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Moderators' Report/ Principal Moderator Feedback

Summer 2015

Pearson Edexcel GCE
AS Design and Technology
Food Technology Unit 1 (6FT01/01)
Portfolio of Creative Skills

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General Observations

Much of the observations and comments in this report reflect those made in previous years. Despite detailed feedback from moderators to centres and Principal Moderator reports advising on assessment requirements and how to target marks effectively, the same strengths and weaknesses are apparent in much of the work submitted for moderation this year.

As a reminder of requirements in the 6FT01 course; students must produce a Portfolio of Creative Skills which is divided into three distinct sections:

- Product Investigation;
- Product Design;
- Product Manufacture.

Administration

- Annotation in the CABs was generally very good and aids the moderation process.
- There were examples of page references in the annotation having little relevance to the numbering on the script. There were some scripts without any page numbers and others had numbered each task separately.
- Centres could choose to submit work on A4 or A3, with many using A4 very effectively. It is beneficial to choose and use just one format (A3 or A4) if possible.
- Several candidates exceeded the suggested page number for the portfolio well beyond the recommendation in the Edexcel guidelines (25-30 pages)
- The quality of photographic evidence was variable, ranging from outstanding to very poor. Often photographic evidence for development practical work was also submitted in the CAB, which occasionally caused some confusion about which task it was being presented for. Photographic evidence in the CAB should only be presented for the Product Manufacture Task. Photographic evidence should be used extensively through the portfolio to record work for assessment in each of the three sections.
- Electronic coursework submissions are acceptable, but Edexcel guidance clearly states that this must be through an acceptable file format such as PDF, power point or adobe. Publisher is not accepted.

Product Investigation Task

Criterion A - Performance analysis

As in previous years, most candidates achieved very good levels of success in this criterion, when their work was well structured under the recommended headings listed in the subject specification. Selection of product(s) is fundamental to the success of this task. A range of products were generally chosen within each centre, and this should allow greater depth and breadth of investigation thus developing discussion, interest and learning opportunities within product investigation of commercial products using a diverse range of ingredients and processes, adding relevance and Unit 2 studies. The choice of the second product is important in allowing students to compare and contrast one against the other effectively, and while the majority of students were successful at this, a significant number selected products that were 'too similar', and this limited their opportunities to make effective comments when comparing and contrasting. It is advisable that candidates try to choose similar products that are focused on different user groups, have different performance and user requirements and are manufactured from different ingredients. Once again, interesting combinations of products included luxury versus value, chilled versus frozen product or an artisan food product compared to a supermarket equivalent, special diet comparisons, and multicultural styles of commercial products.

Many candidates chose to tabulate this information and this was highly effective, with a concise evaluative summary of the main findings presented at the end of this section.

Criterion B

The disassembly of the chosen product allowed candidates an opportunity to understand the component parts and structure of the product. Many candidates worked out the % contribution of each component and justified its inclusion in the product. Good practise was demonstrated by candidates' choosing to tabulate information using the headings: ingredients, advantages, disadvantages, alternative ingredients and environmental issues. This allowed students to be focussed on each ingredient, component and/or material, whilst presenting information in a concise format. Responses were often generic when linked to environmental issues. Comments relating to origin and season, were worthy of credit, but other considerations could be towards the source, farming/growing methods and disposal of the specific ingredients/materials used. Generic information cannot be credited with marks, if there is no obvious application to the chosen product investigation. Alternative ingredients were suggested, but often needed more justification when

related to the possible inclusion in the product. Where a product had an extensive ingredients list, it was sensible to choose no more than eight - ten ingredients.

Criterion C

The moderating team report that candidates clearly showed types of manufacture used to produce products. Comparisons were made between batch and mass production. Environmental issues are clearly relevant and related to product by most candidates. The majority of centres seen were very good at this section.

Candidates must identify the method of production for the chosen product, and then state one alternative method of production that could have been used in the manufacture of the product. An evaluation of the selection of manufacturing processes by applying the advantages and disadvantages of the manufacturing processes used in the product needs to be presented for discussion and many candidates choose to present this as an annotated flow diagram, with images to aid communication.

The weakest part of this section remains the environmental impact of the manufacturing processes. However, those centres that explored CO_2 emissions, use of energy to power machinery, water consumption during food preparation, and use of standard components on the production line to reduce production processes and applied them to their chosen product were largely successful in this section.

Section D

This was carried out well by most centres with a useful range of quality checks given that were appropriate to the product. The best examples choose and described two/three quality control checks linked to the chosen product rather than produce a long list of unrelated quality control checks. QC checks must be fully justified and relevant before moving on to outline a quality assurance scheme. Many candidates were able to present named quality assurance systems that were focused on the product, rather than being a generic description within the food industry or a token gesture form assessment. This was a strong section for centres.

Product Design Task

There continues to be evidence of much innovation, creativity and flair, with high level design and development skills and a range of communication techniques supported with good application of knowledge and understanding relating to food, nutrition and product development. As in past years, the most successful centres embraced design and development work with clear, concise design briefs, and technical, measurable specifications that influenced the

choice and design of the practical work. Design intentions and decisions were recorded with clarity and justification, leading onto final products that showed significant differences to the original idea. Good photography aided communication.

Section E

Following the writing of the design brief and specification (design criteria), most candidates presented an initial brainstorm of ideas that were paper based, which were workable, realistic and fully addressed the design criteria, with some pertinent evaluative comments to clarify design intentions. From this, a good range (4-6) of design ideas with detailed annotation, linking to the understanding and working characteristics of ingredients, components, techniques and processes could be presented. This supported the modelling/making work. Functions of ingredients, costing and scientific understanding of skills and processes allows candidates to justify their selection of techniques, and evaluate decisions linked back to the design criteria. A review of the modelled/manufactured initial ideas must be presented to aid evaluation and identify development opportunities.

Content varied enormously, but where candidates could demonstrate a detailed understanding, it allowed candidates to be more successful with their design and development decisions. From this, development intentions could be communicated and explored with clarification and refinement for individual components, skills and/or techniques within a food product. Successful development should show how the final design proposal has been moved on from an original idea through the results of practical development, sensory testing and evaluation.

Moderators commented on the improvements to the development section, where candidates had chosen technical components to trial and develop rather than superficial or cosmetic changes in recent years. Candidates should be encouraged to include technical information on all aspects of their developed design, to show knowledge and understanding of food science and nutrition through their design and development activities. Three good quality developments with decision making must be shown to offer contrast and comparison instead of six superficial trials. Development must be purposeful.

An effective final design proposal was only possible if developments had been justified with valid conclusions. Making must be used to test important aspects of the final design proposal. This year, there was some good third party testing and feedback evidenced, with objective evaluations against the design criteria to justify comments. A manufacturing specification was an effective format to present this information with detailed technical information linked to ingredients,

processes, attributes, tolerances and dimensions to support third party manufacture in the communication section.

Section F
A wide range of ICT was used from all centres to good effect. Many of the manufacturing specifications for the final design would allow 3rd party manufacture however; where marks were adjusted by the moderating team, it was for candidates lacking clarity about the construction of their final product with reference to dimensions, detailed method etc.

Communication techniques focussing on concise annotation to convey ideas, development of work with technical considerations, CAD cross section or exploded drawings, digital photographic evidence, scanned images, costing spreadsheets, excel product profiling were the norm.

However, it is essential that candidates choose relevant communication techniques pertinent to their design brief. Nutritional analysis seemed to reappear in this section, often with little relevance to the design brief.

Product Manufacture Task
As in previous years, virtually all centres chose to do a separate manufacturing task, which resulted in either a range of different practical items being made for this task or a wide range of skills and techniques presented for one complex high level food product (different to the product design task).

By working on the three separate discreet tasks, candidates could present a **wide range** of skills, techniques for different food products, thus producing an effective portfolio of creative skills. This is the best way forward.

Again, a very small group of centres chose to continue the product design task into the manufacturing task and submitted a number of additional practical items that would be suitable for the combined option, as well as the final design proposal from the product design task. This was acceptable only if a range of **different** skills and techniques were shown within the range of food products. Testing needed to be **different** to the sensory testing conducted in section E, if this mode of delivery was being used.

Where centres only used the final design proposal from the previous task (product design task) for the making section (product manufacture task), they were awarding marks twice. This is unacceptable and candidates could not access marks beyond the lowest band of marks. Centres are therefore seriously

disadvantaging their students if they continue to follow this course of action. There is some fine exemplar work on the Edexcel website to aid centres with the delivery of this specification.

Some centres produced some outstanding practical work, demonstrating skill, flair and creativity in their making. In other centres, practical work was simplistic with limited making skills or attention to detail.

Section G

Once again, many candidates managed to score full marks for this section, which requires an accurate plan with realistic, relevant time scales and deadlines for the scale of production, including relevant links to ensuring a good quality product whilst meeting H&S requirements during the making of the item. Thumbnail pictures were often included as part of the production plan, which were effective, clear and supported making marks.

Section H

The majority of centres were in line with the requirements of this section and set manufacturing tasks that allowed candidates to experience a range of ingredients, processes and techniques, showing quality, complexity and technicality.

A large variety of products were made by candidates showing some skill however; the level of products chosen and skills shown by some centres does not represent what is expected at AS level. The best centres allowed candidates to produce a range of products e.g. a trio of desserts, allowing for a wide range of practical skills to be applied. Some centres still produced work for which there were no marks available. Centres must make sure that they clearly understand the specification requirements. The Product Manufacture Task is a different section to the Product Design Task and any marks given to products in the design and development section cannot be credited here also. There were examples seen where centres tried to use the same products from the development section within the making section and as a result had no making marks.

Quality finish and demanding high level skills and techniques were inconsistent this year and it is still advisable for centres to consider the choice and selection of components for the practical products to allow candidates to demonstrate a wide range of skills and processes. An absolute minimum of three components should be demonstrated at AS level, and it is desirable for more for those students wanting to access the top marks.

On a positive note, many centres had followed advice by selecting food products where candidates could demonstrate accuracy and precision when working with a variety of ingredients/components/processes and techniques. These candidates were awarded with high marks where the evidence was apparent in their coursework and this work was a pleasure to moderate.

Teacher annotation in CABs was generally extremely helpful for moderation purposes, and is very much appreciated by the moderating team.

Section I

Commentary on testing carried out on the completed Product Manufacturing Task exactly reflects statements made last year. An interesting range of tests were evidenced by some centres. This included 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 describe and justify a range of tests that will be carried out to check the performance or quality of the products. This must not be retrospective. However, responses were disappointing where testing was simplistic or superficial. Many candidates continue to simply evaluate 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, and this was often presented successfully in a tabulated format to aid review and evaluation.

Grade Boundaries

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