Advanced Higher Health and Food Technology

Project

Assessment task

This document provides information for teachers and lecturers about the coursework component of this course in terms of the skills, knowledge and understanding that are assessed. It must be read in conjunction with the course specification.

Valid from session 2019/20 and until further notice.

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Introduction

This document contains marking instructions and instructions for candidates for the Advanced Higher Health and Food Technology project. You must read it in conjunction with the course specification.

This project has 60 marks out of a total of 110 marks available for the course assessment.

This is one of two course assessment components. The other component is a question paper.

The project has three stages:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Marks</th>
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</thead>
<tbody>
<tr>
<td>Stage 1: project proposal</td>
<td>20</td>
</tr>
<tr>
<td>Stage 2: research</td>
<td>15</td>
</tr>
<tr>
<td>Stage 3: analysis and evaluation</td>
<td>25</td>
</tr>
</tbody>
</table>
Marking instructions

In line with SQA’s normal practice, the following marking instructions for the Advanced Higher Health and Food Technology project are addressed to the marker. They will also be helpful if you are preparing candidates for course assessment.

Candidates’ evidence is submitted to SQA for external marking.

General marking principles

Always apply these general principles. Use them in conjunction with the detailed marking instructions, which identify the key features required in candidates’ responses.

a Always use positive marking. This means candidates accumulate marks for the demonstration of relevant skills, knowledge and understanding; marks are not deducted for errors or omissions.

b If a candidate response does not seem to be covered by either the principles or detailed marking instructions, and you are uncertain how to assess it, you must seek guidance from your team leader.

c Candidates may demonstrate their skills, knowledge and understanding in a variety of ways and at different points in the project. Award marks for relevant and appropriate skills, knowledge and understanding wherever they are demonstrated.

d ‘Explain’ requires candidates to relate cause and effect and/or make relationships between things clear.

e ‘Evaluate’ requires candidates to make a judgement based on criteria or determine the value of something (for example the value of a particular source of information).

f ‘Analyse’ requires candidates to identify, describe or explain relevant parts and the relationships between the parts and/or the whole. They should draw out and relate any implications and/or analyse data.

g Select the band containing the descriptors that most closely describe the project.

Once the best fit has been decided:

- if the evidence fully meets the standard described, award the highest available mark from that band range
- if the candidate’s work just meets the standard described, award the lowest mark from that band range

Otherwise, award the mark from the middle of that band range.
## Detailed marking instructions

<table>
<thead>
<tr>
<th>Stage</th>
<th>Max mark</th>
<th>Marking instructions</th>
<th>Additional guidance</th>
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<tbody>
<tr>
<td>1: project proposal</td>
<td>20</td>
<td>Award marks for:</td>
<td>Candidates should conduct a broad review of the topic by carrying out a literature review. This gives a focus for the research and provides a clear statement of the research question with objectives.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• literature review (12 marks)</td>
<td>Candidates must refer to current, credible and relevant sources of information to the context of the topic. Appropriate sources of information could include books, professional journals, government reports, statistical information and online sources.</td>
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<tr>
<td></td>
<td></td>
<td>• research question and objectives (3 marks)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• research plan: explanation of techniques (5 marks)</td>
<td></td>
</tr>
<tr>
<td>Literature review (award up to 12 marks)</td>
<td></td>
<td>Candidates should make discrete points of information related to the topic. Each point should:</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• be communicated clearly</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• be clearly relevant to the topic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• be referenced appropriately</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• lead towards an appropriate research question</td>
<td></td>
</tr>
<tr>
<td>Do not award any marks for information that is not relevant to the topic, is not clearly referenced, or is not readily understood.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10-12 marks</td>
<td></td>
<td>The literature review is communicated very clearly, is relevant to the topic and discusses all the main themes in detail. It is supported by evidence of reading an extensive range of</td>
<td></td>
</tr>
</tbody>
</table>
current, credible and relevant sources; and appropriate, relevant references.

6-9 marks
The literature review is communicated clearly and is relevant to the topic. The review covers the main themes in detail. It is supported by evidence of reading an extensive range of current, credible and relevant sources; and appropriate, relevant references.

4-5 marks
The literature review is communicated clearly and is relevant to the topic. The review discusses most of the main themes in some detail. It is supported by evidence of reading a good range of current, credible and relevant sources; and some appropriate, relevant references.

1-3 marks
The literature review is relevant to the topic but gives limited explanation, with only some of the main themes discussed in some detail. It is supported by evidence of reading some current, credible and relevant sources; and some appropriate, relevant references.

0 marks
The literature review is not relevant to the topic and is not referenced. There is no evidence of reading sources.
<table>
<thead>
<tr>
<th>Research question and objectives (award up to 3 marks)</th>
<th>Candidates should provide no more than two objectives.</th>
</tr>
</thead>
<tbody>
<tr>
<td>♦ award 1 mark for providing a valid research question linked to the literature review</td>
<td></td>
</tr>
<tr>
<td>♦ award up to 2 marks for providing a set of valid objectives which will help to prove or disprove the research question</td>
<td></td>
</tr>
<tr>
<td>The research question must:</td>
<td></td>
</tr>
<tr>
<td>♦ be clear</td>
<td></td>
</tr>
<tr>
<td>♦ provide an appropriate focus for research linked to the research question</td>
<td></td>
</tr>
<tr>
<td>♦ include valid objectives to prove or disprove the question</td>
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</tbody>
</table>

**Research plan: explanation of techniques (award up to 5 marks)**

Award 1 mark for each clear point of explanation of the suitability of a research technique — up to a maximum of 3 marks for each research technique.

Candidates should plan to carry out at least two research techniques.

Research techniques could include a questionnaire; an interview, for example with a sector specialist; food experiments; testing; data analysis; sensory evaluation; nutritional analysis; or any other appropriate research technique.
<table>
<thead>
<tr>
<th>2: research</th>
<th>15</th>
<th>Award marks for:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>♦ results: relevance and clarity (10 marks)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>♦ results: coverage (5 marks)</td>
</tr>
<tr>
<td>Results: relevance and clarity (award up to 10 marks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-10 marks</td>
<td></td>
<td>At least two sets of relevant results communicated, clearly.</td>
</tr>
<tr>
<td>6-7 marks</td>
<td></td>
<td>At least two sets of relevant results communicated, mostly clearly.</td>
</tr>
<tr>
<td>3-5 marks</td>
<td></td>
<td>One set of relevant results communicated, mostly clearly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At least two sets of relevant results communicated, with limited clarity.</td>
</tr>
<tr>
<td>1-2 marks</td>
<td></td>
<td>One set of relevant results communicated, with limited clarity.</td>
</tr>
<tr>
<td>0 marks</td>
<td></td>
<td>No relevant results communicated.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Candidates should:</th>
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</thead>
<tbody>
<tr>
<td>♦ use at least two research techniques, as identified in their plan</td>
</tr>
<tr>
<td>♦ present results relevant to the research questions</td>
</tr>
</tbody>
</table>

Note: candidates must present results within the report, and not in an appendix. Do not award marks for any results presented in an appendix.
<table>
<thead>
<tr>
<th>Results: coverage (award up to 5 marks)</th>
<th>The range of information presented should be sufficient to allow the candidate to carry out analysis related to the context of the research question.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 5 marks are available for results that fully address the research question.</td>
<td></td>
</tr>
<tr>
<td><strong>5 marks</strong></td>
<td>The results presented represent comprehensive coverage of the research question.</td>
</tr>
<tr>
<td><strong>3-4 marks</strong></td>
<td>The results presented represent adequate coverage of the research question.</td>
</tr>
<tr>
<td><strong>1-2 marks</strong></td>
<td>The results presented represent inadequate coverage of the research question.</td>
</tr>
<tr>
<td><strong>0 marks</strong></td>
<td>The results presented are not relevant to the research question.</td>
</tr>
</tbody>
</table>
### 3: Analysis and Evaluation

<table>
<thead>
<tr>
<th></th>
<th>Award marks for:</th>
</tr>
</thead>
</table>
|   | ◆ analysis (20 marks)  
|   | ◆ evaluation (5 marks) |

**Analysis (award up to 20 marks)**

**17-20 marks**
Information is synthesised from at least two pieces of research.

Explanations clearly identify relevant pieces of information from the results, and relationships between them. The analysis demonstrates a comprehensive consideration of all aspects of the research undertaken and the way(s) in which those may be relevant to the research question and objectives.

**13-16 marks**
Information is synthesised from at least two pieces of research.

Explanations clearly identify relevant pieces of information from the results, and relationships between them. The analysis demonstrates consideration of most aspects of the research undertaken and the way(s) in which those may be relevant to the research question and objectives.

**9-12 marks**
Information is synthesised from at least two pieces of research.

Explanations clearly identify relevant pieces of information from the results, and relationships between them. The analysis demonstrates a consideration of some aspects of the research undertaken and the way(s) in which those may be relevant to the research question and objectives.

Candidates should clearly identify, discuss or explain relevant pieces of information, and relate these to each other in the context of their research question and objectives.
undertaken and the way(s) in which those may be relevant to the research question and objectives.

5-8 marks
Information is synthesised from at least two pieces of research.

Explanations identify relevant pieces of information from the results, and relationships between them. The analysis demonstrates a basic consideration of some aspects of the research undertaken and the way(s) in which those may be relevant to the research question and objectives.

Or
Information is synthesised from one piece of research.

Explanations clearly identify relevant pieces of information from the results, and relationships between them. The analysis demonstrates a consideration of most aspects of one piece of research and the way(s) in which those may be relevant to the research question and objectives.

1-4 marks
Information is synthesised from one or more pieces of research.

Explanations identify pieces of information from the results, and relationships between them. The analysis demonstrates basic consideration of some aspects of the research undertaken and the way(s) in which those may be relevant to the research question and objectives.
<table>
<thead>
<tr>
<th>0 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no evidence of relevant analysis.</td>
</tr>
</tbody>
</table>

**Evaluation (award up to 5 marks)**

*Award 1 mark* for a point of evaluation or a development of a point of evaluation that relates to the research process undertaken and leads to a valid recommendation for further research in relation to the research question and/or topic.

<p>| |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Candidates should evaluate their research process and, on the basis of that evaluation, explain appropriate ‘next steps’ in research on this issue.</td>
</tr>
<tr>
<td>Candidates should make a judgement on their research process based on the strengths and/or limitations of the techniques and sources used, and/or the relevance and quality of the information gathered in relation to the issue.</td>
</tr>
<tr>
<td>Candidates should include evidence of their judgement in their report.</td>
</tr>
</tbody>
</table>
Instructions for candidates

This assessment applies to the project for Advanced Higher Health and Food Technology.

This project has 60 marks out of a total of 110 marks available for the course assessment.

It assesses the following skills, knowledge and understanding:

- using research skills to investigate a current food issue
- presenting information, analysing and evaluating

The project has three stages:

<table>
<thead>
<tr>
<th>Stage 1: project proposal</th>
<th>20 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 2: research</td>
<td>15 marks</td>
</tr>
<tr>
<td>Stage 3: analysis and evaluation</td>
<td>25 marks</td>
</tr>
</tbody>
</table>

Your teacher or lecturer will let you know if there are any specific conditions for doing this assessment.

In this assessment, you have to:

- carry out research into a current food issue
- produce a report of the findings from your research

You can research a current food issue of your choice. You can choose a topic related to an area you have studied in the course or you can research any appropriate topic based on a current scientific, sociological or technological food issue.

Your report should be a maximum of 4,000 words, excluding references, footnotes and appendices. You must provide the word count for the report, excluding references, footnotes and appendices. If the word count exceeds the maximum by more than 10%, a penalty is applied.

You should identify a topic based on a current food issue for research before you begin the project.

To help you choose an appropriate topic you could consider the following questions:

- Does this issue allow you to apply knowledge of Health and Food Technology at Advanced Higher level?
- Will you be able to source enough appropriate information for research?
- Can you overcome all potential barriers, for example health and safety issues, permissions, logistics?
- Will you be able to complete it in the time available, and within the word count?

If you answer ‘no’ to any of these questions, you should reconsider your topic.
You should agree the topic for research with your teacher or lecturer before you begin the project.

Your report must be completed in time to meet the submission date set by SQA.

**Stage 1: project proposal**

**1a Literature review (12 marks)**
You should conduct a broad appraisal of the topic by carrying out a literature review.

You should make sure that the sources of the information are current, credible and relevant to your topic of study. You should record the details of the sources of information as you gather them, as this will make it easier for you to write up your final reference list for the sources of information you have referred to in your report. This research should give the background to your chosen topic by providing a range of views or opinions.

Your literature review should include separate points of information related to your topic. Each point should:

- be communicated clearly
- be referenced appropriately
- be clearly relevant to the topic
- lead towards an appropriate research question

**1b Research question and objectives (3 marks)**
The research question must:

- be clear
- provide an appropriate focus for research linked to the literature review
- include two valid objectives to prove or disprove the question

**1c Research plan (5 marks)**
You should provide an outline of your plan for your research into your identified research question.

You should plan to use at least two research techniques. The research plan should clearly describe the research you are going to carry out, the techniques and the sources you will use, and the justification of each technique you will use. You should choose research techniques that will provide valid and reliable results that are relevant to your research question.

Your research should provide sufficient information to fully address the research question. Make sure that the research you plan to carry out is realistic and achievable within the time and resources you have available. Your research should show a logical progression.

Before starting ‘stage 2: research’ you should arrange a meeting with your teacher or lecturer to discuss the findings of your literature review and research plan.
Stage 2: research 15 marks

In accordance with the research plan, you should carry out, and present the results of, your research.

2a Relevance and clarity (10 marks)
You should carry out research using the techniques and sources outlined in your plan in 1c.

You should clearly communicate the relevant results of each piece of research you have carried out. You can use text, diagrams, charts, graphs or any other appropriate format. You must present your results within the report and not in an appendix.

The results of your research should show sufficient relevant information about your research question to allow you to carry out an in-depth analysis.

2b Coverage (5 marks)
Your research techniques and sources should provide enough relevant information about your research question to allow you to carry out your analysis. The results presented in your project must fully address the research question.

Stage 3: analysis and evaluation 25 marks

You should analyse the results of your research in relation to your research question and objectives.

3a Analysis (20 marks)
In your analysis, you should identify, describe or explain relevant pieces of information from at least two pieces of research, and the relationship between these. This will allow you to draw out and relate any implications and/or analyse data, based on the evidence from your research.

3b Evaluation (5 marks)
You should evaluate your research process and, on the basis of that evaluation, explain appropriate ‘next steps’ in research on this issue.

In your evaluation, you should make a judgement based on the strengths and/or limitations of the plan, techniques and sources you used, and/or the relevance and quality of the information you gathered, in relation to the research question.

You must include the evidence used for your evaluation in the report.
General guidance for carrying out the project

Once you have chosen the current food issue you are going to investigate, you should carry out the project independently, under the supervision of your teacher or lecturer. Your teacher or lecturer could ask to see, or discuss, your work at any stage during the project.

Anonymity, confidentiality and ethical guidelines
If you gather information by interviewing or surveying individuals, either directly or indirectly, you must discuss the suitability of this with your teacher or lecturer before starting the process. If your teacher or lecturer agrees, then you must obtain appropriate permission from the relevant person(s) before starting your research. You must take appropriate steps in order to maintain the anonymity of the individual(s) throughout the project if they are sharing sensitive personal information, for example about a diet-related condition.

If the job description, post or position of an individual is central to the authenticity of the information, you must obtain permission to disclose this information before starting your research.

Throughout your project, you must establish appropriate safeguards and boundaries to ensure that privacy, confidentiality and anonymity are maintained at all times, where appropriate. Your teacher or lecturer can help you do this.

You must refer to relevant ethical guidelines from any appropriate regulatory body, for example for health professionals, when required.

Referencing information
You must use information for your project that is current, relevant and from a credible source. You must reference information such as publications including books, professional journals and government reports; online sources and other types of media; specialist organisations and individuals.

Downloading directly from the internet or copying directly from books without acknowledgement is plagiarism. It is also plagiarism to present others’ ideas as your own.

The purpose of referencing is to:

- show clearly which ideas or words are not your own
- provide enough information for someone else to find the source of those ideas or words
- present that information consistently

You may use any system of referencing that meets those requirements.

Cite the source of words and ideas that are not your own clearly beside them in the text, and list those sources alphabetically at the end of the report, as shown in the following examples.
Books — reference example
In the text:
‘The fascinating and surprising facts that affect food consumption; bringing reusable bags to the supermarket encourages us to buy more treats.’ (Herz, 2018, p.1)

In the list of references:
Herz, R (2018), Why You Eat What You Eat: The Science behind our Relationship with Food, W.W. Norton & Company

Journals and periodicals — reference example
In the text:
‘The children chose whole fruit over branded and bagged apple slices, stating whole fruit would be tastier, healthier and more likely parent approved. When apples were sliced and bagged, perceived taste and healthiness perceptions were variable.’ (Kellershohn et al, 2018, pp. 2569-2581)

In the list of references:

Websites — reference example
In the text:
‘At present, 29% of children in Scotland are at risk of being overweight, and 14% are at risk of being obese.’ (www.bbc.co.uk)

In the list of references:
www.bbc.co.uk/news/uk-scotland-scotland-politics-44110668 [Accessed 26/01/19]

You must include the date accessed and the full URL — listing www.bbc.co.uk is not enough in the list of references because it does not lead to the cited content.

Appendices
You can provide supplementary material at the end of the report in an appendix. Any supplementary material must support the content of the report, and could include:

♦ data from results of testing, questionnaires or surveys
♦ diagrams, illustrations or mind maps
♦ any other relevant material

The appendix must only include information that is referenced in the document.

You will not receive any marks for materials presented in the appendix.
Administrative information

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History of changes

<table>
<thead>
<tr>
<th>Version</th>
<th>Description of change</th>
<th>Date</th>
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Security and confidentiality

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