

General Certificate of Secondary Education January 2012

ICT 45203

(Specification 4520)

Unit 3: The Assignment: Applying ICT

Report on the Examination

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General comments

In January 2012, Unit 3 was available with six problems, of which solutions to Problem 1 were most frequently seen by Moderators. The overall entry this session was very small. The work presented by the majority of students was appropriate as they attempted to indicate their understanding of the requirements of the problem. The required project management approach appeared to be well understood by these students.

In Candidate Booklets the six problems that students can choose from are the following.

- Help to organise a school visit to a local attraction.
- Help to organise a school prom
- Help to organise an event to raise funds for a charity
- Help to organise an event in school for senior citizens or mothers and toddlers
- Help to organise work placement arrangements
- Help to organise a school sports team.

Part 1: Planning and managing the problem

1a Milestones

Work presented by many students showed that they had read and understood the requirements of the problem and were able to list the appropriate steps (eg creating a model of the 'costs', collecting the data, selecting the necessary lists, etc) to produce the planning stages.

Students who used the Candidate Booklet to identify the steps needed to solve the problem set, particularly in sections 2 and 6, generally did well in this section.

Once the milestones had been introduced, students needed to break them down into manageable sub-steps. Getting the sequence correct and determining the duration that each milestone might take follows. A final part was to consider the resources needed to produce them. Appropriate milestones are essential to be able to undertake effectively sections 1c and 2q.

1b Risk

All students may use the risk outlined in the Candidate Booklet. They should explain the issues involved with it and then plan a strategy which suggests how it might be avoided and what precautions might need to be taken. This section was generally done well by those who attempted it. It was expected that students would either select appropriate risks from the topics they had studied in the specification subject content or ones which directly related to the problem they had chosen.

1c Progress

Where milestones had been produced, students were able to monitor the status of each outcome, describe any barriers encountered and confirm whether a milestone had been completed or not. Students' work in this section was appropriate. Managing progress was achieved by students reviewing how they had produced each milestone by commenting on it and clearly confirming that it had been completed or what issues were encountered when producing it.

1d Managing storage

This section was generally tackled suitably. Students included effective diagrams (screenshots in most cases) of their folder structures, which were almost always appropriate in their content, of appropriate size for the Moderator to read, and well produced. Filenames were usually sensible, but not always explained. The area of **Managing storage** which some students need to develop was in the use of versions of their files (where there was more than one version.).

Part 2: Independently using ICT

2a Collect information

Most schools/colleges marked this section correctly, with many students considering first the data needed to solve the problem. Students who did this well went on to consider alternative ways of collecting the data (eg paper based forms, online forms, e-mail capture, etc). They then produced their own collection method and included the final version. A completed 'form' (one is sufficient) should be included in the Portfolio. A database structure should be set up with a database entry form used to enter the data from the form and other data collected. Additional data to that collected initially should also be entered (eg in Problem 1, those who had paid in full for the visit). Students who understood the requirements of this section also reviewed the data collected and used. Able students may have separated the data collected into related tables, used validation rules to prevent unsuitable data from being entered or created a database entry form which contained a sub-form.

The moderation process awarded a higher weighting to students' work on collecting and gathering information than to their consideration of alternative ways of collecting information or reviewing the information collected.

2b Select information

The selection of information was different for each problem, but the level of demand was comparable. More able students considered what information had to be sent initially to parents to inform them about the 'event'. The next stage for each 'selection requirement' was to consider alternative ways of selecting what was needed (eg 'hard-wired' search, sort, 'parameter' search, 'wild card' search, etc). Many students had created the selection method and included the final version here. More able students ensured the outcome was fit for purpose by linking the selection method to a database report or mail merged document — there were some excellent examples of work shown for this aspect. Again, only the final version is needs to be included in this section. It was especially noticeable that the most able students completed all aspects of selecting information correctly and in an appropriate way.

The moderation process awarded a higher weighting to students' work on selecting information than to their consideration of alternative ways of selecting or using information which is relevant and fit for purpose.

2c Format information

This should have been a straightforward section in which to score marks but some students limited themselves to explaining only a few of the six formatting techniques required. Students are required to show the techniques used in formatting: page layout, text, tables, images, numbers and records/cells. The purpose of the formatting is to make the 'end product' fit for purpose. More able students did explain/describe the use of page layouts in their Portfolio (or Report), text in various situations, tables in their Portfolio (or database) and

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images (eg screenshots) used in their Report (or Portfolio). However, the formatting of number (which could have been used in a database or the model) and records/cells (which could have been used in a database or spreadsheet) were less commonly explained.

2d Modelling with data

Most schools/colleges marked this section correctly. Some students were provided with a school data sheet to help them to analyse the data needed; others had used Internet sites to gather the data themselves or a combination of the two.

The model only needs to be simple, but it must be effective and tackle the essential nature of the 'costs' involved. In general, selection and analysis of data to be used was sometimes brief, if present at all. Students showed the model had been created (eg by printing out the formulae/functions used). The use of 'what if' questions was usually well considered, but the element which needed most development was in the interpretation of the results obtained in terms of the situation being modelled.

2e Develop information

This section was considerably better presented in this series because in almost all cases it was included as a separate section. This section can be considered as the 'hub of the solution' (implementation) for many other sections of Part 2 of the Portfolio (eg 2a, 2b, etc). In this section, it was expected that students would show stage(s) in producing their data collection 'form', setting up their database table(s) and database entry form(s), creating information letters, searches, database reports or mail merge documents. The completeness of this and students' commentaries (explanation, description or statement) determined the mark awarded. Although there were some excellent examples of the type of work to be included, it was not universally well produced across every school/college that entered students.

2f Produce a report

Almost all students presented a separate report which made use of previous solutions from their Portfolio. By doing this they achieved an aspect of the report which was to bring together a wide range of different forms of information collected from the Portfolio. The report could be produced using Presentation or 'Publishing' software. The report should include the final versions of 'solutions produced for the organiser' (ie no development work needs to be included). The report does not need to include sections of the Portfolio which aren't directly involved in the solution for the organiser (eg there is no need for Milestones, Risk, Evaluation, etc in the report).

The report should be formal, which means referring to the receiver, sender, date produced and the purpose of the report, with a contents section incorporated. The language used should reflect the audience (eg headteacher) for whom it is intended. The quality of the reports seen varied depending upon students' abilities, but a significant factor was how well (or not) students explained the reasons for including something. At the end of a report, a summary section was expected to include a conclusion and recommendations.

2g Evaluate

In this section, students need to consider the milestones that they established in Part 1. Typically students will have about seven major milestones. In general, this was well done by many students, but it is a demanding section in which to achieve the highest range of marks for discussion.

Students should consider **three** of their milestones in depth and reflect on how well they were achieved. If they are able to describe how effectively these three were solved, then an award of 7-8 marks is appropriate, if the student has also referred to other milestones. If in addition a student is able to compare these effective descriptions with an alternative effective solution in each case, then they are considered to be discussing the milestone, which makes a mark award of 9-10 accessible. In both these cases, students should make complete/reasonable reference to the other milestones.

For marks from 3 to 6, students need to have used their milestones to state they have been produced (3-4 marks) or state how they were produced (5-6 marks).

Marks of 1-2 are for students who haven't produced original milestones or who don't use what they have available.

2h Evaluate others' use of ICT

The advice provided for **Evaluate others' use of ICT** is that students should concentrate on the three sections recommended in the Teacher's Notes (1a Milestones, 1b Risk and 2a Collect information). This section should allow a student to explain how working in a group could/should have assisted with the solution. It was obvious that, as suggested in the Teachers' Notes, some students had opportunities for collaborative work in these sections. This appeared to assist them to make more a considered response as to how working with others had helped them.

This was not always well done by some students and the following advice is offered:

- for high marks of 4-6, students should focus on the three suggested sections (or other suitable ones). Describe how working with others could have improved on what could/did happen to make the solution more effective (efficiency, wider range of ideas, better sequencing, other ways of tackling a problem, reduced times, etc)
- then to achieve 7-9 marks, students should suggest alternative effective ways of working with others in which an even more productive solution could have been achieved.

Many students only achieved 1-3 marks for stating a way(s) in which working with others could make an improvement.

Administrative matters

- Internal standardisation has an important effect on students' awards. Schools/colleges must standardise their marking across different teachers to ensure consistency.
- Teacher annotation: it is a requirement of the Code of Practice that controlled
 assessment is annotated by the teacher to indicate how/where marks are awarded; it is
 evident that schools/colleges which did annotate students' work were more likely to have
 their marking supported by the Moderator. It is perfectly acceptable for annotation to
 simply indicate where in the students' work a particular assessment criterion has been
 met.
- A positive aspect was that all schools/colleges submitted the mark grid with the students' work and this was particularly helpful in being able to confirm the accuracy of centre marking.
- As schools/colleges had used the electronic mark grid, there were no arithmetical errors on:
 - the Candidate Record Form
 - the transfer between the above and the Centre Mark Form.

- All appropriate paperwork needs to be fully completed and signed including the Candidate Record Form and the Centre Declaration Sheet. Failure to comply with these requirements can cause delays in carrying out the moderation.
- All necessary up-to-date paperwork can be located and downloaded from the <u>AQA</u> website.
- The Centre Mark Form, on which overall students' marks were entered for this component, is a three part carbonated form. Schools/colleges should ensure that:
 - the marks are clear on all three parts
 - alterations clearly show the correct final mark
 - both the second and third copies go to the Moderator (or 2 copies of the EDI forms).
- All schools/colleges are to be congratulated in sending the work of their students for moderation in a well organised fashion that was securely fastened together using treasury tags.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the **Results Statistics** section of AQA's website.

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