



Cambridge International AS & A Level

THINKING SKILLS

9694/21

Paper 2 Critical Thinking

October/November 2021

1 hour 45 minutes



You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **all** questions.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 50.
- The number of marks for each question or part question is shown in brackets [].

This document has **8** pages. Any blank pages are indicated.

Section A

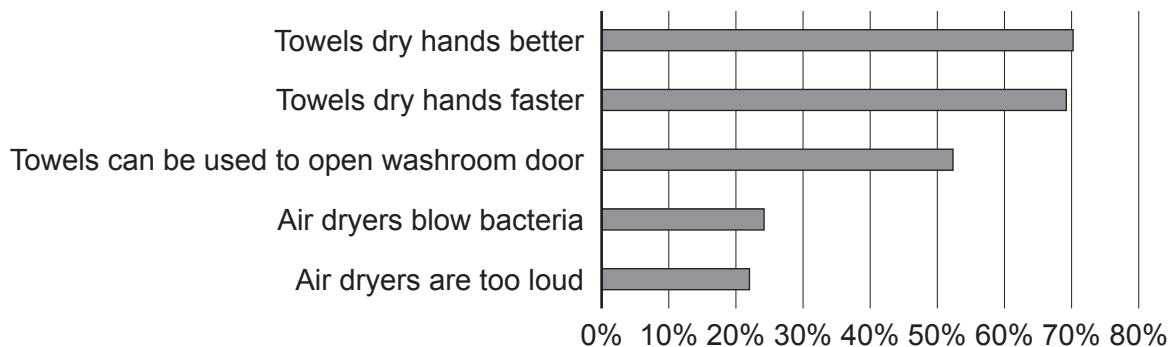
Study the evidence and then answer Questions 1 and 2.

Source A

Press release from company which supplies paper towels

One of the world's top polling companies conducted an opinion poll among 2048 US adults. 69% of respondents said they preferred to use paper towels rather than electric hot-air dryers when drying their hands in public washrooms.

Of those who preferred paper towels, the top five reasons given were:



Source B

Research Report

When someone flushes an open toilet, tiny particles of faeces and bacteria can be thrown as high as 15 feet (4.5 metres) into the air. Those particles can be sucked up by electric hand dryers and blown straight onto people's freshly washed hands.

Researchers placed germ-collecting plates in 36 washrooms in the University of Connecticut School of Medicine. Bacteria that landed on the plates began to form tiny bacterial colonies. Some plates sat for two minutes in still air, without hot-air dryers blowing. These plates collected an average of 0 to 1 bacterial landings in the two-minute period. Other plates were blasted with air from a dryer for 30 seconds while they were held 12 inches from the dryer's nozzle. They showed between 18 and 60 colonies of faecal bacteria per plate.

However, one of the researchers commented, "We did not prove that the bacteria deposited by hand dryers are responsible for disease. In fact, for people with a healthy immune system it is unlikely to be a problem, as the hand dryer is concentrating environmental bacteria from the air probably found in most places where people congregate."

After these findings were published, the University of Connecticut replaced hot-air hand dryers with paper towel dispensers in all the washrooms which were surveyed in the study (although not in other locations in the University).

Source C**From website of manufacturers of air dryers**

Some studies have claimed that paper towels are a more hygienic method of drying than electric hand dryers as there is less risk of bacterial dispersal in the atmosphere. However, paper towels are not produced in a sterile environment, and one scientific study found various amounts of bacteria, some of them harmful, in unused paper towels. Used paper towels left damp and uncovered in a warm environment easily become a breeding ground for germs. Health professionals agree that the prevention of bacterial spread is dependent on how thoroughly you wash your hands.

The average person uses 2–3 paper towels on each visit to the washroom, which can cost the owners of a busy facility over \$1300 a year to supply and replace. One of our dryers will cost little more than \$100 a year in electrical costs and will pay for itself over a 6-month period when compared to paper towels.

Source D**Sponsored article in environmental magazine**

Using paper towels in preference to electric hand dryers is bad for the environment. Environmental costs include chopping down trees and the energy used in transporting raw materials, processing, transportation to warehouse and distribution to the customer. Furthermore, paper towels cannot be recycled, because they are normally made of recycled paper, and so they usually end up in landfill. However, almost all the components of an electric hand dryer can be recycled at the end of its life cycle, and it uses much less energy to manufacture and run over a 5-year period than the equivalent usage in paper towels.

- 1 (a) (i) Assess the credibility of Source A. [4]
 - (ii) 'The majority of US adults prefer paper towels to electric hand-dryers.'

To what extent does the graph in Source A support this claim? [3]
 - (b) (i) How reliably can it be concluded from Source B that electric hand-dryers endanger the health of the people who use them? [2]
 - (ii) How significant is the change made by the University of Connecticut reported in the last paragraph of Source B? [3]
 - (c) Source C claims that "Health professionals agree that the prevention of bacterial spread is dependent on how thoroughly you wash your hands."
- Explain why this claim is weak as a response to the allegation that electric hand-dryers spread bacteria. [2]
- (d) Is Source D an argument? Justify your answer. [2]

- 2 *You are advised to spend some time planning your answer before you begin to write it.*

'Institutions which provide washrooms should supply paper towels instead of electric hand-dryers.'

To what extent do you agree with this claim? Write a short, reasoned argument to support your conclusion, using and evaluating the evidence provided. [8]

Section B

Read the following passage and then answer Questions 3, 4 and 5.

- 1 The word 'workaholic' is commonly used to suggest that some people are addicted to work, but we should avoid using this word, because it trivialises this problem. It sounds as if being devoted to work does little harm, but marriages and other intimate relationships often break up because one partner has put their job before the relationship. Also, many adults complain that while they were growing up, their parents always seemed to be too busy to give time to them.
- 2 Being devoted to a job to the exclusion of all other loyalties is also a sign that someone has psychological problems, such as lack of confidence or fear of failure. Describing such people as workaholics does not help them, as it encourages them to avoid admitting that they have a problem and makes them less likely to seek the counselling they need.
- 3 Mocking people who dedicate all of their time and energies to work is socially irresponsible, because it demeans the moral value of work. Earning one's own living by work contributes to the well-being of society and fulfils each person's potential by developing and using their talents.
- 4 It is ironic and unfair for spouses and children to complain that parents spend too much of their time at work. Some parents work very long hours – perhaps holding down more than one job – because they need to earn enough money to give their families all the possessions, experiences and opportunities which they desire. Such complaints are as unreasonable as it would be for street beggars to criticise the generosity of people who give them money.
- 5 Some jobs are of great and urgent importance to society and people who work in those jobs should not be criticised for giving them priority. Police officers, for example, willingly sacrifice their comfort and security to protect the public, even risking their lives on a daily basis. Their marriages frequently end in divorce, because they often have to cancel arrangements for family activities when urgent cases come up and all leave is cancelled. But for the sake of public safety, it is necessary for police officers to give priority to their work in this way.

- 3 (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 **two intermediate conclusions** from paragraphs 1 to 3. [4]
- (c) Identify the argument element and explain the function of the following words:
- (i) 'fear of failure' (paragraph 2). [2]
- (ii) 'Some jobs are of great and urgent importance to society' (paragraph 5). [2]
- 4 (a) To what extent is the reasoning in paragraph 3 weakened by the flaw of *conflation*? [3]
- (b) (i) Evaluate the *analogy* in paragraph 4. [3]
- (ii) Identify **one** flaw or weakness in paragraph 4 and assess the extent to which it reduces the support given to the main conclusion. [2]
- 5 *You are advised to spend some time planning your answer before you begin to write it.*

'Everyone should make time in their life for leisure.'

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. [8]

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