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Moderators' Report/ Principal Moderator Feedback

June 2011

GCE Design and Technology: Food Technology (6FT04) Paper 01 Commercial Design

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Principal Moderator's Report Summer 2011

GCE A2 Design & Technology: Commercial Design

Food Technology Unit 6FT04

General Observations

In year two, most centres have continued to make steady progress with the specification. It was obvious where centres had been to training or used exemplar material as the work was better organised with a greater degree of clarity, detail and justification. The choice of design problem should have a real commercial use, where it is useful to a wider range of users beyond an individual.

An interesting range of commercial design work was presented on a wide variety of topics from hamper food products, luxury afternoon tea treats, farm shops, garden centre cafés, deli food boxes, pop up restaurants, menu kits/boxes, celebration foods and luxury food products for a specific event or point of sale. All centres submitted candidate's work that was potentially suitable for course requirements, with a range of levels of outcome from outstanding to very weak.

Candidates are required to adopt a commercial design approach to their work, reflecting how a professional designer might deal with a design proposal and its resolution when working for a client/user group. This means that consultation between designer and client should take place at key points in the design/make process. Where this designer/client relationship was well developed, the whole design and make process was enhanced and justified. A client / user group must be integral within the coursework to allow focus and feedback throughout the coursework. Unfortunately, for many candidates, it was seen only as a necessity for meeting the requirements of the assessment criteria, and remained a passive activity with little purpose or function.

Administration

- Annotation in the CABs varied from excellent to non existent.
- Some scripts were submitted unbound, some in paper clip, some loose and others unidentifiable as they were without any name, candidate number or centre number. Work should be bound together with logical page numbering and clearly identified to the candidate and centre.
- CABs should not be attached to scripts.
- Where internal moderation was undertaken in centres with marks altered, it was difficult to decide which mark the final mark was awarded by the centre because a number of marks existed for each assessment criterion.
- The quality of photographic evidence of the finished product(s) continues to be variable. Please ensure that the candidates name is clearly labelled within the photograph for authentication.

- A2 practical work must be technical, creative, challenging and demanding, showing accuracy and precision. The standard of practical work was disappointing this year. It would benefit centres to consider the number of components within a food product when considering the challenge and demand of a product. At A2, a wide range of different components should be presented within a food product. The use of finishing techniques for the final presentation of food products is a prerequisite for high level making marks. The photograph in the CAB is the starting point of the moderation process for each candidate.

Section A: Research and analysis

Most candidates introduced the client /user group at this initial stage, and identified how their client would be able to offer critical feedback at various stages during the design process. In this section, the client needs to be used to identify the main issues for study, to allow good analysis and focussed research. Many candidates utilised their client's knowledge and expertise by asking relevant, probing questions that enabled candidates to consider some of the technical implications for analysis and research. For example commercial equipment and facilities, safety, quality, time and temperature controls required for commercial manufacture, stock control and relevant sustainability issues for the product linked to the proposed use, venue or topic.

Research varied enormously. Some candidates continue to produce vast quantities of back ground research or unfocussed questionnaires, lists of visits and many menus from various catering establishments, but with no meaningful use of this information. This amounts to no more than padding. Research must be useful and purposeful, to aid the writing of the specification and planning product design and development work.

It is essential that research is highly selective ensuring that information gathered is useful and relevant to the client /user groups needs identified and finalised during the analysis. Research does not need to exceed three pages of A3 paper. Existing product research and disassembly were widely used effectively to find out about ingredients, components, processes and techniques relevant to the task. In most instances, this needs to be for more than one product within a product range, to allow candidates to uncover the work of a professional designer and how they solved a design need, by identifying the main technical considerations for these products, as well as uncovering any potential problems and applying this information to their design work. Random, irrelevant, unfocussed research cannot be awarded marks.

Sustainability was addressed by many candidates, although for some it was contrived.

A summary of the main findings of research is desirable as it allows candidates to analyse their research in order to write a product specification that is relevant, meaningful and measurable.

Section B: Product specification

This is a crucial part of the design process, but regrettably many specification points were subjective or not measurable, and frequently unrelated to the research findings and importantly, failed to address issues of sustainability effectively. To access the top box marks, candidates produced a logical list of justified points using the main headings (detailed in the Edexcel guidance documents) to organise the product specification. The specification must be informed by research findings and written in consultation with the client / user group to ensure that the criteria meet the needs identified earlier. Where candidates had supported each specification point with a justified, relevant statement linked to the research, it was possible to access the top box marks. Where candidates had ensured that their specifications were technical and measurable, testing and evaluating in section F was far more successful.

Section C: Design and development:

Design

Generally, this section was completed well, with all candidates managing to produce a range of 4-6 design ideas which varied in quality and technicality amongst the cohort. Alternative design ideas must be presented as realistic, workable and detailed design proposals, which address the needs identified in the specification. At A2, candidates should be demonstrating their understanding of ingredients, components, processes and techniques supported by research information. The annotation of this information varied enormously in depth and understanding. Challenge and complexity of food products must be established at this point to support making marks later in section E. It would benefit centres to consider the number of components within a food product when considering the challenge and demand of a product. At A2, a wide range of different components (a minimum of four) should be presented within a food product.

Client feedback, good quality photographic evidence and critical evaluation using the specification points must be included to access the higher marks. Irrelevant tick boxes, simple ingredients lists and methods were presented by weaker candidates who also produced similar, simplistic design proposals and failed to communicate their design thinking.

Some outstanding work was seen that demonstrated flair and imagination applied to realistic and workable ideas, creating food products with a wide range of skilful components, preparation, processing and finishing techniques.

Review

In most cases this criterion was carried out as a separate section, but some candidates were assessed through the comments made on design sheets, which is acceptable for low level marks, but does not permit a comparison to be drawn between the different design proposals. In the main, candidates presented objective, formative evaluations of each idea, referencing the specification and client feedback to assess the suitability of each design idea for the intended purpose, in a tabulated format to aid comparisons. Design decisions must consider sustainability, sensory testing and client feedback, to allow students to present development intentions based on the selection and rejection of design ideas. Photographic evidence supported decision making.

Develop

Developments were mostly appropriate, but there were still some very cosmetic and superficial developments. Development means 'change', and this should be shown in candidates' work through their ability to use the results of design review and bring together the best or most appropriate features of their design ideas into a coherent and refined final design proposal that meets all of the requirements of the product specification and matches the client/user group needs. It is not acceptable to simply take an initial idea and make superficial or cosmetic changes to it and then present it as a final developed proposal.

Evidence of three good quality developments that could be compared, reviewed and evaluated against the relevant design criteria, allowed candidates to demonstrate their technical knowledge and understanding of ingredients, components, techniques and processes. Summaries in table form were effective at each stage of design and development.

The final developed design proposal should be presented as either a manufacturing specification or final design proposal, evaluated objectively against the points of specification and the client/user group needs to justify the design decisions taken and recorded in detail by candidates. Client feedback should be referenced in detail at this point in order to justify and clarify final design details that may be compromises between the student's ideals and the client's preferences. There should be enough information present to enable a skilled third party to manufacture the product.

Communicate

Most candidates achieved significant marks in this section and some displayed excellent standards for a range of communication skills. Annotation was used to convey design and development work, with good explanation and detailed technical information. Most candidates presented a final design proposal with sufficient information to allow third party manufacture.

Section D

Planning
Most candidates achieved at least three of the six marks for this section, but assessment varied enormously. Production plans must include consideration of realistic time scales, quality control, safety checks and deadlines for the scale of production. Justification of safety and quality checks must be evidenced in order to attain the top box marks. There seems to be some work around this criteria that is left over from the Legacy specification, which is not needed e.g. scaling up, industrial flow charts and gannt charts.

Section E

Use of equipment
As stated last year, making varies enormously in terms of quality, technicality and complexity. Where candidates had selected simplistic, unchallenging practical work it was not possible to demonstrate their ability to use a range of equipment, even if this was with skill and accuracy. Health and safety issues and inherent risks pertinent to food handling or production were generally acknowledged through the production plan.

Quality
Demanding high level practical skills and techniques with a quality finish continues to need focus for GCE A2 level.

There was evidence of some very high level work seen containing many components and skills that allowed candidates to demonstrate creativity, ability and flair. However, this was generally in the minority for the practical work presented for assessment. In many cases, the addition of an extra component or two could have turned an average product into something more skilful and interesting. Marking was quite lenient in this section. Some work was presented and photographed very poorly. It was disappointing when the final product lacked the skills that had been trialled, developed and tested in the design and development stages.

Candidates who demonstrated their technical knowledge of techniques, ingredients, components and processes with annotation, clarity and justification with reference to their specification were rewarded with high marks.

The importance of high quality photographic evidence is obvious here and most centres are adept at insisting that candidates comply with this requirement.

Complexity / Demand
As before, this varied enormously, ranging from simplistic, unchallenging design and manufacture work to high level advanced skills, worthy of A2 level showing challenge, demand, accuracy and precision in their use and execution within food products.

Section F

Test and evaluate

This section requires some attention from centres, as it proved to be the weakest area within the assessment criteria this year. All too often, simple specification statements presented in criterion B could not be used effectively to test the quality and performance of the final product, because they lacked technical detail (e.g. products must be of individual size) or were immeasurable (e.g. it must have a long shelf life) or were unrealistic (e.g. suitable for all adults). Testing was simplistic or superficial in these cases. Many centres simply evaluated their work against the design criteria, with subjective comments or a brief summary of work completed for the task.

Relevant, measurable points of the design brief/criteria must be objectively referenced, to achieve the top box marks, with third party feedback from the client and/or user group. A description and justification of a range of tests that will be used to check the performance or quality of the products must be included in this section. This might include a range of different sensory tests, storage life tests, transportation testing, viscosity tests, and tolerance testing against a manufacturing specification and nutritional analysis where relevant to the design brief. Candidates must use the information from client feedback, third party testing and evaluation to make suggestions for possible modifications and future improvements to the product, linked to the quality and/or performance of the product.

Life cycle assessment (LCA) was in greater evidence this year, but in varying degrees of detail and relevance to the actual final design proposal. A flow chart must be evidenced with relevant comments linked to the environmental impact of the product throughout its manufacture. Some centres continue to confuse LCA with product life cycle.

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