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**THINKING SKILLS**

**9694/22**

Paper 2 Critical Thinking

**October/November 2016**

MARK SCHEME

Maximum Mark: 45

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**Published**

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- 1 (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]

Significant, because it would suggest that checking the safety of buildings was not the school's responsibility [1]. However, the school would still be responsible for dealing with and reporting any problems on a day-to-day basis [1], especially, if pupils had expressed concern [1]. It is plausible that the free-standing wall was not covered under 'buildings', in which case it would remain the school's responsibility [1].

- (b) How relevant is the evidence in Source C in assessing the school's possible responsibility for the accident? [3]

A poor academic record is not directly relevant to the question of the safety of buildings [1] or judging how conscientious staff were in dealing with matters of pupil safety [1]. However, it could be seen as an aspect of an overall lack of organisation and management [1] which could include lack of concern for student welfare [1]/failure to act on information given by pupils [1]/failure to monitor safety of buildings on a regular basis [1].

- (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]

Undermines it to some extent as it could suggest she has a grudge against the school [1] and could want to get it into trouble [1]. If she was uncooperative it seems unlikely that she would warn teachers about a problem [1]. The reference to counselling might suggest psychological problems [1]. However, we have no information about why Tracey is receiving counselling [1] and her poor opinion of the school is supported by the inspector's report [1]. The reference to her intelligence suggests she may have been perceptive and noticed things like the wall moving [1]. The report does suggest a reason why Tracey's warning (if real) was ignored [1].

*Max 2 if only one side considered*

- (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]

<b>Level 3</b> 5–6 marks	A strong answer, which provides a reasoned argument including thorough evaluation of all or most of the evidence to support an acceptable conclusion in terms of probability and evaluates the plausibility of at least one alternative conclusion.
<b>Level 2</b> 3–4 marks	An answer which evaluates some of the evidence, draws an acceptable conclusion in terms of probability and may mention the plausibility of at least one alternative conclusion.
<b>Level 1</b> 1–2 marks	A weak answer, which refers to some of the evidence, possibly including a simple evaluative comment. The conclusion may be unstated or over-stated.
<b>Level 0</b> 0 marks	No credit-worthy material.

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***Indicative content***

Possible answers:

- The school was badly run and did not monitor pupil safety in a responsible way
- The council neglected maintenance of the school buildings
- The council did not consider the wall as part of its building inspections
- School pupils vandalised the wall

Clearly somebody's negligence is responsible as the wall should not have fallen down if somebody had been monitoring the situation. It is unclear whether the free-standing wall would have been included in the council's building inspections. A responsible school might keep an eye on buildings etc. as regards their safety and not rely purely on the formal checks. The statement from the headteacher in Source B is somewhat defensive and mainly aimed at 'covering her back'. Her competence is called into question in the inspector's report in Source C. It is possible that, in the clearly failing situation that the school was in, staff were too harassed to act on pupil reports and/or not inclined to believe a troublesome pupil. However, we cannot be sure that problems with the wall were reported by the pupil. It is just plausible that Tracey could have vandalised the wall or pushed it over to get the staff into trouble. Source E suggests the council was thinking of closing the school and this might have led to a lack of thoroughness in inspecting buildings. In particular, a free-standing wall may have been overlooked. Source E contains an admission from the council that they had difficulty keeping up with the maintenance work at the school. So, for the wall to get to the state that it fell down does suggest negligence on the part of the school but we cannot be certain about this.

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- 2 (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 helping to combat it. [3]

Attempts to avoid waste (by not throwing food away) [1] would mean people ate food instead [1]. So people will end up eating more food [1], which could make them obese [1]. In order to ensure they eat all the food on the plate, people might buy tasty but fattening ‘junk’ food [1].

- (b) How relevant is the information about smell in Source B to an assessment of anaerobic digestion as a renewable form of energy? [3]

Not relevant [1], as the evidence shows unfortunate side effects [1] but this does not undermine the claim that AD’s efficiently recycle waste and produce renewable energy [1]. Other ways of disposing of such waste may also create unpleasant smells/other negative side effects [1].

However, it would be relevant [1] in comparing ADs to other forms of renewable energy [1] which might have less unfortunate/more acceptable side effects [1]. Locating AD’s in remote locations might be a solution to the problem of smell [1]. However this would increase the distances that delivery lorries would have to drive [1] and might thus severely reduce the overall ‘greenness’ [1].

*Award judgment mark only once.*

*Mere reference to unfortunate side effects or examples of them not sufficient to award mark*

- (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]

- They do not farm livestock.
- Their farms are too small to produce enough waste.
- They cannot afford the initial cost.
- They do not have electricity or other forms of power.
- They do not know about this technology.
- Government has not encouraged or supported this idea.
- They are unconcerned/unaware of need for ‘green’ energy sources.
- They do not suffer from the problem of many tractor movements, so the benefit of these being reduced is irrelevant.
- There is little intensive dairy farming.

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(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]

<b>Level 3</b> 5–6 marks	A reasoned argument, which uses and evaluates all or most of the evidence provided.
<b>Level 2</b> 3–4 marks	A simple argument, which uses and/or evaluates evidence.
<b>Level 1</b> 1–2 marks	A weak answer, which makes some correct reference to evidence but consists of opinion and/or assertion rather than argument <b>or</b> an argument which makes no reference to evidence.
<b>Level 0</b> 0 marks	No credit-worthy material.

**Indicative content**

- Source A suggests that anaerobic digesters provide a source of energy that uses products that would otherwise go to landfill sites, with their associated environmentally-harmful effects. It is clearly an alternative to burning fossil fuels.
- The problem of smell indicated in Source B is an unwelcome side effect
- but other forms of green energy, notably wind turbines, also have unwelcome side effects.
- this does not necessarily detract from their efficiency as a source of energy.
- We cannot conclude that the accident referred to in Source B is typical, and all forms of energy pose the risk of some sort of malfunction or accident.
- however, Source B also refers to lorry movements which would detract from the claim that AD is a ‘green’ form of energy.
- The most serious objections to AD are in Source C. We should not be wasting food in the first place if we are to be environmentally responsible. Even more damning is the suggestion that demand for waste outstrips supply and that crops are being grown specifically to supply anaerobic digesters.
- however, Source D suggests a particular use of AD which avoids many of the above objections as it uses animal and not food waste
- and it seems to solve some problems associated with intensive dairy farming
- on the other hand, this would seem to mean many communities would suffer from odour problems assuming the smaller AD devices have these problems.
- Given that not wasting any food is an aspiration that is unlikely to be realised any time soon, anaerobic digesters could be said to be an excellent way of avoiding food going into landfill as long as a balance is maintained between the supply of waste and the demand of the anaerobic digester sector.

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- 3 (a) Using the exact words from the passage as far as possible, identify the main conclusion. [2]

2 marks: (However, as mature human beings recognise,) the idea that we are able to make choices is an illusion.

1 mark: Paraphrase of the 2-mark answer.

- (b) Using the exact words from the passage as far as possible, identify three intermediate conclusions. [3]

1 mark for each of the following, to a maximum of 3:

- The rational consumer is (, however,) a myth.
- We are overwhelmed with choice in the modern world.
- You need to leave it for the expert to decide.
- Such dilemmas force choices upon us.

Allow one additional element or one significant omission in each case.

If more than three answers are offered, mark the first four only.

- (c) Evaluate the strength of the reasoning in the argument. In your answer you should consider any flaws, unstated assumptions and other weaknesses. [5]

Marks for each evaluative point as follows, up to a maximum of 5 marks:

2 marks: Valid evaluative point, clearly expressed.

1 mark: Weak attempt at a valid evaluative point.

Paragraph 1

- Begging the question – the author's conclusion would only imply that this is the perspective of 'mature human beings' if his argument is accepted.

Paragraph 2

- Assumption – true choice has to be based on rationality.
- Assumption – psychological expertise is the only relevant expertise

Paragraph 3

- Problem of meaning – 'overwhelmed with choice' does not mean the ability to choose is taken away. [Can be expressed as conflation.]
- Conflation/irrelevance – negative consequences of choice confused with ability to choose.
- Inconsistency – the author's initial position of there being no choice seems to have been replaced by one where there is too much choice.

Paragraph 4

- Assumption – one will not regret the decision made by experts / expertise will necessarily mean a good decision is made.
- Inconsistency – suggests humans do have the ability to choose when they are informed/expert so ability to choose is not an illusion in this case.
- The IC is overdrawn – there are many everyday decisions which we do not need to leave to experts

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*Paragraph 5*

- Contradiction – in paragraph 1 it suggests that mature human beings recognise that the idea of choice is an illusion, but here suggests choosing which path to take when faced with a dilemma is the essence of being a mature human.
- Conflation/irrelevance – limitations on choice are confused with not having the ability to choose.
- Assumption – that forced choice is not real choice.

*Overall evaluative comment*

The author offers little support for the conclusion that making choices is an illusion. Most of the reasoning is about the difficulty of making choices.

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(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]

<b>Level 3</b> 4–5 marks	Developed, coherent argument. Reasons strongly support conclusion. Development may include intermediate conclusion or apt examples. Simply structured argument – 4 marks. Effective use of IC etc. – 5 marks.
<b>Level 2</b> 2–3 marks	A simple argument. One reason + conclusion – 2 marks. Two or more separate reasons + conclusion – 3 marks.
<b>Level 1</b> 1 mark	Some relevant comment.
<b>Level 0</b> 0 marks	No relevant comment.

Maximum 3 marks for wrong conclusion or if conclusion is implied but not stated.  
No credit for material merely reproduced from the passage.

### **Specimen level 3 answers**

*Support (108 words)*

Children do not have the experience of life to know what is good for them. They also cannot be sure that they will like what they do now, when they are adult. This is because their personalities are still being formed. So they are not in a position to make an informed choice about their future. For instance, they may have unrealistic aspirations about being an astronaut and exploring outer space because they have watched too many sci-fi films. So adults should make choices for children about their future as they are able to make a realistic assessment of what opportunities are likely to be open to them.

*Challenge (124 words)*

Although life experiences have an effect on individuals as they develop, the basic personality is formed at an early age. Only the individual knows what they are like and what they really want to do in life. So no adult can be in a position to make a choice on the individual child's behalf. This idea is based on the false assumption that the adult individual is fundamentally different from the child. There is also a danger that the adult's own desires and prejudices will affect their judgment – institutions such as medical schools are full of people who are only studying to become, say, a doctor because this is what their parents wanted. So adults should not make choices for children about their future.