GCSE

Edexcel Applied GCSE Information and Communication Technology (Double Award) (2331)

This Examiner's Report relates to Mark Scheme
Publication code: UG 017688

Summer 2006

Examiners' Report

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Unit 1 General Comments

This is the externally assessed unit for 2331. Examiners have reported some improvement in candidates' responses to many activities except database reports and searching. The production of a graph in the spreadsheet activity also caused candidates more difficulty than in recent series.

There continues to be an improvement in the use of graphics and importing text from data files. However, in contrast, more candidates seem to be relying on screenshots of results. Where screenshots of results are used with database tasks there is a danger that all data will not be shown. Within the final activity, screenshots of previous tasks were not suitable and did not gain marks.

Some examiners reported that the labelling of documents was not as good as previous examination periods, with candidates failing to include their details – and with many more attempting to use a database record or field in which to insert these details.

There was continued improvement in candidates recognising their ability and not attempting to complete all of the tasks in an activity before moving to the next. The majority of candidates did also check to see if there were later tasks that could be completed before moving on – particularly the case with DB5 and DB6.

Once again, examiners have reported a lack of attention to detail and awareness of target audience and fitness for purpose. This was compounded in this series by a lack of preparation for many candidates in preparing a report, which is a standard business document.

Candidates still appear not to check their printouts. This would have a number of purposes. By checking against the boxes on the examination paper, candidates would ensure that they have not omitted part of a task. By checking against the wording in a task, candidates could ensure they have correctly copied data from the examination paper. By checking details on the printouts, candidates could ensure that they do not submit work prepared by another candidate, which is still a problem within some centres.

Application of Skills

In this examination many candidates gained high marks in the spreadsheet and database activities where tasks are perceived to be more "mechanical". However, many candidates did not gain marks because they did not apply their skills to refine the documents and tables they submitted. This was particularly evident in the database report and the chart produced from the spreadsheet, both of which needed the inclusion of a suitable title. Titles were often totally omitted or irrelevant. Capitalisation was inconsistent and words mis-spelt. This included words that could be copied from the examination paper, such as "animals" and "postcode". In the database report a tendency appeared that has not been reported on before, namely customisation of the field names given by changing font and style rather than by giving suitable names.

The majority of candidates applied their skills in using presentation software in some form, although where candidates attempted to key in the data rather than copy from the data file they were generally not accurate. The word processing task was generally completed well, but examiners found responses to the word processing/desktop publishing activity relatively poor.

The specification (page 15), "Developing business documents", reminds centres of the need to prepare candidates to be able to apply their skills in this applied qualification. Candidates who had not specifically been trained in producing reports could have been expected to be able to make the necessary inclusions from the instructions in the question paper for Activity 5, which drew the whole paper together.

In many instances in the question paper, candidates are guided in a step-by-step manner through the tasks. Differentiation between candidates is often achieved by testing the ability to complete a task without this specific instruction. The majority of candidates coped well in this situation with task SP4, which required the use of the average function. There was less success with DP7 which asked candidates to create a relationship between two database tables but did not stress the importance of maintaining referential integrity.

Support Materials

The Activity Booklet, Candidate Pack, and Smarts Leisure Park website are available as tools for practice and to enable candidates to explore the practical use of ICT in a particular context. The Activity Booklet and Candidate Pack will not be updated but are still available on the Edexcel website. Centres should continue to encourage candidates to make regular visits to the website prior to the examination. Please note that the website will again be updated for the autumn of 2006 and will remain the context for future examination papers.

There are now a number of past papers, marks schemes and reports available to centres. However, centres should be aware that any aspect of the specification may be included on the paper and that past papers should not be heavily relied upon as a guide to the content of future papers.

Secure Environment

Centres are reminded that the ICE document states that computers must be set up so that candidates cannot access the Internet, local intranet or shared areas on the network, or e-mail during the examination.

A separate user area (on computers or servers used by candidates) must be set up for each candidate sitting the examination. These user areas must not be accessible to candidates at any time other than during the examination and up to half an hour after the finish (printing time).

Examiners have reported a number of instances during this series where candidates appear to have accessed the Smarts Leisure Park website and used graphics from the site. There have also been instances where it would appear that candidates are using files previously used by other candidates because unexpected changes have been made to data.

Time Management

Examiners comment that the majority of candidates continue to use their time effectively and in this series only a minority of candidates did not attempt all five activities.

Practice continues to be seen as a key issue in this. At least one full-length timed practice will help candidates to realise the pressures of a long practical examination. Where centres encourage candidates to label all work prepared for this unit it becomes "second nature" and helps prevent candidates forgetting to do this in the examination room.

Proofreading and Fitness for Purpose

Mention has already been made regarding the lack of attention to detail and awareness of target audience shown by many candidates. Examiners feel that, in general, few candidates check their work before and after printing and thus pick up on avoidable errors.

Usually, when candidates are asked to add a title to a document, there will be phrases within the rubric of the task which can be used and copied from the paper. There were two main instances in this paper, in DB3 candidates could have copied "Members who live in the SO86 postcode area" rather than, for example, "People living in post code SO86". For SP3 a suitable title would have been "Numbers of each animal seen in each 30 minute time period", rather than "Comparison of Max Smarts".

There was a general improvement in making capitalisation consistent and far less use of inappropriate WordArt, which was commended by examiners.

Many candidates continue to use wizards, which are perfectly acceptable tools, but over-reliance often leads to a lack of fitness for purpose when there is no customisation. Centres should remind candidates that many wizards are designed for American users.

In this series, many examiners noted that computer systems were not set up for UK users – for example, dates were set up in US format. This can also be a problem with spelling checkers in word processing software.

Saving Work

Examiners are concerned that candidates are not always saving tasks on their completion as instructed. Saving tasks on their completion enables candidates to revisit a task if they subsequently spot an error. In this examination, items from earlier tasks were needed for Activity 5 and candidates who had not saved their work were at a disadvantage.

Labelling Printouts

There continues to be a general improvement in the labelling of printouts. Although the database report continues to be the task which causes the most difficulty, many candidates in this series failed to correctly label their complete database activity. The method for database tasks that is most likely to enable candidates to gain marks is, except where stated, for a table to be copied and pasted into a word processing document and details entered into the document footer. Screen shots often do not show the complete data and when details are entered as a separate record in a table there is a tendency for these to then be sorted into the file.

Instructions relating to labelling appear on the Edexcel website, the ICE document, in hard copies to Centres, at INSET events and in the question paper. Centres must refer to the ICE document for each examination series and to the document 'Instructions for Labelling of Printouts' for complete information. The basic instructions for Labelling Printouts in January 2007 are shown in Appendix A, with examples of the wording of database tasks in Appendix B.

Printing

Unless otherwise instructed, candidates must print directly from the software. There was some increase this series in candidates providing screen shots of spreadsheet tasks.

There were fewer instances of candidates submitting more printouts than are required, although some candidates did submit two copies of each of the three slides in Activity 1.

Some examiners reported that candidates were disadvantaged where a centre had not checked that printers had sufficient ink. Some printouts were pale, others not readable.

Submission of Work

The majority of centres do now instruct candidates to collate work correctly, with printouts in task order within activity order, and with the first task printed side up.

Some concern has been voiced about the apparent delay in submission of work by centres, with some examiners not receiving batches until after the half-term holiday. The Instructions for the Conduct of the Examination (ICE) document does suggest that centres should plan to hold the examination as early as possible in the week of the examination window. Where candidates sit the examination on the Friday, centres must ensure that scripts are despatched that day and not retained in the centre.

Data Files and Software

The majority of candidates were able to access the given data files and there were very few instances of examiners reporting that past data files were available to candidates. Data files must be downloaded or created prior to the examination and stored in appropriate formats in the candidates' user areas. Centres must check in good time that file formats are readable using the software available in the centre.

Where files are created, centres must check that this is done exactly in accordance with the instructions given. Copies of centre-created files must be sent to the examiner with the candidates' work. When centres follow this instruction, if there is an error in file creation, examiners can credit candidates as far as is possible. All centres should make use of the "Instructions for Centres" provided with the data files.

The ICE document requires centres to tell the examiner which software is used by candidates. This is a mandatory requirement of the ICE document. Where the use of specific software is indicated a specialist examiner will be asked to mark the candidates' work.

Data files for the January 2007 examination will be published on Edexcel Online on 11 December 2006.

Unit 1 (5331) Principal Examiner's Report

Activity 1 – Using Presentation Software

Examiners have reported that this activity seems to have been accessible to candidates of all abilities, enabling them to make a satisfactory start to the examination. Candidates who imported text and graphics as instructed generally achieved a higher mark than those who attempted to key in the text. Higher ability candidates who recognised that the title from slide 1 could be copied into slides 2 and 3, and that the text box could also be copied with new text inserted, scored well. Most candidates made a reasonable attempt at following the storyboard. Many candidates scored full marks overall on this activity. Where marks were not gained it often appeared to be due to a lack of care rather than lack of skill.

Task MM1

Most candidates scored well. Most candidates made some attempt at a suitable heading, although some simply included "Slide 2" which was not acceptable. Candidates who keyed in the text often inserted "First Activity 2nd September 2006". Just a few attempted to reword the text completely which was not acceptable. Most candidates inserted a graphic rather than clip art. When the latter was used it was often difficult to see a relationship between the clip art and the text on the slide. The graphic needed to relate to the Teenz Club, the dawn nature trail or the date of this first activity. Only a few candidates failed to include the logo.

Task MM2

The majority of candidates included a title that was consistent, but again marks were not gained where candidates failed to enter text correctly. Where text was keyed, it often read "Dawn Nature Trial". Some candidates included the time as "5:30" rather than "5.30" or "5.30am" rather than "5.30 am". Few candidates retained sub-headings which were not needed. There were some inappropriate graphics and some candidates did not use a logo of a size that was consistent with slide 1. Some candidates did not gain marks as their graphics were the wrong size. The majority of candidates used graphics and logos that retained their proportions.

Task MM3

The majority of candidates presented three slides that correctly matched the storyboard, although credit could not be given where the first slide had text boxes which were not used on slides 2 and 3. Most candidates used a white background for all three slides, but some only changed the background for the two slides they created. Where candidates had copied text boxes from slide 1, the font and style used for text was generally consistent. Some candidates, however, "went to town" with Word Art and presented slides which definitely were not fit for purpose.

The majority of candidates correctly presented three slides of the same size printed two to a page, although some pasted screen shots into a word processing document which could not be awarded this mark. Some candidates failed to print the first slide.

Key Areas for Improvement

- import text from a text file into a slide presentation

- recognise the importance of copy/paste when replicating items to avoid inconsistency
- select graphics appropriate to a task
- use graphics and logo of consistent sizes
- check for consistent font and style
- do not use Word Art for presentations and business documents
- proofread and check for fitness for purpose
- remember the target audience

Activity 2 – Using Database Software

There were some positive comments from examiners, especially about data entry for DB1 and the simple searches in DB2 and DB6. Less positive were expressions of poor creations of the database report (DB3) and the copying of field names for the new table in DB4. Candidates varied by centre in their ability to create a relationship between two tables in DB7.

Task DB1

Many candidates correctly entered the data for the new Smarts Teenz member. There were fewer instances seen of the use of S085 rather than SO85. Common errors included incorrect spelling of Keema (including Kemma, Kerna and Kenna). Some candidates transposed FirstName and LastName fields. Few candidates used all lower case letters. Some candidates whose table possibly printed onto two sheets only submitted one sheet and did not gain one of the data entry marks.

More significant was the number of candidates who failed to sort the table. A significant majority sorted on the MemNo field, rather than LastName. The failure to gain marks here was compounded where candidates submitted a screen shot. This often did not show all the records and could not be awarded full marks. The majority of candidates ensured that columns were wide enough not to truncate the date – usually the LastName Blenkinsop or Christopher.

Task DB2

This was generally done well. The most common error was for candidates to present only the four fields needed for the report in DB3. Some candidates are now showing candidate details within the query name at the top of the table. Screen shots again caused difficulty where data was not clearly visible.

Task DB3

The database report continues to cause difficulty. There were a larger number of candidates than usual who simply re-presented a copy of the table created in DB2 and did not seem to be able to produce a report in any form. It is perfectly acceptable to use the wizard to assist creation – but the output from the wizard must then be customised. Candidates who submitted this task generally scored the marks for the records and the correct fields, although many included all 26 records.

Few candidates included a suitable title, which could have been copied from the examination paper: "Members who live in the SO86 postcode area". Spelling was a problem, with many candidates stating "post code". Capitalisation was also weak, with a typical example being "Members who Live in The SO86 post code Area". Quite often there was no heading at all on the report, just the task name DB3 or the task name and candidate's details.

The customisation of field names caused some candidates problems. Any customisation must be "suitable" and therefore consistent. The majority of candidates who attempted this tried to enter "Member Number" and "Date of Birth", with varying success. Candidates, who customised field names by using a different font and style for each name, were not credited.

Candidates still have difficulty in entering their details in the footer at the bottom of the page of the report. Candidates, who are supplied with pre-printed paper with their details, cannot be credited. Other candidates entered the details in the header of the report or within the report page.

Very few candidates gained the mark for fitness for purpose because of errors that perhaps could have been picked up if the printout had been checked against the examination paper.

Task DB4

The majority of candidates gained the second and fourth marks for this task. Incorrect spacing and missed letters in field names meant that the first mark could not be credited, with examples such as "Activity Code" or "Activity". Some did not correctly copy/enter the data types required.

Moving the cursor out of the date field meant candidates did not evidence the short date (dd/mm/yy) format. Many candidates did not appear to know where to indicate this format and omitted any format for the Date field. One or two had expanded their screen shots so much that they lost the outer edges, thus not showing the Primary Key. Some candidates had added an ID field.

A small number of candidates showed the datasheet view rather than the design view, and were therefore limited to one mark. Other candidates presented a table into which they had copied the structure of the new table.

Task DB5

The responses to this task were relatively disappointing, perhaps because candidates did not read the complete question. Many searched the table for those who were born on or after 6 November 1990, but did not also search for members of Smarts Kidz. Others searched for those born after 6 November 1990. Yet others searched only for members of Smarts Kidz.

Activities are progressive and halfway through an activity candidates should expect to begin to apply their knowledge and skills without being guided step-by-step. They should be encouraged to read the information and instructions carefully to ensure that they do not omit parts of a task.

The majority of candidates presented the correct four fields, usually in the correct order.

Task DB6

This task was generally completed more successfully than the previous task. The majority of candidates searched for and found the correct records and showed the correct fields. The most common error was to include the ActivityCode field. Some candidates used only one table to search (generally the booking table) and could not, then be credited with the use of correct fields.

Task DB7

Few candidates gained both marks for this task. As the last task in the activity it is expected that the high mark band candidates will be able to carry out the task without instructions to achieve the required result. Whilst many candidates were able to show the relationship between the StaffCode in the two tables, most did not enforce referential integrity and so did not show the 1-to-many relationship between the two. A significant number did not link the correct fields in the two tables. Others simply printed a screen shot to show the relationship between the member and booking tables which had already been created.

Key Areas for Improvement

- sort the correct field
- copy and paste tables to a word processing document rather than producing a screen shot
- correctly copy data from the examination paper into a table
- produce a database report that is fit for purpose, including a suitable title and appropriate field names
- print a database report directly from the database software
- create a database table with field names correctly entered
- specify appropriate format for different data types
- produce a screen shot of a table design showing required information
- search one or two database tables using more than one criterion
- work independently to produce a satisfactory solution to a problem
- enforce referential integrity when creating a relationship between two tables

Activity 3: Using Word Processing Software

Task WP1

Most candidates scored well on this task. The majority used the given header and were able to correctly modify the top section to match the requirements. Only a few candidates failed to score well on the first five marking points. Errors included entering "dawn" without capitals and failing to spell this correctly (including darn, dwan, darwin and drain). Some candidates used an upper case E for "early". About half the candidates did not use the correct line spacing for the two paragraphs. Of these, a large number used 150% character spacing. This was disappointing as the task mirrored a similar task in a previous paper where examiners also reported this error to centres. A significant number of candidates did not fully justify the text.

Most candidates added the extra rows to the table but quite a large number failed to enter the data without errors. Several put a space in "fieldmouse" (perhaps relying on the spell-checker) and many had inconsistent spacing in the times for the column headers. A minority of candidates kept "pm" rather than "am".

The comments section was mostly double lined spaced although many candidates omitted the colon and did not include five dotted lines. The majority of candidates did not make any additions, although some did add the information from the supplied data capture form. There were a significant number of candidates who managed to recreate the form exactly, including fully justifying the text, and who gained full marks.

Key Areas for Improvement

- correctly amend information in a prepared file
- format text as instructed including line spacing rather than character spacing
- add rows to a table
- correctly enter information, maintaining spacing
- avoid too heavy a reliance on the spell-checker
- check a created document against a paper copy of a similar document to ensure consistency
- check before and after printing that a document is fit for purpose

Activity 4 – Using Spreadsheet Software

Generally candidates seem well prepared for this activity but there are still a minority of candidates who do not print in formula view when required and struggle to create formulae and functions. There continues to be some evidence that candidates are "schooled" in some tasks, eg the creation of an IF statement, which was often produced perfectly by a candidate who had failed to gain previous marks.

The majority of candidates attempted at least the first three tasks and many gained full marks on the first two tasks.

There continues to be a difficulty where candidates label all their tasks SP1, often leaving examiners guessing as to which task has actually been attempted.

Task SP1

Candidates generally gained 3 or 7 marks for this task. The majority were able to enter the new label in the correct cell with correct capitalisation: format all required labels as bold: centre the new label. Some candidates did not format the label "Animals" as bold.

The majority of candidates used the SUM function to calculate the required total. Candidates who were able to print in formula view usually scored 3 or 4 marks for this part of the task.

There are now very few candidates who incorrectly type in messages to describe what their formula was rather than display the sheet in formula view although some candidates had not printed in formula view but had hand-written the formulae on their printout, which probably wasted much time and did not gain them any extra marks.

Task SP2

This was generally well answered, with only a minority of candidates failing to insert the new column in the correct position or attempting to add new information into the existing columns. Some candidates did not correctly enter the new label (often inserting spaces which were not consistent with the other labels, eg 5.30 – 6.30). Most correctly entered the new data.

The previous task had required candidates to use formula view. For this they had to return to data view which often reduces the width of the columns. The most common error with this task was to truncate "fieldmouse" to "fieldmous".

Task SP3

The production of the chart from the spreadsheet data was relatively poor. The majority attempted the correct chart (animals group within time periods) but some had an incorrect grouping. Few presented anything other than a bar or column chart but the occasional line graph or pie chart was seen.

Very few candidates gave a sensible heading with consistent capitalisation. "Comparison of Max Smarts" was seen more than once. Many candidates did not correctly copy the axis labels, entering "Numbers seen" rather than "Number Seen" or "Time" rather than "Times".

The majority of candidates had a correct legend, although there are still those who include "Series 1", etc.

There was a significant number who included information from the "Total" column. Other additional information included unnecessary extra gridlines which indicated that the chart could potentially show 0.2 of an animal.

Very few candidates gained the mark for overall fitness for purpose.

Task SP4

As candidates approached the half-way point in this activity they were expected to be able to work independently and produce a response that used the most efficient method to find the average required. Candidates who used H4/6 did not gain full marks as the use of a function was expected.

The label "Average Rabbits" caused difficulty as "rabbits" was spelt in many different ways, including "Rabbbits", "Rabbitts" and "Rabitis".

Task SP5

Tasks requiring the use of an 'IF' function were answered very well. However, a considerable number of candidates do not appear to check that their formula gives the expected results. Quite a number of candidates do not appear to understand the use of >= or <= symbols and rely solely on the > and <. Other candidates here did not gain marks because they did not check whether the formula was truncated in the final printout. This easily correctable fault led to several candidates unnecessarily losing the final 3 marks. The majority of candidates who gained the first 3 or 4 marks replicated their statement for all the animals.

Another common error was to enter the first function in an incorrect cell and to replicate this down for a further four rows.

SP6

Many who attempted the task included only the data from rows 3 to 8 for which they were not credited, as the task asked for the complete columns A and I. It appeared that a number of candidates had attempted to copy and paste the two columns into a word document. Others had simply deleted the data in columns B to H. The majority of candidates did not appear to be able to hide unwanted columns or to set the correct print instructions for the two columns. Some candidates truncated data in column A. Printouts on two separate sheets meant candidates did not gain full marks as the rubric of the question stated that a "list" was required.

The majority of candidates who were successful in printing the two required columns correctly removed just the row and column headers, but some also removed the gridlines.

The majority of candidates submitting this task did produce a printout in portrait orientation.

Key Areas for Improvement

- switch to and from formula view
- print in formula view
- avoid truncation of data when switching to data view
- correctly copy data and format as needed
- use formulae and functions as appropriate to enable an efficient solution
- correctly create a chart using only the required data
- correctly include headings, labels and a legend in a chart
- ensure that all required information is included in the graph, with no unnecessary information added
- produce an IF statement with correct criteria relating to appropriate cells
- use >= and <= within a criterion
- hide columns so that only selected columns are printed
- remove row and column headings on a spreadsheet table

Activity 5 – Using Word Processing/DTP software

Task DP1

Very few candidates presented a document with a layout that would make it satisfactory as a report. It was anticipated that candidates who had not been trained in the layout of a report, for which there are few hard and fast rules, could have produced a suitable layout from the information given. Candidates generally scored from 6 marks upwards with almost no students gaining full marks.

Many candidates confused a report with a business letter with mistaken attempts to include Dear … and Yours …. Although the copying of the names such as "Anders Johansson" and "Max Smarts" was improved compared to previous series there were still some errors in copying and capitalisation. Some candidates entered their own name as the sender instead of Anders Johansson. Many candidates failed to include a correct format for the date, often misspelling May or not including the year.

A significant number failed to correctly enter the given title using a variety of incorrect capitalisations. Text was correctly inserted by the majority of candidates but quite a few did not remove the italicised instructions or omitted the words, "This is the first slide:"

The items to be included were chosen so that they were early tasks from previous activities which it was expected most candidates would have completed. The inclusion of the slide from Activity 1, the graph from Activity 4 and the database query from Activity 2 was often spoiled by the incorrect use of screenshots or because the candidate did not pay sufficient attention to layout considerations and so distorted the images. In many cases, the sizing of the imported objects was poor with a number of the MM1 slides taking up half or even two thirds of an A4 page.

Many candidates included the final piece of text "The database can be searched." However, usually they could not be awarded marks because they had changed the text to various other sentences eg "This" database can be searched/The "Data base" can be

searched/The database can be "researched", etc. In about 50% of the cases, the final full stop had been omitted.

There were few instances of Word Art for the heading, but many candidates failed to use a consistent style for the text. Some candidates seemed determined to use skills that were required in previous examinations, with a significant number presenting their response as a two-page A4 leaflet, complete with graphics and text-wrapping (required in the January 2006 examination).

It appears that very few candidates checked for consistency of layout and style to ensure fitness for purpose marks. On the whole very few candidates produced a concise, easy to read, professional looking report.

Key Areas for Improvement

- layout and understanding of all types of business documents
- correct copying of given names and information
- correct use and format of date
- importing of text and removal of unnecessary sub-headings
- importing of items from different software, eg slide, chart, database table
- suitable size and proportions for imported items
- consistent font and style for text
- checking for suitable layout
- awareness of target audience
- checking of printout for fitness for purpose

Unit 2 & Unit 3 General Comments

For GCSE Double Awards skills, knowledge and understanding must be applied in vocationally-related contexts and this will generally include a greater degree of involvement with ICT practice beyond the educational environment.

June 2006 is the third moderation session for both portfolio units, 5332 (ICT in Organisations) and 5333 (ICT in Society). The quality of response has greatly improved over 2005. This is due to a greater understanding of the qualification and increased familiarity with the specification itself. There is clear evidence of a greater understanding of the specification and its delivery.

Where Centres Have Done Well

Where centres have done well, candidates have covered and learnt much about the application of ICT in business and society (especially when combined with their performance in 5331). The most successful outcomes were in centres where the philosophy of both vocational and independent work has been applied. For example, centres where candidates were encouraged to visit organisations produced more comprehensive portfolios. Candidates who had looked outside their school environment and had visited real organisations gained significantly higher marks as long as they concentrated on a single system rather than trying to investigate and document the whole organisation. These candidates accessed the higher mark bands because their work demonstrated a greater understanding of how ICT was used within the functions of the organisational system. Where candidates chose very narrow or limited systems there was little scope for them to access higher mark bands.

In the case of 5333, ICT in Society, it was clear when case studies had been used rather than allowing candidates to interview their own 'live' adult or special needs person which resulted in more stimulating work and allowed candidates to ask more questions. There has also been an increase within the portfolios of signposting of the evidence by the candidates themselves.

Where Improvements Can Be Made

There is still little awareness of the grade descriptors found in the specification. These give a general indication of the required standard at grades A, C and F. The skills, knowledge and understanding for this award must be applied in a vocationally related context. This calls for involvement with ICT beyond the educational environment. Candidates are expected to show knowledge of ICT terms and definitions; explore, develop and interpret information; use ICT to share, exchange and present work; reflect on how they have used ICT and the impact of ICT in the wider world. Where centres did not do so well, it is because they have underestimated the demands of the qualification and the 2 GCSE equivalence across grades A*-G.

In question 2 (a), organisations need to be chosen with care. Some candidates were limited in some of their responses by commercial confidentiality restrictions. This meant that opportunities to describe the technology could not be developed, restricting them to lower mark bands. There were fewer cases where candidates chose an organisation where it was almost impossible to describe a virtually non-existent usage of ICT. Significant difficulties arose when the student based their investigation on two different organisations for stands 2 (a) and 2 (b). This led to two disparate reports or a comparison of the two; neither of which enabled the student to achieve higher mark bands.

Candidates should be guided to choose either a spreadsheet or database solution as opposed to designing a logo or a range of business documentation. This increases the candidates' chances of securing higher marks.

The key to achieving higher band marks in Unit 3 lies in explanation and evaluation that is based on clear detailed descriptions that show a good understanding of the functions and capabilities of the particular ICT. Some centres gave marks for evaluative statements that did not exist or were too weak. Centres' appreciation of the quality of evaluative comments has improved significantly.

Many centres had not interpreted the components of Unit 3 correctly and had not guided candidates to use actual, specified individuals and groups. Some centres seemed to be unaware of the requirements of the syllabus and submitted generic answers on 'IT and candidates' for 3 (a), 'IT in work' for 3 (b), 'IT for disabled people' for 3 (c) and 'IT in the community' for 3 (d). Centres are advised to review the document which details categories of technology for this unit. In general, strand 3 (e) was more successful when tackled as a discrete component rather than as an integral part of the other four components. It is important that those individuals and groups studied in 3 (a)-3 (d) are linked to the relevant legislation.

Unit 2 (5332) Principal Moderator's Report

The key focus for this unit is systems. Candidates are expected to describe clearly the work of the identified organisation in terms of three or four of its main functions or systems, preferably in terms of input, processing and output. They should describe fully how ICT is used in Information, Communication and Functional purposes. The ICT system described in 2 (b) should relate to one of the systems identified in 2 (a) and candidates should consider the five main component groups of hardware (input devices, output devices, processors, ports and cables and storage devices) and software and what they do within the chosen system - descriptions should include technical details of components and explain the purpose of the application software. In some centres, candidates are still evidencing strands 2 (a) and 2 (b) together; unless the particular elements are well signposted, this often causes problems with identifying where the criteria have been met.

Strands 2 (c) and 2 (d) are about creating a complex system for a specific user and purpose. Complex problems will involve the use of more complex processes associated with the chosen software. This may include importing data from another package or customising the software for easy use. Databases should be relational, and include searches, sorts and queries. Further, candidates may include a user interface such as a menu or switchboard and a mail merge facility based on a query. Spreadsheet systems will include complex formulae and functions, absolute cell referencing, look up tables and macros. Throughout the emphasis should be on 'fitness for purpose'.

Strand 2 (c) focuses on the design of the system, the scope of the project, the objectives of the proposed system and draft/final sketches of inputs and outputs that are fit for purpose. In addition, as part of the design process, candidates should consider which parts of the system will be tested and how. The focus for 2 (d) is implementation. Here candidates should provide full details of how they implemented their designs, how these designs were tested using the plan from 2 (c), the outcomes of the testing and how they have used the results to modify or improve the initial designs. The evaluation should consider weaknesses as well as strengths of the system and, to access higher mark bands, candidates should document how the system could be improved. The user guide should be detailed enough for an inexperienced user, with instructions how to load the system, add, enter and manipulate data and how to troubleshoot basic problems. The user guide should be about using the system and not the application!

Strand 2 (a)

Most candidates were able to describe an organisation, identify its main purposes and describe how those purposes used ICT. Some candidates did not achieve the higher mark bands because they were not able to directly link and explain how the use of ICT helped the organisation to achieve its purposes, aims or objectives. Many candidates were able to identify the organisation's purposes, aims or objectives first which made it easier for them to evaluate since they could refer back to them when explaining the organisation's use of ICT.

Where candidates investigate an organisation, either as part of a formal group or independently, they should be thoroughly prepared for the visit. This can be done through web based research, letters to the company and brainstorming in the classroom. It was pleasing to see some centres use a range of organisations, expanding the candidates' experiences and allowing the student to focus on one for the purpose of this strand and 2 (b).

Where centres persisted in choosing their school as the basis for study the evidence lacked detail as there was simply too little scope in terms of a range of functions. In other cases, those studying other companies gathered the basic information but lacked evidence when it came to the organisation and its purposes, aims or objectives. It is not sufficient to state these alone, they must be linked to the ICT used to perform or support the related functions.

Candidates who just achieved the highest mark band did so on the strength of one evaluative statement only as long as they had given sufficient detail on which to base it. Generally, candidates at centres which organized visits/guest speakers were able to describe in greater depth and with insight the technologies used, achieving the higher mark bands because they were able to describe an ICT system fully. Candidates who worked from case studies found it much harder to identify an ICT system and often described a basic system that could have existed anywhere. Fewer candidates used their work experience placement as a basis for this component. Centres are to be complimented for taking this advice on board since the local organisation in which they are placed is not often sufficiently complex to enable them to describe, explain and evaluate a range of functions and technologies.

Candidates who failed to reach the middle mark range usually failed to identify a wide enough range of purpose or did not explain how ICT was used, e.g. they explained the finance function but did not clearly describe how the ICT was used within that function. Candidates who structured their research into Functions (purchasing, sales, finance, distribution, human resources, etc), Information and Communication tended to score well. This approach showed a greater understanding of how ICT was used and how the organisation functioned as a whole.

Where candidates had used the Internet for research into their chosen organisation (whether an actual visit had taken place or case study had been used) there was clear evidence of copying and pasting from the website, but this had not been credited in a reference or bibliography. Evidence from candidates who had not had an opportunity to visit a 'live' organisation showed a lack of understanding.

Strand 2 (b)

Evidence in this section was again much improved over last year with candidates addressing most key component groups and linking them to the purposes within the chosen system. Some candidates had managed to include images of the actual hardware within the organisation and this formed a useful adjunct to their written descriptions. However, in some cases candidates had not identified a single system within the organisation and concentrated solely on the hardware and software of the organisation or discussed the organisation as a whole. There was often a generic list of components, but no detailed information given on their use in the chosen organisation. One of the main reasons why candidates failed to gain high marks was because they had not covered all of the five component groups (input, output, processor, ports/cables and storage) and software. Categorisation of the components almost always achieved higher marks. Ports and cables was the most frequently omitted component; where it was included, candidates showed little knowledge. Still some candidates remain confused about the difference between processors and processing – explaining how the data was processed rather than giving technical details of the actual processor used (its speed, type and so on). Those missing out a component group did not move beyond the lowest mark band. Higher mark bands required the student to evaluate the extent to which at least one component or some software meet the organisation's purpose. Many candidates found this difficult and relied on descriptions of the component's use, rather than exploring its limitations or alternatives. In a few cases, candidates made recommendations about what an organisation could use which is not part of the specification.

Strands 2 (c) and 2 (d)

Many candidates produced a wide range of interesting and innovative applications for 2 (c) and 2 (d). Candidates who used real problems had the edge over many of those using case studies because of the opportunity to clarify the problem. Identification of the inputs, processes and outputs is essential if candidates are to be able to break the proposed solution down into logical steps. Whilst many said they had tested their solutions, only a few provided before and after screen shots to substantiate the test. User Documentation was missing in a number of portfolios, some was simply a restatement of some of the "testing" that had gone on. Evaluations, whilst much improved over last year, varied from peer questionnaires to single sentences. This series, there was an increased range of ideas from centres accompanied by some robust design sketches of both inputs and outputs. However, centres are reminded that they must choose a single mark band within the Unit Marking Guide which should reflect the independence of the work and the complexity of the solution.

Strand 2 (c)

Candidates were required to provide some indication of the scope or purpose of the solution with objectives. In order to gain two marks here, the description should be detailed for a third party to understand. Objectives were often poorly constructed which made it difficult to assess the extent to which their eventual solution met its original purpose.

More candidates were able to achieve the highest mark band in these components as a result of their focus on the design elements and the greater choice of solutions based on spreadsheets and databases. Some centres had not fully understood the meaning of independent solution to the problem and there were cases of differentiation occurring only as a result of using a different name for the organisation, business or company for which the system was being created. A few centres continued to rely on the video database example from the teacher guide. Some variations were seen such as DVD database or book database but these were essentially the same design with different content. Centres that had designed their own assignments still gave candidates too much structure by indicating that a database was required or giving too much information about the problem. As a result, candidates were not able to define the scope of the problem themselves and were not able to choose the appropriate software for themselves, thus limiting the candidates to the middle mark band. There was clear evidence of the use of scaffolding and structured templates to document the proposed solution, especially where candidates had omitted to delete the word 'instructions'.

Most candidates, who qualified for higher mark bands on independence and complexity, did not achieve all the marks because elements of the design were missing. Some credit was often applied retrospectively from 2 (d). Candidates submitted copies of tables from databases already created to show table design rather than annotated sketches. This indicated that candidates had implemented first, and then reverted to the design stage. In this section some candidates had included screen grabs of the final implemented solution as design evidence, and as such could not be awarded marks for these. Those gaining the highest marks in 2 (c) produced handwritten drafts of input screens and output screens. Some innovative candidates had also used a bitmap application to draw and design their planned screens and indicated processes with handwritten relationship diagrams or examples of formulae to be used. For the most part, design steps were not detailed enough for third party implementation.

Many candidates provided test plans which ranged from a simple statement of intention to a detailed grid. Often test plans were included only in the implementation section of the

project, and not as a separate plan. Candidates appear more able to identify abnormal or extreme data as part of the testing procedure, which is expected at the higher mark band. Most candidates also provided lists of hardware and software, but referred to packages such as Excel or Access rather than a generic type of software application.

Most centres managed to use complex processing but did not necessarily produce a complex solution. It appeared as though candidates were able to produce a basic spreadsheet or database (with some advanced features incorporated into them) but not many had any idea as to what they were actually doing or why, which is linked to the lack of detail when describing the scope of the project. There was a lack of evidence (e.g. witness statements within the Unit Marking Guide) that the work had been carried out independently.

Strand 2 (d)

Most candidates provided evidence of implementation, testing, evaluation and some user information. Marks for implementation related to the objectives outlined in 2 (c). Where objectives were difficult to identify, candidates did not gain marks. The better solutions had clear objectives, which were then reflected in the implementation and evaluation. Most candidates' solutions included complex processing. Test plans were not always accompanied by suitable evidence as to whether the test was or was not successful. Many candidates attempted a complex solution that they were unable to achieve successfully.

Most candidates undertook some form of testing. Higher marks were reserved for candidates who had made some constructive use of the results. Many candidates achieved the lower marks as they used their test plan as a checklist and did not describe or use the results in any way. Evidence in the form of before and after screen shots has increased and this enabled the candidates to more easily make constructive use of the testing process.

Most candidates evaluated their solutions to some extent. A significant number of candidates missed out on higher marks because they evaluated how well they had approached and completed the task, rather than evaluated the usability of their system. The better evaluations listed strengths and weaknesses of the system and then indicated areas for improvements with some indication of how these could be affected. Evaluation lacked detail throughout. More candidates discussed the strengths and weaknesses but areas for improvement were not valid or fully considered. It was pleasing to see some had evidence from an end-user as to how they regarded the final solution.

User guides were of varying quality. The best guides were clear and well laid out with a contents page, screen shots of the actual screens and troubleshooting. Fewer user guides focused on how to implement the system, rather than acting as a guide on how to use the system. Many guides were focused on users of ICT rather than the novice, making them less helpful and instructive.

Where candidates failed to achieve higher marks, it was because not all elements, ie construction, testing, user guide and evaluation, were completed. Many assumed implementation stages with finished forms and reports, but provided no evidence of actual construction to show skills and understanding of the software capability. There was some evidence of good solutions, but the lack of annotation and inadequate testing did not gain these candidates valuable marks.

Unit 3 (5333) Principal Moderator's Report

This unit is about ICT in Society and requires candidates to look at how ICT is used in the wider world by adults, those with special or particular needs and communities as well as themselves. The unit requires an understanding of the legislation surrounding the use of ICT, how does it protect people and what must they do to comply with the law. Substantial descriptions of the ICT used are essential if candidates are to progress beyond explanatory to evaluative statements.

In the case of strand 3 (c), a few centres are still using case studies with Stephen Hawking again the favourite. There was evidence this year of using a person who was no longer alive, eg. Christopher Reeve; whilst in this series this has not disadvantaged the candidate, centres are advised that it would be very difficult to carry out valid evaluations on someone the candidates could not consult. There is still some evidence of centres advising candidates to investigate a range of special or particular needs used by several people, rather than to concentrate on one individual.

For strand 3 (a), candidates should explain how they use ICT for personal, social and work-related purposes, both at home and at school. The explanatory statement must be based on a description that is detailed enough for the reader to have a clear idea of how the ICT might be used, its capabilities and be linked to the student's own needs. Strand 3 (b) requires the adult and effects on their working style to be clearly identified. Two or more categories of technology should be identified (e.g. Internet, communication, entertainment, mobile ICT (laptop), etc), with explanatory statements based on a clear description of the technology for personal, social, work related and effects on working style. Strand 3 (c), relies on the identification of the special needs person, for the ICT to be related to their needs – i.e. what they actually use – and explanatory statements linked to those needs. In the fourth strand, the local community must be clearly identified with some background given to clarify the context and at least two categories of technology explained in detail and in terms of how they meet the needs of the community. The fifth strand concerns legislation. This does not need to be submitted as a separate strand, so candidates could include reference to relevant legislation within each of the preceding four strands. However, the most successful portfolios separated the legislation from the remainder of the evidence. In order to access the top of mark band 2, candidates must link at least one item of legislation to each of the individuals and groups within strands (a) through (d).

Strand 3 (a)

Many candidates gained their highest marks on this component. Most centres were on track with the range of technologies but descriptions lacked detail when it came to the evaluative comments. Some candidates gave clear explanatory statements but some just listed the technologies and what they used them for, eg, 'mobile phone to text my friends'. However, many were able to identify and describe the technologies they used and how they met their needs. Some candidates extended this by evaluating at least one technology to reach the higher mark band. Where centres included tasks set for candidates to explain technologies they were unlikely to have experienced, this led to the candidates simply describing the technologies. It was sometimes difficult to determine if candidates had actually used the technology where the evidence was written in the third person. The explanatory statement must be based on a description that is detailed enough for the reader to have a clear idea of how the ICT might be used, its capabilities and how it links to the candidate's individual needs.

Candidates who did not reach the higher mark bands usually did so either as a result of weak descriptions or because they did not cover personal, social and work-related uses of ICT. Some centres had misinterpreted 3 (a) to mean individual use of ICT rather than the ICT that the student used. This resulted in reports about the use of ICT in general (including surveys of peers). These candidates could only achieve the lowest mark band despite good descriptions (and evaluations) because the technology was not linked to the way they used the technologies or how it met their own needs. There was still evidence of the candidates choosing inappropriate technologies, such as toasters or alarm clocks, and evaluative statements, which did not develop explanations, meant that candidates could not access higher marks.

Strand 3 (b)

Many candidates did not gain marks because they failed to identify an individual and as such were placed in the lowest mark band. Some candidates did not refer to home use, investigating only the work environment, which meant they could not achieve marks in the higher bands. At least two categories of technology should be identified (e.g. Internet, Communication, Entertainment, Mobile ICT (a laptop or mobile hard drive)) A significant number of candidates failed to identify the effect on the adult's working style or chose inappropriate technologies. Although most candidates were able to identify and explain the technologies used by their adult in employment, they had not been able to gain sufficient information (or use that information) to evaluate how well the technology met the adult's needs in a personal, social and work context. Several candidates gave advice on how other technologies would improve working conditions/performance for the adult for which they could not be awarded marks. Often candidates identified working style but briefly and with little evaluation. Evidence included cursory comments about e-mail being faster than post, etc. Some centres used the same adult, the teacher, whereas others used a case study rather than a 'real' person. There was little opportunity to evaluate where the technologies had not been fully described first. In centres where candidates interviewed an adult of their own choice they gained greater insight into the adult's perception of ICT and its effect on their working style, and were able to write a much fuller and a more reasoned report.

Some candidates wrote about adults in general or one particular profession (usually teachers) in general, whereas others began with a specified adult, but then described technologies used by the adult's organisation with no indication as to whether their adult used that particular technology.

Strand 3 (c)

This was relatively the poorest component and several candidates achieved no marks because they generalised about people with learning difficulties. It was obvious that they had not actually studied an individual or talked to them. Candidates from centres that had organised visits to centres for the disabled, or who had invited a speaker into their centre, had obviously gained a good understanding of the different technologies used and produced some sound evidence. The use of case studies did not allow the candidates enough scope to evaluate the extent to which technologies met the special needs of the identified individual; however, where a detailed study of Stephen Hawkins was used, candidates generally fared better. The lack of opportunity to ask questions of the person and so get "real" information of what the technology could achieve and its benefits limited the evidence available.

Strand 3 (d)

Most candidates identified a community, but few described the technologies used by the community and how they met community needs, with few evaluating the extent to which

the technologies met those needs. Many centres had encouraged their candidates to go out and investigate their local community, but had failed to ensure that the candidates actually stated the needs of that community. Most marks were gained where the community needs were identified and the student then went on to describe and evaluate the way technologies met those needs. These were usually Internet access at libraries/cyber cafes, CCTV or other control and monitoring technologies, community websites and transport. Where candidates were briefed on the definition of a community and were encouraged to go out and look around them, the evidence was well presented and meaningful. Several centres directed their candidates towards a single section of the community, thus limiting the potential for a wide use of ICT.

Where candidates had described technologies that were not available to the whole community, such as Internet at home, or described technologies that met the needs of the organisation in the community, such as bar code readers in shops, but not the needs of the community in general, they were not meeting the specification criteria.

Centres are advised to avoid choosing a community organisation such as football team or a club, although acceptable, it makes it more difficult to describe and evaluate how the technologies meet the needs of the community organisation. Often the range of technologies was not sufficient. In some cases the community was too loosely defined where, for example, tourist centres in three towns were compared. Many candidates did not link their explanatory statements to the needs of the community and limited themselves to the lowest mark band. Unfortunately, many candidates chose a library as their community and so limited their choice of available technologies. Where candidates tended to concentrate purely on one establishment within the community such as an Internet Cafe, there was a tendency to evaluate how well that establishment catered for its customers rather than evaluating the technology used within the community at large. Candidates who focused solely on a community website limited themselves to one category of technology.

Strand 3 (e)

In many cases candidates did not achieve the higher mark bands because they did not relate the legislation identified to the people in the previous components. Most candidates gained at least the top of the lowest mark band in this component but middle and top band work was very rare. Most candidates could describe four acts but this alone only achieved the lowest mark band, regardless of how good the description was, or how well they evaluated the success of the acts in general.

Some candidates did relate the legislation to at least one individual (usually themselves) but did not cover it specifically for each individual and group, community and special needs were often omitted. To achieve the middle mark band, candidates had to directly relate at least one piece of legislation to each of their named individuals and their group. Sometimes this relationship was too general and candidates talked about adults in employment in general rather than their specific adult. The explanatory statement accompanying the detail of the legislation should describe not only the legislation, but its impact on the people studied.

There was an increase this series in the number of candidates who described legislation that was not connected with the misuse of ICT and so were not able to gain marks for that report.

General Administration

Some centres used neither mark record sheets nor mark profile sheets which meant the moderator had only the overall mark with no indication of breakdown. Where the

asterisked sample requested did not include highest and lowest marks, some centres did not send the lowest and highest marks in addition to the ten requested and had to be reminded. There were also instances of asterisked candidate being absent, but a failure on the centre's part to substitute this with another 'similar' portfolio.

Many centres continued to use plastic wallets despite clear guidance in the portfolio guidance booklet. Centres must read the instructions for submission of portfolios – work must be hole-punched and treasury tagged on the left hand side. Centres must not use plastic or card wallets/folders; neither should the work be sent as a collection of separate sheets, since they increase the risk of problems in the moderation process. Coursework for units 2 and 3 should be separated since it is likely that this will be sent to different moderators.

Work should be proof read to eliminate obvious mistakes; early drafts should be removed (unless part of the evidence in the case of strands 2 (c) and 2 (d) and submitted in component order. All pages should be identified with a header or footer reflecting the candidate name and pages clearly numbered. Page numbers should be annotated on the Unit Marking Guides to assist the moderator in finding evidence rewarded by the centre. Clear evidencing on the portfolio will more easily enable the moderator to agree the centre's decision. Centres are advised that any use of professional judgement should be documented in the space provided on the Unit Marking Guides, which may be found on the website. These guides enable a holistic view of the evidence and assist both centre and moderator in agreeing marks.

Grade Boundaries June 2006

Unit 1

Grade	Max. Mark	A*	A	B	C	D	E	F	G
Raw boundary mark	100	94	82	78	58	50	43	36	29
Uniform boundary mark	100	90	80	70	60	50	40	30	20

Unit 2

Grade	Max. Mark	A*	A	B	C	D	E	F	G
Raw boundary mark	58	56	47	38	30	24	18	13	8
Uniform boundary mark	100	90	80	70	60	50	40	30	20

Unit 3

Grade	Max. Mark	A*	A	B	C	D	E	F	G
Raw boundary mark	58	56	49	42	35	28	21	15	9
Uniform boundary mark	100	90	80	70	60	50	40	30	20

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