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Moderators' Report/ Principal Moderator Feedback

Summer 2014

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

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Unit 6FT04
Commercial Design

General Observations

Most centres have continued to make steady progress with the specification, and the coursework 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 including vintage style food products, festival and street foods, farm shops and cafes, deli food boxes, pop up restaurants, menu kits/boxes, event foods and luxury food items for a specific point of sale. Coursework foods products are becoming more inventive as a wide range of cultural cuisines from around the world are being used as inspiration for commercial design projects. All centres submitted student work that was potentially suitable for course requirements, with a range of levels of outcome.

Students 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 some students, it was seen only as a necessity for meeting the requirements of the assessment criteria, and remained a passive activity, with little focus. In some cases, dinner parties or celebration family meals were presented as the context, and it was impossible to see the link to commercial design. This is an area that requires attention by centres when guiding their students through the unit of coursework.

Administration

- As a guide, the A2 Commercial Design project should not exceed 30 pages of A3 paper.
- The quality of photographic evidence of the finished product(s) continues to be variable.
- A2 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. 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 student.
- Annotation in the CABs remains very helpful for moderation.
- Centre assessment was generally pleasing and there is evidence that 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 of a very 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.

Section A

Research and analysis

This section was generally good for the majority of students. Most research is now primary and pages of generic secondary research were rare. In most cases a suitable client was chosen although in some coursework it was difficult to ascertain whether the client was real. Most situations were suitably commercial though there were one or two instances of settings which were not commercial e.g. a dinner party for 6 people. In some cases the information which had been researched was not used very well to construct the specification or lead into design and develop work. A summary of the research would have aided this decision making.

Most students introduced the client /user group at the initial stage, and could identify how their client would be able to offer critical feedback at various stages during the design process. Many students utilised their client's knowledge and expertise by asking relevant, probing questions that enabled students 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. Analysis should clarify design needs, to aid the selection and use of research.

There continues to be much improvement on the selection, relevance and type of research activities, with a trend towards succinct, purposeful research activities based upon the design brief, ensuring that information gathered was useful and relevant to the client /user group's needs, identified and finalised during the analysis. Research does not need to exceed three pages of A3 paper. Primary research techniques are paramount to the success of this section, and product analysis should be used extensively to direct the writing of the specification linked to technical information retrieved from the use of existing commercial products, annotated menus and event site visits, to uncover potential issues around food production and storage pertinent to the design brief, to aid the writing of the specification and to plan product design and development work. In most instances, disassembly needs to be for more than one product within a product range, to allow students to uncover the work of a professional designer and how they can solve a design need, by identifying the main technical considerations for these products, as well as identifying any potential problems and applying this information to their design work. Sustainability was addressed by most students.

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

Section B

Product specification

Specifications are improving and there were less very brief, unqualified specifications. Some were very good especially those which used the research fully to inform decisions in this section. There was still a lack of measurability in many of the specifications and some seemed to be subjective statements of intent rather than points which arose from the research. Sustainability was included more frequently than in previous years and was less generic.

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 students 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

The moderating team reported continued improvement in this section, with many students managing to produce an initial brainstorm of ideas, followed by 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. However, 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. Weaker students tended to present irrelevant tick boxes, simple ingredients lists and methods of making with similar, simplistic design proposals and minimal communication of their design thinking, third party feedback or relevance to commercial design.

Many students embraced flair and creativity in this section with some outstanding 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. This was rewarded with high marks.

Review
It was pleasing to see most students 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.

Most reviews were completed well and the detail had improved over previous years. Weaknesses included not qualifying specification points, not including sustainability and lack of explanation relating to future developments.

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
Not the strongest section although the moderating team did see excellent development at times. Some students developed one aspect of each of their designs which led to a lack of fluency and cohesion. We saw examples of development which was very superficial but less so than last year. In some instances, it was felt that some students did not clearly explain what the purpose of each development was. In many cases the client had been forgotten by this section.

Developments were generally appropriate, but there were still some very cosmetic and superficial developments. Development means 'change', and this should be shown in students' work through their ability to use the results from the 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 students to demonstrate their technical knowledge and understanding of ingredients, components, techniques and processes within commercial design. 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 be recorded in detail by students. 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
This was generally an improving picture. A good range of communication skills was seen. ICT was well used and there was some very good photographic evidence in many folders. Most folders were well organised and flowed fluently from section to section. A few were still rather confused and did not always make clear links in terms of design decisions.

There has been an improvement in the amount of photographic evidence shown in coursework, which is now plentiful in most folders. However, some photographs were very small making it difficult to see the product clearly. Where the photos in the CAB were presented on photographic paper the quality was much better, and showed the work off to a better advantage. The clarity of the written communication was occasionally disappointing where headings and statements linking the process were missing. Generally, annotation was used to convey design and development work, with good explanation and detailed technical information. Google sketchup (CAD) and some highly technical drawing skills with rendering techniques were an enhancement to the design and develop sections. Most students presented a final design proposal with sufficient information to allow third party manufacture.

Section D

Planning
On the whole, this section continues to show improvement with most students attempting detailed logical plans with consideration of realistic time scales, sequence of manufacture, quality control, safety checks and deadlines for the scale of production. Occasionally, some justification was lacking and checks were very repetitive with generic or vague statements and limited reference to critical control points, and this secured the lower range of marks.

A few students did plans for more than one product, or a test kitchen plan and a commercial plan, which must have been very time consuming and created unnecessary additional work.

Section E

Use of equipment
This was a mixed section. The moderating team saw some excellent, well-constructed and very attractive products but this was the exception rather than the rule. There has been an improvement over previous years but some centres are still assessing rather leniently for this criteria. It would appear that some centres are still not aware of the standards expected for top marks at this level. Sometimes the very choice of topic seemed to limit students of the opportunity to show a broad range of skills at the required level. The complexity of the products sometimes lacked challenge but

centres are getting much better at adding supplementary components to produce a more complex dish.

Quality

As in previous years, there was evidence of some very high level work seen containing many components and skills that allowed students 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 are making steady progress and many centres are adept at insisting that students comply with this requirement.

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

Students 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.

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

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. To access the higher marks for this criterion, a challenging food product should contain a minimum of four technical component parts to allow the students to demonstrate the range of technical skills needed for advanced level food technology.

Section F

Test and evaluate

This appeared to be the weakest section. There was often a lack of understanding that the testing is required to evaluate the performance of the final product. Sensory testing was reasonably well completed and most students checked against the specification. The majority gave the opinion of the client. Where performance tests were completed they were not always justified and were sometimes written up so briefly that they were fairly meaningless. Most students had managed to complete the product life cycle but there was evidence of lack of understanding in places. Some students

are still including manufacturing information which is no longer required, and presenting it as testing.
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. Students 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.
Where students had ensured that their specifications were technical and measurable in section B, testing and evaluating in section F was far more successful.

Some centres are still choosing to omit life cycle assessment (LCA) from the final test and evaluate section, thus restricting their student's access to all the marks available for this criterion. In the main, life cycle assessments of the final design proposal presented a pleasing evaluation of the environmental impact of the product, and this was successful for many students where they had presented this information as a flow diagram evaluation throughout the products manufacture.

Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:
http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx

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