

P301

Commentary - Scientific Research

Marking grid for Unit 1: Dissertation

AO1 – Manage

Mark band 1	Mark band 2	Mark band 3
<p>The proposed outcome is identified and developed with a lot of guidance, support and assistance from the tutor-assessor. The proposed outcome may lack focus.</p> <p>The project plan gives objectives for the project and a brief rationale. Most of the main tasks to be completed are listed.</p> <p>The learner shows limited organisational ability and time management skills when managing the project.</p> <p>The learner maintains cursory records of activities undertaken during the project. There is some monitoring of own progress.</p>	<p>The proposed outcome is identified and developed with some guidance, support and assistance from the tutor-assessor and is then finalised and refined by the learner individually or within groups. The proposed outcome is reasonably focussed.</p> <p>The project plan gives clear objectives for the project and a clear rationale. All of the main tasks to be completed are provided in an appropriate order and described with an appropriate time span allocated for some tasks.</p> <p>The learner shows reasonable organisational ability and time management skills when managing the project. The learner maintains clear records of activities undertaken during the project, including problems encountered and steps taken to overcome them. Progress is monitored against the original plan.</p>	<p>The proposed outcome is identified and developed with limited guidance, support and assistance from the tutor-assessor but then finalised and refined independently by the learner individually or within groups. The proposed outcome is well defined and clearly focussed.</p> <p>The project plan is clear and concise, with clear and detailed objectives and rationale. All of the main tasks to be completed are provided in an appropriate order and described in detail, with an appropriate time span allocated for each task.</p> <p>The learner shows a high level of organisational ability and time management skills when managing the project. The learner maintains clear and detailed records of activities undertaken during the project, including problems encountered and steps taken to overcome them. Progress is monitored against the original plan and adjustments made to the plan where necessary.</p>
0-3 marks	4-6 marks	7-9 marks

Artefact: AO2 – Use resources

Mark band 1	Mark band 2	Mark band 3
<p>Some possible materials and techniques have been investigated. There is some referencing of research sources and a bibliography is included, listing most of the sources.</p> <p>From the research carried out, information and resources have been selected for use in the project although some of this may not be not directly relevant. Information has been collated in reference to the project. There are attempts to establish links between the research carried out and the project, although some of these may be tenuous.</p> <p>Some understanding of the less complex areas of the resources and research required for the development and production of the artefact has been shown.</p>	<p>A range of different types of materials and techniques have been investigated. Research sources are referenced appropriately and a bibliography is included, listing the sources in an appropriate format.</p> <p>From the research carried out, appropriate information and resources have been selected for use in the project. Information has been analysed in reference to the project. The learner has established clear links between the research carried out and the project.</p> <p>A reasonable understanding of the complexities of the resources and research required for the development and production of the artefact has been shown.</p>	<p>A wide range of different types of possible materials and techniques have been thoroughly investigated. Research sources are referenced appropriately and consistently and a bibliography is included, listing the sources in an appropriate and consistent format.</p> <p>From the research carried out, appropriate information and resources have been selected for use in the project. Information has been analysed and synthesised in reference to the project. Clear, concise and detailed links have been established between the research carried out and the project.</p> <p>A thorough understanding of the complexities of the resources and research required for the development and production of the artefact has been shown.</p>
0-4 marks	5-8 marks	9-12 marks

Artefact: AO3 – Develop and realise

Mark band 1	Mark band 2	Mark band 3
<p>An attempt has been made to structure the supporting information that relates to the development process. The information contained within it is generally presented in a logical order, although some of it may not be wholly relevant.</p> <p>The learner demonstrates limited understanding of the developmental process. There is some evidence of development of ideas and that alternative ideas and approaches have been considered, with some attempt to explain the decisions taken, eg relating to choosing the most appropriate materials, processes, techniques, design.</p> <p>There is some evidence that the artefact has been refined during the developmental process. Resources and skills are applied with some success in creating the artefact. The artefact goes some way towards fulfilling the original brief.</p>	<p>The supporting information that relates to the development process is structured and presented clearly. The information contained within it is generally clear and relevant.</p> <p>The learner demonstrates good understanding of the developmental process. There is clear evidence of development of ideas and that alternative ideas and approaches have been considered carefully, with a clear explanation of the decisions taken, eg relating to choosing the most appropriate materials, processes, techniques, design.</p> <p>There is clear evidence that the artefact has been refined during the developmental process. Resources and skills are applied generally successfully in creating the artefact. The artefact fulfils the original brief satisfactorily.</p>	<p>The supporting information that relates to the development process is structured and presented clearly. The information contained within it is consistently clear and relevant.</p> <p>Learners demonstrate a thorough understanding of the developmental process. There is clear evidence of development of ideas and that alternative ideas and approaches have been considered carefully and evaluated, with a well-thought out and well-argued explanation of the decisions taken, eg relating to choosing the most appropriate materials, processes, techniques, design.</p> <p>There is clear evidence that the artefact has been carefully and perceptively refined during the developmental process, showing innovation. Resources and skills are applied consistently successfully in creating the artefact. The artefact is highly successful at fulfilling the original brief.</p>
0-8 marks	9-16 marks	17-24 marks

Artefact: AO4 – Review

Mark band 1	Mark band 2	Mark band 3
<p>Overall the learner shows some self-awareness when evaluating the project and the extent to which they have achieved their aims and met the original brief. The learner attempts to assess how well they managed at different stages, although the learner’s assessment may not correspond with the tutor-assessor’s own judgement.</p> <p>The learner identifies some basic ideas for what they could do differently next time. They have drawn basic conclusions about the process of producing an artefact that could help them in future.</p> <p>The presentation is structured so that the audience can see that there has been some attempt to organise it logically and the learner shows basic ability to convey the main ideas.</p> <p>If an oral presentation is given, it is generally audible, although it is likely that the learner relies heavily on supporting materials, eg notes or cue cards. The learner shows limited ability to engage the audience or hold their attention. Where visual aids are used, these attempt to support the presentation, although they may not be clearly visible to the audience and may contain too much information.</p>	<p>Overall the learner shows good insight and self-awareness in evaluating the project and the extent to which they have achieved their aims and met the original brief. The learner is generally successful at assessing how well they managed at different stages.</p> <p>The learner describes ideas for what they could do differently next time. They have drawn clear conclusions about the process of producing an artefact that could help them in future.</p> <p>The presentation is structured so that it is reasonably clear to the audience how it is organised and how the different parts link together and the learner shows good ability to convey the main ideas.</p> <p>If an oral presentation is given, it is audible and reasonably paced; although it is likely that the learner relies on supporting materials, eg notes or cue cards, there are parts of the presentation that are not simply read aloud. The learner engages with the audience and holds their attention in places. Where visual aids are used, these are relevant and are reasonably effective at supporting the presentation. They show reasonable clarity and design.</p>	<p>Overall the learner shows a high level of insight and self-awareness in evaluating the project and the extent to which they have achieved their aims and met the original brief. The learner is highly adept at assessing how well they managed at different stages.</p> <p>The learner explains and justifies ideas for what they could do differently next time. They have drawn clear and perceptive conclusions about process of producing an artefact that could help them in future.</p> <p>The presentation is clearly and logically structured so that it is completely clear to the audience how the different parts link together and the learner shows a high level of ability to convey the main ideas.</p> <p>If an oral presentation is given, it is clearly audible and well paced. The learner may make some use of supporting materials, eg notes or cue cards, but the presentation is not simply read aloud. The learner engages well with the audience and holds their attention. Where visual aids are used, these are relevant and are consistently effective at supporting the presentation. They are clearly visible to the audience, are well designed and do not contain too much information.</p>
<p>Some questions are answered and the learner shows reasonable subject knowledge.</p>	<p>Questions are answered reasonably clearly and effectively and the learner shows reasonable subject knowledge.</p>	<p>The learner handles questions calmly and confidently. Questions are answered clearly and insightfully and the learner shows good subject knowledge.</p>
<p>0-3 marks</p>	<p>4-6 marks</p>	<p>7-9 marks</p>

Assessment Object	Moderator Comments	Mark Band
A01	The research question is identified and is developed with limited guidance, support and assistance from the tutor-assessor as reported by the centre but is then finalised and refined independently by the learner. The question is well defined and clearly focussed, though rather ambitious. The project plan is clear and concise, with clear and thoughtful objectives and rationale. All of the main tasks to be completed are provided in an appropriate order and described in detail with an appropriate time span allocated for each task. The learner shows a high level of organisational ability and time management skills when managing the project, as evidenced in the activity log. The learner maintains clear and detailed records of activities undertaken during the project, including problems encountered and steps taken to overcome them. The log shows evidence of ongoing reflection about the direction of the project. Only the slightly ambitious and overly general aim prevents this being top marks for A01	3
A02	A good range of research is in evidence. Most sources have been referenced and the bibliography is clearly constructed. Sensible evaluative comments are made about the sources. There is reasonable analysis and synthesis, though much of the literature review is quite prosaic and more could be done by way of exploring the wider context (not least, saying some more about the scientists involved).	3
A03	Structure is good. The discussion is reasonably ordered and effectively laid out, with good paragraphing and use of sub-headings. The level of language use is very good; few errors obtrude. The level of understanding and argument is good, though it would be nice to see some more engagement with academic literature on the question. There is a discernible main line of argument, though it is a little hard to see how all the elements of the discussion cohere. This, and the lack of more explicitly stated counter-arguments means the discussion is slightly generously marked.	3
A04	The written evaluation contains some perceptive remarks. Ideas for extension are justified. The centres mark for the presentation is supportable given the evidence here.	3