



External Assessment Report 2009

Subject	Product Design
Level	Intermediate 2

The statistics used in this report are pre-appeal.

This report provides information on the performance of candidates which it is hoped will be useful to teachers/lecturers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published question papers and marking instructions for the Examination.

Comments on candidate performance

General comments

Candidates in this year's Course were given the choice of 4 different Design Assignment tasks. The level of "popularity" when designing the various pieces of street furniture was as follows in chronological order:

- 1- Outdoor seating
- 2- Litter bin
- 3- Street lighting
- 4- Bicycle parking

In the Design Assignment, the average mark has been consistent in the past 3 years and this year, candidates performed 2 or 3 marks better than in previous years. This would suggest that centres are now very familiar with the format of the Course assessment instrument and are preparing candidates for it extremely well. Many centres may now have good exemplar material for the activity and, without plagiarism; this could be serving as a guide for success.

In the Question Paper, candidates performed best when the question asked for a simple "stated" response rather than an explanation or a description. As in previous years there is still some confusion concerning the meaning of the various sub-categories of ergonomics for many candidates. This forms the basis of Question 1(b) and is worth 6 marks, and the format has remained unchanged since 2005.

It was apparent from Question 6 (galvanised watering can) that many candidates had little knowledge of appropriate means of joining metal together, or any real knowledge of what "galvanised" meant. Few candidates managed to score the full 3 marks for Question 4(a) regarding Intellectual Property Rights.

On average, candidates performed fully eight marks better in the Design Assignment than they did in the Question Paper, averaging 38/50 and 30/50 respectively.

Areas in which candidates performed well

In the Design Assignment, candidates scored well in the section which gained marks for "Initial Ideas". Similarly, candidates produced good work for the final presentation of their chosen idea and seemed to justify their design decisions quite well. Many candidates chose to use computer graphics as the medium for presenting their final solution and these graphics generally scored 5/5.

In the Question Paper, the candidates performed best in Questions 2 and 3. Candidates scored well in the first part of Question 1 where they were asked to "state" various aspects of the manufacture of the training bicycle but then performed more poorly in the latter half of that question.

Areas which candidates found demanding

In the Design Assignment, candidates performed less well at the "Development of Ideas" stage this is where most of the candidates lost marks.

The quality of sketching by some candidates was quite below standard throughout their Design Assignments.

In the Question Paper, the candidates performed less well in the following questions:

- Question 1- Section (b) and (c) Training bicycle
- Question 4- Section (a) Intellectual Property rights
- Question 5- Section (a) Galvanised watering can

Advice to centres for preparation of future candidates

Advice regarding Design Assignment

Candidates in many centres carry out the Design Assignment (DA) very well. When centres receive the breakdown of their own candidates' marks they may wish to request some of the high-scoring DAs back from SQA to exemplify a "tried and tested" design process/formula to future candidates. Teaching staff would need to ensure that plagiarism is avoided and candidates did not actually COPY any text or graphics. The return of DAs can only be requested for the current year and within a specific time.

Although the final mark for the DA is dependant on both quality and quantity it was not unusual this year for a candidate to score a very high mark with a 7 page folio rather than an 8 page one. Centres should follow the guidance in the "Design Assignment Guidance" document, rather than simply "producing 8 pages". Candidates should be given a copy of this guidance document and teachers should explain it to them, particularly the high scoring range statements which their DAs should try to emulate. It is likely that this is current practice with more centres as the average Design Assignment mark has increased this year.

Centres should ensure that they do not staple DAs together and that candidates have put their name on the back of each sheet and signed the declaration on the flyleaf.

Additional research is unlikely to attract marks, however candidates should use the research material which is given, and there is certainly evidence to suggest that those who do use the anthropometric data etc. achieve higher marks.

It is good preparation for the Question Paper to practice using Question Papers from previous years. Marking schemes are now available on SQA's website and centres should look at these and ensure that their candidates are answering questions in a manner which would gain marks. Candidates should be made aware that vague answers are likely achieve no marks and that questions which ask for a description or an explanation require a more extended response. Candidates should be made aware that responses to questions are likely to have been covered during the Course and that their answers should reflect this.

Teachers/lecturers should take the time to read/download exemplar material from the SQA website. This is regularly supplemented with additional material and recent documents would best exemplify the current standards.

Statistical information: update on Courses

Number of resulted entries in 2008	919
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Number of resulted entries in 2009	922
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Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark - 100				
A	37.1%	37.1%	342	74
B	27.2%	64.3%	251	64
C	16.2%	80.5%	149	54
D	5.6%	86.1%	52	49
No award	13.9%	100.0%	128	-

General commentary on grade boundaries

- While SQA aims to set examinations and create marking instructions which will allow a competent candidate to score a minimum of 50% of the available marks (the notional C boundary) and a well prepared, very competent candidate to score at least 70% of the available marks (the notional A boundary), it is very challenging to get the standard on target every year, in every subject at every level.
- Each year SQA therefore holds a grade boundary meeting for each subject at each level where it brings together all the information available (statistical and judgemental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the management team at SQA.
- The grade boundaries can be adjusted downwards if there is evidence that the exam is more challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- Where standards are comparable to previous years, similar grade boundaries are maintained.
- An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions, and the mix of questions are different. This is also the case for exams set in centres. If SQA has already altered a boundary in a particular year in say Higher Chemistry this does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related as they do not contain identical questions.
- SQA's main aim is to be fair to candidates across all subjects and all levels and maintain comparable standards across the years, even as arrangements evolve and change.