Eating bugs is the protein source of the future, so get used to it

By Stuart Marsh
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In my hand is potentially the greatest post-workout food ever found. It contains every amino acid, is 70 percent protein, contains almost no fat and is high in iron, calcium, vitamin B12 and fibre.

You may think I’m describing the latest form of protein powder or muscle bar, but what I’m holding is a bug, a single cricket to be precise – and it just may be the muscle-building food of the future.

Humans have been eating bugs for as long as we’ve been eating. If it crawled, buzzed or burrowed around our homes, it’s bound to have ended up in our mouths – but thanks to the rise of airborne disease carried by insects like cockroaches, eating bugs has fallen out of favour.

Spend some time abroad however, and you’ll see that our aversion to eating creepy crawly insects is strictly a Western one; in Vietnam they snack on grasshoppers when drinking beer, in Thailand they sizzle up tiny woodworms with noodles, and in Cambodia a deep-fried tarantula is a delicacy reserved only for special guests.

Even here in Australia, Indigenous Australians have been eating witchetty grubs (essentially a form of large, wriggling maggot) for as long as they have been around.

And now, thanks to our ever-insatiable thirst for foods that are “ancient” and “mystic” (just think about any superfood you’ve seen in the last three years), Western society is back onto bugs.

Jane Abma is co-founder of a company called Primal Collective that packages and sells roasted crickets. She believes that the potential – and need – for us to eat bugs is higher than ever before.

“We believe insects are the protein of the future,” Abma tells Coach.
“People all over the world (particularly in South-East Asia and Central America) enjoy insects as part of their everyday diet, so it’s not as crazy as it sounds.”

**Bugs are a nutritional powerhouse**

Of course it wouldn’t make sense to eat insects if they didn’t a) taste fantastic or b) give you so much nutrition that you couldn’t ignore them.

While the taste verdict is still undecided, the nutritional side of creepy crawlies makes them more deserving of a superfood title than any other hyped berry or herb.

Take crickets for example – in just a 5 gram serving (roughly a teaspoon’s worth of little legs and wings) there’s 2.9 grams of protein – enough to make any bodybuilder get excited. It’s this muscle-building potential that’s really fuelling the buggy banquet movement amongst fitness fanatics.

“As far as percentage protein goes, crickets are very high: 68 percent, in fact,” Abma tells us.

“Eating bugs is definitely more popular in areas like the US – in the last few years we’ve seen products like cricket protein bars and powders come onto the market. More recently, similar products have started to appear in Australia.”

“We are finding that there is an increasing number of people trying to find higher hits of protein, or more sustainable options (or both).”

**Speaking of sustainability …**

Think about where your last source of protein came from. It may have been eggs with breakfast, chicken for lunch or even a hearty steak for dinner. All of these things require livestock, which require farms – and a lot of food, water and land.

As Abma explains, while eating crickets sounds pretty gross, it’s actually pretty environmentally friendly.

“Crickets in particular are far more sustainable than other protein sources such as beef, salmon or chicken,” says Abma.

“For example, to make one kilo of crickets you need about one litre of water, versus 22,000 litres for the equivalent of beef.”

“Crickets require about six times less feed and produce 80 percent less greenhouse gases than cows, adding to the list of benefits for the future of our environment.”

**What about the ‘yuck’ factor? You (surprisingly) get over it pretty quickly**

After tasting the crickets ourselves here in our office, the verdict is that they taste amazingly “normal”. Once you get over the fact that you’re eating bugs, they’re surprisingly easy to eat, and taste a little bit like the crumbs at the bottom of a chip packet.

As Abma explains, because the crickets have been roasted, there’s no squirming abdomens or thorax exploding in your mouth and spraying bug guts all over your teeth.

(You’re welcome for that mental image.)

“We’ve had a lot of great (and hilarious) feedback via social media and from people at health events trying them out at our booths,” says Abma.

“I think after they get over the fact that yes, it’s an insect and yes, it’s whole and there are legs and wings involved, they are pleasantly surprised by the crispy crunch and nutty flavour.”

“There’s also no green juice or guts spilling out, which is what a lot of people panic about.”

So with all these great reasons to eat insects, it’s high time to let go of any prejudices you might have, open your mind and try something new.

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**Comment**

EWW! No thanks. I don’t care how healthy and environmentally friendly they are. Humans aren’t meant to eat bugs. This is just another example of a fad diet promoted by fitness freaks. Bugs will never become popular here when there is so much other excellent and delicious food available.

JH
How to approach Question 2

Question 2 requires you to write an analysis of how argument and written and visual language are used to try to persuade others to agree with the writer’s point of view. Your answer needs to be in the form of an analytical essay.

This chapter covers how to plan and how to write your analytical response.

Planning your analysis

When you are ready to start your analysis of argument and persuasive language, use no more than four minutes to write a plan. Remember that your assessors will not see anything you write on the task book, and they will not consider your plan when marking your response. However, the more you can organise your ideas in the first few minutes before you start writing the analysis, the better your writing will flow.

Use your annotations as the basis for your plan. If you have carefully annotated the task material before you started answering Question 1, you should have a lot of information in your notes, as well as circled and highlighted in the text, ready to include in your analysis. The plan really just gives you a logical order for presenting this information.

There are several possible ways to structure your analysis. One effective approach is to structure your analysis around the main points of the writer’s argument. Look for three or four main points. Then look for examples of persuasive language that are used to present each point.

Decide on the order in which you will analyse each point. Then select the language examples you will analyse in each paragraph. Remember that you are not expected to analyse every supporting argument or every example of persuasive language in the text. Instead, you need to be selective.

- Choose persuasive techniques and/or language that you feel confident analysing.
- Select persuasive techniques and/or language examples that you believe contribute significantly to the overall impact of the text.
• Select examples of language that are typical of the writer's approach. For example, the writer may cite five different statistics about increasing crime rates, intended to alarm the reader. You are not expected to analyse all five; however, as this is an important aspect of the writer's approach, you should analyse at least one of them (and perhaps mention repetition of this technique).

Writing a plan

Use the following guidelines as the basis for a quick plan. This plan is structured around the writer's main arguments, and it assumes there is just one text to analyse. (You might have four body paragraphs rather than three, especially if there is more than one text to analyse. For information on analysing two or more texts, see pages 32–3.)

• **Introduction** – identify the issue, the text type, the writer, the main contention, the place of publication/presentation, the intended audience, the writer's main purpose, the main visual material and the point of view it expresses.

• **Body paragraph 1** (first main point of argument) – explain how it supports the main contention; give examples of the persuasive language used to present it and explain what these make readers feel/think.

• **Body paragraph 2** (second main point of argument) – explain how it supports the main contention; give examples of the persuasive language used to present it and explain how these examples make readers feel/think.

• **Body paragraph 3** (main discussion of visual material) – identify whether it supports or challenges the point of view expressed in the main text and the main persuasive strategies used in the visual material. (If there is a second text, this paragraph is a good place to analyse it.)

• **Conclusion** – summarise the writer's overall approach to presenting their argument and compare it to the overall approach of the visual material and/or additional text.
Sample plan

The sample plan below is for an analysis of the texts in sample task 3: ‘Eating bugs’ (pages 55–7).

**INTRO**
Issue: Eating insects

<table>
<thead>
<tr>
<th>Writer</th>
<th>SM</th>
<th>JH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contention</td>
<td>people should eat insects</td>
<td>people shouldn’t eat insects</td>
</tr>
<tr>
<td>Main reasons</td>
<td>healthy, better for environment</td>
<td>disgusting, just a fad</td>
</tr>
<tr>
<td>Form</td>
<td>online article</td>
<td>online comment</td>
</tr>
<tr>
<td>Tone</td>
<td>firm, humorous</td>
<td>disgusted</td>
</tr>
</tbody>
</table>

Visual material: photo of bugs on dishes → looks like ordinary meal, eating bugs seems normal

Headline: grabs attention; forceful; directly addresses reader, appeals to being modern and up to date

Subheadings: summarise supporting reasons

**PARA 1:** Arg 1 - insects = nutritious

**PARA 2:** Arg 2 - insects = sustainable

**PARA 3:** Analysis of image of bugs - makes eating bugs seem normal but still confronting

**PARA 4:** JH rejects SM’s arg

**CONCL:** comparison of approaches of both writers

Comment on the photo here because it reinforces the writer’s attempt to making eating bugs seem normal.

This section of your plan is for ordering, like a road map, not for details. The details are all in your annotations.

There are different ways you can conclude; in this case the analysis will finish with a quick comparison of how the writers have tackled the issue.

Because the headline helps to establish the contention, begin the first paragraph by explaining how the article’s introduction and headline set up the contention and tone.

Because the annotations follow a system, the colours point you to the relevant part of your annotations.
**Activity**

**Practice Writing a Plan**

Find a persuasive text or use the texts in sample task 1 or 2 in Chapter 7 as the basis for your plan.

1. Annotate the text using the annotation system outlined on page 19, or your own preferred method.

2. Develop a plan for an analysis, following the structure outlined on page 30 and using the sample plan on page 31 as a model.

3. Now write a topic sentence for each of your body paragraphs.

**Analysing more than one text**

In your SAC you will have analysed two or three texts. In Section C of the exam, you might also be given more than one text to analyse. The most straightforward approach for analysing more than one text is the ‘block approach’, outlined below.

If the exam includes two texts, there will probably be one longer, main text, and one shorter text. Using the block approach, you should analyse the main text first, then analyse the shorter one. You should spend more time on the main text.

Visual material might be embedded within one of the texts, or it might be presented separately. Cartoons are sometimes (but not always) separate texts. If a visual item is clearly a separate text, it is best to analyse it in a separate paragraph. If the visual material is part of a written text, you can choose whether to analyse it separately or within a body paragraph that analyses the argument and language of the written text.

Remember that your analysis of visual material should always include a comment on how it relates to the other text or texts – that is, whether it supports, challenges or offers a different perspective on the point of view expressed in the other text/s.

After you have analysed the first text, signal that you are commencing your analysis of the second text in the topic sentence of the next paragraph. One effective way of doing this is to indicate whether the second text agrees with the point of view presented by the first text, or challenges it. Remember that even if the second text presents a similar point of view, it might present a different contention. The following is an example of a good opening to a paragraph analysing the second text.
Writing in response to Edwards, Webster’s online comment is also critical of the government for allowing bars to remain open until 3am. However, unlike Edwards, who believes bars should close at midnight, Webster assertively promotes a 10pm closing.

When analysing more than one text, the structure of your introduction and conclusion will be similar to that of a single-text analysis. However, both the introduction and conclusion should mention all texts.

**Writing your analysis**

The following guidelines and activities show you how to structure an introduction, body paragraph and conclusion.

**Introduction**

You do not need to write a very long introduction – a paragraph of two or three sentences is usually enough. In your introduction, you should:

- introduce the **issue** and give some brief information about the context
- introduce the **media text/s** (i.e. writer, title, text type)
- state the **main contention** of the text/s in your own words
- include a comment on **tone** and/or on the **structure** of each piece
- if an **image** is included, make a brief comment on its effect and how it works with the main text/s, e.g. ‘The exaggeration of the accompanying cartoon reflects the writer’s negative attitude towards …’

You can combine several of these details into one sentence.

Below is an example of a **weak** introduction. Read the annotations to see why this introduction is *not* effective.

In his text, the writer 1 uses persuasive language and an image 2 to present his view about eating bugs. 3

1 The text type and writer are not identified. The intended audience is not mentioned.
2 Stating that ‘persuasive language and an image’ are used is vague and does not demonstrate any understanding of the texts.
3 The issue is identified but the writer’s contention is not. No observation is made about his general approach to the argument.
Now look at the example below of a strong introduction. Read the annotations to see why this introduction is effective.

Stuart Marsh’s opinion piece 1 appeared in the health section of a news website, whose audience is primarily people interested in health and fitness issues. 2 Marsh argues that people should feel that eating insects is a good idea. 3 He sets out his reasons in a logical manner under subheadings and uses a primarily matter-of-fact, forceful tone to argue that eating insects is good for people’s health and for the environment. 4

1 The writer and text type are clearly identified.
2 The intended audience is clearly identified.
3 The issue and the writer’s point of view are clearly identified.
4 The writer’s main contention, most important supporting reasons and general approach are identified.

ACTIVITY

PRACTISE WRITING INTRODUCTIONS

1 The following is a weak introduction to an analysis of the text in sample task 2 in Chapter 7 (pages 51–3). Identify three elements that are missing from this introduction.

The text about changing the anthem states that it would be good to change the anthem because it refers to being ‘young and free’.

2 Rewrite the introduction to make it more effective.

3 Look at an introduction you have written for a previous analysis of argument and persuasive language. Does it identify the issue and the writer’s overall approach? Could it be made more effective? Identify any missing elements and try rewriting the introduction to make it stronger.

Body paragraphs

In your body paragraphs, you need to discuss the argument and language use in detail, supporting your analysis with examples from the text. You should:

- identify key points of argument and examples of persuasive language and discuss their intended effects on the reader
- use linking words to give your analysis a sense of cohesion
• include analysis of any visual material, including photographs, illustrations, graphs and charts, either in a separate paragraph or within a paragraph about a point of argument

• compare viewpoints and persuasive strategies if there is more than one text

• avoid giving your own opinion on the issue.

You can use the four key elements (ALEE) to structure your body paragraphs.

Argument: What is the writer arguing?

Language: What persuasive strategies and/or persuasive language is the writer using?

Example: Give examples, using short quotations.

Effect: How are the argument and language examples intended to position the reader to agree?

Remember that you need to balance your analysis of argument and your analysis of language. Both are equally important parts of the task. You should avoid:

• simply summarising the argument

• analysing the argument and explaining its intended effect, without analysing how specific language choices support the argument

• focusing on analysing the language without linking it to an analysis of the argument.

Below is an example of a weak body paragraph. Read the annotations to see why this body paragraph is not effective.

Marsh states that people should eat bugs because bugs are healthy. He argues that eating insects provides many nutrients. The reader will be excited about eating insects.

1 This statement would be more effective if short quotations were included.

2 The paragraph summarises one of the writer’s main arguments but doesn’t analyse it in any depth. Also, it doesn’t discuss how language is used to persuade the reader to agree.

3 An effect on the reader is identified, but it is not clearly linked to the writer’s use of argument and language.
Now look at the example below of a strong body paragraph. Read the annotations to see why this body paragraph is effective. The paragraph has been highlighted to show the key elements.

**Key**

*pink* = topic sentence identifying a point of argument or supporting reason  
*yellow* = examples of argument, evidence and/or persuasive language  
*blue* = analysis of effects on the reader

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Marsh uses an enthusiastic tone and facts and figures to present one of his major reasons for promoting the eating of insects – that they are a good source of nutrition. 1 He describes them as ‘deserving of a superfood title’ and refers to the ‘2.9 grams of protein’ to be found in ‘just a 5 gram serving’ of crickets. 2 His forceful and positive language, together with the use of statistics, is intended to position the reader to view eating insects as obviously good for a person’s health, due to the clear proof of the nutritional benefits. 3 Arguing that insects are a ‘nutritional powerhouse’ is likely to evoke enthusiasm in the reader for insects as a food source, positioning them to share the writer’s approval of eating bugs. 4

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1 Topic sentence identifies two persuasive strategies (‘enthusiastic tone’ and ‘facts and figures’) and a main point of argument.

2 Incorporating short quotes from the text makes the analysis more precise.

3 The writer’s choices of language and evidence are analysed in terms of their combined effect.

4 One of the writer’s supporting arguments is analysed in terms of the emotion it is likely to evoke in the reader and the way in which it positions the reader to agree.
Question 2 (10 marks)

Analyse the ways in which the writers use argument and written and visual language to try to persuade others to share their points of view.

Sample response

In a confident, reasoned and sometimes playful tone, Stuart Marsh’s opinion piece provides facts about the benefits of eating insects, urging readers – Australians interested in health issues – to overcome their doubts and accept insects as a sustainable protein source. The photograph of bugs on a plate helps to normalise the idea, which Marsh recognises will be difficult for some people. However, commenter JH responds in a firm, critical tone, arguing that eating bugs is never going to become popular in Australia.

Marsh begins by describing bugs in familiar terms more often applied to ‘protein powder’, dismissing the idea that eating insects might be ‘gross’. The use of first person (‘In my hand’) early in the article assures readers that Marsh is honest and trustworthy – he isn’t asking readers to try something he wouldn’t. Marsh also presents nutritional information, indicating that his article will be supported with facts, helping readers to trust his argument. This first paragraph is in a bold font, which, together with hyperbole (‘greatest ... food ever found’), grabs readers’ attention in a busy online environment where there are often distractions.

The confident opening is strengthened by a photograph (and lighthearted caption) showing bugs in a familiar food setting, encouraging readers to accept the idea of insects as an enjoyable food. This supports Marsh’s main contention that there is no reason not to eat bugs. However, the photograph is a close-up, focusing the reader’s attention on the insects’ ‘little legs and wings’. They aren’t disguised with other food ingredients apart from a basic garnish, and in this way Marsh admits that eating insects might feel confronting to some people. Thus the article is sympathetic to potential objections, acknowledging opposing views instead of aggressively rebutting them. This strategy helps readers to trust Marsh, and perhaps even want to try bugs themselves.

Marsh continues this gentle tone as he presents his main supporting points. Firstly, humans have a history of eating bugs ‘for as long as we’ve been eating’ and people ‘all over the world’ continue to. Secondly, the nutritional benefits outweigh any doubts: bugs are ‘more deserving of a superfood title than any other hyped berry or herb’. The alliteration of ‘hyped ... herb’ draws attention to how inferior the herbs are in comparison to bugs. Thirdly, they are more sustainable than other protein...
sources such as eggs or steak. Each main supporting point 9 is supported by statistics (2.9g of protein per 5g of bug) or an appeal to an authority figure (quotations from Jane Abma). 10 Each point is also clearly identified with subheadings, allowing the reader to follow the argument easily. The understanding tone and clear structure work together to convey a relatable, authoritative voice, inclining the reader to accept the arguments. 11

In addition, 12 Marsh uses persuasive language to enhance his position. An example is the use of humour (such as the exaggerated imagery of ‘squirting abdomens’). This helps relax readers who might still feel uncomfortable about eating bugs. 13 He also uses repetition of supporting points (such as nutritional value), of language (‘potential’; ‘taste’) and of his main contention (that we should eat bugs). Along with repeated appeals to being modern and up to date (bugs are ‘food of the future’, ‘the protein of the future’ 14), this ensures readers become familiar with the arguments in favour of eating bugs, and are therefore less likely to disagree.

The comment from JH, though, shows that not all readers are convinced. 15 JH instead appeals to readers’ fear of the unfamiliar, and to their biases: ‘humans aren’t meant to eat bugs’. Using negative, attacking language (‘I don’t care’; ‘fitness freaks’), JH simplifies Marsh’s contention (it’s just a ‘fad diet’), pushing readers to reject it.

Marsh sums up his own arguments in his concluding single-sentence paragraph, restating his contention and challenging readers to ‘try something new’. 16 This echoes the way the article uses techniques such as humour, facts and figures, appeals to authority and bold visual language to construct an open, reliable persona. 17 In contrast, JH appeals to readers’ fears to persuade them to agree that eating bugs ‘will never become popular’. 18

9 This clarifies the fact that they are not the only supporting points, but they have been selected as the most important ones to discuss. You will not have time to discuss every single point, or every single language technique.

10 Includes details and examples from the text to illustrate and support the analysis.

11 Note the use of ‘work together’, followed by explanation of the impact on the reader. Don’t forget to talk about how strategies work with each other, not just what they do on their own.

12 Simple linking phrase to help the essay flow smoothly from paragraph to paragraph, connecting the various parts of the discussion.

13 Note how multiple techniques – humour and imagery – are discussed, as is the combined effect on readers.

14 Demonstrates understanding of how the technique is used not just once but throughout the article; short quotations are effectively incorporated.

15 The main approach of the writer of the second text is identified, and the analysis is supported with quotations. It is a short discussion, as the second text is very short compared to the main one. If two texts are presented, you must discuss both, but remember to focus on the main text.

16 One way to begin your conclusion is to discuss the end of the article. This links the structure of your analysis with the structure of the text, and shows that you are reaching the end of your discussion.

17 It is important not to spend time in the conclusion analysing new elements of the article; note how this conclusion briefly sums up the whole discussion.

18 ‘In contrast’ is a clear indicator that there is a comparison taking place between the styles and techniques in the two texts.
Question 1 (10 marks)

a. Identify one group of people Marsh says already enjoys eating bugs.  
1 mark

b. Identify two reasons the writer gives for promoting the eating of bugs.  
2 marks

c. The writer believes that eating bugs is becoming more popular. List two reasons he gives for this view.  
2 marks

d. The writer states that it is only Western people who do not want to eat insects. What evidence does he give for this?  
3 marks

e. How have people who have tried eating bugs reacted?  
2 marks

Question 2 (10 marks)

Analyse the ways in which the writers use argument and written and visual language to try to persuade others to share their points of view.
Answers to sample task 3

Question 1 (10 marks)

a. Identify one group of people Marsh says already enjoys eating bugs.  
   Sample answer  
   Indigenous Australians  
   1 mark

b. Identify two reasons the writer gives for promoting the eating of bugs.  
   Sample answer  
   • They are nutritious.  
   • They are better for the environment than livestock like chicken and cows.  
   2 marks

c. The writer believes that eating bugs is becoming more popular. List two reasons he gives for this view.  
   Sample answer  
   • Cricket protein bars are available in the US.  
   • Other insect products are now available in Australia.  
   2 marks

d. The writer states that it is only Western people who do not want to eat insects. What evidence does he give for this?  
   Sample answer  
   The writer lists Asian countries where eating insects is common, such as Vietnam, Thailand and Cambodia. He also says that Indigenous Australians have been eating witchetty grubs for a very long time.  
   3 marks

e. How have people who have tried eating bugs reacted?  
   Sample answer  
   They have liked eating the bugs because they are crispy and have a nutty flavour. (It would also be acceptable to refer to the fact that people are pleased that there is ‘no green juice or guts spilling out’.)  
   2 marks