

Criteria Used When Assessing the Validity of Food Information

Key Knowledge

4.1.3

Criteria used when assessing the validity of food information, including source, purpose, context, presentation of evidence and language use.

Key Skills

4.1.1

Assess validity of information provided by a variety of contexts in which food knowledge and skills takes place.

4.1.2

Apply principles of research and healthy eating recommendations to assess food information.

4.1.3

Analyse the nutritional efficacy of contemporary food fads, trends and diets.

4.1.6

Demonstrate understanding of the healthy eating recommendations of the Australian Guide to Healthy Eating by applying them to food selection, planning and preparation.

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Terms and Definitions

Evidence-based refers to information or data that are derived from the findings of the best available current research.

Nutritional efficacy measures how well something meets dietary guidelines or recommendations.

Unbiased information or viewpoints are based on factual information rather than someone's opinion or view.

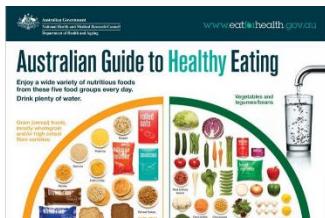
Food Information

For many years, people have been seeking information about food to help them live healthier. Gaining knowledge and learning about nutrition can motivate people to eat healthy foods. It can teach specific techniques to become more mindful about the type and quantity of food they eat and the circumstances that may lead to over-consumption. Sometimes, the information people have heard or read about is not always accurate and changes over time. For this reason, access to valid food information is very important. Unfortunately, not all of this information about food available is based on fact.

Some examples of the different forms of media in which food information can be sourced are provided below:



Scientific sources



Government institutions and organisations



Mass media



User-generated content

Watch this video to learn how advice about eating has changed over time: <https://youtu.be/5Ua-WVg1SsA>

Watch this video (until 5.35 min) to learn why advice about eating has changed over time:

https://youtu.be/Ow9W4zkZh_Q

Scientific researchers publish a significant amount of food information. They conduct research and often present this research at international and national conferences. Scientific researchers publish their work in scientific or academic journals.

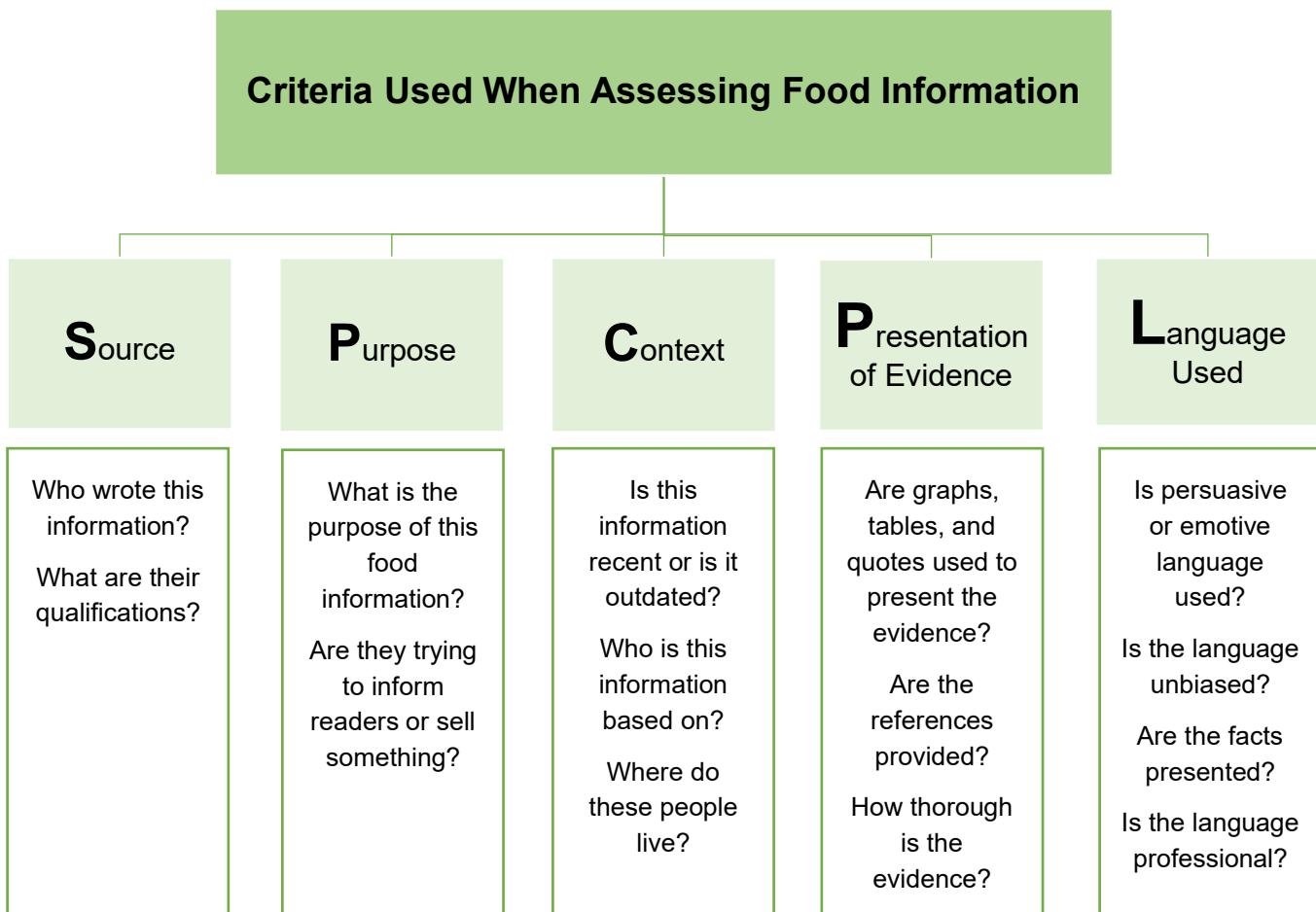
Food information is also available via **government institutions and organisations**. It is the government's responsibility to provide clear information on foods and nutrition. Governments use laws, policies, and standards to communicate food information. Ensuring this information is accurate is paramount for the government.

Mass media refers to forms of communication such as advertisements, newspaper reports, television advertisements and reports, news websites, social media, and radio. Mass media plays a vital role in health communication. It is important to note that food information in the media can be released by companies directly or funded indirectly through paid promotions. Food information in the mass media is not always accurate.

Nowadays, people are generating their own content and sharing it with others online. This is called **user-generated content**. People often refer to user-generated content such as blogs, reviews, social media, videos, and websites to keep up-to-date with food topics and trends. Everyday people with little education or knowledge about food often create this information. There is considerable concern about the validity of user-generated content.

Criteria Used When Assessing the Validity of Food Information

The sources we use for information about food are not always reliable. When reading and viewing information, we need to consider the following criteria:



Source

Answering the following questions will help you determine whether the source of information is valid.

Does the author have a degree in a nutrition-related subject?

The first thing you should determine is who is writing this information. You need to be sure the food information you had read was written by someone knowledgeable in the topic and has a relevant degree. The information is more likely accurate if the author has a degree in a related field of expertise.

Is the information provided by a government or credible educational institution?

The government is usually a reliable source of information. Any information about food the government publishes is collated by experts who gain knowledge and opinions from the latest scientific studies. Their findings and recommendations are then released to the community by government agencies. Universities are also reliable sources of information. Researchers at universities follow stringent procedures when researching and reporting on topics related to food and nutrition. As discussed, their research and conclusions are peer-reviewed to ensure accuracy.

Other organisations such as the CSIRO, Dieticians Australia, Nutrition Australia, Home Economics Victoria, and the Institute of Home Economics are also reliable organisations providing nutritional information. These organisations provide a service to the community but do not work towards making a profit.

Does the writer cite where they got their information from?

There are several reasons why people should state where they got their research from. One of the main reasons is that people can easily find a source to ensure the information is accurate and valid. Another reason is to ensure that writers credit others who have conducted previous research in the area.

Not all the sources that a person has read or interviewed on a topic need to be listed when recording citations. However, if a reference is made and the information gained helps prove a point or fact, they should be referenced. Writers must document where data and scientific research were initially found. Peer-reviewed journal articles, encyclopedias, and official online sources such as census data are almost always credible and should all be identified. Careful consideration about the validity of information from works such as magazine and newspaper articles must be given. While data from these sources are likely accurate, this is not always the case. Readers should be sceptical if an article lists blogs, forums, and even some websites as a source of information.

Is the information provided consistent?

Another way of checking whether information is reliable and accurate is to consider if it aligns with other credible works on the topic.

Watch this video to learn more about identifying credible sources of nutrition: <https://youtu.be/cPkD4KwNH-g>

Purpose

Answering the following questions will help you consider whether the purpose of the information is to inform the reader rather than entertain or persuade the reader to buy a product.

What is the purpose of the text?

People write for different purposes. Some people write to entertain. There is humour in everything, and food is no exception! Many memes, jokes, and anecdotal stories have been written about food. The underlying humour is usually quite obvious and therefore not taken seriously by most of the population.

When writers aim to educate or inform their readers, they usually provide facts about a topic. Informative writing is typically straightforward and well-organised. Authors of informational text employ various structures to assist the reader in finding information quickly and efficiently. Referring to informative text is usually a more reliable way of sourcing information. School textbooks and encyclopedias are all forms of informative texts. Research and journal articles are also considered informative works.

Context

Context refers to the circumstances that surround a situation or information.

What was the situation it was written for? When was it written?

When we look at something in context, we are looking at it in a specific situation and using the surrounding circumstances to make sense of what is happening. When we read information about food and nutrition, we often need to consider the context in which it was written.

What was the reason for providing the information?

It is essential to determine the reason why the nutritional information was provided. If the information was written to sell something, then it is more likely unreliable. However, suppose it was written to inform people about a particular health issue and did not reference purchasing a product. In that case, the information is more likely to be accurate.

How current is the information? When was it published?

Nutrition information can quickly become outdated because new findings can override past research. What may have been considered correct many years ago may no longer be accurate. When deciding if food and nutrition information is accurate, we must look at the date it was written. New information is constantly coming to light, so we must keep questioning information we read about food.

Where were the subjects or people?

Another thing to consider is the situation or circumstances surrounding the information. Other countries' nutritional guidelines may be inappropriate because people in other countries may face different health issues and access different foods. The food information provided to people must be relevant to the situation in which they live.

Presentation of Evidence

Anyone can conduct a study that generates evidence to support their claims. For this reason, it is essential to consider how evidence is presented.

What evidence has been provided?

Data, quotes, and statistics presented as evidence must be accurate, not manipulated. They must be supported by references (evidence).

Is the evidence (statistics) easily understood?

One of the key reasons people write about food and nutrition is to present findings or evidence that would typically be difficult to understand. Data in graphs and tables must be easily understood and supported by statements about who reported the original findings and when they were reported.

How thorough was the testing?

Another factor that must be considered when looking at the evidence presented is the sample size of the group studied and the type of people who participated. The overall sample size needs to be large enough to ensure that the information gained increases the probability that the data are accurate. Generally, the larger the sample size, the more statistically significant it is, and the less chance the results are inaccurate.

Researchers also need to be extremely careful about surveying the right sample size and the right type of people. It is misleading referring to data about people's access to fresh produce in Australia if only city dwellers were studied. These data would misrepresent the Australian population as not all people live in our cities.

Language Used

There are four main types of writing: expository, descriptive, persuasive, and narrative. Each of these writing styles is used for a specific purpose. Expository or information language is often used to present information about food.

Is informative language being used?

Informative writing usually conveys factual information. This style of writing is often used when writing about food and nutrition. People use informative writing when they need to explain a concept, provide an explanation, or give reasons to support their ideas. It is often found in journal articles, newspapers, and other documentation, such as fact sheets by health organisations. It should be unbiased, presenting the facts rather than viewpoints. It often contains technical language and is written professionally. Writing that meets these criteria tends to be factual.

Is persuasive or emotive language being used?

Persuasive text is a style of writing used to present a point of view and convince the reader to believe it or buy something. Advertisements are almost always persuasive. Personal blogs and even magazine and newspaper articles often use persuasive language. People who write using persuasive texts are usually selling an idea or product. Persuasive writers use specific techniques to persuade readers to believe what they are saying. They often ask rhetorical questions, that is, questions that do not need to be answered because you already know the answer.

Emotive language can also often be used when a writer tries to persuade people to believe what they are reading. They often use emotive language to get the reader to understand their point of view or trigger an emotional reaction. Emotive language is often used in food information about diet, health, and nutrition. Any dietary or nutritional information about food that uses emotional language should be questioned or disregarded.

Watch this video to learn more about persuasive language: <https://youtu.be/YG1FfC8vpeY>

Written Activity One

Criteria Used when Assessing Food Information

Select one of the articles at the following links.

- <https://www.simplegirl.com/blog/benefits-of-himalayan-salt/>
- <https://www.bbc.com/future/article/20200903-which-cooking-oil-is-the-healthiest>
- <https://www.weightwatchers.com/au/blog/food/health-benefits-avocado>
- <https://eoncechocolate.co.uk/blog/the-health-benefits-of-dark-chocolate/>
- <https://ratinkhosh.com/date-syrup-benefits/>
- <https://www.bbcgoodfood.com/howto/guide/health-benefits-turmeric>

What is the article about?	
Source <i>Who wrote the information?</i> <i>What are their qualifications?</i>	
Purpose <i>What is the purpose of this information?</i> <i>Is the writer trying to inform readers or trying to sell something?</i>	
Context Is the information recent or outdated? Who is the information based on? Where do these people live?	
Presentation of Evidence Are graphs, tables and quotes used to present the evidence? Are references/ sources provided? How thorough is the evidence?	
Language Used Is persuasive or emotive language used? Is the language biased? Is the language professional?	
Make an overall assessment of the validity of information in the article:	

Practical Activity One

Website Recipes

In groups of four, select two recipes from one of the following websites that promote the health of Australians:

<https://nutritionaustralia.org/category/recipes/>

<https://www.tryfor5.org.au/recipes>

<https://livelighter.com.au/recipe>

<https://foodwatch.com.au/recipes.html>

<https://www.eatforhealth.gov.au/eating-well/healthy-recipes>

Assess the nutritional efficacy of the recipes you made by comparing them to each component of the Australian Guide to Healthy Eating.

Component of AGtHE	Assessment
Grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties	
Vegetables and Legumes/ Beans	
Fruit	
Milk, yoghurt, cheese and/or alternatives, mostly reduced fat	
Lean meats and poultry, fish, eggs, tofu, nuts and seeds, and legumes/ beans	
Use small amounts	
Only sometimes and in small amounts	
Drink Water	

Summary Activity One

Criteria Used when Assessing Food Information

What is the main idea about this key knowledge & key skill? (Two or three sentences in your own words)	
Explain what these terms mean in relation to assessing the validity of food information.	
Source	
Purpose	
Context	
Presentation of Evidence	
Language Used	

Exam Preparation

Multiple-Choice Questions (5 marks)

Choose the response that is correct or that **best answers** the question.

1. Which of the following is the most likely source of credible food information?
 - a. Blogs on the internet.
 - b. The Eat for Health website.
 - c. Food packages.
 - d. Parent.
2. Which of the following is not one of the criteria for assessing food information?
 - a. Language Used.
 - b. Presentation of Evidence.
 - c. Credibility.
 - d. Context.
3. Which of the following is an example of language that is likely to be credible?
 - a. Choose nutritious foods and healthy recipes.
 - b. This spice cures all ailments.
 - c. The only food that makes you feel better.
 - d. More muscles than Brussels.
4. Context is one of the criteria to look for when assessing the validity of food information.
Which of the following would you not consider when evaluating the context of food information?
 - a. When was the data obtained?
 - b. Where do the subjects come from?
 - c. How thorough is the evidence?
 - d. What was the reason for providing the information?
5. Which of the following people would be considered the most credible source of nutritional information?
 - a. Doctor.
 - b. Registered Dietician.
 - c. Healthcare nurse.
 - d. Nutritionist.

Short Answer Questions (10 marks)

Question 1 (4 marks)

The Stephanie Alexander Kitchen Garden Program is an innovative school-based program that offers children in primary school the opportunity to grow, harvest, prepare and share fresh, nutritious, seasonal and delicious food in line with the Australian Guide to Healthy Eating.

The Stephanie Alexander Kitchen Garden Foundation provides professional development and educational resources to schools that deliver this program.

The program is supported by schools and early childhood services, volunteers, philanthropic organisations, government, businesses, and individuals.

a. Using the criteria listed below, assess the validity of the food information provided in these programs.

Criteria	Assessment
Source	
Purpose	

b. A recent report highlighted that there was evidence of statistically significant increases in knowledge, confidence, and skills in cooking and gardening in children who participated in the Stephanie Alexander program.

State how the evidence from this report should be presented for it to be considered credible. (2 marks)

c. Identify two other sources which children are likely to gain valid food information from and explain why these sources would be considered valid. (4 marks)

Exam Preparation

Multiple-Choice Questions (5 marks)

Choose the response that is correct or that **best answers** the question.

1. Which of the following is the most likely source of credible food information?

- a. Blogs on the internet.
- b. [The Eat for Health website](#).
- c. Food packages.
- d. Parent.

The answer is not A. While blogs on the internet may be reliable, they are not always reliable. They often do not contain sources of information or references.

The answer is B. The recommendations made on the Eat for Health website are based on scientific evidence after looking at good quality research.

The answer is not C. The information on food packages may be accurate, but this is not always the case.

The answer is not D. If parents do not have a nutrition qualification, they may not always provide accurate information.

2. Which of the following is not one of the criteria for assessing food information?

- a. Language Used.
- b. Presentation of Evidence.
- c. [Credibility](#).
- d. Context.

The answer is C. This is not one of the criteria used when assessing food information. The criteria used when assessing food information are: source, purpose, context, presentation of evidence and language used. You need to decide if the source is credible, but credibility is not a criteria.

3. Which of the following is an example of language that is likely to be credible?

- a. [Choose nutritious foods and healthy recipes](#).
- b. This spice cures all ailments.
- c. The only food that makes you feel better.
- d. More muscles than Brussels.

The answer is A. This language is not ambiguous and it is not overly persuasive.

The answer is not B. The use of the word 'cure' is misleading. Food may assist with ailments, but it cannot cure them.

The answer is not C. This language is biased.

The answer is not D. This statement lacks meaning and could be considered persuasive.

4. Context is one of the criteria to look for when assessing the validity of food information.

Which of the following would you not consider when evaluating the context of food information?

- a. When was the data obtained?
- b. Where do the subjects come from?
- c. [How thorough is the evidence?](#)
- d. What was the reason for providing the information?

The answer is not A, B or D. These are all questions you would consider when evaluating the context of food information.

[The answer is C. Thoroughness of the evidence provided is something you would consider when evaluating the presentation of evidence.](#)

5. Which of the following people would be considered the most credible source of nutritional information?

- a. Doctor.
- b. [Registered Dietician.](#)
- c. Healthcare nurse.
- d. Nutritionist.

The answer is not A. Doctors should be able to provide some nutritional information, but they are not specialists in this field.

[The answer is B. Dieticians are specialists in nutrition. Dieticians in Australia should be registered.](#)

The answer is not C. Healthcare nurses should be able to provide some nutritional information, but they are not specialists in this field.

The answer is not D. Nutritionists require a degree in nutrition. However, dieticians require higher qualifications.

Short Answer Questions (10 marks)

Question 1 (4 marks)

The Stephanie Alexander Kitchen Garden Program is an innovative school-based program that offers children in primary school the opportunity to grow, harvest, prepare and share fresh, nutritious, seasonal and delicious food in line with the Australian Guide to Healthy Eating.

The Stephanie Alexander Kitchen Garden Foundation provides professional development and educational resources to schools that deliver this program.

The program is supported by schools and early childhood services, volunteers, philanthropic organisations, government, businesses, and individuals.

a. Using the criteria listed below, assess the validity of the food information provided in these programs.

Criteria	Assessment
Source	<p>For one mark, the student needed to state where the information in the program.</p> <p>For another mark, the student needed to explain whether this information was a valid source.</p> <p>Possible responses included:</p> <p>Children participate in this program as part of their school curriculum. Schools and early childhood services and the government support the program. For this reason, it is fair to say that the sources are credible.</p> <p>Or</p> <p>The food the program promoted was in-line with the Australian Guide to Healthy Eating. This source is a government-based the AgtHE is an evidence-based program. Therefore, it is likely that the source of the program is valid.</p>
Purpose	<p>For one mark, the student needed to state the purpose of the program.</p> <p>For another mark, the student needed to explain why this purpose was valid.</p> <p>The program's purpose in schools is to inform children about healthy and sustainable eating and give them gardening and cooking skills. The purpose of the program was not to sell anything. Therefore, the food information provided in the program will likely be valid.</p>

b. A recent report highlighted that there was evidence of statistically significant increases in knowledge, confidence, and skills in cooking and gardening in children who participated in the Stephanie Alexander program.

State how the evidence from this report should be presented for it to be considered credible. (2 marks)

The student needed to state how evidence should be presented in order for it to be considered credible.

Two of the following responses were accepted:

- The evidence needed to be presented in a graph or table.
- A reference or source needed to be presented with the evidence.
- The evidence needed to be thoroughly tested with large sample sizes.
- The evidence needed to be supported by other documentation.

c. Identify two other sources which children are likely to gain valid food information from and explain why these sources would be considered valid. (4 marks)

For two marks, the students needed to identify other sources from which they might gain valid food information.

For an additional two marks, the students needed to explain why this information would be considered valid.

Websites by government organisations give valid food information because they want people to be healthy. If people are not healthy, they often become unwell, which could result in people using health services that cost the government money.

Doctors give valid food information because they do not or should not receive money from any other organisation or business to promote products.

Doctors give valid food information because they work towards providing adequate health care.

Starter Activity One

Sources of Information

List a variety of sources of information in the categories listed below:

Reliable Source	Unreliable Source