

A-LEVEL DESIGN AND TECHNOLOGY FASHION AND TEXTILES

7562/CE Non-exam assessment Report on the Examination

7562 June 2022

Version: 1.0



Introduction

This was the first external moderation for three years. Despite disruption most students produced a final prototype design in toile or product form and they and their teachers should be congratulated for their hard work in difficult circumstances. Many students chose interesting NEA contexts to investigate and some good quality, creative work was seen. However, there was also evidence that teachers struggled to understand the expected standard and apply the assessment criteria correctly and, in some cases, this led to a downward adjustment of marks. The schools where students performed most successfully used the TOLS resources. Many also consulted their NEA advisor for guidance on the contexts selected by their students. It is also good practice for each student to be given the assessment criteria and for them to consider how they would meet each criterion.

Few students wrote an appropriate or challenging context, with many mistaking a brief for a context. This meant that decisions on the product were made at the outset and prevented the full exploration of design possibilities. Section A of the assessment criteria begins with the statement 'Central to the success of the NEA is the selection, by the student, of a context that will provide them with the opportunity to challenge themselves as a designer. Care should be taken, and guidance sought, to ensure that the context chosen offers the student the scope and complexity for a piece of work that is worthy of consideration for the award of an A-level.' The context should be a concise statement which offers scope for wide and varied research before the student decides in conjunction with a real client what to design. Unfortunately, some students decided at the very outset what they would make and this limited their opportunity to explore design possibilities. Missing or poor contexts also affected every part of the project as without a good foundation to build on the content of the whole suffered.

There are many ideas for contexts that offer a wide scope of opportunities for investigations and students should be encouraged to spend time reflecting on what they will find engaging. NEA advisors are always happy to offer guidance on the suitability of contexts with teachers. Some examples of broad contexts which gave students the opportunity to create successful projects included:

- · 'Inclusive design'
- 'Female liberation and fashion'
- 'The influence of nature'
- 'Fashion and politics'

All centres used the correct 2022 assessment criteria when marking the work of students. Unfortunately, many centres did not ensure that every part of the mark scheme was met. Teachers should be aware that where specific pieces of work are named on the assessment criteria, students should attempt them as not doing so will affect their marks for that section. Aspects which were often ignored by students included:

- Section A. Constraints that need to be considered in formulating a final solution. First concepts. Sources
- Section B. Detailed project management
- Section C. Comprehensive and fully detailed manufacturing specification
- Section D. quality assurance planning and health and safety processes
- Section E. Considerations of how the prototype could be developed for different production methods.

Students should be encouraged to read the mark band descriptors in the specification scheme of assessment and consider how they will complete work which meets the requirements. Students should not be working to a formula prescribed by a teacher. The work should be their own and reflect their style, interests and the context selected.

Some folders were seen with very poor English and writing content which made no sense to the reader. Students should be reminded that this is A-level and be encouraged to write as clearly as they would for other subjects. The content should also be checked for grammatical, spelling, and formatting errors. The work of the most able was mature, concise and flowed. Design thinking was made clear at every stage.

The best student designers worked to the edge of their ability and produced creative and innovative final prototypes. Some students designed to a class set brief or passed off a design from a commercial pattern as their own and high marks for Section C could not be awarded in these circumstances. Schools are reminded that A-level students should not work to a formula laid down by the teacher. If providing scaffolding is necessary for a particular student this should be reflected in the marks awarded.

Most prototypes were designed for woven fabrics. Whilst hand knitting is time consuming and therefore not always practical some students used the technique to good effect.

Administration

Most teachers provided full explanations on the CRF to explain and justify the marks given. Many students also completed the CRF fully and their explanations of where work could be found were helpful to the moderation process. Teachers are encouraged to provide detailed information on the CRF as it is their opportunity to explain the marks they awarded. Students should number the pages of their NEA to enable the cross referencing of work, mark and where to find it. Teachers should be aware that the CRF is removed from folders in order to read the comments and cross check the marks with those recorded on the system. It is therefore vital that the work is labelled with candidate name and number as once the CRF is removed there is no other form of identification.

Section A: Identify and investigate design possibilities (20 marks)

Criterion – Excellent rationale provided for the context selected, with continuous reference throughout the project to the end user and the constraints that need to be considered in formulating a final solution.

- Identification and the writing of appropriate contexts was a significant issue for many students. Few wrote an appropriate or challenging context, with many mistaking a brief for a context. This meant that decisions on the product were made at the outset and prevented the full exploration of design possibilities.
- Some students considered constraints affecting their project fleetingly in mind maps; others
 did not reflect on this at all. The most successful students considered potential restrictions
 at the start and reflected on limitations at every stage.
- Some students considered their client well; interviewed them and used them to gather
 constructive feedback. Less successful students pretended to have a client and made up a
 premise as a vehicle for their own preferences. This was often clear in annotations where
 the student referred to what they wanted rather than the needs of the client. The absence of

- a client affected the quality of work throughout and made design decisions and the final evaluation of the prototype very difficult.
- Very few students chose a 'celebrity' client, realising that this route would not provide the feedback necessary for success at A-level.
- Some students recognised the importance of establishing appropriately qualified focus
 groups though few included experts and most relied on the opinions of their peers. Online
 surveys and 'Zoom' consultations were used well by the most successful students to
 overcome the difficulties of socialising during the pandemic.

Criterion – Student employs a comprehensive range of strategies and techniques, including both primary and secondary methods of investigation, practical experimentation and disassembly, to thoroughly explore design opportunities. All sources have been fully referenced.

- Most students planned primary and secondary investigations, although often in a table format similar to peers and possibly as a result of teacher direction.
- The most successful students explained their aim in carrying out an investigation and summarised their learning for each piece of research. This helped to show their design thinking.
- Questionnaires should be used with caution. Many seemed 'hoop jumping' and featured closed questions or irrelevant ones such as 'How old are you?' It was far more informative when students interviewed clients and/or end users.
- There appeared to be confusion for some students between a product analysis and disassembly. Copying and pasting dresses from websites provided little learning or ideas for development whereas a thoroughly done visual or actual disassembly assisted students with pattern development and garment construction.
- The most successful practical experiments were inspired by first concepts. Students tried
 out techniques such as dyeing, fabric manipulation or welt pockets which their research had
 led them to. Students who explained why the experiments were being conducted and revisited this stage of learning in their development work produced quality, iterative work.
- Students should be discouraged from writing about a general school visit unless they conducted research which was relevant to their context. They should be able to explain how the findings would support the development of their project.

Criterion – First concepts are both fully relevant to the context and feasible for further development and are clearly communicated through a fully appropriate variety of methods and techniques.

- First concept ideas are an excellent way for students to experiment, in drawn, modelled or textile form, with ideas suggested by their research. It was a pity, therefore, that many failed to recognise that first concepts were required in order to meet the assessment criteria.
 Several students ignored this requirement completely. Others failed to take the opportunity and only provided the most basic of pencil sketches.
- Some showed good practice and reviewed their sketched concepts with a client before developing the ideas through models, part toiles and samples.
- More able students saw first concept designs as an opportunity to experiment and take risks. The ideas were then developed further in Section C.

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Criterion – All investigations relate directly to the design context, issues are identified and fully addressed and the student demonstrates a detailed and perceptive understanding of the information gathered.

- Some failed to understand that all their investigative work should relate directly to the design context.
- Some students are still 'hoop jumping', perhaps following teacher direction, and conducting 'research' they think should be in their portfolio rather than investigating areas that have relevance to their context.
- Students who wrote aims and conclusions on each investigation page generally produced work where design thinking was clear.
- Students who wrote a detailed summative analysis report at the end of Section A were able
 to develop design briefs and design specifications with greater clarity and that better
 covered assessment objectives.

Section B: Producing a design brief and specification (10 marks)

Criterion – A comprehensive, clearly stated and challenging design brief resulting from a thorough consideration of investigations undertaken, that fully addresses both the context and the needs and wants of the intended user(s).

- A number of students began their NEA projects with a design brief rather than a context. This limited their opportunity to explore design possibilities. It was mostly these students who fixated on a product type without a thorough discussion with a client.
- Some students referred to their research when writing the brief but still centred on their personal wants and needs rather than those of the client.
- Without identifying, investigating and interviewing intended users as part of Section A students were not able to write a brief that fully identified their needs and wants.
- The most able wrote challenging briefs that allowed them to fully engage in an iterative and experimental design process.

Criterion – The student has produced a comprehensive, detailed and well explained design specification which will fully guide the student's design thinking.

- The most successful design specifications were written by students who were clear on the problem or need they were going to solve. They analysed their relevant investigations in depth and liaised fully with their client on first concept ideas.
- Students should be encouraged to provide a justification for each point of the design specification using research and client preferences.
- A surprising number of students left points so vague they did not fully guide the student's design thinking. Decisions on budget and time frames were also relevant to a project management approach.
- Many schools appeared to use a set formula for writing a design specification. Students should decide individually on the format of their work.
- Use of the design specification as a tool for checking and evaluating is central for success in Sections C, D and E. Surprisingly a significant number of students did not do this.

Criterion – A detailed project management approach to prototype development, including time management and determining quantities and costs of materials, has been fully integrated into the specification.

- Project management was frequently an aspect ignored by students or dealt with in cursory fashion. Centres often asked for top marks for section B even though this aspect had not been considered thoroughly.
- Gantt charts can be a useful method of project management but they need to be detailed and **used**. Too often the Gantt chart was a tick box chart never used or updated by the student.
- Students with the most successful project management approach included time frames for the whole project. For example, time, cost and opportunities were considered as constraints and points in the design specification. Time was planned for making the prototype. Material costs and quantities were considered in the Manufacturing Specification.

Section C: Development of design proposals (25 marks)

Criterion – The rationale for design decisions is clearly documented and fully justified with constant reference being made to the design brief, specification and investigations throughout the development of their design proposal.

- The most successful students were focused fully on designing prototypes to meet the needs of the end users. They explained how the designs met the needs of the client and made reference to the brief, design specification and research at every stage.
- Students should be encouraged to explain their design thinking. Often those working at the top
 of the ability range explained their reasoning for designs and what the next stage of
 development would be.

Criterion – In the development of innovative design proposals the student will demonstrate clear evidence of originality, creativity and a willingness to take design risks.

- This criterion posed a difficulty for some schools. Too often full marks were requested for designs which may have been well presented, but were derivative of high street fashion with little risk taking or innovation.
- A few students redrew the designs of commercial patterns which they then made up as toiles
 or final prototypes. By doing so the work could not be assessed as original or creative.
- The most successful students took an iterative approach. They clearly built on first concept ideas, took note of client feedback and used earlier practical experiments to progress ideas. These students were genuinely designing with end users in mind and not an outfit for themselves to wear.
- Some students showed originality and took risks in initial design work but did not take this innovation through to the final design prototype. Too often the final design idea was similar to a commercial pattern they had decided to make. This prevented them accessing the higher mark bands.
- Historical costume was a problematic area for some. A faithful replication of a historical
 costume without problem solving or development could not meet the criteria of risk taking or
 innovation. Students pursuing this route should be encouraged to consider what the creative
 'twist' or problem-solving aspect could be.
- There was some very exciting work seen from creative students. Sometimes this was from talented fashion illustrators but risk taking and innovation was also seen in modelling, moulage and toile form from students who expressed themselves better in 3D.

 CAD was used effectively by some students for development work including laser cutting, fabric printing and CNC embroidery. Other students used CAD alone for their design work. This was a pity as hand drawn sketches of ideas are often more immediate and illustrate design thinking more successfully in the early stages.

Criterion – Excellent use of a variety of modelling techniques to support ongoing development work throughout. This is supported by the use of drawings, sketches, annotations and notes showing clear evidence of design thinking.

- The most successful students used forms of modelling in first concept ideas and experimented with shapes and techniques. They often tried out ideas discovered during research.
- Students who cut their own patterns as a result of physical disassembly or draping experiments tended to produce the most innovative design ideas.
- Many students used a variety of techniques to help create the prototype pattern/template with few totally relying on commercial patterns. Those that used commercial patterns with few modifications struggled to show originality and risk-taking when developing and manufacturing their prototype.
- The higher mark bands were achieved through an iterative approach where students sketched concept or initial ideas. These were reviewed with the client then modelled and re-drawn until the client was satisfied with the result. The student compared each stage of development to the design specification.
- Higher ability students wrote about their development work either in summaries or detailed annotation. This helped to explain their design thinking.
- The most forward-looking students experimented with fabrics and created 3D prototypes using inexpensive materials. This testing, along with the opinions of end users, allowed further development to take place. Marks were achieved which contributed to Section E.

Criterion – Excellent ongoing development of design proposals, achieved through exploration of and experimentation with different materials, techniques and processes leading to an excellent quality design of a prototype for manufacture.

- The most successful students demonstrated an iterative approach. They experimented with practical ideas in Section A and conducted further research during development in Section C.
- Students who followed a prescriptive formula of drawing a certain number of designs followed by making some seam samples could not be awarded the higher marks as there was a lack of exploration relevant to their context.
- As part of a project management approach some students had planned and given reasons for the work they intended to carry out as they developed a final prototype.
- The more successful students experimented with product construction of separate parts of the garment as they looked for innovative and original solutions.
- The most able identified and investigated fabrics and possible techniques as part of section A.
 They went on to experiment in a focused way with techniques they had already established would work.
- Fabric investigation was often done poorly. Students frequently referred to fibres rather than fabric types. Some students worked to a prescribed formula using generic 'fact files' on fibres with similar pictures of fabrics from the internet. This work was often not relevant to the prototype being designed and could not be awarded high marks.
- The more able students investigated components such as fastenings, threads and linings which also contributed to Section D (2022 criteria) marks. Interfacings were often overlooked and little consideration or exploration was seen.
- When students had access to laser cutters, 3D printers and sublimation printers they showed good awareness of technological possibilities through practical sampling.

Criterion – Comprehensive and fully detailed manufacturing specification produced which makes specific reference to relevant quality control checks and allows fully accurate interpretation by a third party.

- The manufacturing specification was one of the named items on the assessment criteria that was often ignored or done poorly.
- Schools unfortunately gave top band marks for Section C despite the manufacturing specification and references to quality control checks being omitted or lacking detail.
- The most successful students produced technical documents similar to those in industry with working drawings, dimensions, tolerances, stitch type, material/component quantities and lay plans. In non-pandemic times fabric swatches would also be expected.
- Methods of explaining the quality control checks for manufacturing the prototype included flow charts with feedback loops or production planning in table form. For the higher marks the explanations required detail relevant to the product. Feedback loops needed to show the stage that would be required to return to should there be a problem. Bright colours and decorative arrows are not needed on this type of technical document.
- The most able students calculated the cost of their prototype product and compared it to the budget outlined in the design specification.

Criterion – Project management for manufacturing allows for further development of design proposals in response to ongoing evaluation, testing and full consideration of contingency planning as prototype development takes place.

- Where prototype development was thorough there was evidence that students used a project management approach to reduce the potential for unforeseeable issues impacting on prototype manufacture.
- At their best, students systematically tested, evaluated and analysed their work and changing direction as appropriate to move towards an improved outcome.
- Students working at the lower end of the ability range had predetermined the prototype they were going to make before development had taken place. They had selected a similar commercial pattern and produced superficial samples of techniques they were going to use and so this criterion was not met.
- Student use of third-party feedback was generally very good throughout Section C and helped to guide this work. Most would have benefitted from having experts as part of their focus groups.

It must be remembered that comments on Section D & E apply to the 2022 assessment criteria which was amended due to the effects of the pandemic. It was pleasing to see that the changes were generally well understood and that most students were able to make some form of final prototype.

Section D (2022 assessment criteria): Development of design prototypes (15)

Criterion – Excellent justification provided for selection of appropriate materials and components and proposed techniques and processes.

 Many students explained the selection of materials and components during investigations in Section A or while sampling techniques in Section C. Most schools correctly attributed marks for this in Section D but a minority undermarked their students by not doing so.

- Unfortunately, a significant number of students used a theory note 'fact file' approach to
 discussing fabrics. Sometimes all students from one centre used the same internet fabric
 pictures and this prevented them accessing the higher marks.
- The most successful students understood the difference between fibres and fabrics and related the properties of the fabric to the performance requirements of their prototype design.
- There were many students who considered the fibres cotton or polyester to be fabrics rather than discussing the fabrics made from these fibres.

Criterion – Excellent understanding of material properties, tools, equipment and processes is demonstrated to ensure excellent quality prototype design(s) that are fit for purpose.

- It was pleasing to see that most students were able to produce a prototype in toile form and many also completed a final product. Those that documented the manufacture with photographs and detailed commentary performed very well on this criterion.
- Many students used a variety of tools, equipment and processes while experimenting with techniques and samples at the first concept or development stages. This usage contributed to Section D marks.
- A wide variety of traditional textile machinery and equipment was evidenced and many schools used CAD/CAM for laser cutting and sublimation printing to good effect.
- The more able students explained how the equipment and processes ensured the prototype would be high quality and fit for purpose.

Criterion – Prototype design(s) fully address the design brief, satisfying all major points of the specification and take into account all amendments/ modifications to their original design proposals as necessary.

- The clarity of the brief and a design specification which had measurable points was central to success in meeting this criterion.
- The most successful students evaluated their prototype design against both documents regularly and used the results to inform modifications. By doing so they were engaged in an iterative design process.

Criterion – Student makes all required modifications to their final prototype design(s) in a fully considered manner in light of third-party feedback and as a result of testing and evaluation carried out against earlier models/iterations of the prototype.

- It was pleasing to note that most students had a real client, however, a minority 'pretended'
 to have a celebrity client and therefore could not access third party feedback to satisfy this
 criterion.
- The most successful students sought feedback from their client at all stages of development and used the feedback to create iterations of their design.
- Students should be encouraged to seek honest critical feedback that will guide improvements.
- The most able students not only re-drew their designs but modelled their ideas. Some remade toiles or part toiles incorporating client suggestions which were then user trialled.

Criterion - Quality assurance planning is evident throughout to ensure consistency and safety.

- The most successful students created a plan which explained how good quality would be built into the production of their prototype. This was either in table form or through additional annotation on a production or manufacturing diary.
- References in the manufacturing specification of finished dimensions, tolerances and seam and neatening types were credited as contributing to quality assurance planning. Detailed flow charts with appropriate feedback loops were also relevant.

Criterion – Clear evidence that appropriate health and safety processes have been considered.

- The very best work included a risk assessment relevant to the equipment and processes being used to make the prototype. The hazard having been identified the method of controlling the risk was explained and justified.
- The less able students mentioned basic workshop health and safety rules such as tie back hair or keep fingers away from the sewing machine needle. This was not sufficiently rigorous to warrant high marks at A-level.
- A list of generic textile health and safety rules unlinked to the prototype being produced is not considered the standard acceptable for high marks.
- A number of students failed to mention health and safety at all and were therefore unable to access full marks for Section D irrespective of the quality of work elsewhere.

Section E (2022 assessment criteria): Analysing and evaluation (15 marks)

Criterion – Comprehensive evidence of analysis and evaluation throughout the process, which has clearly informed the chosen context, client or user and the subsequent development of the prototype design(s).

- The need for testing and evaluation at all stages of the NEA project appeared to be well embedded with most students seeking client feedback from the outset.
- As with evaluation in Section D, students who were using a pretend or celebrity client could not access the marks for this criterion.

Criterion – Testing is carried out in a focused and comprehensive way with clear evidence of how the results have been used to inform the design and any modifications to the prototype design(s).

- The most successful students found opportunities to test their ideas and outcomes throughout the process.
- Testing included seeking feedback through interviews, focus groups, user trials and fitting sessions. Good use was made of remote online methods such as 'Survey Monkey' and 'Zoom'.
- Some students tested their fabric and components choices but this was executed less well, possibly due to the pandemic restricting access to school fabric supplies and testing apparatus.
- Testing through questionnaires, as referred to in Section A, was less well done. Students
 need detailed information on the positive and negative opinions their client has of the
 protype and this was achieved more successfully through conversations.

• For this criterion it was important that the student used the feedback and explained the modifications made through drawings, annotation and explanation.

Criterion – Student has provided a well-reasoned critical analysis of their final prototype design(s) which links clearly to their design brief and specification and provides full justification for the extent to which the prototype design(s) is both fit for purpose and meets the needs of the client/user.

- This is another criterion which depended upon the student having produced a brief and design specification with measurable points which could be used to evaluate against.
- Students approached this in different ways. Some opted for a table style comparison with
 the specification which worked well if the student explained how the point had been met or
 not. A simple tick/cross or yes/no response did not justify how needs were met or explain
 fitness for purpose. In some schools the students used a 'traffic light' colour coding system
 for evaluation which was simplistic and did not justify decisions or explain outcomes. In
 these cases, the higher marks for section E could not be achieved.
- Other students annotated the final design or photograph of the prototype to illustrate and explain their analysis. This method worked well providing the student explained their findings in detail and supported their conclusions with examples and third-party comments.

Criterion – A comprehensive critical evaluation of their final prototype design(s), clearly identifying how modifications could be made to improve the outcome together with a full justification for these modifications and full consideration provided for how the prototype design(s) could be developed for different production methods.

- This criterion was often missed or only attempted in a cursory fashion. This affected the marks the student could achieve for Section E.
- The most successful students summarised the feedback they had received from clients and focus groups. They used this and their own evaluations against the brief and design specification to suggest modifications which would improve fitness for purpose and meet client needs more successfully. Using the findings, they drew a modified design and annotated where the improvements were and why they improved fitness for purpose.
- Many students confused a critical evaluation of their final prototype with a reflection on their competence during the making process. A commentary on how more time could have been spent inserting a zip for example is not a critical evaluation of how well the final prototype design met the requirements outlined in the context and brief.
- The second half of this criterion was often overlooked. Many students did not explain the modifications needed in order for their prototype to be produced using different production methods. Some students made generic reference to what the different scales of production meant rather than how their product could be modified and made.

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Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the <u>Results Statistics</u> page of the AQA Website.