used in all sorts of contexts for tasks involving the analysis and interpretation of complex numerical data, such as: modelling; statistical analysis; cost-benefit analysis; simulation; forecasting; budgeting and planning". Assessment evidence (b) states "appropriate use of functions and formulae to analyse complex data". Both of strands (b) and (c) use the phrase "technically complex spreadsheet". The design, prototyping, development and testing of such a spreadsheet is required to fulfil the requirements of this unit. If this process is fully completed, all strands of the unit will be addressed and, by definition, a good grade secured.

Although the numbers appear to be reducing overall, it was disappointing to see that many centres and/or candidates had not addressed the abovementioned issue of complexity and had produced solutions that did not reflect A2 standards. These candidates were not able to access many marks in any of the strands. The number was lower than in previous windows, but some centres and/or candidates are using Visual Basic - and particularly user forms - to address the issue of complexity. More often than not, this approach does not address the unit 6961 requirements well.

As reported in previous Examiner's Reports, there are still instances of a very structured approach being taken at centres to the production of the material for assessment and moderation. In many cases not only was the structure of the portfolios identical but so too was much of the content, including the spreadsheet artefact. Whilst it is quite acceptable to provide a generic scenario/assignment brief to candidates, such material should be sufficiently open ended to enable candidates

to adopt an independent approach to devising a unique solution – essential to access the higher mark bands.
Many centres had used the created spreadsheet solution as the project for Unit 6958. This is recognised as good practice but centres should ensure that candidates address the requirements of both units and clearly differentiate between the two sets of evidence – the documentation is not necessarily interchangeable.

Comments on strand (a) – Functional Specification
Section 11.2 of the unit details the nature and contents of the requisite functional specification. The majority of candidates addressed this strand well. As in previous windows, the main omission/weakness was the incorporation of how the effectiveness of the solution would be judged; candidates still having problems presenting measurable success criteria. It is quite acceptable for the functional specification to develop – following discussions with a client for example – and for various versions to be submitted. However, as reported on numerous occasions, far too frequently it was apparent that a 'reverse engineering' approach had been taken to the production of the functional specification and this restricts the marks available.

Comments on strand (b) – Design
The design work and its presentation remain the weakest and most problematic area of this unit. 11.3 – 11.9 of the unit specification details the aspects to be considered when candidates are designing their spreadsheet product. Although candidates often incorporate some, or all, of these aspects in their spreadsheet product they often fail to identify and acknowledge them in the design work.

At this window all too frequently a 'reverse engineering' approach was apparent and, as mentioned, this restricts the marks available. There were innumerable examples of screenshots from the finished product with accompanying commentaries on decisions made and processes undertaken being presented as design. Candidates seemed unwilling or unable to outline their initial ideas in relation to the incorporation of complex functions and formulae, future proofing, validation etc and/or documented their development through prototyping. Innumerable candidates failed to include, or mention, prototypes.

Comments on strand c – Fully Working Spreadsheet Solution
To be able to access this strand fully, candidates must include evidence to show that they have produced a "technically complex working spreadsheet" to meet the requirements of the Functional Specification. The worksheet itself is expected within the portfolio, some candidates failed to include their product at this window. Although becoming less frequent, as mentioned above some centres are addressing the issue of complexity by incorporating extensive use of Visual Basic. The resultant product is often far more appropriate for Unit 6912 (Customising Applications) than this unit. Some limited use of VB is reasonable, for navigating between worksheets for example, but moderators cannot be expected to examine code to establish use of formulae.

It was very disappointing to see that, despite all previous reports in this respect, a significant number of candidates are still evidencing little beyond level 2 skills in relation to functions and formulae used – this restricts marks available. Those most frequently used - If statements, vlookups and 2 cell formulae - are insufficient on their own in this context.

At this particular window there was a surprisingly high number of potentially very good spreadsheet products presented as templates, devoid of numerical content; many others were text based and much more suited to alternative software. Neither of these approaches is appropriate, as they cannot reflect a fully working spreadsheet and preclude the opportunity to demonstrate analysis of complex data.

The majority of the User Guides were very nicely produced and presented. Many though did not fully demonstrate the facilities within the spreadsheet, a notable omission always validation and associated error messages.

Technical Guides are often presented as "how to" documents rather than identifying "behind the scenes" aspects of the spreadsheet produced. It was particularly noticeable at this window how many candidates failed to submit one or other, or both, of these documents.

Comments on strand d – Testing

As in previous windows, much of the testing carried out concentrated on elements such as navigation facilities rather than the spreadsheet itself. Candidates did not appear to appreciate the relevance of prototypes to this strand. The majority of candidates did not include prototypes within their portfolios.

Candidates should be discouraged from just submitting test plans and/or long Word tables which merely describe tests. These should be supported by screenshots showing direct evidence of tests having been undertaken, eg testing of validation using test data. A structured and rigorous approach to each test would be evident where candidates have addressed this aspect well – incorporating acceptable, unacceptable and extreme data.

Summative testing could include "end users" working through the User Guide to see if they can make effective use of the spreadsheet produced and/or a peer reviewer working through the Technical Guide.

As well as functionality, the testing should evidence that the spreadsheet meets the requirements of the Functional Specification. The design of the spreadsheet and features and facilities may well change during development; if so, the candidate should explain the changes by referring the process back to the "client" requirements and the evidence produced for strands (a) and (b).

Comments on strand e – Evaluation

There were few good evaluations presented at this moderation window. Many candidates presented commentaries on processes undertaken and problems encountered rather than evaluating the finished product in relation to the stated requirements and addressing all three aspects of the strand.

The evaluation should relate to the initial requirements and good evidence produced for strand (a) enables a candidate to do this effectively. Many candidates were not able to identify or explain shortcomings of their final spreadsheet.

A considerable number of candidates struggled to evaluate their own performance. Assessing their skill level at the outset and reviewing the skills obtained through undertaking the unit can help candidates evaluate both their skill level and their performance.

Principal Moderator Report 2009

Unit 12: Customising Applications (6962)

General Comments
Most centres submitted the sample required on one CD and included the e-sheets and candidate authentication sheets all labelled according to the correct naming conventions as detailed in the document "Moderation of ePortfolios: Guidance for Centres". Many candidates' eportfolios were in the correct file formats, within the stated file size of 25 MB and most contained a clear index file which started the eportfolio. It was good to see many assessors giving clear feedback in the e-sheets explaining the assessment decisions made and marks awarded.

Although most candidates addressed the strands correctly, there are still instances of candidates being placed in too high a mark band for the evidence produced. The Assessment Guidance on pages 203-205 of the unit specification gives clarification on how to award the marks for the 3 mark bands across the 5 strands.

In a few instances there was evidence of centres adopting a very structured approach with all candidates producing very similar evidence. Whilst it is acceptable for the Assessor to act as "client" and give the same brief to all candidates, the brief should be sufficiently open ended to enable candidates to adopt an independent approach to a solution – as is required for the higher mark bands.

Comments on Strand A
Good evidence in this strand facilitates effectively addressing the requirements of all the other strands. Some candidates address this strand very well but, as in previous windows, the majority failed to include details of how they would "judge the effectiveness of the solution" by presenting measurable success criteria. Some tended to list input, processing and output without giving any background information i.e. the context of the problem.

Comments on Strand B
Those candidates who address this strand well have detail and clarity in their objectives – strand (a) – and generate prototypes, produce evidence of liaison with a client, develop the product following feedback and fully document the entire process.

At times however candidates present details of what they have done rather than what they plan to do including screenshots of the final product and/or copies of final programming code. A copy of the final code is not pseudo code. Screenshots of the final system are not design. Others consider design to be a collection of hand drawn screen designs with little attention to the programming aspects that are so important and, at times, little or no evidence of prototyping. In this unit it is important that we see how the programming is going to be done. It would be difficult to gain the higher mark bands without some kind of structure diagram or process specifications such as flowcharts or pseudo code.

Comments on Strand C

Most centres are providing projects which are suitable for A2; however there is evidence of candidates being placed in too high a mark band for the evidence present. Standard ways of working are important in this strand too. The programming code should include good use of indentation and comments clearly explaining the purpose of the code and clearly showing where candidates have written/modified code to include at the very least iteration and selection moving to different types of selection, iteration and a sequential search to (for the highest mark band) amending information using a sequential search. At times moderators found it very hard to see what code had actually been written by the candidates and what had been generated using wizards etc. If a candidate has not written code themselves to cover selection and iteration then the product cannot be classed as A2 Level. The user and technical guide should also be taken into account here when awarding marks. The candidates should also include a working version of their solution.

Comments on Strand D

If the candidate has good measurable objectives in their specification this section is fairly easy. It only becomes complex if the program is not specified well. Evidence of some of the successful tests should be shown and for the higher mark bands there must be evidence of testing using a good range of data to test boundaries ie normal, out of range and illegal. Good evidence will specify what the test data is. There is no penalty if the program works perfectly.

Comments on Strand E

Evaluations are still weak. At A2 there are a significant number of marks for evaluation and many candidates are missing these. Again, a good functional specification with clear objectives and success criteria really makes a difference here. It is also worth noting that for mark band one there must be evidence of the candidates commenting on the **effectiveness of their coding** and reaching some conclusion about **whether or not it was the best way to meet the requirements**. Mark band two requires **consideration of alternative solutions and the justification for the use of coding**. Mark band three requires **full justification for the use of coding**. Very few evaluations included evidence of any of this.

Principal Moderator Report 2009

Unit 13: Web Management (6963)

General Comments

There appeared to be a general improvement in this moderation window across several important aspects of the unit. This improvement resulted in a reduction in eCommerce sites, hosting reports aimed at clearly defined client's needs, standard visit strategies being used and assessed with site statistics, some very clever methods of capturing customer data, with a consideration of legal aspects, and a clear record of the eight week publication period. The quality of evidence and assessment was greatly improved from the submission seen during the January window.

It was particularly pleasing to see clearly written evaluations that did not boast of success using thousands of hits from several countries. Candidates work generally reflected an honest approach to the evaluation of performance, identifying reasons why the site had not been a raging success. This understanding is far more important than unsupported and unrealistic claims of success and must be celebrated. This good practice should be continued in future submissions.

There was an overall increase in the use of privacy policies, terms and conditions and data protection statements clearly demonstrating the compliance with legal constraints, and some effective utilisation of accessibility tools, especially WAVE.

This improvement could be generally attributed to the hard work of centres responding to feedback in Principal Examiner reports, centre feedback reports from moderation and advice given when using Ask the Expert service.

These improvements were not across the board, with the majority of centres that did not meet national standards falling in two categories.

The first category of centres appeared to have a lack of understanding about the depth of evidence required at GCE A2 level and a general misunderstanding of the requirements set out in the grading grid. These centres should investigate the INSET support service offered by Edexcel in order to gather more of a feel for the type and quality of evidence required.

Centres that provided structured work made up the majority of centres that did not assess to national standards. Several of these centres have been using the same assignment tasks for several years with the same result at moderation.

Centres need to understand that any assignments they create or buy in from a commercial source must present the candidates with the opportunity to meet all of the evidence required across all strands and all mark bands. Assignments need to be subjected to internal verification and reviewed each year taking account of comments in the feedback from moderation and Principal Examiner reports.

Candidates must be given the chance to show their individual skills and not be constrained to a set of step by step tasks. Several of the candidates appeared to rebel against these structured tasks, questioning their validity against the marking grid. Candidates often complained about being asked to carry out tasks that provided no evidence for the unit.

These structured assignments have been used for several years now and the need for review is crucial to improve the success of the candidates passing through the centre in future years. It is particularly important that all assignment briefs and scenarios be reviewed to ensure that they match the requirements of the revised specification.

Centres should review their assignment tasks at regular intervals and, in particular, review any tasks that produce the following type of evidence. The main problems seen with these structured assignments are listed below:

Comments on strand a

Reports often ignore the client. Without client needs, the candidate cannot justify their choice of host. Candidates do not show the URL and often publish to an Intranet that has a very limited audience. The evidence of testing is not supported by any screenshots and usually comes as a large table of link tests. Strand A also asks the candidate to discuss why the client needs web hosting. This is often forgotten with the candidate instructed to supply a comparison of several hosts only. Evidence of this nature is unlikely to gain marks from mark band two and above.

Comments on strand b

Several centres concentrate on the measures to make people return to the site rather than attract new customers. Many candidates discuss the use of conventional ways of marketing without authentic evidence that they were actually used to promote the site. Several tasks appear to show the candidate painting the side of a bus or commercial vehicle when it is obvious that an image application has been used. Several ePortfolios incorrectly show the use of brochures, advertising and letter heads as different types of strategy, thus failing to meet the mark band one requirement for the discussion of five strategies.

Many use page titles and meta tags, justifying their individual choice and claiming huge success. These strategies have been included in the list on page 213 of the specification because they are not very effective, thus presenting the candidate with an opportunity to critically evaluate effectiveness. The structured tasks often ask the candidate to discuss the effectiveness of the two implemented and not to measure the success. This restricts the candidate's marks to mark band two.

Candidates often present invalid strategies. Google Analytics, Hit Counters, e-mail links and voting polls are amongst the latest utilities that are being supplied as promotional strategies. It is very difficult to see how these can be used to increase the number of visitors to the site.

Comments on strand c

There is often no evidence of the form on an uploaded site and often no real evidence supporting that it worked. Candidates are asked to screen shot an email without testing that the actual objects on the form take in the correct data. Many of the structured assignments ask the candidates to produce the same active server page coding, save the data to a database and produce a mail shot. This is wasting precious time and provides little evidence against this strand.

Candidate's discuss legal aspects but do not include any feature that clearly shows that the site complies with legal constraints. This limits the candidate marks to mark band two.

Comments on stand d

Accessibility is generally misunderstood. ALT tags and colour schemes are a small part of the overall picture. W3C code validity testing is often used rather than a valid test for Accessibility. WAVE and Ask Cynthia are two of the most popular on-line testing utilities.

Few candidates had uploaded the site for the whole eight week period and then maintained it. The site should be complete before uploading to the Internet or an Intranet that has a large audience. Evidence of maintenance should then be supported by before and after screenshots clearly showing changes made to the content. Evidence of testing and checking hit counter statistics do not provide sufficient evidence of maintenance to access mark band two or above.

Technical documentation can be evidenced in strands A, B and C but it is expected that additional evidence is supplied towards this strand, such as folder structures, site maps, special code snippets, URL details and control panel passwords. Structured assignments often ask for a long list of similar headings to be discussed when they are simply not providing any further technical information.

Candidates are often asked to state the contents of legal laws and Acts rather than discuss how they are going to include or avoid features to comply with these laws. Candidates often present eCommerce and not eMarketing sites, despite several warnings about the legal consequences being clearly stated in previous reports and feedback from moderation.

Comments on strand e

Many evaluations read like a diary of events rather than evaluating the performance of the uploaded site and their own performance as a Web Manager. Many follow a writing scheme often repeating evidence from other strands and an abundance of graphs from hit counter statistics pages where a simple discussion of the statistics would suffice.

Principal Moderator Report 2009

Unit 14: Programming (6964)

General Comments
Most centres submitted the sample required on one CD and included the e-sheets and candidate authentication sheets all labelled according the correct naming conventions as detailed in the document "Moderation of ePortfolios: Guidance for Centres. Many candidates' eportfolios were in the correct file format, within the stated file size of 25 MB and most contained a clear index file which started the eportfolio. It was good to see many assessors giving clear feedback in the e-sheets explaining the assessment decisions made and marks awarded.

There were some good examples of challenging and sophisticated programs which were well designed and executed. However, although most candidates addressed the strands correctly, there are still instances of candidates being placed in too high a mark band for the evidence produced. The Assessment Guidance on pages 240-243 of the unit specification gives clarification on how to award the marks for the 3 marks bands across the 5 strands.

In a few instances there was evidence of centres adopting a very structured approach with all candidates producing very similar evidence. Whilst it is acceptable for the Assessor to act as "client" and give the same brief to all candidates, the brief should be sufficiently open ended to enable candidates to adopt an independent approach to a solution – as is required for the higher mark bands.

It is essential that a **full listing of the program is included** in the eportfolio. Preferably as a text document. Without this it is difficult for the moderator to follow the structure of the code. A **working exe copy of the program** should also be provided.

It is not a requirement for the candidate to produce the functional specification; however one must be included to enable a judgement to be made as to how far the design meets the specification.

Comments on Strand A
Stronger candidates produced designs that were linked to the functional specification, and it was clear that the design met the needs of the client. At times however candidates presented details of what they have done rather than what they planned to do including screenshots of the final product. Screenshots of the final system are not design. It is the level of detail within the design that leads to the mark band placement. For the top of the higher mark bands the design needs to be detailed with, at mark band two, explanations of how input data will be validated and at mark band three identification of the processing to be carried out in each event.

Comments on Strand B
Most centres are providing projects which are suitable for A2; however there is evidence of candidates being placed in too high a mark band for the evidence present. The evidence for this should be a complete listing of the program code and a working executable version of the program. Centres should ensure that the program does work on the CD prior to despatch.

Standard ways of working are important in this strand. With regards to programming code this includes good use of object names, indentation and comments clearly explaining the purpose of the code.

How the candidate uses code etc determines the mark band placement. Mark band two requires **appropriate** use of controls, event procedures, selection and repetition, local and global variables whilst mark band three requires **effective** use of the aforementioned and general procedures/parameter passing. Higher marks are hard to justify where candidates repeatedly use If..Then..Else statements where loops/case would be much more **appropriate** or where they repeat sections of code over and over again as opposed to writing general procedures to handle the tasks which would be much more **effective**.

Evidence for this should be in the form of a **complete listing of the program in text form, and a working executable version of the program** in a format that can be used by the moderator.

Comments on Strand C
If the candidate has good measurable objectives in their specification this section is fairly easy. It only becomes complex if the program is not specified well. Evidence of some of the successful tests should be shown and for the higher mark bands there must be evidence of testing using a good range of data to test boundaries i.e. normal, out of range and illegal. Good evidence will specify what the test data is. There is no penalty if the program works perfectly. It should also be noted that the program created must be sufficiently complex to achieve A2 level.

Comments on Strand D
Candidates must also include two separate documents i.e. technical and user guide. It is not appropriate for both documents to be in one file.

Comments on Strand E
There is evidence of candidates being placed in too high a mark band in this strand especially at mark band three. To achieve mark band three the evaluation must be well rounded and include an evaluation of both the quality of the user and technical documentation and the efficiency of the final program including data structures. These aspects were often missed though some candidates were awarded full marks.

Grade Boundaries - June 2009

6951	Total	A	B	C	D	E
Raw Mark	60	48	42	36	30	25
UMS	100	80	70	60	50	40

6952	Total	A	B	C	D	E
Raw Mark	60	48	42	36	30	25
UMS	100	80	70	60	50	40

6953	Total	A	B	C	D	E
Raw Mark	90	64	57	50	44	38
UMS	100	80	70	60	50	40

6954	Total	A	B	C	D	E
Raw Mark	60	46	40	34	29	24
UMS	100	80	70	60	50	40

6955	Total	A	B	C	D	E
Raw Mark	60	46	40	34	28	23
UMS	100	80	70	60	50	40

6956	Total	A	B	C	D	E
Raw Mark	60	46	40	34	28	23
UMS	100	80	70	60	50	40

6957	Total	A	B	C	D	E
Raw Mark	90	71	63	55	47	40
UMS	100	80	70	60	50	40

6958	Total	A	B	C	D	E
Raw Mark	60	46	40	34	28	23
UMS	100	80	70	60	50	40

6959	Total	A	B	C	D	E
Raw Mark	90	63	56	49	43	37
UMS	100	80	70	60	50	40

6960	Total	A	B	C	D	E
Raw Mark	60	47	41	35	29	24
UMS	100	80	70	60	50	40

6961	Total	A	B	C	D	E
Raw Mark	60	45	39	33	27	22
UMS	100	80	70	60	50	40

6962	Total	A	B	C	D	E
Raw Mark	60	44	38	32	27	22
UMS	100	80	70	60	50	40

6963	Total	A	B	C	D	E
Raw Mark	60	45	39	33	27	22
UMS	100	80	70	60	50	40

6964	Total	A	B	C	D	E
Raw Mark	60	46	40	34	28	23
UMS	100	80	70	60	50	40

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