
THINKING SKILLS

9694/22

Paper 2 Critical Thinking

October/November 2016

1 hour 45 minutes

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

An answer booklet is provided inside this question paper. You should follow the instructions on the front cover of the answer booklet. If you need additional answer paper ask the invigilator for a continuation booklet.

Answer **all** the questions.

The number of marks is given in brackets [] at the end of each question.

This document consists of **6** printed pages, **2** blank pages and **1** insert.

1 Study the evidence and answer the questions that follow.

Source A**Newspaper report***from the Basset Chronicle*

A free-standing wall used by children of Basset High School collapsed last Tuesday. Several children were injured, some seriously. The children used the wall to practise football, tennis and basketball by bouncing balls off it. A pupil, Tracey Williams, told our reporter that she had warned teachers that the wall had seemed to move when she had leant against it but no action had been taken. A full inspection of school buildings had been undertaken by the council a few months before, but no problems had been reported. Parents are demanding an enquiry into how the accident happened.

Source B**Statement***by head teacher of Basset High School, Mrs Joan Smith*

We would like to express our regrets regarding the unfortunate accident that happened last Tuesday at the school. Thankfully, all the children injured should be able to look forward to a full recovery from their injuries. We had no reason to believe that the wall was unsafe as our buildings are regularly inspected by the local council building department, in accordance with the regulations.

Source C**Extract from report***by school inspectors*

Basset High School is failing many of its pupils who should be achieving better scores in tests, given their ability as measured by intelligence tests. A number of lessons observed were inadequate and staff complained of unsupportive leadership. The school seems to have a poor reputation in the community and many parents have removed their children in recent years and found alternative schools in the area.

Source D**School report***for Tracey Williams*

Tracey has proved to be an uncooperative pupil this term and has been sent out of lessons on many occasions. She has been abusive to teachers and has often told them how useless they are in her own colourful language. If this behaviour continues then we will have no alternative but to remove her from the school. We hope that Tracey will respond positively to the counselling she is receiving from our specialist team, as intelligence tests suggest she has academic potential.

Source E**Confidential memo***Barsset Council*

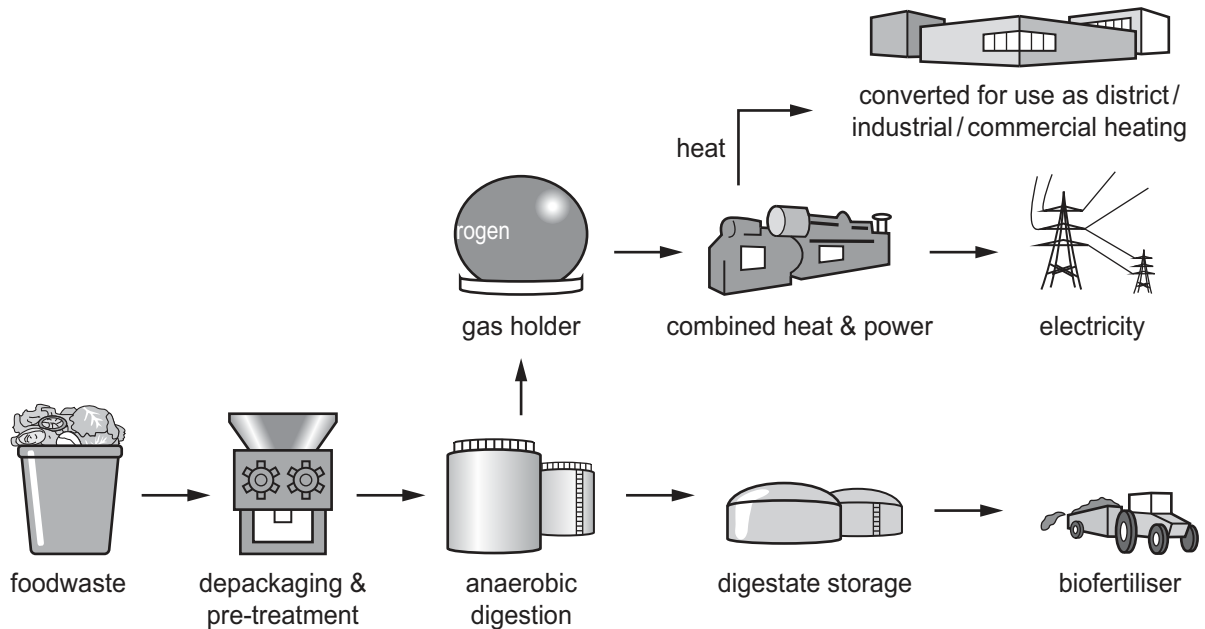
Owing to the decline in the numbers of school-age pupils, we need to consider closing one of our schools. The obvious candidate is Barsset High School. The school has a poor reputation in the town and recently had a very bad inspection report. The buildings are 100 years old and are expensive to maintain. Because of budget pressures, we are already having difficulty keeping up with the maintenance programme. So in closing Barsset High School we will save money and its closure will be no loss to educational provision in the town.

- (a) How significant is the evidence that there had been regular inspections by the council when considering the school's possible responsibility for the accident? [3]
- (b) How relevant is the evidence in Source C in assessing the school's possible responsibility for the accident? [3]
- (c) To what extent does the school report in Source D undermine the reliability of the evidence given by Tracey Williams in Source A? [3]
- (d) How likely is it that negligence on the part of the school was responsible for the wall falling down? Write a short, reasoned argument to support your conclusion, with critical reference to the evidence provided and considering a plausible alternative conclusion. [6]

2 Study the evidence and answer the questions that follow.

Source A**Promotional leaflet**

from anaerobic digester (AD) company

The AD Process

Our technology generates renewable energy and produces biofertiliser. It can deal with food waste in almost any form:

- Solid, liquid or sludge
- Packaged or unpackaged
- Out-of-date and damaged foods from retailers and supermarkets
- Food waste from restaurants, pubs, hotels, offices, hospitals and schools
- Domestic kitchen food waste
- Food processing waste
- Animal by-products

Source B**Report**

from a local authorities association

Residents living near anaerobic digesters report a number of significant problems:

- Smell – people have described the smell as ‘a dead rat type smell’ and ‘a mixture of dog muck and burnt plastic’ and many complain that they cannot open their windows.
- Lorry movements – a constant stream of lorries bringing the waste to the plant. This undermines the idea that this is a ‘green’ form of energy.
- Accidental spillage – sludge from the AD plant at a UK agricultural university flooded local farmland and took 36 hours to remove. It also entered nearby rivers.

Source C**Newspaper article**

It has been praised as one of the great waste solutions – but is anaerobic digestion simply encouraging us not to deal with the problem of food waste? If people think that the food they throw into the bin is being used to generate energy then they will not try to be less wasteful. They will continue to buy more food than they need and pile up more on their plates than they can eat.

We need policies that discourage food waste, rather than using it as a supposedly ‘green’ form of energy. Greater concern about food waste will also help to combat obesity because people will put less food on their plates. Supermarkets have, in fact, responded to calls to reduce waste which has resulted in a shortage of waste to put in anaerobic digesters. This has led to the absurd situation of crops such as maize being grown purely to service AD facilities and this is reducing the land available for other agriculture.

There is, no doubt, some genuinely unavoidable food waste, and as a disposal method for this type of waste, anaerobic digestion is undoubtedly a good idea. But the energy available at the end of the AD process is often much less than the energy required to produce the wasted food it uses.

Source D**Report**

from environmental group

Farmers of livestock should be encouraged to set up small AD facilities on their farms. This would produce energy from animal waste and provide a biofertiliser for any crops they grow. This would be particularly relevant to large scale intensive dairy farming where cows are kept indoors and produce a great deal of waste. Whilst there are high initial costs, the benefits quickly outweigh these. People living near intensive dairy farms experience a problem of many tractor movements to transport the animal waste and spread it on fields. If such farms had anaerobic digesters this problem would be alleviated.

- (a) “Greater concern about food waste will also help to combat obesity” (Source C). Suggest how greater concern about food waste might actually contribute to obesity, rather than help to combat it. [3]
- (b) How relevant is the information about smell in Source B to an assessment of anaerobic digestion as a renewable form of energy? [3]
- (c) ‘Only 10% of farmers in Asia have expressed an interest in having anaerobic digestion facilities on their farms.’ Suggest **three** explanations for this lack of interest, using the information in Source D. [3]
- (d) ‘Anaerobic digesters are not a ‘green’ solution to the problem of energy generation.’

To what extent do you agree with this claim? Write a short, reasoned argument to support your conclusion, using and evaluating the information provided in Sources A–D. [6]

3 *Read the passage and answer the questions below.*

- 1 Modern consumer society makes much of giving individuals opportunities to choose for themselves. When going to the supermarket one is now faced with a bewildering range of even basic products like washing powder. However, as mature human beings recognise, the idea that we are able to make choices is an illusion.
- 2 Psychological research shows that choice is not rational. All sorts of unconscious emotions determine what we choose. We are not in control of the influences that make us who we are as we experience life. The neo-classical economic theory that currently has global influence has the rationally-choosing consumer at its heart. The rational consumer is, however, a myth.
- 3 We are overwhelmed with choice in the modern world. It used to be quite simple to buy a tin of tomatoes but now one is faced with about twenty different types – tomatoes with garlic, tomatoes with a hint of chilli oil etc. etc. Finding a simple tin of tomatoes is now very difficult. We spend hours researching holidays on the internet only to find the place we have chosen is a disappointment.
- 4 In a complex modern world many decisions require the processing of technical information which the ordinary person is not able to understand; for example, only a dentist is trained to deal with the causes of toothache. You need to leave it for the expert to decide. Only experts are in a position to make informed decisions.
- 5 We all face dilemmas in life, when whichever choice we make is likely to have negative consequences. Dealing with such situations is the essence of being a mature human. Do we travel by road and risk traffic delays or take the train which might be cancelled due to signal failure? Such dilemmas force choices upon us.

- (a) Using the exact words from the passage as far as possible, identify the main conclusion. [2]
- (b) Using the exact words from the passage as far as possible, identify **three** intermediate conclusions. [3]
- (c) Evaluate the strength of the reasoning in the argument. In your answer you should consider any flaws, unstated assumptions and other weaknesses. [5]
- (d) 'Adults should make choices for children about their future.'

Write your own short argument to support **or** challenge this claim. The conclusion of your argument must be stated. Credit will not be given for repeating ideas from the passage. [5]

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