

Moderators' Report Principal Moderator Feedback June 2011

Applied GCE 6961 01 – Using Spreadsheet Software Edexcel is one of the leading examining and awarding bodies in the UK and throughout the world. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers.

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#### **General Comments**

Compared to previous windows, in June 2011 there was some very poor quality work for this unit and the upward trend that we have seen recently appears to have faltered. The reason is fundamentally the same as has been documented on many occasions and it is disappointing to have to report that there are still centres failing to consider and implement the main points of previously published Examiner's reports on the unit.

Unit 6961 is quite clearly defined in the specification. The assessment criteria indicate the primary focus of the work to be submitted with the assessment guidance documents explaining how and where marks are accessible and to be awarded. There are support systems in place to facilitate access to the unit but issues in respect of interpretation and approach remain.

Some centres still fail to appreciate the main requirements of this unit – the staged production of a spreadsheet which utilises numerical data to model; statistically analyse; simulate; forecast etc. Within strand (b) the statement "appropriate use of functions and formulae to analyse complex data" appears. The phrase "technically complex spreadsheet" is used in both strands (b) and (c). The design, prototyping, development and testing of a technically complex spreadsheet is required to fulfil the requirements of this unit.

Although it had seemed that things were improving in this respect, it was very disappointing to see that some 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 several of the strands. Conversely, 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.

Although fewer in number than often experienced, some centres are still taking a very structured approach to the production of the material for assessment and moderation. It is quite acceptable for the Assessor and/or other member of the centre to act as "client" and provide a generic brief/scenario to all candidates, but it is essential that such brief/scenario is sufficiently open ended to enable candidates to adopt an independent approach to a solution – as is required for the higher mark bands. In several cases not only was the structure of the portfolios identical but so too were the contents, including the spreadsheet artefact.

Many centres had used the created spreadsheet solution as the project for Unit 6958. This is good practice, but centres should ensure that candidates clearly differentiate between the two sets of evidence.

## Comments on strand (a) - Functional Specification

The nature and contents of the requisite functional specification are well explained in section 11.2 of the specification. Many candidates addressed this strand very well, had 'ownership' of a problem to be solved and specified measurable success criteria. The success criteria are, more often than not, the primary omission when full marks for the strand are not confirmed.

Candidates were usually able to set the scene and describe the problem well. In some cases once the tasks for the spreadsheet were identified, it should have been readily apparent that spreadsheet software was not appropriate.

Some candidates utilise or incorporate extracts from the 6958 proposal and/or scope documents rather than addressing 11.2 discretely.

Of some concern were the innumerable examples of extracts from the completed system within the functional spec which suggests a retrospective approach to the strand – not expected at this level of qualification.

The over-dependence on a provided scenario can disadvantage candidates in this strand and impact on opportunities for the evaluation.

# Comments on strand (b) - Design

11.3 – 11.9 of the unit specification details the aspects to be considered when candidates are designing their spreadsheet product. In fact, candidates often incorporate some, or all, of these aspects in their product without documenting them in their design work.

Despite the direct evidence for this strand often being weak, many assessors appear to believe that a fully functioning system that has incorporated some or all of the listed aspects has, by definition, good design documentation – and thus award a high mark which usually reflects that given to strand (c). As a result, this strand is often that in which the highest drop in marks for incorrect assessment occurs.

Many candidates consider little more than the user interface and associated colour schemes and font styles. There was little evidence of the use of functions and formulae to analyse the data or future proofing facilities. Inputs and outputs were not always explained; prototypes had little or no evaluation and feedback was rarely used appropriately. Validation was poorly evidence by many of the candidates. Candidates commented on the use of functions but did not supply the evidence to verify this.

All too often candidates presented commentaries on what they had done rather than what they were planning to do in relation to the incorporation of complex functions and formulae, future proofing, validation etc. Again, there were examples of retrospective design work incorporating screen shots from the finished spreadsheets.

## **Comments on strand c – Fully Working Spreadsheet Solution**

To be able to access this strand, candidates must include evidence to show they have produced a "technically complex working spreadsheet". It was disappointing that very few sophisticated products were submitted at this window.

Despite all previous Examiners' reports and individual reports to centres, there appears to be a lack understanding of what constitutes a complex spreadsheet at some centres. A complex spreadsheet in this context relates to the incorporation of complex functions and formulae and the automation of processes. Large numbers of candidates included little more than level 2 functions: IF Statements, VLOOKUP's, SUM and COUNT. 2 cell formulae and/or the functions mentioned are insufficient on their own to constitute complex. As mentioned, it is this issue of complexity of functions and formulae which is the determinant of marks accessible across several strands.

Notwithstanding the above, there were examples of text based systems which should have been databases and high marks awarded on the basis of the macros and VB forms that had been created. Macros would be expected to facilitate navigation between worksheets but moderators cannot be expected to examine code to establish formulaic content.

Moderation of some of the devised spreadsheet products was hampered by extensive password protection; hidden worksheets and sheet tabs. At this window, a surprising number of centres/candidates had chosen to develop linked, updating workbooks. None of these approaches is necessary.

Although often very nicely produced and presented, many of the User Guides did not fully demonstrate the facilities within the spreadsheet nor show that the spreadsheet had been produced to meet the requirements of the Functional Specification.

Technical Guides are often presented as software specific "how to" documents rather than identifying "behind the scenes" aspects of the spreadsheet produced.

# Comments on strand d – Testing

Many candidates did not evidence this strand at all well. Test plans were created but direct evidence of actually performing the tests was often limited. The range of possible data to be used was often far from comprehensive and did not test the spreadsheet under all conditions. A structured and rigorous approach to each test would be evident where candidates have addressed this aspect well – incorporating acceptable, unacceptable and extreme data. A large proportion of the testing material presented concentrated on the hyperlinks between worksheets.

Evidence of testing and feedback from others on the finished spreadsheet solution was provided by many but the testing of the prototypes, if found in the e-portfolios, was not well done.

Weaknesses in the functional specification frequently hampered testing against objectives set and few candidates were able to document testing the logic of the spreadsheet.

#### Comments on strand e - Evaluation

The quality of the evaluations is undoubtedly improving; candidates are clearly becoming more adept at devising such documents. All too often, high marks are not accessible because candidates fail to address all three aspects of the strand.

Many candidates omit mention of their client, end user and/or peer tester's opinions or relate the evaluation to the initial requirements. Good evidence produced for strand (a) enables a candidate to do this effectively.

Frequently candidates were not able to identify or explain shortcomings of their final spreadsheet.

A considerable number of candidates produced descriptive detail of decisions made and processes carried out. 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.

Despite the units being separately assessed and moderated, candidates still present combined evaluations for 6958 and 6961 which clearly disadvantages them in respect of both units.

Quality of Written Communication should be assessed in strand (e). Innumerable centres failed to mention this and some mark adjustments were necessary in light of QWC.

### **Grade Boundaries**

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