Moderator's Report
Principal Moderator Feedback

Summer 2017

Pearson Edexcel GCE
In Design & Technology (6FT04)
Paper 01: Commercial Design

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General Observations

Most centres have continued to make good progress with the specification, and the coursework is well organised in A3 portfolios or sent as electronic submissions in Adobe. Clarity, technical detail and and justification are prerequisites for A2 GCE Food Technology with application of food science and nutrition.

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, develop and make, test and evaluate** 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.

A wide range of commercial design work was presented on a variety of topics including the leisure industry, festival foods, farm shops and cafes, deli food boxes, pop up restaurants, menu kits/boxes, celebration foods and luxury food products for a specific event or point of sale. Coursework foods products remain inventive as a wide range of cultural cuisines from around the world continue to be used as inspiration for commercial design projects, as well as TV cooking programmes using many innovative cooking techniques which are being delivered in the food technology class kitchens in school. Moroccan, Asian, Italian themed food products remain popular, as do afternoon tea food products. A duo or trio of micro food products as part of a tasting menu have seen an increase this year. The range of accompaniments, layers and components has increased, and as a result technical practical work by many centres was truly outstanding, and impressed my moderation team with the creative, inventive and inspirational commercial design.

All centres submitted candidate's work that was potentially suitable for course requirements, with a range of levels of outcome.

Administration

- As a guide, the A2 Commercial Design project should not exceed 30 pages of A3 paper.
- Practical work must be technical, creative, challenging and demanding, showing accuracy and precision. 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.

- Most centres have a good understanding of the assessment criteria.
- The moderating team report that the overall presentation, layout, organisation and quality of the written A2 portfolios was again of a high standard and it is clear that centres are putting considerable time and effort into their teaching, to produce some outstanding work.
- Several centres produced some truly spectacular practical work, and of the highest standard seen at A2 level.
- Annotation in the CABs remains very helpful for moderation.
- The quality of photographic evidence of the finished product(s) continues to be variable.

Section A: Research and analysis

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**. Domestic situations (dinner parties, birthday celebrations, engagement/weddings) do not give rise to a commercial design, unless the context is linked to a venue or event. In which case, the client should be the manager of the venue, rather than the family members (user group). Site visits to the venue to understand the logistics for food production and how this influences product design would in most cases be more useful than the many menus that remain unannotated or analysed for the portion size, cost, seasonality, combination of foods, finishing techniques etc. There frequently remained many unresolved areas of research that would have given greater scope for the full range of marks to be awarded. Research 'padding' with back ground research is largely unhelpful, and candidates would be better guided to utilise selective, focussed research identified from the analysis and clarification of design needs.

Candidates should introduce the client /user group at this initial stage, and identify how their client would be able to offer critical feedback at various stages during the design process. 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 analysing the 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. Analysis should clarify design needs, to aid the selection and use of research.

Research does not need to exceed three pages of A3 paper. Research must be useful and purposeful, to aid the writing of the specification and planning product design and development work.

The use of product analysis and existing product research should be instrumental in this section. Where candidates had applied their understanding of technical specifications (form, function, performance requirements, manufacturing implications and environmental

considerations) to the range of food products chosen for product analysis and disassembly, they invariably retrieved a far better depth of understanding about these products and could usefully apply this information to the writing of their specification.

Sustainability was addressed by most 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

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 ensured that their specifications were technical and measurable, testing and evaluating in section F was far more successful.

Many candidates justified their specification points, and measurability was often evident, with good references to weight, portion size, component dimensions, price ranges, sustainability linked to the performance requirements of the products analysed in section A.
Where sustainability was realistically covered it was often through the connection to sustainability in the problem at the outset or candidates kept a focused eye on seasonality, fair trade, local produce, food miles or ethical farming such as organic or free range. Where candidates used the technical specification points (detailed in the Edexcel guidance document) to organise the product specification with technical, realistic and measurable criteria, it was possible to justify their inclusion from the summary of research findings.

Section C: Design and development:
Design

The moderating team report on a continued, noticeable improvement in this section, with many candidates managing to produce a range of 4-6 technical design ideas, including reasons for the selection, the working characteristics of ingredients, techniques and processes, third party feedback and development opportunities supported by research information, which address the needs identified in the specification. 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 should be included to access the higher marks.

Many candidates' embraced flair and creativity in this section with some excellent practical work applied to realistic and workable ideas, by creating food products with a wide range of skilful components, preparation, processing and finishing techniques, that was evidenced in their written portfolios as design decisions.

Review

It was pleasing to see most candidates presenting this as a separate review section in a tabulated format, to objectively assess the suitability of each design idea for the intended purpose, analyse development opportunities, consolidate their review against the specification with client feedback and make some important development decisions. After this selection and rejection process, a summary is helpful to communicate which design idea is being taken forward to the development stage, and aids the 'design story'. Photographic evidence supported decision making.

Develop

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 within commercial design. Summaries in a tabulated format 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 be 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 technical information (specific tolerances and dimensions) present to enable a skilled third party to manufacture the product as part of the commercial design methodology.

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

Planning was generally pleasing with a tabulated production plan conveying detailed consideration of realistic time scales, sequence of manufacture, 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.

Some quality and safety checks presented by candidates were very generic, repetitive or vague with limited reference to critical control points, and this reduced their potential of achieving the top box marks.

Section E
Use of equipment

Manufacture in the test kitchen 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

Very high level practical work was seen containing many components and skills that allowed candidates to demonstrate creativity, flair, accuracy and precision. The importance of high quality photographic evidence throughout the design, development and manufacture work is obvious. Food styling, structure and quality of photographic evidence continue to make steady progress and many centres are adept at insisting that candidates comply with this requirement. It is very helpful for moderation purposes, along with the constructive annotation in the CABs.

However, low level making processes lacking A2 technical skill or finishing techniques continues to be an issue for a minority of centres. In many cases, the addition of an extra component or two could have turned an average product into something more skilful and interesting.

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.

Complexity / Demand
Demanding high level practical skills and techniques with a quality finish remains a focus for GCE A2 level, and it is clear that centres and candidates have worked hard to achieve this consistency.

Section F
Test and evaluate
Where candidates had ensured that their specifications were technical and measurable in section B, testing and evaluating in section F was far more successful.

The link between Criterion B and F remains an area requiring some attention, as 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. In some instances, regrettably candidates identified suitable tests and drew a hypothesis of the potential results, rather than actually conducting any of the tests or providing any evidence of performance tests.

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) of the final design proposal saw a significant improvement this year, with much improved application of sustainability presented as a flow chart with relevant comments linked to the environmental impact of the product throughout its manufacture.

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